PRESENTED
to
THE UNIVERSITY OF TORONTO
BY
the estate of
the late
J. Brehmer, Esq.
NEW WORKS AND NEW EDITIONS,
PUBLISHED BY
BLACKIE & SON,
QUEEN STREET, GLASGOW; SOUTH COLLEGE STREET, EDINBURGH; AND
WARWICK SQUARE, LONDON.

TO BE COMPLETED IN ABOUT 36 PARTS, AT 2S. 6D. EACH,

THE

IMPERIAL FAMILY BIBLE;

CONTAINING

The Old and New Testaments,

ACCORDING TO THE MOST CORRECT COPIES OF THE AUTHORISED VERSION.

With Many Thousand Critical, Explanatory, and Practical Notes; also, References, Readings, Chronological Tables, and Indexes.

THE WHOLE ILLUSTRATED BY

A SUPERB SERIES OF ENGRAVINGS FROM THE OLD MASTERS,

AND FROM ORIGINAL DESIGNS BY JOHN MARTIN, K.L.

The intention of the Publishers, in undertaking this Edition of the Holy Scriptures, is to produce a Family Bible suitable alike for youth and age, and combining at once large type and convenient size; and they feel confident in stating, that no Edition, equally beautiful in point of Typography, or in elegance of Form, has yet been offered to the Public.

THE TEXT, which is that of the most correct copies of the authorised version, will be accompanied by all the marginal readings usually printed therewith, and which form a very important part of the translation.

THE REFERENCES to PARALLEL Texts will be very numerous, and will imbody the most valuable of those given by Blayney, Brown, Clarke, and Scott.

THE NOTES, amounting to many thousands, will be chiefly selected from the great Commentators and Illustrators of the Scriptures, among whom may be named BISHOP, SCOTT, CLARKE, PATRICK, BOOTHROYD, DODDRIDGE, CAMPBELL, LOWTH, BLAYNEY, BUSH, BARNEs, JAHN, HILES, BURDER, PAXTON, MANSFORD, and many others too numerous to mention.

Each Book will be accompanied by INTRODUCTORY and CONCLUDING REMARKS, illustrative of the subjects therein contained, together with the Chronology of various periods and epochs.

A GENERAL INTRODUCTION to the whole work, CHRONOLOGICAL TABLES, and INDEXES, including a very much enlarged and improved edition of the Rev. Mr Barr’s invaluable INDEX OF SUBJECTS, and Concise Dictionary of Terms in the Holy Scriptures, will be added.

ENGRAVED ILLUSTRATIONS. In this Department, the Publishers have selected from the Works of the Old Masters, a variety of subjects not only novel but most exquisite in treatment, and in design harmonizing with the lofty truths to which they refer. They have also secured the services of John Martin, K.L., whose name and paintings must ever stand in happy connection with the Sacred Volume. Nine subjects have been supplied by this great master of the art; and when the Publishers state that they have obtained permission to introduce those chef d’oeuvres of his skill—“The Deluge,” “Belshazzar’s Feast,” and “The Crucifixion,” they feel justified in adding that no means have been neglected to render the Imperial Family Bible as exquisite in Illustration, as it will undoubtedly be pure in Text, faithful in Comment, and finished in Typography.
THE
CHRISTIAN'S DAILY COMPANION,
PRESENTING AN ENTIRE VIEW OF DIVINE TRUTH,
In a Series of Meditations for every Morning and Evening throughout the Year.

BY CLERGYMEN OF THE CHURCH OF SCOTLAND.

The passages marked for Meditation are so selected as to embrace an entire view of Divine Truth, in its Doctrines, Promises, and Precepts; and that not in the dryness of a system, but after the manner of the Word itself, now giving relief by variety, and now lending force by the union of precept and promise—of privilege and duty. The selecting and arranging of the subjects has been intrusted to the Rev. Dr. Paterson, of St. Andrew's Parish, Glasgow; and the writing of the exercises on these passages is committed to a select number of Clergymen, whose names will be announced as the work progresses.

In Nos. at 6d., and Parts, 2s.—not to exceed Twenty Shillings.

FAMILY WORSHIP.
A Series of Prayers,
With Doctrinal and Practical Remarks on Passages of Sacred Scripture, for every Morning and Evening throughout the Year;
ADAPTED TO THE SERVICES OF DOMESTIC WORSHIP,
BY ONE HUNDRED AND EIGHTY CLERGYMEN OF THE CHURCH OF SCOTLAND.
Complete in One Volume, Super Royal, 8vo, bound in cloth, price 22s., or in Ten Parts, 2s. each.

"THE WORLD RENOWNED CONVERSATIONS LEXICON."—Edin. Review.
Just Published, the Twentieth Edition, of 1000 each,
THE POPULAR ENCYCLOPEDIA,
or
CONVERSATIONS LEXICON;
Being a General Dictionary of Arts, Sciences, Literature, Biography, History, Ethics, and Political Economy;
With Dissertations on the Progress of Science, Literature, and the Fine Arts,
By Thomas Thomson, M.D., F.R.S., &c. Regius Professor of Chemistry, University of Glasgow;
Sir Daniel K. Sandford, D.C.L., Professor of Greek, University of Glasgow;
And Allan Cunningham, Esq., author of "Lives of British Painters," &c.
ILLUSTRATED BY MANY HUNDRED PLATES AND DIAGRAMS.
The whole complete in 56 Parts at 2s. 6d., or 14 Half Volumes, at 11s. each.
THE LAND OF BURNS;
A SERIES OF LANDSCAPES RENDERED CLASSICAL BY THE WRITINGS OF
The Scottish Poet.

Engraved in the highest style of Art,
From Paintings made expressly for the Work, by D. O. Hill, Esq., R. S. A.
Also, Portraits of the Poet, his Friends, and Subjects of his Muse;
And Descriptions of the Scenes and Biographical Notices, by Robert Chambers, Esq.,
The Editor of the "Scottish Biographical Dictionary," &c., with
AN ESSAY ON THE GENIUS AND CHARACTER OF BURNS,
BY PROFESSOR WILSON,
OF THE UNIVERSITY OF EDINBURGH.

In Parts at 2s., or in Five Divisions, cloth, gilt, 11s. each.

"The Landscapes are by D. O. Hill, a painter who successfully emulates the distinctness and fidelity of Stanfield, and the brilliant atmospheric effects and aerial perspective of Turner."—SPECTATOR
"The Land of Burns is the most charming work that has issued from the press for years."—ART UNION.

"No man alive was better entitled to write of Robert Burns, the greatest Scottish Poet of the last age, than Professor Wilson, the greatest of the living Poets of Scotland; and having undertaken the congenial task, we are bound to say, after perusing the Essay before us, that no man could have written so well."—EIDIN. EVENING POST.

THE CASQUET OF LITERARY GEMS.
EDITED BY A. WHITEALW.
WITH TWENTY-FIVE ILLUSTRATIVE ENGRAVINGS FROM ORIGINAL DRAWINGS.
Chiefly by Members of the Royal Scottish Academy.

In Four Volumes, elegantly bound in cloth, price 28s., or 24 Parts, 1s. each.

"We do not know any work of the same price which we could name, as containing greater attractions than the Casquet of Literary Gems."—ATHERBURN.

THE REPUBLIC OF LETTERS,
A Selection in Poetry and Prose, from the works of the most eminent writers, with many Original Pieces.
By the Editor of the "Casquet of Literary Gems."

WITH TWENTY-FIVE ILLUSTRATIONS, AFTER THE MOST ADMIRED ARTISTS.

In Four Volumes, elegantly bound in cloth, price 26s., or 24 Parts, 1s. each.

"The Republic of Letters ought to be on every parlour table, and in every family library, for it is really a gem; and one too of surprising lustre."—SCOTTISH LIT. GAZ.

In Five Volumes, Royal 18mo. price 25s., the first Complete Edition of

THE POETICAL WORKS
OF
THE BETTRICK SHEPHERD.

With an Autobiography, and Reminiscences of his Contemporaries.
Illustrated by Engravings from Original Drawings, by D. O. Hill, Esq., R. S. A.

Also, uniform with the above, in Six Volumes, price 30s.

TALES AND SKETCHES
BY
THE BETTRICK SHEPHERD.

Including the Brownie of Bodsideck, Winter Evening Tales, Shepherd’s Calendar, &c.; and several Pieces never before published.

GLASGOW.
A CYCLOPEdia

OF

DOMESTIC MEDICINE AND SURGERY;

Being an Alphabetical Account of the various Diseases incident to the Human Frame;
with Directions for their Treatment,
and for performing the more simple Operations of Surgery.
Also, Instructions for administering the various Substances used in Medicine;
for the regulation of Diet and Regimen;
and the management of the Diseases of Women and Children.

BY THOMAS ANDREW, M.D.,

Late Surgeon Superintendent in the Convict Department, and formerly Medical and Surgical Assistant at the City and Finsbury Dispensaries, the Lying-in-Charity, and the London Infirmary for the Cure of Diseases of the Eye, &c. &c.

To be completed in about Sixteen Parts, at 1s. each.

ILLUSTRATED WITH ENGRAVINGS ON WOOD AND STEEL.

"A most valuable Work."—LIVERPOOL MERCURY.
"Of much utility as a ready and simple guide in medical practice."—LIVERPOOL COURIER.
"We strongly recommend this work to all who are entrusted with the management of a family."—BRISTOL TIMES.
"A most useful and valuable work for domestic use. Every family should possess a copy, especially those who live at any distance from professional aid."—SCOTCH REFORMERS' GAZETTE.
"There is no quackery about it. It is scientific, and yet perfectly intelligible to the plain reader."—WILTSHIRE INDEPENDENT.

A HISTORY OF THE VEGETABLE KINGDOM;

Embracing the Physiology, Classification, and Culture of Plants; with their various uses to Man and the Lower Animals;
And their application in the Arts, Manufactures, and Domestic Economy.

BY WILLIAM RHIND,


To be completed in about Eight Parts, 2s., or Nos. 6d. each.

A HISTORY OF THE EARTH AND ANIMATED NATURE.

BY OLIVER GOLDSMITH.

With Numerous Notes from the works of the most distinguished British and Foreign Naturalists, imbodying the latest discoveries in Natural History.

ILLUSTRATED BY NEARLY TWO THOUSAND FIGURES,
From Drawings by Harvey, Stewart and Captain Thomas Brown, F. L. S., &c.

Complete in Sixteen Parts, 2s. each.
THE POPULAR FAMILY BIBLE.
BROWNS SELF-INTERPRETING BIBLE,
Genuine Edition, with Corrections and Additions, under the Superintendence of
THE AUTHOR'S FAMILY.
To this Edition are annexed, Two Thousand Critical and Explanatory Notes, nu-
umerous References and Readings; also a Memoir of the Author by his grandson,
the late Rev. J. Brown Patterson, Minister of Falkirk.
AND A COMPLETE INDEX AND CONCISE DICTIONARY,
BY THE REV. JOHN BARR, GLASGOW.
With Historical and Landscape Illustrations, Family Register, &c.
Complete in 32 Parts, 1s. each.
* The specific excellencies of the present edition are, unusual accuracy, both in point of the tex-
tical references and typography. The notes in the margin are selected with great judgment, and the con-
cise Dictionary and Index of persons, places, and subjects, &c., is a valuable supplement. In it will
be found explanations of almost all difficult words, together with reference unto most of the principal
topics of the Sacred Writings.—CONGREGATIONAL MAG.

HAWEIS'S EVANGELICAL EXPOSITOR;
Or, a Commentary on the Holy Bible.
To which are annexed, an Introduction, Marginal References, and Readings,
By the Rev. John Brown of Haddington,
And a Complete Index and Concise Dictionary, by the Rev. John Barr, Glasgow.
With Maps, Plans, and other Engravings.
This Edition is comprised in 35 Parts at 2s. each; and to it is appended Barr's
Index and Dictionary, which makes an additional Part. Thus the reader, at an
expense of only SEVENTY-TWO SHILLINGS, may be in possession of a
COMPLETE FAMILY BIBLE AND CONCORDANCE TO THE HOLY SCRIPTURES;
Combining altogether a treasury of Biblical knowledge seldom to be met with in
one Publication.

HAWEIS ON THE NEW TESTAMENT,
Complete with Plates, in 40 Numbers, 6d., or Parts 2s. each.

DEDICATED, BY SPECIAL PERMISSION, TO THE KING.
LIVES OF
ILLUSTRIOUS AND DISTINGUISHED
SCOTSMEN;
Forming a complete Scottish Biographical Dictionary.
BY ROBERT CHAMBERS,
In 24 Parts, 2s. each, embellished with 24 Portraits; or with 72 Portraits, in Half Volumes,
8s. 6d. each.
* Such a national work was a great desideratum, and we hail its completion in a manner alike wor-
thy of the design, of the country, and the author."—LIT. gaz.
"The Scottish Biographical Dictionary is a work of great merit."—ATHENIUM.
"It is a standard work, and honourable to every library in which it may find a place."—METROPO-
LITAN MAG.
"There is not a page that can be pronounced unworthy of an undertaking, which will form a
standard work in the literature of Scotland, and a book of reference in every library throughout the
British dominions."—NEW MONTHLY MAG.
HISTORY OF THE REFORMA-
TION IN THE SIXTEENTH CENTURY,
by J. H. Merrie in Aberdeen, President of the
Theological Seminary, Geneva, and Member of the
Scotch Evangelists. Translated by David
Dundas Scott, Esq., author of the " Suppression of
the Roman Religion in France." With Notes from the
Netherlands Edition of the Rev. J. J. Le Roy, of
the Dutch Reformed Church.

-* The three volumes of the French Edition
which have already appeared will be published,
with Portraits, in 2 Parts, price 1s.

The author's work is conceived to the spirit and
experienced with all the vigour of Dr. M'Crie's
Life of Knox. It has all our
lodgment countryman's sincerity, all his deep research,
more skill in composition, and a greater mastery of subordinate
details, along with the same incomparable faculty of carrying on
his story from one stage to another with an interest which
never subsides, and a vividness which knows no intermission.

The present edition has been added, The First Book of
Divines; the Second Book, Concerning the Union
in favour of the Mass, and against Knox and the Reformer;
The Disputation between Knox and the Abbot of Cressington,
att Bipple, 1563, is also added, alone having historical
cost more than is now charged for a complete copy of the
present edition.

MOSEIM'S CHURCH HIS-
TORY, with Notes and Chronological Tables. 25
Nos., 6d. each.

The historian Moseim is full, rational, correct, and mode-
rate. Gibbons

ROLLIN'S ANCIENT HISTORY,
with Notes, by James Bell. Maps and Plates.
63 Nos., 6d., or Parts, 2s. each.

ROLLIN'S ARTS AND SCIEN-
TIST OF THE ANCIENTS, with copious Notes,
by James Bell. 28 Nos., 6d.

The edition now before us is the best that has yet issued
from the press. Original Herald.

The omissions, or the original text, and the erudite notes
with which it is accompanied, constitute important and
novel features in the present edition of Rollin. Lbe Gus.

WODROW'S HISTORY OF THE
SUFFERINGS OF THE CHURCH OF SCOT-
LAND, edited by the Rev. Robert Burna, D. D.,
F. A. S. E. Portraits. 22 Parts, 2s. each.

It is written with a fidelity that has seldom been disputed,
and confirmed at the end of each volume by a large mass of
public and private records. Chalmers

NAPOLEON BUONAPARTE AND
HIS TIMES. Illustrated with Plans of the var-
ious Campaigns. 20 Nos., 6d. each.

JOSEPHUS' WHOLE WORKS,
with Maps and numerous other illustrations. 56
Nos., at 6d., or 14 Parts, 2s. each.

BROWN'S DICTIONARY OF THE
HOLY BIBLE; to which is added, an enlarged
edition of Brown's Concordance to the Bible.
Notes, Maps, and Plates. 32 Nos., 6d.

BUNYAN'S PILGRIM'S PRO-
GRESS, with Merson's explanatory Notes, The
World to Come, Heart's Ease, and Divine Em-
blems. Superbly illustrated, in 24 Nos., 6d. each.

ERSKINE, EMBEZZER, BEAUTIES
OF, with copious Notes from other eminent au-
thors. 26 Nos., 6d. each.

HALL'S CONTEMPLATIONS ON
the Historical Passages of the Old and New Tes-
taments. Essay by Wardlaw. 24 Nos., 6d.,

HALLYBURN'S WORKS, Pro-
fessor of Divinity in the University of St. Andrews.
With an Essay on his Life and Writings, by Dr
Burns of Thirlestane. 5 vols., small 8vo, price £1 10s.

PROTESTANT, (The) By Wm.
M'Gavin, Esq. Portrait. Complete in 40 Parts,
6d. each.

The Protestant, a series of periodical papers, composed
by Mr. M'Gavin of Glasgow, contains the latest delineations
of the Popyh's system, and the most powerful confirmation of its
principles, in a popular style, that we have seen. Whoever
wishes to see Popery drawn to the life in its hideous wicked-
ness and deformity, will find abundant satisfaction in the pages

ANNOTATIONS ON THE PEN-
TATEUCH, or the Five Books of Moses; THE
PSALMS OF DAVID; and THE SONG
OF SOLOMON. Wherein by comparing the Greek,
Hebrew, and Chaldean versions, and also by infor-
mation derived from the Talmud, and many Jewish writers, but
more especially by verifying the various passages of Scripture by each other,
the Sacred Record is fully explained and faithfully interpreted.
By Henry Answorth. in 13 Vols, 2s. each.

PLAIN CATECHETICAL IN-
STRUCTIONS ON INFANT BAPTISM; to
which is added, an Address to Young Persons,

By the same Author.

PLAIN CATECHETICAL IN-
STRUCTIONS FOR YOUNG COMMUN-
IONERS, designed to assist them in forming
Scriptural Views of the Lord's Supper; with An
Address to Young Persons not yet Communicants.
Price 6d.

Miscellaneous Works.

BURT'S ILLUSTRATIONS OF
SURGICAL ANATOMY, founded on the work
of Al. Blund. in 8 Parts, 2s. each, boards, 17s.

GOLDSMITH'S MISCELLA-
NEOUS WORKS, with 26 Illustrations by Wright,
from designs by Mr W. Harvey. 27 Nos., at 6d.

GRIER'S MECANIC'S CAL-
CULATOR; comprehending Principles, Rules,
and Tables, for every description of Mechanic's
Mathematics; useful to Students, Engi
ners, and Artizans in general; and

GRIER'S MECANIC'S POC-
KET DICTIONARY; being a complete Dote
Book of Technical Terms, Rules, and Tables, meacul
for all classes of Mechanic Art, Illustrated by Engravings of
Mechinony, and nearly 200 Cuts and Diagrams on Wood. 27
Nos., 6d. each.

This is truly an excellent work, nor was it calculated for the
diffusion of Useful Knowledge but any or all of the treatises
yet published by the Society that assumes that monopoly of
intelligence. Abraham.

MURPHY'S TREATISE ON
THE ART OF WEAVING, illustrated by nearly 200
figures. 16 Nos., price 1s. each.

PEDDIE'S PRACTICAL MEA-
SURE, or Tradesman and Wood-merchant's
Vocabulary. 10 Nos., 6d. each.

WALKER'S DICTIONARY AND
KEY, beautifully printed in royal tomo, with a
Portrait of the Author. 15 Nos., 6d. each.

The Key to An Encyclopaedia of Proper Names, separately, is 6d.

"The most correct edition of Walker's Dictionary extant."
ADAM'S ROMAN ANTIQUITIES, Edited by James Boyd, L.I.D., one of the Masters of the High School, Edinburgh. One Hundred Illustrations. Price 5s. 6d. in cloth; or with Questions, 7s. cloth. The Questions separately, 1s. 6d. We humbly the unsolicited praise which it merited on the edition before us. Dublin University Mag.

QUESTIONS ON ADAM'S ROMAN ANTIQUITIES, in 8vo, Large Type, 232 pages. Price 5s. 6d. cloth.

The improvement and correction of this work occupied a part of the late lamented author's time and attention, from the date of the publication of the first edition, a short time of his decease; and that his labor was not in vain, the insertion of 1500 new articles, and nearly 9000 additions to the former ones, besides innumerable references to texts, will amply testify. The Publishers, therefore, now send forth the present improved edition to the world, confident that it is the most complete index to the scriptures, and one of the most useful works for Sabbath School Teachers and Students of the Sacred Volume that exists in the English language.

BROWN'S CONCORDANCE TO THE BIBLE, new edition, beautifully printed, small 18mo, 1s. 6d. cloth.

BROWN'S HISTORY OF THE MARROW CONTROVERSY, With Memoirs of the Marron Divines, and copious Extracts from their Writings. 5s. cloth.

BRITISH MINSTREL. A Selection of Ballads, Ancient and Modern, bound, 4s.


COMMERCIAL HAND-BOOK, a Compendium of Tables and Information for the Trader, Merchant, and Commercial Traveller. 350 pages, 4mo, 1s. 6d., roan.


FAGGUSON'S INTEREST TABLES, at Thirty different rates, from a Quarter to Six per cent.; also, Tables of Commission and Brokerage.

HARTLEY'S ORATORICAL CLASS BOOK, Eighth edition, bound, 3s. 6d.

HARP OF CALEDONIA, (The) a Selection of Songs, 1 vol. 4s.

LAWRIE'S MERCANTILE ARITHMETIC, adapted to the Imperial Weights and Measures; with a brief view of the nature, use, and negotiation of Bills of Exchange. In Two Parts, bound in Roan, with Key... 3s. Or Parts One and Two, in cloth, each, 1s. 6d. DA. The Key separately................. 1s. 6d.

The First Part ends with the Calculation of Interest for Days, and is absolutely necessary for the common business of life.


MAVER'S JONSON'S DICTIONARY, with the I pronunciation on the basis of Walker, and numerous useful tables. 18mo, 2s. bound.

MCCULLOCH'S LAND MEASURERS' READY RECKONER, 18mo, 2s.

NEW TESTAMENT IN FRENCH, beautifully printed in demy 4to, Frontispiece and Vignette. Roan Embossed, price 3s.

POTTER'S ANTIQUITIES OF GREECE, with numerous Notes, and enlarged Indices, by James Boyd, L.I.D., one of the Masters of the High School, Edinburgh, and editor of Adam's Roman Antiquities, &c., with a Sketch of the Literature of Greece, by Sir D. K. Sandford; and the Hundred and Fifty Illustrations. Price 5s. cloth.

To persons desirous of obtaining a knowledge of British Plants in the earliest stages of their life, we strongly recommend Mr. Karr's "Chart. Flora Britannica," 1s.

SMITH'S ESSAY ON THE CONSTRUCTION OF COATTAG, for which the Premium was voted by the Highland Society of Edinburgh, illustrated by Working Plans, accompanied by Specifications, Details, and Estimates. 4s. 4d.

For Plans of Cottages of every size, I would recommend Dr. Hay's on the Construction of Cottages, by Mr. Smith of Edinburgh, which alone a plan from the Highland Society of Scotland. Martin Doyle on the Alteration of the Lower Classes.


WEBB'S FARMER'S GUIDE: a Treatise on the Diseases of Horses and Black Cattle; with Instructions for the Mau, bound, of Breeding Mares and Cows. New edition, cloth, 3s. 6d.

WILLISON'S AFFLICTED MAN'S COMPANION. New edition, boards, 2s. 6d.
THE SELECT PRACTICAL WORKS OF RICHARD BAXTER,
Including the whole of his Treatises on Conversion; The Divine Life; Dying Thoughts; and The Saints' Everlasting Rest.
Carefully Revised, and preceded by a Memoir of the Author.
In 12 Parts, 2s. each, or Numbers, 6d. each.

STACKHOUSE'S HISTORY OF THE BIBLE,
A History of the Bible, from the Beginning of the World to the Establishment of Christianity.
With Numerous Notes, explaining Difficult Texts, rectifying Mis-translations, and reconciling Seeming Contradictions.
By the Rev. Thomas Stackhouse, late Vicar of Beenham, Berkshire.
Together with an Introduction, Additional Notes, Dissertations, and Complete Indexes.
By Daniel Dewar, D.D., Principal of Marischal College and University, Aberdeen.
In 60 Numbers 6d., or 15 Parts, 2s. each.
ILLUSTRATED WITH MAPS, PLANS, &C.

DWIGHT'S THEOLOGY, OR COMPLETE BODY OF DIVINITY:
In a Series of Sermons,
Containing a System of Doctrines; a System of Duties; and a System of Dispensation consequent on the State of Probation.
To which is prefixed,
AN ESSAY ON THE INSPIRATION OF THE HOLY SCRIPTURES,
by Daniel Dewar, D.D., Principal of Marischal College and University, Aberdeen.
In 40 Numbers 6d., or 10 Parts, 2s. each.

WATSON'S BODY OF PRACTICAL DIVINITY,
In a Series of Sermons on the Shorter Catechism of the Westminster Assembly.
To which is appended, Select Sermons on Various Subjects,
Together with the Art of Divine Contentment, and Christ's Various Fulness. The whole revised and corrected, with numerous Notes from approved authors.
In 29 Numbers 6d., each.

THE LIFE OF OUR LORD AND SAVIOUR JESUS CHRIST:
With the Lives of the Apostles and Evangelists,
BY THE REV. JOHN FLEETWOOD, D.D.
Also the Lives of the Most Eminent Fathers and Martyrs, and the History of Primitive Christianity, by William Cave, D.D.
With an Essay on the Evidences of Christianity, and numerous notes not to be found in any other Edition. Embellished with Superb Engravings.
In 26 Numbers 6d. each.
THE

POPULAR ENCYCLOPEDIA;

BEING A GENERAL DICTIONARY OF

ARTS, SCIENCES, LITERATURE, BIOGRAPHY, HISTORY,

AND

POLITICAL ECONOMY.

REPRINTED FROM THE AMERICAN EDITION OF THE "CONVERSATIONS LEXICON."

WITH CORRECTIONS AND ADDITIONS,
SO AS TO RENDER IT SUITABLE TO THIS COUNTRY, AND BRING IT DOWN TO THE PRESENT TIME.

WITH

DISSERTATIONS

ON THE RISE AND PROGRESS OF LITERATURE,
BY SIR D. K. SANDFORD, A.M. Oxon., D.C.L.

ON THE PROGRESS OF SCIENCE,
BY THOMAS THOMSON, M.D., F.R.S.L. & E., &c. &c.

AND

ON THE PROGRESS OF THE FINE ARTS,
BY ALLAN CUNNINGHAM, Esq.

VOLUME II.—PART I.

GLASGOW:
BLACKIE & SON, 38, QUEEN STREET,
AND 5, SOUTH COLLEGE STREET, EDINBURGH.
Published by Blackie & Son Glasgow
CLOUD, CLOCK WORK.
CONCHOLOGY.

Published by Blackie & Son, Glasgow.

Drawn by Capt. F. Brown. Engraved by R. Scott.
ON

THE RISE AND PROGRESS OF

LITERATURE.

BY SIR DANIEL K. SANDFORD, D.C.L. M. P.

PROFESSOR OF GREEK IN THE UNIVERSITY OF GLASGOW.
A close examination of animated Nature, in all its moral, mental, and physical attributes, will prove that man is distinguished from the inferior creatures of the earth by nothing so much as the possession of Literature and Science. Art, in the mechanical sense of the term, does not furnish so exact and conclusive a criterion between them; since it is in many instances approached, both in the manner of working, and in the effects produced, by the operations of Instinct; nay, sometimes we observe that the unerring felicity of Instinct defies competition by the elaborate contrivances of Art. But Science and Literature belong exclusively to man. In these he dreads no rivalry from the animals of more limited intelligence.

No less decisive will this test be found, when applied to mark the difference between rude and civilized humanity. From what cause that difference originally sprang, or how it was primarily manifested, it is not our present business to inquire. Enough, that reason and authentic history, surer guides than the freaks of ingenious speculation, concur to show not only that the savage is the degenerate man, but, further, that some torpor of the intellect, or some perverse determination of the will, must have conspired with outward circumstances to retard or reverse, in certain regions, that process of improvement which has, in others, been so signally displayed. Hence it is in those pursuits which exercise the higher faculties and interest the nobler feelings, that the distinction between different portions of mankind becomes most evident. To supply the exigencies of their physical condition, provision is made by the least cultivated beings; in works of manual dexterity the mere savage is often exquisitely skilled; in magnificence of design, and beauty of execution, Art has frequently attained prodigious heights in communities that rank but low on the scale of that general refinement, of which science and literature are the only unambiguous signs. But where this standard of comparison is erected, the savage shrinks at once from trial; the various tribes of civilized men arrange themselves in regular degrees; and at the summit appear those nations, whose superior state of scientific and literary culture vindicates for them both a claim of dignity and a title to dominion, more valid than any thing else could bestow. A single glance at the political aspect and position of mankind in the several quarters of the globe, is sufficient to corroborate the truth of this assertion. Europe, scarcely equal in extent to one-third of the African continent, and less than a fourth part of Asia or America, assumes the foremost place among them, and holds huge tracts of those enormous countries in absolute subjection. The great truth that knowledge is power has never received a more splendid illustration.

If we submit to a further scrutiny the proposed criterion of refinement, it will perhaps be found that of the two elements, of which it is made up, literature may be preferred to science, as an indication of general politeness. Not that great eminence in scientific pursuits can be achieved by a people without the existence of extraordinary intellectual abilities. But these abilities, and the occasions to employ them, may be restricted to a narrow class of individuals. The history of some ancient communities unquestionably demonstrates, both that science may flourish without literature, and that the powers and principles of science may be possessed by a brilliant few, while the mass of those around them are sunk in a deep gloom of comparative ignorance. Scientific principles may easily be turned into a mystery, and confined to a craft; and thus becoming the very badge of isolated castes, they may serve to enhance that barbarous pride, which men are so apt to derive even from
sources capable of infusing more liberal sentiments. But it is the essential property and pride of literature to blot out every ungenerous distinction, and to raise the tone of thought and feeling throughout all classes of society. Its interest, its glory, lie in the diffusion of refinement. It breathes no other atmosphere; it can exist in no other medium. The results of science, the fruits of the most sublime discoveries, may be enjoyed by those whose intellectual faculties are, of themselves, inert or powerless: but the productions of literature have no currency, and its heroes no renown, if there be not in the general mind that degree of taste and elevation, without which the most beautiful displays of genius would be as music to the deaf, or painting to the blind.

The experience of recent times supplies additional evidence of the inferiority of science to literature as a criterion of mental culture. Schools have arisen of men, who, while they affect a profound devotion to scientific pursuits, hold literature in very slender estimation. With them science is every thing, literary elegance is nothing: the useful before the ornamental, or rather the useful without the ornamental, receives their exclusive homage. The sublime in poetry, the pathetic in eloquence, the gay, the graceful, or the grand in composition, they not only disdain in the abstract, but regard with contempt or abhorrence the ministers of such delights. They would at once trample on the pearls, and rend the hands that scatter them. It would not be difficult to show that these brutal doctrines repose upon a false basis, an entire misconception of that usefulness in support of which they are promulgated; but it is even more evident that the minds of those who entertain them, however energetic and successful in the prosecution of science, still remain unimprinted by the last stamp of genuine refinement.

Yet, odious and hurtful as the doctrine of utility becomes, when it assumes this shape, it may be traced in the outset to an extension of views arising not unnaturally from the inherent difference between literature and science. This difference lies not in their sources, but in the aims and principles which govern their direction. Both have their common source in the energies of the human intellect; both call into operation the inventive faculty as well as the judgment; in both, splendour of achievement results from force and intrepidity of genius. But their aims and tendencies must be regarded as essentially distinct. Of science, the paramount object is truth; of literature, the object is beauty. The business of science is to instruct; of literature, the functions are not duly discharged unless delight accompanies instruction. Science seeks to convince the understanding; literature to captivate the heart. Even when the two are so conjoined, by a happy effort of genius, that scientific truths assume the attractions of a literary dress, it is still easy to recognize the separate elements, and assign to each its native province. Thus poetry sometimes sings of celestial phenomena; but it requires no great fund of astronomical learning, to detect the results of scientific research and calculation beneath the glittering garb flung round them by the muse. Political economy puts on the disguise of fictitious narrative; but a little attention suffices to remove the mask of the novelist, and reveal the features of the sage.

The science of metaphysics owes far the greater part of its fame and popularity to the graces with which literary talent has adorned its speculations; but the meagre army of truths, which these speculations are enabled to Marshall, would command small reverence, were they banished from the realm of fancy, and forced to array themselves under no banner more gorgeous than their own.

The distinction here pointed out is one of considerable importance in itself, and which must be kept steadily in mind, as a clue to the whole course of the ensuing remarks. It may prove sufficient, if fully comprehended, to show, without resorting to the precarious aid of definition, what that literature is, of which the rise and progress are now to be described. Definitions of literature are commonly too wide and vague to mark out the proper limits of such an inquiry. The definition, for example, suggested by an eloquent writer,* whose name stands high on the list of modern critics, embraces too large a field; and while it may serve to distinguish between literature and the exact sciences, does not trace the nicer boundaries that divide the art of composition from the subject-matter on which it is exerted, or those naked statements of the subject-matter, of which language, in its simplest usage, is capable. "All those mental exertions which have human life and man himself, for their object, and which, without requiring any corporeal matter on which to operate, display intellect as embodied in written language," belong not to the province of literature, in the light under which it is useful and pleasing to contemplate it, and under which, indeed, it was practically contemplated by the author whose words are here cited. Something higher we

* Lectures on the History of Literature, ancient and modern, by Frederick Schlegel.
would understand by the name of literature; something higher must be understood, if its peculiar aims and properties have already been correctly developed. Poetry, not mere versification; history, not the bare record of facts; rhetoric, that charm even where it fails to persuade; philosophy, when clothed with grace or energy of style; these are the great branches of genuine literature, and to these alone will attention be invited as the proper topics of the following dissertation.

One part, however, of Schlegel's definition, commands our unqualified assent. Intellect embodied in written language is an essential characteristic of literature. Literature, as the very name denotes, is the creation of the alphabet. By this it is not meant to be implied that there was no fecundity of genius, and no progress in the art of composition, before the invention of letters. Analogy and positive argument combine to prove the contrary. Thus, amid the slight records of antediluvian society, nothing occurs to evince the existence of a written alphabet; yet, if we reason by analogy from the state of other arts, it will appear that, at that remote period, composition must have made some steps in advance of its earliest simplicity: the voice of poetry could not be mute where Jubal smote the lyre, nor would even the precision of a technical vocabulary be wanting where the artisans in brass and iron were taught by Tubal-cain. Even in a far later day, some of the noblest productions of the human intellect were demonstrably anterior to the current use of letters; and, at this hour, genius throws out fitful flashes among uncultivated tribes, who have no visible signs to perpetuate the glories of eloquence or song. But without the introduction of such signs, it is obvious that the fruits of genius can put on no stable form: their existence must be precarious, their effects feeble and confined. Without letters, no people has attained a high degree of general politeness; and the mind of Homer himself would have exerted no permanent influence upon literature, had his strains never assumed a more substantial shape than they bore while entrusted solely to the memory of rhapsodists.

The first rise of literature, even when thus viewed in its legitimate connexion with the art of writing, carries us back into the bosom of a distant age. In some of its branches, the date of the incipient efforts of genius is fairly ascertained; the real antiquity of other branches is doubtful and obscure. But among the curious and perplexing questions which the whole latitude of the subject would open up, it is necessary to exercise a spirit of forbearance, and to adhere pretty closely to a line of argument, of which clearness and continuity must be the distinguishing features. It would be an intricate, as well as a laborious task, to explore the faint original appearances of literature in every nation; or, having everywhere discovered the source, to pursue the current of those streams, which, becoming isolated in their progress, have constituted no parts of a general system. A direct continuous course must be looked for, if we would speculate with advantageous results. True it is that literature, like the empires of the ancient world, has had its periods of rise and fall, of prosperity and decay; true it is, moreover, that the places of literary, as of political ascendancy, have varied from time to time; nevertheless, throughout the whole history of literature, we can, by strict examination, discover a bond of union, and a principle of regular transmission. The illustrious heritage has passed into new hands, without ultimately losing a particle of splendour. Nations have soared or sunk upon the scale of comparative refinement; but never has genius been beheld in a state of universal abeyance.

Yet, in another respect, hinted at above, the analogy between literature and empire may be pushed a little further. There are states and kingdoms whose interests are so much centered in themselves, so detached from foreign relations, that their history seems to have no points in contact with that of the rest of mankind. It forms no links in the great chain of political events. And there are bodies of literature similarly circumstanced: replete, perhaps, with native graces, and interesting in their local history, but cut off from all connexion with the course of general refinement, and bearing no relation to the development of mental power in the most civilized parts of the globe. It would be hard, for instance, to show in what manner the literature of China has acted upon that of other countries, or contributed to the general advancement of taste or knowledge. Nay, the same remark may be applied, in cases where its truth is not at first sight so apparent. The literature of India, ancient in its origin, affluent in its stores, and probably destined, from the attention newly excited in favour of every thing relating to the vast regions, to which it belongs, to become more intimately blended with the details of European education, has hitherto been destitute of real influence upon the progress of polite learning. With a language, for which enthusiasts challenge the character of faultless excellence, and which, in fulness of expression,
sweetness of tone, and regularity of structure, at least rivals the most perfect of those Western tongues, to which it bears a signal affinity; with an antiquity retiring, on a very reasonable computation, to the distance of three thousand years; with treasures of thought and imagery, on which the strains of Vyasa and Valmiki are enough to confer immortal renown; covered as Indian literature is with these attractions, it has needed the aid of recent munificence * to introduce it, as a subject of study, even into the foremost seats of British education. And in an inquiry, such as the present, according to the necessary rule already laid down, not all the beauties of which it may justly boast, nor the strong temptations to digress, which these hold out, will obtain for it a place. Other branches of Oriental literature, endowed with equal charms, cannot, in deference to the same rule, be considered in the order of precedence due to their respective dates. Thus, it is not until they are brought, through the medium of the Moorish empire in Spain, and of the crusades, into a near relation with the works of European fancy, that the tales and poetry of Arabia and Persia will be entitled to particular notice.

It is with a keen feeling of regret that, in searching for the true fountain-head of that literature, whose history is unbroken, and whose progress is part of our actual experience, we are constrained to pass by, for the present, a still more venerable portion of the intellectual treasures of the East. That any one who has studied the poetry, history, and philosophy of the Hebrews, even merely as specimens of composition, should lightly esteem them, is impossible. In lyric flow and fire, in crushing force, in majesty that seems still to echo the awful sounds, once heard beneath the thunder-clouds of Sinai, the poetry of the ancient Scriptures is the most superb that ever burned within the breast of man. The picturesque simplicity of their narrative gives an equal charm to the historical books. Vigour, beauty, sententiousness, variety, enrich and adorn the ethical parts of the collection. Nor is that seeming artlessness, which constitutes a principal charm of these writings, either naturally incompatible with the observance of certain rules, or actually uncontrolled by such as denote an intimate acquaintance with the management of style. Moreover, it must be granted that these brilliant qualities of a literature, which at last excited the warmest interest among cultivated nations, have produced effects easily discernible in many works of modern genius. But that literature whose sun has never set, from the first moment of its appearance above the horizon; whose continuous current has rolled down from remote times to our own day; was not derived from the confessedly more ancient literature of Israel. For ages the elder stream did not intermingle its waters with that of later birth indeed, but of more wide and permanent dominion. We shall hereafter, at the proper period, have to speak of their union; meanwhile, though the capital branches of grave composition had been enriched by the Hebrews, at least five centuries before the earliest memorials of Greek genius, the latter must be allowed to occupy the foremost position in a sketch of general literature.

The Greeks, in a dream of national vanity, gave out their noblest stocks for the offspring of their own soil. They were ashamed to deduce their origin from any country, whose inhabitants they justly deemed inferior to themselves in the arts of war and peace. This fanciful hypothesis, however false as far as regards the people, becomes true when applied to one part of their intellectual history. Their literature was indeed autochthonal. The rise of mental refinement among them was independent of other races of men; and its development was their own work. Their literary greatness, whose remains are a brighter trophy than the memory of their martial deeds or of their political systems, was the growth of the beautiful region which it adorned; and the same hands which reaped the field had sown it. It is not denied that they knew of the intellectual progress of nations anterior to themselves, nor that materials for thought to fashion, or imagination to embellish, were drawn by them, to a large extent, from foreign sources. But as it was with the language, so was it with the literature of the Greeks. Just as their language, after its principles were once fixed, and its vocabulary was established on a broad basis, while it admitted contributions from other lands, caused them to pass through an assimilating process of naturalization; so, to the ideas that poured in from various quarters, their plastic minds gave a new consistent shape and an exalted value. Thus, among the elements of their mythology, originally discordant, though blended by genius into a wonderful semblance of uniformity, we perceive strong traces of the Oriental and Egyptian creeds; but the parts taken from them have been cast in a fresh mould, and reproduced in more captivating lineaments.

* The late Colonel Boden, of the East India Company's Service, has bequeathed his whole property to the University of Oxford for the foundation of a Sanscrit professorship, and the encouragement of Sanscrit learning. The first Professor was elected in 1832.
The monstrous is subdued into the vast; the grotesque is softened into the graceful; and a fine spirit of humanity is diffused over the rude proportions of the primeval figures. Such, likewise, has been the case with the Grecian mental philosophy. Many of its dogmas, some of its most remarkable forms, are evidently derived from Egypt or the East; but all that tends to beautify the mean, to harmonize the incongruous, or to enliven the dull; all that converts the simple precepts of morality, or the crude material of metaphysics, into an elegant department of literature; belongs to the Greeks themselves. From the first dawn of intellectual culture among them they were creators of something new, not mechanical echoes of the old. Upon the earliest manifestations of their genius there is no foreign stamp; their literature displays at once a proper, peculiar character. Its aspect is not Egyptian; for, though proficient in many branches of science; in medicine, astronomy, mechanics, chemistry, mathematics; Egypt had no literature. Nor is it Oriental; for, with the exception of those hints in religion and philosophy, to which we have already alluded, the East imparted none of her mental treasures to the ancient Greeks. Even the Phenicians, the oriental people with whom Greece had the closest and most constant relations, were of no service in this respect. They, too, were devoid of literature beyond the mere rudiments of philosophic speculation; too deeply engrossed with their commercial adventures to yield more than a passing thought to less gainful pursuits. Yet it must not be forgotten that to them the Greeks were indebted for those means of perpetuating the fruits of intellectual exertion, of which they made such glorious use. Whatever uncertainty may hang about some parts of the legend of Cadmus, there can be no doubt that Greece received the inestimable gift of an alphabet from the shores of Phenicia.

That the practice of writing, however, did not at once become common among the Grecian tribes, and that the materials of the art were scarce and costly, was perhaps as fortunate for their first efforts in composition, as it has been for posterity that the art was applied in time to snatch from the frail tenure of memory, and fix in an enduring shape, the finest monuments of their genius. The mere process of writing might have impaired that free, flowing, and exuberant character, which probably belonged to their earliest productions, since it is so conspicuously manifested in the most ancient that still remain. Conjecture guided by analogy, our only light in examining those distant times, appears to indicate that from these remains we may correctly infer the nature of preceding attempts. The main-spring of intellectual exertion among the Greeks was the same that has acted upon all nations, who have not derived their literature from imitation; that joyous activity of mental power which breaks out wherever circumstances allow it to find scope, that desire to embody thought and feeling in a cognizable shape, and to impress upon the minds of others a copy of our own, of which original genius is universally conscious. Poetry, a primitive production in every region of the earth, springing out of principles that are inherent in the human soul, was a natural vehicle for emotions too powerful to be buried in silence; and one that presented itself the more readily while memory, which is so much assisted by the mechanism of versification, formed the chief means of perpetuating the results of mental labour. It was natural, too, that religious emotion, as one of the most vivid and universal feelings of man, should be early embodied in the poetry of a simple age. But those theories are fallacious, which assume that direct addresses to the Gods, or lyric hymns, as parts of a public ritual, were the primary form of poetical composition among the Greeks. It must be remembered that of their poetry, previous to Homer, we have not even a fragment on which to reason. Many names, indeed, of more ancient poets are recorded, and works ascribed to some of the most famous of them are extant at this day: but the spuriousness of these is too manifest to admit of controversy. From Homer alone, and from the portraiture of elder bards, which certain passages of the Homeric poems supply, we must learn the properties of the earliest Grecian minstrelsy. This evidence makes it plain that religious invocation was but an incidental portion of the minstrel's lay, and that the homage due to the deities was principally paid in a lively exhibition of their characters and adventures, a setting forth of mythological traditions, and a display of that faith which traced the interference of divine agency in every turn of human affairs. In short it is not more certain that poetry was the first form of Grecian literature, than that the very rudiments of that poetry appeared in the guise of heroic song. For this there was found a rich profusion of appropriate and inspiring themes; and the chivalrous propensities of a people, whose legends abounded in such topics, ensured popularity for the strains in which they were recorded. Nor was there any lack of other circumstances favourable to the rise and growth of heroic poetry. The pride of chiefs, the spirit of clanship, the love of ancestral distinction, com
bined to elicit and reward the skill of those who could gratify passions so vehement. Hence not only Ionia, that seat of the Greeks where the most brilliant success in this species of composition was attained, but almost every part of the countries possessed by them, resonated with the voice of minstrels. Absurd as it is to imagine that the contributions of many separate bards could have been blended into poems of such marked unity and surpassing lustre as the Iliad and Odyssey, it is yet undoubtedly true that the bards were a numerous class. The "fames of the heroes," such as Achilles chanted to the harp, the Argonautic expedition, the siege of Thebes, the death of Meleager, above all the "tale of Troy," were the most prominent subjects of their lays. By the constant celebration of these favourite themes the powers of the Grecian mind were called out and cherished, the language was improved in copiousness and harmony, and the versification was moulded into an exquisite structure, which no subsequent endeavours were able to excel. Brighter, from time to time, shone the gleams of creative fancy; sweeter and more sweet arose the sounds that were heard in every quarter, until at last came that burst of amazing sweetness, strength, and majesty, which was destined to overpower all previous strains, and to fill the ears of posterity with its own music.

That great authors represent the times in which they flourish is an opinion commonly advanced and admitted. The proposition is true in relation to those who have taken their subjects from their own times, and so have been induced and enabled to draw from the life a picture of contemporary manners, feelings, and events. But it is more generally true to say that a great author represents the mind of his age; partly as by his influence on others he moulds their tastes and understandings to his personal bent, and still more as his genius empowers him to seize in its real essence the spirit of the time, to raise it to the highest pitch, to embody it in the most striking forms, and to bequeath for the instruction of future generations an unerring index to the intellectual condition of his own. Thus, in the poetry of Homer, while we can perceive that he lived on the margin, as it were, of the heroic age, and that the state of things and manners around him was in some respects altered from that which he describes, we recognize within a sincere though splendid image of the mental attainments, tastes, and tendencies of his Grecian contemporaries. What the Greeks knew, thought, felt, loved, admired, despised, hated, twenty-seven centuries ago, may be gathered from his strains as fully and freshly as if there had been no interval between them and ourselves. Whatever improvements, and doubtless they were many, he might make on the language of his countrymen; or on the compass and variety of that metre, to whose first principles the genius of the tongue itself must have led in the very dawn of their poetry; such as we find it in his poems we may infer to have been the prevailing style of composition in his day. Such in kind, however inferior in excellence, was the character of all that Greece could yet show of a literary nature, and had later efforts redeemed from oral recitation a mass of contemporary verse, the sole change required in alluding to it would have been one of epithet, from the Homeric to the Heroic literature. Nevertheless, in the case of Homer, as in that of all transcendent genius, the powers and properties of an individual mind are deeply impressed upon his works. There is much in them which could not, we may be well assured, have emanated from any other mind. He had all that the minstrels of his age possessed: he had a great deal, to the measure and stature of which they never attained.

To analyse the qualities of Homer's genius would happily be a superfluous task. No student of general literature is ignorant of these—of his sublimity and pathos, his tenderness and simplicity, his inexhaustible vigour, that seems to revel in the endless display of prodigious energies. The universality of his powers is their most astonishing attribute. He is not great in any one thing; he is greatest in all things. He inspires with equal ease the terrible, the beautiful, the mean, the loathsome; he paints them with equal force. In his descriptions of external nature, in his exhibitions of human character and passion, no matter what the subject, he exhausts its capabilities. His pictures are true to the minutest touch; his men and women are made of flesh and blood. They lose not a jot of their humanity for being cast in a heroic mould. He transfers himself into the bosoms of those whom he brings into action; masters the interior springs of their spiritual mechanism; and makes them move, look, speak, and do, exactly as they would in real circumstances. If Shakspeare appears to surpass him in this particular, it is only because the shades of character have been multiplied, and the expressions of passion varied, since the time of Homer, by a widened range of circumstances, and an increased diversity of manners and coun-

---

* * 

* B. C. 990.  
* B. C. 790.
ditions. But how ridiculous to suppose that such an attribute could be the joint property of several contemporary poets! When it has been proved that the characters of Lear and Othello were made up of patch-work, it may be believed that those of Helen and Achilles were eked out by the contributions of different minds.

Scarcely does it seem necessary to take further notice of that strange theory, which denies the individuality of the author of the Iliad, and asserts that, in the age of Solon and Pisistratus, the poem was not merely reduced to writing, but was then for the first time compiled out of separate lays into an epic whole. As if a series of national songs could have been brought to cohere with so much smoothness; or would have evinced such unity of plot and purpose; or have been confined to so small a segment of the Trojan story; or have given such prominence to a single Thessalian hero; or have displayed throughout the characteristics of an identical and inimitable genius! Under all the shapes, with which French ignorance and German erudition, have clothed it, this hypothesis is equally untenable; and those who, while the genuine impulses of feeling and judgment prompt them to reject it, have not sufficient leisure or learning to examine the matter critically, may rest satisfied that there is no difficulty in the belief of a single author comparable to the difficulties of the opposite opinion. There may be difficulties upon the one side, but there are impossibilities upon the other.

Intent, like all poets of the school of nature, not upon himself but his subject, Homer has told us nothing of his personal history. All biography that relates to him is of a fabulous character; but, holding a steady course between credulity and scepticism, we may be assured of a few points of primary importance; to wit, that his name, whatever its etymology, has been rightly transmitted to us; that his principal residence was in the delicious climate of Ionia; and that though he belonged, as a poet, to a class, of which he is the glorious representative, yet that he excelled in a high degree, all his brethren, and was as much the light of his own age, as he has been the wonder of those which have succeeded it.

A more rational question than that above alluded to, was raised even by some of the ancient critics, as to the other great poem ascribed to Homer. There are certainly some traces in the vocabulary, syntax, mythology, and manners of the Odyssey, which, compared with those of the Iliad, appear to indicate a later period and a different author. On the other hand, it is hard to believe that Greece produced two minds, so kindred in strength and spirit; not only similar in kind, but equal in degree; and perhaps this last consideration should be suffered to outweigh all arguments, however plausible, in favour of a divided authorship. Moreover, the Return of Ulysses, while it was a natural theme for a bard who had sung the Wrath and Glory of the son of Peleus, necessarily led to scenes and subjects which may account for the larger portion of the discrepancies between the poems. At least the interval between them could not have been wide. They are compositions of the same class. In both there is the same general cast of thought, language, and versification; the same attachment to heroic life in all its adventurous varieties; the same views of the external world; the same mellifluous but masculine forms of speech; the same flexible harmony and rich cadences of metre.

The beauties of the Homeric poems were so striking in themselves, and so well calculated to rivet the national affections of the Greeks, that we can discover nothing surprising in the great and permanent influence which they exercised over all subsequent branches of Grecian literature. The marvel is that this influence should be least perceptible upon the immediate successor of Homer. The tone and temper of Hesiod’s poetry are marked by a greater difference from his, than even many of the prose compositions which afterwards appeared. The juniority of this poet to Homer is proved not more by those verbal and metrical peculiarities, which speak so plainly to the ears of a critical scholar, than by something in the turn of thought and choice of subjects that evinces a further removal from the fountain-heads of natural feeling. We are forced to suppose the lapse of not less than a century, from the age of the Iliad and Odyssey to that of the Theogony and the Works and Days. What a change from the deeds of soldiers to domestic arrangements and the cultivation of the soil! from “moving accidents by flood or field” to moral precepts and the details of celestial genealogy! It seems as if either the era of adventures were gone for ever, or the poet wished it to be so. He would call roving clans and fierce marauders to agriculture, to commerce, to all the beneficent arts of peace! We see that the didactic strains of the Works and Days were meant to unteach the spirit of the heroic times, and to heal the wounds which they had left behind them. Nor is it less evident that the Theogony, a poem whose authenticity has been rather unreasonably questioned, must have been posterior to the Homeric pictures of

* B. C. 806.
the gods. It was in regular sequence that after the bard should come the system-maker, with an attempt to reduce to order the desultory sallies of an imagination, which had given its own colouring to every thing that fell within its range. Perhaps, too, since Hesiod belonged, by residence at least, to a part of European Greece, his breast was imbued with the spirit of that Orphic poetry, of which we have no genuine remains, but which was certainly didactic in its tone, and devoted to the inculcation of ethics and theology. Now the Orphic poetry, together with the rites of the Bacchanalian worship, first introduced into Thrace, seem to have taken hold of the Grecian mind subsequently to the epoch of Homer. A contemptuous cast of disposition, clearly discernible in his strains, will likewise serve to explain why Hesiod should have inclined to the mysteries of a symbolical religion, rather than to the more popular and romantic representations of the Homeric muse. The genius of the elder and far greater poet asserted, however, in this, as in all other points, a decided ascendency. We recognize it already in those Hymns in honour of the deities, commonly called Homeric, which came not, indeed, from Homer himself, but some of which are probably little later than the age of Hesiod, about eight centuries before the Christian era.

These Hymns* form the connecting link between the Epic poetry, which, after being carried to perfection by Homer, ceased for a long period to be successfully cultivated by the Greeks, and those Lyric effusions, under whose shape their inspiration was next bodied forth. The steps of the transition can be distinctly traced. Even the recitations of Heroic verse had been sustained by a simple musical accompaniment; but the music, to which the Hymns were sung, was apparently of a more prominent character, and thus led on to that decided influence of the lyre and pipe, which had so strong an effect upon the metre, style, and whole construction of the later poetry. Again, in the Epic narrative, the person of the minstrel was almost entirely concealed; but in the Hymns, as in the strains of Hesiod, it became more visible, and so prepared the minds of Grecian audiences for those explicit revelations of individual feeling, in which Lyric poetry, the poetry of emotion, largely indulges. Through all the Greek Lyric compositions, whether appearing in odes, in songs, or in the choruses of Tragedy and Comedy, this is the predominant tone. We find it in the enthusiasm and bitter fierceness of Archilochus;† in the thrilling, burning, heart-searching energies of love-tortured Sappho;* in the regal spirit and lofty pride that mixes itself up with all the fire of Pindar;‡ three illustrious names that mark the close of each successive century from the date of Hesiod, down to that of the Persian war, one of the most distinguished epochs in the literary history of Greece.

During this long interval of three hundred years, of which the remains are miserably scanty in comparison with its extent and importance, there occurred many events of vast moment to the progress of Grecian literature. It includes the age of Solon,§ and the reduction of the old heroic minstrelsy to writing, of which the practice had then become current, and the materials abundant. It includes the rise of prose composition in the works of the early historians, whose chronicles, though but a few fragments of them survive, appear evidently to have set the example, and paved the way, for the immortal muses of Herodotus. It embraces, also, the separation of the Greek tongue into dialects, a thing observable in every language, but rendered most conspicuous in this instance, by the rank and value of the several bodies of literature, thus distinguished from each other. It is true that, from the mode in which the ravages of time have operated, the relics of Ionic and Attic literature are by so much the most considerable, as to throw the rest into the shade; yet the *Eolic and Dorian branches, to judge even from the fragments we possess, maintained an equal elevation, at least during the period now marked out, and until the culminating star of Athenian genius usurped the sky. While the heroic times, and those immediately succeeding them, still endured, and the forms of manners and policy among the Grecian tribes were nearly uniform, there was one general language of composition, somewhat modified by circumstances, chiefly of a local nature. Homer on the coasts of Asia Minor, Hesiod in Thrace, and other poets in different quarters, employed the same form of their native tongue, diversified in none of its essential characteristics; and that form was undoubtedly the current speech of their countrymen, so far adapted to the exigencies of versification, and subjected to such occasional process of extension or elision, as was possible in the day of no grammars and glossaries, without risk of baulking the comprehension of their hearers. But with the various forms of life and government that followed the decline of the heroic age, there arose simultaneous variations in the language and complexion of Greek

---

* B.C. 600. † B.C. 700. § B.C. 590.
* B.C. 730. † B.C. 700.
OF LITERATURE.

poetry, as well as in its concomitant music and dancing. In accordance with the simple but flowing rhythm of the Ionians, their compositions were commonly either of a soft, or of a buoyant and brilliant character; while the Æolic and Dorian harp resounded in unison with more deep and thrilling strains, as it was swept by the movements of more impetuous passion. And thus, too, the gradations were fine and gentle by which the heroic verse and diction passed into the chief varieties of Ionian metre, and the peculiarities of the Ionian dialect, finally subsiding into the kindred Attic: but the changes made by the Doric and Æolian lyrist on the old metrical canon were abrupt and violent, and their dialects, retaining all the roughest collocations and inflections of the antique language, sought to revive or create a diction of the utmost strength and sternness. The opposite attributes of the two principal races, are strikingly displayed in these differences; the Ionic elegance and airiness, contrasted with the lofty aspirations and the solemn and earnest disposition of the Dorian tribes.

Little later in its origin than the Lyric poetry of the Greeks, their Elegiac poetry flowed from the same source, though not by the same channel. Of the metre and language of this style of composition, moulded by an easy process out of the Homeric, Tyrtæus* gave the first example. The stirring war-songs of this poet are conceived in the true spirit of Homer. They are even marked by a similar prominence of the subject over the person and individual feelings of the author; and thus differ widely from the martial lays of the troubadours, Bertrand de Born, Rambaud de Vaquelras, and other heroes of the Provengal literature, who have sometimes been compared with him. Allied in tone and temper to the Tyrtæan elegy were the patriotic strains of Callinus; but the instinctive taste of the Greeks soon confined the elegiac distich to subjects for which it was better suited; themes of a plaintive, ethical, or domestic character. With Minnemus of Colophon,CLASS the elegy assumed a tone of amatory softness, blended with gentle melancholy; and by Simonides of Cees it was established in its funeral functions. Yet in the monumental inscriptions of Simonides and his brethren, there still beat some pulses of the old heroic vein: it is in a different department of elegiac verse that we catch mingling traces of the Hesiodic poetry. In that poetry may be detected the rudiments of Greek philosophy, and the poetical dress was preferred, long after the time of Hesiod, for those speculations upon nature, morality, and politics, in which his spirit was partly revived by Solon and his sage contemporaries. From what we know of the seven wise men, that celebrated band which included the Athenian legislator, it is plain that they were the founders of the school of gnomic poets, for whose sententious maxims the elegiac couplet was so well calculated, as to be at once adopted by them. How far the verses of this complexion still extant under the names of Solon, Theognis,* and Phocylides, are authentic, is very questionable; but there can be no hesitation in admitting them as specimens of the kind of composition, in which these writers exercised their poetical talents.

A single glance at the exquisite remains of Sappho and Simonides is enough to awaken the wish, keen in proportion to its hopelessness, that time and barbarism had spared a larger share of the Greek lyric and elegiac literature. Fortunately, however, it is, that in the former province we can still point to the strains of at least one immortal poet. The great name of Pindar stands alone, like some solitary mass of ancient architecture, as if to reveal the beauty and majesty of the whole system to which it appertain ed. It is true that even of this poet the entire works have not survived: for Pindar, as we might learn from Horace, were there no other authority for the fact, displayed his powers in various styles of lyric poetry; in the wild dithyramb, the devout pæan, the gay and graceful glee; and still more pleasingly, perhaps, in odes of an elegiac character, in which he seems to have consoled the sorrows of the mourner by cheerful views of immortality and gorgeous visions of Elysium; while, amid the wreck of all these compositions, nothing has been left unmutated except forty-five triumphant lays in honour of victors in the public games. Yet it may be believed that time in this respect has not been cruel to the fame of Pindar. Considering the importance attached, in the eyes of Greece, to every thing connected with her great celebrations, the high rank of the chief Pindaric heroes, and the passion for power and splendour that was manifestly inherent in the poet's mind, it is almost certain that he bestowed his utmost efforts upon that class of his productions to which the extant odes belong. Pindar himself, whose notions of poetical dignity, respect for his own art, and confidence in his own genius, are eminently conspicuous, nowhere implies, even by a distant hint, that he would strike the lyre to

* B. C. 620.  
† B. C. 630.  
‡ B. C. 600.  
§ B. C. 550.  
* Theognis, B. C. 520. Phocylides, B. C. 540.
other themes with livelier pride or more intense exertion.

The most careless reader of these odes must be struck by the excessive admiration of wealth, magnificence, and every species of greatness, to which we have alluded as a characteristic of Pindar's mind. Splendour was the passion of his soul: splendour of achievement, splendour of renown, splendour of station and outward circumstances. His very pride seems to have suggested to him that nothing but splendour was worthy of his muse. His genius, to use a figure of his own, was the eagle of Jove, that would not be severed from the sceptre and the god. These aristocratic predilections, this enthusiastic attachment to munificent monarchs and chiefs of ancient fame, were in perfect unison with the whole tenor of his destiny; born, as he was, in the midst of the Pythian festival, living surrounded by shows of solemn pomp, and dying, as he had lived, in the full blaze of public ceremony, in the centre of a theatre, and while rapt in those emotions of rejoicing sympathy, which such scenes were sure to awaken in his bosom. To those, however, who may deem apology requisite for the indulgence of so stately a temper, it may be urged in behalf of Pindar, that, as in the case of many remarkable poets, the abstract feeling of veneration was predominant in his mental constitution, and that it was called forth not merely by rank and opulence among mankind, but even more powerfully by the contemplation of the divine attributes. Hence that glow of piety which shines so brightly in his odes, sometimes breaking out in expressions of the deepest awe, or in sublime pictures of deity, and sometimes assuming an aspect of moral beauty, adding force and lustre to the lessons of wisdom. The latter modification of religious feeling has given birth to some of the noblest passages in the poetry of Pindar. He was well aware that emotion does not exclude sentiment; that the ethics of the heart are not less sound than those of the brain; and that nature is often hurried, in moments of excitement, into the innermost shrines of truth. But he knew, likewise, that the philosophy of such moments is prompt and peremptory; oracular not syllogistic; and this knowledge has secured him from frequently offending against the genuine character of lyric song by lengthened trains of moral reflection. His example, indeed, strongly supports a doctrine primarily suggested by the study of the heart itself, that the lyric transport should not be abated by many thoughts of a meditative cast; and that the middle region, which certain critics have discovered; that mild and temperate clime in which they place the ethical and philosophic ode; is properly the province not of lyric but of didactic poetry. No opposition to this doctrine can fairly be grounded upon the strains of moral sentiment, so frequently found in the choral parts of ancient tragedy. For it may be argued that these are the offspring of peculiar circumstances, allowable, on a principle of contrast, as points of repose amid the passions of the drama; that they are, at whatever length delivered, still the dictates of a moral sense, brought into sudden energy by the excitement of the moment; and that, upon the whole, the greater portion of the choric odes rather abound in glowing portraiture of the objects of sense, in rapid narration, in brief allusions to heroic or divine achievements, in short in all those brilliant qualities that adorn the verse of Pindar. A rapid movement, though perfectly consistent with the utmost grace in the transitions, is impressed upon the whole style of this genuine lyricist; distinguishing on the one hand his bursts of moral feeling from the formality of didactic poetry, and on the other his sketches of incident or action from the copiousness of epic narrative. The latter distinction should be especially noted by those, who would understand wherein consists both the resemblance and the difference of heroic and lyric song. Narrative is a prominent feature of both; but the narrative of the Epos abounds in full details, and dwells with lingering fondness upon the minutest particulars of an action; whereas the narrative of the ode is of a summary and impetuous character, bounding from part to part of a history with unflagging vigour, and touching only upon the most salient and striking points. This is the true source of nearly all the obscurity which modern readers, not so well versed as the ancients were in the ground-work of their own heroic legends and family traditions, have to complain of in the writings of Pindar; for nothing can be less like his style than the laboured incoherence and affected wildness of many of his imitators, whose faults, though belonging entirely to themselves, have been unjustly visited upon the name of their master.

The diction of Pindar, being founded upon a Homeric basis, and sparingly mixed up with Doric and Æolic peculiarities, has no philological value as a specimen of dialect. But his works have a double value as pertaining to the Doric school, and thus affording something, out of a mass of lost poetry and philosophy, to set off against the vast preponderance of Ionian and Attic literature. His lofty temper, and undisguised antipathy to the democratic principle, are strongly expressive of that school, and in
complete harmony with the oligarchical constitution of the Dorian states. To the same cause, heightened by the political position of the Thebans throughout the struggle between Greece and her Persian invaders, must be imputed the coldness of his homage to liberty, the lack of frequency and fervour in his allusions to the efforts of contemporary patriotism. And hence it is, that, though the date of Pindar corresponds with that of the Persian war, we must look to other writers for proofs of the animating influence which that event exerted upon the feelings, the intellects, and the literature of the Greeks.

Aeschylus, born seven years earlier than Pindar, appears, by a strange coincidence, to have made his first public exhibition a few months before the Theban lyrist produced the first of his extant odes, of which the date can be ascertained. The name of this great poet marks an era of twofold interest and importance; the rise of the Athenian dialect and literature, and the commencement of the regular drama. A tendency towards this most prominent and palpable species of imitative composition is so strikingly displayed in every development of Grecian intellect, that we are not surprised to find Aristotle identifying imitation with the very essence of poetry. Nowhere is it shown more evidently than in the most ancient works. Plato does not hesitate to call Homer, in express terms, the father of Tragedy. But, however strongly the imitative principle might manifest itself in heroic song, or in other kinds of composition, it was hardly possible, in rude and boisterous times, for the stately fabric of the theatre to arise. Progressive approximations to this conclusion were made, however, in various parts of Greece, as the habitations of men became more settled, and greater attention was bestowed upon the culture of peaceful arts and enjoyments. Mimetic performances were gradually blended with Bacchannalian hymns and other rites of a serious or mournful character. On the soil of Attica the first decided step to dramatic exhibitions was taken by Thespis; many improvements were made by his successor and scholar Phrynichus; and at last, under the impulse given by the genius of Aeschylus, the migratory waggons and temporary scaffold were exchanged for a stage; dialogue was introduced, and by degrees established in due preeminence over the lyric effusions of the chorus; theatrical dress and decoration became sumptuous and effective; and Tragedy assumed, in shape and in substance, its noblest attributes. Hitherto the art had been in embryo,

a mere larva struggling into form; now it started up as the finished specimen, perfect in all its members, although hues of beauty and powers of flight were afterwards added or increased.

Aeschylus is a glorious example of the Athenian character in its highest perfection; genius, patriotism, and valour. The virtues of the soldier-citizen, called forth by the shock of foreign arms, and inflamed by the remembrance of hard-earned triumphs, have given peculiar force to the poetry of one, who had personally shared the dangers of the conflict. It is everywhere the language of a hero, and seems to resound with the noise of battle. At the same time, the innate propensities of the mind of Aeschylus, as well as the emotions naturally excited by the Persian invasion, and by the great part which Athens had sustained in the contest, are to be traced in the daring flights and lofty conceptions of his muse. There was something gigantic in his mental character, that found congenial elements in the antique mythology and legends of Greece; in the Titans who combated with Jove, the founders of extinct dynasties, and those deeds and crimes of the olden time, which were magnified by the mist of intervening ages into features of transcendent greatness or atrocity. That ideal standard, which all poetry erects for itself, since all poetry has more or less of an ideal tincture in its composition, was clothed, in his imagination, with an aspect of supernatural strength, wisdom, or power. Hence it is, that beings and faculties of more than mortal mould are so often conjured within the circle of this potent enchanter. Hence, too, the extravagance and eccentricity of thought and diction, which have always been pointed out as the chief faults of Aeschylus. His metaphors, like the masks of his invention, are exaggerated images; his genius, like his actors, bellows through a trumpet. Yet, though fonder of commanding our wonder than our sympathy, he was not without an intimate knowledge of the human heart, and sometimes penetrates the soul of his readers by touches of exquisite feeling. Occasionally, likewise, there is a simplicity of language, continued through long passages, that is the more astonishing in his plays, when we recollect how close they lie to the confines of lyric song, and what a perpetual struggle Aeschylus must have maintained against the inflation of ideas and expression, which is incidental to that species of poetry. But simplicity, as a general characteristic, is to be sought, not in the style but in the plan of his tragedies. The primitive artlessness, and direct movement of his plots cannot be exceeded. In comparing them with the dramatic productions of
later times, it is necessary to keep constantly in
remembrance that the ancient and modern drama
are constructed upon different principles. In
the ancient drama the plot arises out of the ex-
pansion of a single incident: no wonder that it is
simple! In the modern drama the plot arises
out of the compression of a whole narrative: no
wonder that it is intricate!

Even upon the plays of Sophocles, who is
universally acknowledged to have carried Greek
tragedy to the highest pitch of perfection, this
original principle of structure had a prodigious
effect. But he was more of an artist than
Eschylus: he was more happy in the selection
and arrangement of his fables; and abounds
more in the well-wrought interest and striking
reverses, which Aristotle instructs us to esteem
as the triumphs of dramatic skill. That these
are compatible with a rigid unity of action is
sufficiently proved by the manner in which
Sophocles has treated the legend of Oedipus, in
the best of all his productions; while the failure
of Corneille and of Voltaire, in their several
tries to extend the combinations and improve
the conduct of the plot, is perhaps the most
decisive tribute to the ability of the Greek poet
in the management of that difficult subject. His
general desire to heighten the interest of his
fables is shown by the addition he made to the
number of actors, who might be simultaneously
brought upon the stage; an improvement cer-
tainly copied by Eschylus in the latter part of
his career. But, besides this technical addition
to the facilities of the dramatic art, Sophocles
was in other respects an improver on the
Eschylean model. The ideal region, in which
his imagination loved to expatiate, was different
from that of the elder bard; peopled not with
supernatural terrors and shapes of colossal mag-
nitude, but with images of perfect majesty,
serenity, and beauty. The impress of such lofty
and noble contemplations is seen in the almost
faultless excellence of his style. It is not wild,
unequal, and irregularly grand; but stately,
sober, and elaborate. The few sallies which he
makes in the manner of Eschylus, fail, as initia-
tions often do, by putting on the external shape
without the vivifying spirit of the original. But
in these passages the poetry of Sophocles is wan-
dering from its native channel, along which it
usually flows, a mild majestic stream, seldom
ruffled by the tempest, seldom breaking in upon
its limits, but bearing on its aspect the unques-
tionable symbols of dignity and power.

With the third of the great tragic writers of
Athens the decline of the art at once commenced
and was consummated. Active and fertile as
the genius of Euripides* was, it would perhaps
have been vain for him to contend with either of
his predecessors on ground already occupied by
them; with Eschylus in force and grandeur, or
with Sophocles in purity of style, in symmetry of
plot, and in the beauty and impressiveness of
moral lessons. But Euripides made no such
effort. He struck into a new path more in con-
sonance with the depraved taste and degenerate
manners of the generation by which he was
surrounded. To say that the ideal was totally
banished from his works would be false; but
the ideal world of his fancy was not one of
sublime elevation nor of stately repose; it was
full of sickly sentiment and disorderly passion.
The standard above humanity was discarded;
but a standard beyond humanity was substituted
in its room. In seeking to keep up a tempest of
perpetual agitation, to harrow the weaker feel-
ings of our nature, Euripides showed men as
they never show themselves; he enhanced volup-
tuousness and aggravated error. In character,
language, costume, and attitude, that Homeric
tone of masculine greatness, which had hitherto
ennobled the stage, disappeared. With this
departed likewise the solemn march and simple
evolution of the tragic fable. Their place was
supplied by plots perplexed without interest, and
fantastic without ingenuity. Nor were these the
only faults of the new school. The choric odes,
though adorned with poetical graces, were but
loosely connected with the business of the scene:
the dialogue was disfigured by the quirks of
sophistry, and the pomp of rhetorical declama-
tion; qualities which probably contributed to
make Euripides so marked an idol of Parisian
taste. Hence, notwithstanding the many merits
of this writer as a poet; his pathos, his tender-
ness, his love of nature, his insight into the heart
of man; to him must mainly be imputed the
ruin of the tragic drama among the Greeks.
His very beauties made him a fatal example.
He thought too much of himself, and too little of
his subject; the play was bad when the poetry
was exquisite; his aim was occasional effect,
rather than steady and consistent excellence. If
his perceptions were keen, his discrimination
was not equally acute; he mistook the coarse,
or the ludicrous, for the simple; and if he some-
times made little things great, he more frequent-
ly made great things little. In the pathetic, his
most successful branch of writing, he is often a
plagiarist on his own conceptions; in ethics he

* B. C. 495—406.  
* B. C. 479—494.
is rarely free from subtlety or petulance; and in philosophy, content to be always a disciple, and devoid of original power, he has repeatedly been made the organ of doctrines, whose folly or mischief he did not understand.

Longinus, who has drawn from the sun a simile to illustrate the differences between the Iliad and the Odyssey, might have discovered a like illustration of the rise and fall of Grecian tragedy. With Ἀeschylus, it is the dawn of a glorious day, rich in gorgeous colouring and bright promise, but still battling against the clouds, and thwarted by the morning haze; with Sophocles, of a mature and steadfast radiance, it glows in the meridian; and with Euripides, its apseth emblem is the setting luminary, beautiful even in decline, and flooding the skies with a softened lustre, but shorn of power and splendour, and soon to be swallowed up in the darkness of night. Into those shades of obscurity it is not necessary to follow the expiring art. Even while the works of their contemporaries or successors still survived, the ancients themselves acknowledged the pre-eminence of the three great poets whose characteristics have been pointed out. It would neither instruct nor amuse the reader to lead him through a dry catalogue of more than a hundred names, here and there associated with a single piece, or a few fragments, which extend beyond the classical era as low as the fourth century after Christ. All the lustre of Greek tragedy vanished with Euripides, and in the latest productions that assumed the title, its very form disappeared.

If it is expedient, when considering the ancient tragedy, to dismiss modern notions of plan and excellence; it is yet more proper to do so when engaged with the subject of the Greek comic drama. The form of that species of poetry, especially in its more early and interesting shape, was very different from the comedy of intrigue which has gained possession of most modern stages. Like tragedy, it arose out of the ebullitions of Bacchanalian festivity. It is probable that Susarion of Megara first improved the Phallic hymn, a principal portion of the Bacchic ritual, into a farce performed by a chorus, and accompanied by extemporaneous effusions of raillery and sarcasm. But the Syracusan Epicharmus, the contemporary of Ἀeschylus, did for Grecian comedy that which Ἀeschylus effected in the other department of the drama. He changed the loose interlocutions of the Megarian comedy into regular dialogue; gave to each exhibition an unbroken fable; and softened into ridicule the coarseness of personal invective. His plots were chiefly of a mythological cast, and the elegance of his style was the more remarkable, when contrasted with the rough buffoonery to which it succeeded. Mitigated, however, as the scurrility of his predecessors was in the plays of Epicharmus, accurate criticism will detect, in what tradition has recorded of them, some distinct elements of the Aristophanic comedy. The habit of burlesquing the tragic style and subjects, to which jealousy of their rising fame probably inclined him, was revived in the incessant parodies, in which the Athenian comic writers indulged their humour or their spleen; those political strokes that seasoned the wit of Epicharmus, were a type, though a faint one, of the perpetual battery which the poet of Athens was expected to play upon public affairs and public men; and the invented characters, the fanciful stories, the mixture of seriousness with jocularity, which marked the Sicilian style, are all features to be recognized anew in such productions as the Wasps, the Birds, and the Clouds of Aristophanes.

The chief alteration made by this great writer and his Athenian predecessors on the Syracusan model, was the bringing back, with a loftier aim, but equal or augmented bitterness, the personal satire of the primitive Phallic songs. They thus stamped upon the Old Comedy a deep indelible impression. It was essentially satirical, and sank at once when its essence was withdrawn. Not that its authors were so simple as to baulk their countrymen of that variety, which in the theatre, as everywhere else, was dear to the inhabitants of Attica. Many other ingredients were blended with the predominant one of personal invective. On the slender thread of an inartificial plot were strung together sarcasm, ridicule, poetry, wit, humour, politics, parody, and puns. The old Comedy may want symmetry and order; it may be deficient as a work of art; yet as a rich and ready vehicle for the flights of genius, it was congenial to the taste of Athens, and worthy of the illustrious poet, from whose remains we now learn to understand its nature.

Aristophanes had so high an idea of his function as a dramatist, and of his own mental powers, that, had regularity of plot, or an ingenuous combination of incidents, been required in the structure of the old comedy, he would certainly have attempted it, and if we may judge even from some scenes of his existing plays, with eminent success. But in reviewing his

* B. C. 500.
† B. C. 500.
* B. C. 456.—336.
productions as a whole, and as specimens of the system to which they belonged, not only the ancient conception of the comic art, but likewise the character of the Bacchanalian festival must be taken into the account. To the more solemn and exalted species of mental inspiration, tragedy was consecrated; but of that airy and extravagant spirit, that intoxication of the soul, of which Bacchus was equally the patron, the Attic comedy, in its first estate, was at once the triumph and the type. Hence every appearance of forethought and laborious preparation was avoided, and the reins were freely given to the utmost license of fable, sentiment, and expression, which an exuberant fancy could supply. On this principle we easily find a reason for the wildest sallies of buffoonery, and a reason too, if not an excuse, for that grossness of language and allusion, which harmonized with the obscene ensign of the original Phallic ceremonies. But, above all, this principle explains to us the general meagreness or irregularity of the Aristophanic plots. It was impossible often to contend against the humours of the feast. While "laughter holding both his bases" was lord of the ascendant, the poet was ashamed to show himself in earnest. To take anything in earnest was alike foreign to the disposition of his audience. Thus they tolerated the most vehement attacks upon their own faults and follies in a collective capacity; and permitted the comic author to treat their deities, and the religion of the state, with a degree of irreverence, the slightest approach to which, in a writer of tragedy, was visited with severe animadversion. Aristophanes was not behind his brethren in availling himself of some of these professional immunities; yet, wherever, amid the coarseness, the grotesqueness, and the mockery of the old comic vein, the personal character of the man breaks out, we see that it was not merely his boast, but his real wish and aim, to elevate the tone of his art. The graces of his diction no one will seek to gainsay. He wields the idiomatic powers of the Attic form of speech with a skill unrivalled, except, perhaps, in the dialogues of his admirer Plato. Nor should it be forgotten, that he is at least as much a poet, as a satirist, or a buffoon. Snatches of exquisite poetry are perpetually intermingled with the passages of a more robust or vulgar quality, like glimpses of an Elysian distance descried from some rugged or revolting foreground. When we add to this, that the patriotism of Aristophanes was of that sterling ore which shines from its own brightness, without the adventitious gilding of popular professions, we claim for him the crowning merit of a great mind. The last mentioned excellence necessarily involves another that may justly be ascribed to him; a sound consistent view of the philosophy of morals. Even his memorable assault upon Socrates, however erroneous in the choice of an object, or unwarranted in the extent to which it was carried, must be imputed to no other motive. It was wrong to confound Socrates with the sophists of his day; but it was right that the practices and doctrines of the sophists should be exposed and reprobated with exemplary rigour. Yet the precipitance with which the poet identified a wise and virtuous humourist with the intellectual empirics around him, has caused his satire, in this instance alone, to recoil upon himself. In all other instances the attacks of Aristophanes were as just as they were tremendous; a fact greatly to the honour of one whose shafts flew so thick on every side, that he might well have exclaimed, with a celebrated writer of modern times, "What public question have I declined? what villain have I spared?"

Such severe, though wholesome discipline, as that which was exercised by the authors of the old comedy, could coexist with nothing but a state of absolute liberty. When the free spirit of Athens was extinguished, the license of the comic theatre, after languishing through various stages of decline, finally expired. The gradations of the middle comedy, to which some even of the later plays of Aristophanes perhaps belonged, are ill defined; but simultaneously with the overthrow of Athenian independence, appeared the first distinct specimen of a new species of dramatic poetry, in which the pungent sarcasm, the political heat, and the rampant humour of the Aristophanic muse were exchanged for graceful lessons of morality, accurate delineation of character, and the interest of regular plots. This new kind of comedy was brought to perfection by Menander; the loss of whose works is imitted to us by the loud applause of the ancient critics, and only half-compensated, if we believe Julius Caesar, by the imitations of Terence. Through all the changes and additions, however, of the Latin imitator, we can perceive the nature of the fables adopted by the new comedy, and that it was, as either Greek modes of life or the rigidity of the dramatic canons forced it to be, rather the comedy of manners than of intrigue. The chief charm of Menander seems to have lain in his delicate portmatures of character; in the consummate propriety of his style, still visible in the

* B. C. 335. † B. C. 342–292.
remainling fragments of his plays; and in a profusion of that Attic salt, which, to use an elegant expression of Plutarch's, appeared to have been taken from the very wave out of which the goddess of love and beauty rose.

Thus the poetical glory of Athens, spread over a space of two centuries, and sustained by different forms of the tragic and comic drama, vanishes at last in a few fragments and a name. After Menander there is nothing worthy of commemoration. But during the same period, the other great branch of literature had been cultivated by some of the most powerful minds that adorn the Grecian annals, and that have raised prose composition, in its chief varieties, to a level with the noblest achievements of poetry.

To the earliest Greek chronicles, which prepared the way for regular history, we have already had occasion to allude. Succeeding, as records of past transactions, to the songs of the mythic age, they had about them much of the spirit of poetry, which still lingers in the epic plan, the picturesque descriptions, and the unifying flow and fulness of HEMODOTUS. These, together with the highest degree of clearness, simplicity, and natural pathos, are the qualities that render the style of this author so perfect a model of historical composition in the eyes of all who are not blinded by false taste, or by attachment to a particular theory. Something, perhaps, of the inexpressible pleasure, with which we dwell upon his pages, is due to the musical forms and idiomatic graces of the Ionic dialect; employed by him though he was himself a Dorian, either in deference to the preceding annalists, whose desultory sketches he improved into an art, or from a deliberate choice, grounded upon its exquisite fitness for the purpose of narration. Even if, in respect of dialect, he was indebted to the example of his predecessors, he left them far behind him both in excellence of method, and in extent and dignity of subject. His was one of those fertile minds whose energies were summoned forth by the prodigious crisis of the Persian war; an event which, though ushered in by a copious introduction, and surrounded by beautiful episodes, yet constitutes the main plot and business of his history. HERODOTUS has been called the Homer of historical composition; and he deserves to be so named not only from a certain affinity with the style and language of the great poet, but from the unity of his design, and its subservience to the renown of his country. Like Homer, too, though well versed in the knowledge of human nature and the foundations of ethical science, he makes no parade of his own sagacity. He suffers persons and events, delineated with graphic minuteness, to speak for themselves. In this, as in other particulars, he displays a true conception of the historian's office. History is never so enchanting, never so useful, as when it keeps to its native domain.

Every one will wish to believe, though the tradition rests on no very ancient authority, that the public recital by HERODOTUS of that great work, in its first condition, which for fifty years he continued to enlarge and improve, drew tears of youthful emulation from the eyes of THUCYDIDES. Yet, if the spirit of rivalry were thus roused within him, he at least took care to strike out a new path, as remote as possible from the track already opened up. In many things his manner of viewing and of treating history was perfectly original. Together with the Attic dialect, which had been only recently adapted to prose composition, but which was suited, by its compact strength and manly tone, to the grave tenor of his subject, he introduced other deviations from the Ionian standard. While in HERODOTUS we find the simple majesty, the flexiblity, the stately evolution and warm colouring of the heroic epos, Thucydides has all the concentrated interest, the depth, and the glow of tragedy. Greece, no longer buoyant on the tides of patriotism and national triumph, but torn by intestine animosities, the sport of profligate counsels, and about to sink into the gulf of ruin; a great people, in their corruption and decline; and the fall of that Athens, which, in spite of its vices and follies, had been the boast of the best days of freedom; such was the melancholy theme with which he chose to moralize his pages. It was a sombre, but a pregnant subject; full of striking lessons; rich in materials for eloquent description; and worthy of the highest elaboration which art could bestow. Of these capabilities it would be vain to deny that the historian has made admirable use. But in no instance are the defects, that often accompany genius of the first rank, more conspicuous. With all his dramatic power, and vivid representation of separate scenes, THUCYDIDES is not happy in the general arrangement of his topics. His style is darkened by a studied obscurity, that too frequently converts eloquence into the appearance of conceit. Above all, the spirit of philosophizing has infected too large a portion of his work. In the harangues, which he puts into the mouths of his personages, and the reflections which he
makes upon events, we often detect a metaphysical subtility, diving too deep for the truth. The example, thus set, has been eminently unfortunate: it has operated more or less upon all subsequent historians, opening a wide door for partiality and prejudice, and changing, in many cases, the art of animated and impressive narrative into that of mere speculation.

In purity of style, and in lightness and clearness of description, Thucydides is surpassed by Xenophon.* One is tempted, therefore, to ask why, in general estimation, Xenophon should be ranked below Thucydides, as well as below the historian of Halicarnassus? It seems that for this inferiority his subjects must be chiefly accountable. They are deficient either in unity and grandeur, or in compass and importance. The conclusion and results of the Peloponnesian war, detailed in his Hellenic Annals, present not so fine a field as the causes and course of that great moral and political revolution which Thucydides traced out in its operation upon all parts of Greece: and the brilliant adventures, portrayed in the Anabasis, though they blend the dignity of truth with the interest of fiction, and may even be connected, by some visible relations, with subsequent events of the highest moment, have of themselves the air of a mere episode in history. But, in addition to this, it cannot be disguised that the masculine energy and weight of Thucydides, as a political reasoner, by no means revive in the parallel passages of Xenophon. Notwithstanding his grace, his perspicuity, and his tenderness, the intellectual achievements of the latter furnish a proof that he who passes, in too ambitious a career, from province to province of literature, must not hope to erect in any the trophies of supreme dominion.

For it is in many different capacities that Xenophon must be viewed, in order to comprehend his whole character; and in all he has associated his name with the art of composition. Not to mention his writings as a statist, an economist, and a sportsman, the works next in value to his historical productions, are those, in which he skims the surface of the Socratic philosophy, and draws a picture of its founder. Thus he forms, in his own person, a link between the literature of Greek history, and the literature of Greek philosophy; a subject far better treated by him where he makes Socrates directly his hero, than where, in the province of historical romance, to which the Cyropaedia belongs, he mixes up Grecian tenets as well as Grecian manners with elements of a heterogeneous description.

With the peculiar systems of the various schools, into which the philosophers of Greece were divided, we have here no concern. This sketch can embrace only the prominent characteristics of the few great men, whose genius has given to the speculations of science a place in the most beautiful of all bodies of literature. It has been previously remarked that the first regular seeds of Grecian philosophy lie scattered amid the poetry of Hesiod: and that the poetical medium long continued to be that through which its maxims were conveyed. But many of the most celebrated among the elder sages declined the honours of authorship; a fact, perhaps, not much to be regretted, at least if we are to suppose that their style would not have exceeded their doctrines. Look to whatever side we please, if we except a few gleams of truth, and a few gnomic precepts of moral or political sagacity, there is little in what we know of the ancient schools, Ionian, Pythagorean, or Eleatic, to impress us with a high degree of veneration. Everywhere we see them lost in physical theories, that run into materialism, or in visionary metaphysics, that cannot be said “to call for aid on sense.” To the instability of their principles the uncertainty of their deductions, and a sort of mental refinement, perfectly compatible with gross corruption of manners, which grew out of their speculative exercises, and gradually cast its sickly hues over the main lineaments of the old Greek character, must be traced the rise of the Sophists, that dangerous tribe who flocked from many quarters to Athens, about the period of the Peloponnesian war, and whose history powerfully demonstrates, that errors of opinion must end at last in practical mischief. A show of universal knowledge, a dexterous perversion of the dialectical art, and a jingle of antitheses, that sounded like oratory to indiscriminating ears, were the chief weapons of this pestilential race, who were unhappily allowed to poison the sacred sources of education, and whose influence on the acute but fickle minds of the Athenian youth threatened the utter subversion of truth. But the excess of the evil wrought its own cure. The activity, the success, and the ostentation of the Sophists, stung into vigorous antagonism an intellect as subtle as their own, capable of wielding the same arms, but with a more potent energy, and a better aim. Socrates* entered the controversial arena, whereon he was destined to sustain so conspicuous a part, and to work so

---

* B. C. 413—335

* B. C. 468—389.
complete and glorious a revolution in the Greek philosophy.

While Socrates purified the spirit and corrected the tendency of philosophical researches; while he even laid, by the hands of his disciples, the foundations of systematic speculation; he himself wrote nothing. Yet his colloquial lessons, preserved by that affectionate enthusiasm, which his virtues kindled, and his very eccentricities helped to keep alive, gave birth to the branch of literature, that numbers among its foremost names those of Xenophon and Plato. In the pages of Xenophon we find a lively sketch of the Socratic ethics, and noble views of natural religion, which have almost exhausted that province of argument; but there is a want of depth and of completeness on the more abstruse points of metaphysics, which is somewhat unsatisfactory when compared with the vastness and profundity that distinguish the writings of Plato.* That illustrious man was more earnest and exclusive than his elegant contemporary in his devotion to philosophy. Except in a few trivial attempts to bestow the poetical dress on thoughts that ever teemed with the fine essence of poetry; attempts, from which his own sagacity, or the advice of his great master speedily diverted him; he did not waste his fire on other pursuits. Without being a methodical writer, he had an intellect too discerning and too accurate to leave mental science as vague and undefined as he found it. He shadowed out its chief divisions, and their mutual dependencies; and was a benefactor to philosophy even with regard to form. But much more did he benefit philosophy by the light and glory which his genius flung around every topic it embraced, and by the unrivalled fascinations of a style that drained all the treasures of the Grecian tongue. We forgive the infidelity, with which he often distorted or exaggerated the views of Socrates; the mysticism into which he is prone to dream himself away; the folly of some of his political reveries; the perverseness of some of his ethical doctrines; all is forgiven, as we smile or sigh beneath the spells of this mighty wizard. The shape into which he has thrown his productions; that shape of dialogue which, as managed by him, appears so easy and delightful, that it requires the repeated failures of other writers to demonstrate its intrinsic difficulty; afforded room for every grace of composition, from the smartness of dramatic retort, to the flow of copious dissertation; and in Plato every grace is found. His style appears to possess a principle of self-adaptation, by which it responds, with miraculous facility, to each varied mood of sentiment and passion. He is at once a satirist, a rhetorician, a critic, a fabulist, and, when he pleases, a sophist. We follow him with admiration through all his changes; we are charmed with him under all aspects; but most, perhaps, in those introductory or incidental passages of narrative or description, wherein he combines the skill of a consummate artist with the rich and eloquent enthusiasm of a devout lover of the beautiful.

To this vein of mingled fancy and reason; to this Proteus-like pliancy of style; to this profusion of picturesque and glowing imagery; the strongest of all possible contrasts is seen in the works of him, who has exerted, and down to the present hour continues to exert, an influence commensurate with that of Plato upon the whole fabric of philosophy. Were it not that there is somewhat of a kindred spirit in the acuteness and dexterity, with which both wield the weapon of analysis; that there is an agreement in many of their fundamental doctrines, and their abstract principles of taste; and that a sort of filial tenderness perceptibly moderates the tone of the pupil when alluding to his master; it would be impossible to believe that Aristotle* was for twenty years the disciple, and during a large portion of that period the favourite disciple of Plato. For, in the method of philosophizing, in the matter and limits assigned to philosophy, and in the proposed end and object of some of its branches, the chief of the Peripatetics places himself in decided opposition to the founder of the Academy. With him commenced that war between empiricism and rationalism, as they are technically called, which has raged ever since. But in style the difference of the two leaders is perhaps most deeply marked; and certainly not to the advantage of Aristotle. The fair and flowing stream of Plato's eloquence seems to have sunk without effect into the arid texture of his pupil's mind. A contempt of the flowers of diction, a resolute rejection of ornament, are the prominent features of the Aristotelian style. It is so dry as to approach the confines of dulness; so elliptical as frequently to border on the enigmatic. Moreover, it wants the easy command of idiomatic phraseology, the genuine Atticism, with which Plato captivates his readers. We detect in it decided traces of that corruption of the Athenian dialect, which dates from the era of Alexander, and are already called upon to mourn over the decay of the noblest vehicle ever invented for the thoughts of man. Yet Aristotle,
in spite of all the faults that may be imputed to him, is great even as a writer. Aureate and timeless as his composition is, it is so pregnant with thought, so "instinct with spirit," and sometimes so enlivened by a true feeling of the lofty or the tender, that it seldom fails to rouse the attention or to interest the heart. Nor is he altogether devoid of a certain touch of humour, not transgressing the bounds of philosophic decorum; a mixture of slyness and apparent simplicity; that has a poignant effect when he chooses to display it. Amid his multifarious productions the best specimens of his literary powers are those most universally known; that ethical treatise, which, through a veil of some perplexity and self-contradiction, discloses so many glimpses of truth; that inestimable work on rhetoric, which is still the manual of the art of persuasion; that code of the laws of poetry, which, though but a mutilated fragment, embraces all the principles of just criticism, and the germs of the most popular and brilliant theories that, from time to time, have enriched the philosophy of taste.

Within the compass of the classical age of Greek composition, the literature of philosophy presents no other prominent points. But we have not yet exhausted the glories of that period. Those proud and palmy times gave birth to another kind of intellectual production, which can flourish, in full grandeur, only on soils that are blessed at once with the presence of liberty and of genius.

Greece was the first theatre in the world for oratory; of all Greece, Athens was the most splendid and renowned arena. Yet, notwithstanding the high rewards of eloquence, which the constitution of that state held forth, it was long before eloquence was cultivated, within her bosom, as a regular art. The elder Athenian statesmen, even those most famed for their success in the assemblies of the people, seem to have studied little how to ensure or to heighten the effect of their natural talents. Perhaps the speeches, which the character of ancient history allowed to be intermingled with the narrative, and in which it was the evident aim of some historical writers to display the full force of their political and oratorical abilities, supplied the earliest evidence of the magnificent results attainable by assiduous care and elaborate preparation. Then eloquence arose as an art and a branch of instruction. Schools for the inculcation of its principles were opened at Athens, and no price was thought too high for the lessons of an eminent professor. It cannot be denied that the influence of this methodical training was not always fortunate. Thus, it would have been better for Isocrates, had he never imbibed an affected prettiness and a finical modulation from the example and the rules of Gorgias. But it is equally undeniable that by such scholastic discipline, and by private toils and trials, too arduous and unremitting for modern impatience to undergo, was matured that perfection of style, proof, in its intrinsic strength and beauty, against all changes of manners, times, and circumstances, which still astonishes and awes the mind in the pages of Demosthenes.* Out of the list of Attic orators, the judgment of the Alexandrian critics selected ten as foremost in fame and merit: but posterity has narrowed the number. When we now speak of the triumphs of Greek eloquence, it is not of Lysias, however pure in dialect and transparent in expression; nor of Isocrates, with the unvarying sweetness of his balanced antitheses; nor of Isæus, though skilled in the science of arrangement, and armed with bursts of manly indignation; nor even of Ἀριστοτέλης, who is yet so argumentative, so plausible, and so powerful withal, that it is difficult to imagine him prostrated at the feet of a victorious rival; it is not of any, nor of all of these, that we are understood to speak, but of the great luminary that eclipsed every other light, and shines in unapproachable splendour. The striking fact that in Demosthenes we find the only consummate orator that Athens herself ever produced, may impress upon us the extreme difficulty of the art which he practised. Greece can boast an array of five or six illustrious poets, of three great historians, of at least two philosophers who take a high place in literature; but she has only one Demosthenes. This eulogium will not be condemned as extravagant by those who have studied with all the attention, which such works deserve to have bestowed on them, the series of his political speeches; the attacks upon Philip, and defences of his own administration, summed up and carried to the loftiest pitch of conceivable excellence, in the wonderful oration on the crown. For the complete enjoyment of this master-piece of eloquence an essential preparation is the perusal of the great speech of the accuser; that admirable effort, which for a moment seems to raise Ἀριστοτέλης almost to the Demosthenean level, and must extort from every one the question, "How could this be answered or evaded?" But a mere glance at the reply of Demosthenes at once explains the defeat of his opponent. What power! what art! what nature! what elaboration! A heathen need not have scrupled.

* B.C. 382-322.
to exclaim, that to purchase the glory of this matchless triumph it would have been worth while to live the life of Demosthenes, and to die his death!

When Alexander, after the destruction of Thebes, demanded the surrender of the Athenian orators, he showed at once his hatred of liberty, and his clear perception of the means that had most effectually sustained it. This act was far from inconsistent with the spirit in which, amid the horrors of an exterminating conquest, he had spared the dwelling and the descendants of Pindar. He intended a death-blow to Greek oratory; but he held himself forth as delighted to cherish and reward all less dangerous manifestations of intellect; and the declension of literature, which was one of the most signal results of his ambitious career, was at the same time a severe and a felt retribution for his political crimes. Well might he sigh in vain for a great poet to celebrate his exploits; he, who by his own deeds had trampled out the fires of genius, and polluted the true sources of fancy and natural emotion. We mark with regret, but without surprise, the change that, from the period of his ascendency, began to affect the various developments of the Grecian mind. Eloquence died away in the sickly languor of Oriental affectation. History, seeming to catch its tone from the extravagant projects and romantic adventures of the conqueror, became a tissue of bombast, compliment, and fable. Science, indeed, flourished in many of its branches; for science does not scorn the patronage of despotism, and often requires its munificence by aiding its designs; but all the charms of the art of composition, whose noblest efforts have ever sprung from the impulse of unfettered minds, fled with the extinction of freedom.

The victorious sword of Alexander opened a way, however, for the diffusion of Greek literature over half the globe, and carried a knowledge of its attractions to the very confines of China. But, though it lingered long in different quarters, it was in Egypt that the principal effort was made, after the death of the Macedonian prince, to form a new focus of letters and mental refinement. All influences were brought together, that could contribute to make Alexandria be, what Athens had been, the capital of the intellectual world; all, except the presence of those Muses, who could not be compelled to migrate from the clime of their birth. The liberal dynasty of the Ptolemies encouraged learning and learned men; collected libraries; founded universities; and was repaid by the too frequent produce of such institutions. The new Greek literature was the literature of courtiers and grammarians. Even the Alexandrian poetry the most favourable side on which that literature can be viewed, is the poetry of art and labour, not of nature. Let Apollonius Rhodius* be selected as perhaps the best specimen of the school to which he belonged. Of him we must say that, if epic poetry required no invention, no fire, no enthusiasm, but only a profound acquaintance with mythology, and an elegant and studied diction, he would be a great epic poet; but that, as it is, he is only an epic compiler of traditions, with here and there a touch of tenderness or passion. One pleasing species of poetry, of which only a faint prelude had been heard in elder times, was certainly brought to perfection during the Alexandrian period: but it arose in another country, and was merely allured from its native seat by the patronage of Ptolemy Philadephus. It may be a question with some, whether the Idyll, the Greek shape of pastoral song, gained or lost by the nearer view of courts and capitals, which royal favour enabled the Sicilian Theocritus† to take: yet as a tablet of human life and manners, the true function, according to its name, of this kind of composition, its province was perhaps rightly so extended as to embrace certain features of civic as well as of rural society. On either field Theocritus is equally at home; but in an especial manner have the force and simplicity of his painting given a warmth and truth to his representations of rustic characters and incidents, that are scarcely to be found in any later pastorals. It required his strength, his sweetness, and his genuine Doric, to confer real interest on the loves and strife of shepherds and shepherdesses; and the difficulty of succeeding in the treatment of such subjects is signally demonstrated by the care with which those writers, who are generally classed with Theocritus under the head of Bucolic poets, the showy Bion, and the delicate Moschus, have in fact avoided the actual scenes of the pastoral world. But these authors, or at least the latter of them,‡ lived at a time when neatness and smoothness had become the characteristics of Greek poetry, and when its choicest productions were fit only to bloom in an anthology. Symptoms of recovered manhood, in a different department of literature, appear at a later period: but, meanwhile, in order to continue our review of the great productions of mind, we must pass to another people, and to the treasures of a sister tongue.

Inferior to Greece in the genius of its inhabit-

---

* B. C. 260. † B. C. 270. ‡ Moschus, B. C. 154.
ants, and perhaps in the intrinsic greatness of the events of which it was the theatre, unquestionably inferior in the fruits of intellectual activity, Italy holds the second place in the classic literature of antiquity. The early state of that country, viewed in its whole extent from north to south, presents nothing to court the eye of the literary observer. In some respects, indeed, the Etruscan name is important and attractive. Etruria could boast of arts, legislation, scientific knowledge, a fanciful mythology, and a form of dramatic spectacle, before the foundations of Rome were laid. But, like the ancient Egyptians, the Etruscans made no progress in composition. Verses of an irregular structure, and as rude in sense as in harmony, appear to have formed the highest limit of their literary achievements. Nor did even the opulent and luxurious Greeks of southern Italy, while they still retained their independence, contribute as much as their Sicilian kinsmen, to the glory of letters in the west. It was only in their fall that they did good service to the cause. All the disgrace of their political humiliation was amply redeemed by the honour of communicating the first impulse towards intellectual refinement to the bosoms of their conquerors. When, in the process of time, Sicily, Macedonia, and Achæia had become Roman provinces, some acquaintance with the language of their new subjects, grew to be a matter almost of necessity to the victorious people: but the first impression made at Rome by the productions of the Grecian muse, and the first effort to create a similar literature must be traced to the earlier conquest of Tarentum. It was in consequence of that event, that, after five centuries of war, the harp was at last heard above the din of arms, in the destined capital of the world.

From that memorable period, the adroit and versatile talents, which have not failed to distinguish the Greek race in every stage of national decline, began to exercise a powerful influence on the Roman mind. That influence was felt in different departments of education and amusement. The instruction of the Roman youth was committed to the skill and learning of Greek slaves; the substance or spirit of the Greek drama was transferred into the Latin tongue; and somewhat later, but with an effect more deep and permanent, Roman genius and ambition devoted their united energies to the study of Greek rhetoric, which long continued to be the guide and model of those schools, in whose exercises the abilities of Cicero himself were trained. True it is that prejudice or patriotism made some sturdy endeavours to resist this flood of foreign innovation; but taste and curiosity, once excited, were too impetuous to be withstood. The elegant ardour of the Scipios and their followers overcame an opposition commenced by the watchful jealousy of the elder Cato. For more than a century and a half after the Tarentine war we discover symptoms of a legislative effort to counteract the predominance of Greek philosophy and eloquence. But the decrees of senates and the edicts of censors were equally vain. It was written in the fates that the best part of Roman literature should be only successful plagiarism.

One thing tempered the servility of this imitative tendency. In every genuine Latin writer even though not belonging by birth to the capital, we recognize the pride of Roman citizenship. That sentiment breaks out not merely in the works of great statesmen and warriors, who, aspiring to shine in literature as well as in politics, naturally allowed their attempts in the one field to take something of their tone from the high station and authority that pertained to them in the other; but quite as strikingly in the productions of those to whom the literary character was all in all. It is as prominent in Virgil and Horace as in Cicero or Cæsar. If even the language of Rome, in other respects so inferior to that of Greece, has any real advantage over the sister tongue, it lies in that accent of dignity and command which seems inherent in its tones. The austerity of power is not shaded down by those graceful softening and qualifying adjuncts, so agreeable to the disposition of the most polished Grecian communities. In the Latin forms and syntax we are everywhere conscious of a certain energetic majesty and forcible compression. We hear, as it were, the voice of one who claims to be respected and resolved to be obeyed.

When we regard solely the bright vein of genius that shines through all the plagiarism of the Latin authors, it seems impossible not to wish that they had added to this the charm of originality: but a little consideration of what Italy was, and what she had produced, in remoter times, will convince us that, without some lively external impulse, it was not likely that a literary era should ever have commenced in that country. Ingenious men have indeed discovered, or dreamt that they could discover, a primitive Latin literature of heroic ballads; evolving, by their own fancy, rather than under the guidance of authentic evidence, a series of epic romances out of the ancient history of Rome. But it is
hard to believe that such a literature, if it existed, or if it possessed any features of excellence, could have been utterly swept away by the ravages of the Gauls: and the fact undoubtedly is, that the few poetical remainants of the earlier ages which still survive, verses of a religious or triumphal character, display rudeness unredeemed by traces of a hopeful and exuberant simplicity. They are far inferior to the songs of many savage tribes with which modern enterprise has made us acquainted. Nor is it probable that the coarseness of these Saturnian lays was much improved by the first dramatic attempts which were made at Rome, on the Tuscan or Campanian model.

Suddenly a Greek slave, brought, after the final subjugation of southern Italy, to the capital of Latium, gave the Romans an insight into the real nature of epic and dramatic poetry. Livius ANDRONICUS* translated into Latin verse the Odyssey of Homer. By a version of only one other poet could he have conferred a nobler boon upon a people, now at last awakening to the charms of intellectual cultivation. But perhaps he judged well in his selection. The more elaborate plan and severer graces of the Iliad might not at once have engaged so much general attention as the romantic rambles of Ulysses: whereas the wondrous tale of those immortal wanderings was sure to arouse that appetite which "grows with what it feeds on." Previously to thus laying the foundations of the Roman epos, the same author had introduced upon the stage, hitherto occupied by buffoonery and extraneous sarcasm, specimens of the regular drama, translated from Greek tragedy and comedy. That the more grave of these exotic productions never struck a deep root into the soil of Rome, is a fact sufficiently notorious. Nor is it difficult to discover the cause. Precisely as the Odyssey was fitted, by its amusing and often homely narrative, to captivate the affections of a semi-barbarous nation, even before they could appreciate its higher beauties, so the broader attractions of comedy were certain to take precedence of that appeal to the more refined sensibilities of our nature, which is made by the tragic muse. And when taste was finally nurtured among the admirers of Cicero and Virgil, political causes prevented that resistance to the growing passion of the populace for show and spectacle, which tragedy, under other circumstances, might have effectually offered. But comedy, though her legitimate forms were ultimately forced away by the same rage for gladiatorial combats, and gorgeous pageants, enjoyed a season of triumph which will claim for it especial notice as we proceed to review the successive stages of Roman literature.

The chronological position of Livius, and the striking effects which resulted from his labours, give importance to his name, though the fragments ascribed to his pen are few in number, and of these the most polished are evidently spurious. But the next memorable author may rest his claim to the high title of the Father of Roman Song upon something better than mere antiquity. ENNIUS* not only naturalized, by a work of some extent, hexameter verse in Italy; he not only conveyed into his own tongue the genuine spirit of Homer along with that measure which was most favourable to such a transfiguration; but he was, in every sense of the word, a true poet. Of the Greeks he was indeed, to the very letter, a devout imitator; but holding, as he had a fair right to do, the perfect models bequeathed by them steadily before his eyes, and adopting much of their expression as frankly as later Latin writers adopted much of his own, he yet displayed an original, and a Roman spirit, in the choice and treatment of some of his principal subjects. It was thus that he got such possession of the national mind, as to justify a philosopher, posterior by nearly three centuries to himself, in speaking of his countrymen as an ENNIAN PEOPLE. Something or other, it must be observed, from the hand of Ennius, encountered them in almost every branch of composition. Even in prose the versatility of his powers found scope for exertion. But poetry, throughout its chief varieties, was his favourite field. His poems were by turns epic, tragic, satiric, epigrammatic, and didactic. Perhaps, among them all, to judge by the surviving specimens, we have most reason to regret the loss of those versified chronicles of Rome, whose plan, as the reader instantly perceives, was too naked and simple, but whose defects of arrangement seem to have been compensated by the feeling which dictated the theme, and the vigour with which it was sustained. Here we are still able to detect indications of that which pleases an unsophisticated taste in all early literature; that seizure of minute traits and circumstances, and that graphic manner of portraying them, which charm so much in the poetry of Homer and Chaucer, and would have no less charmed in the poetry of Ennius, had his productions reached us in a state of equal preservation.

We are by no means puzzled to assign a rea-
son for the variety observable in the works of this literary patriarch. His access to the mani-
fold stores amassed by Grecian genius had made
him intellectually rich, and he was in a hurry to
pour out, before the astonished gaze of his con-
temporaries, a full display of his opulence. But
his successors, less actuated by the impatient
desire to exhibit a new acquisition, had leisure
to pause, to discriminate, and to attach them-
selves, with a judicious preference, to the kind
of composition best suited to their natural
powers. Thus, while some attempted tragedy,
and some compiled amals, the comic drama,
alluring by the prospect of gain as well as by its
adaptation to the bent of their minds, was the
province on which the most celebrated among the
immediate followers of Ennius reaped their
laurels. Plautus* and Terence have at least
this in common, that they both aimed at imme-
diate popularity, and by cultivating the same
branch of the poetical art; but they seem to have
availed themselves of almost every facility for
differing which the existing scope of comic
poetry afforded. The difference between them
lies not so much in their choice of a model; since
though Plautus to a certain extent followed
Epicharmus, he for the most part resorted for
his materials, as steadily as Terence himself, to
the new comedy of the later Attics; but it lies in
the tone and temper of their minds, and in those
properties of sentiment and style, which reveal the original qualifications of a dramatist
through the most slavish transcription of fable
and manners. In reading Plautus we are pro-
voked to wish that one, who was imbued with so
large a share of the Aristophanic spirit, in its
grosser attributes, had made the old comedy, in
all its extent, his exemplar rather than the new,
and had thus provided a more proper vent for
the coarse humour, the buffoonery, and even the
poetry, that were within him. But in Terence,
whether or not he equalled the selectest graces
of Menander, we find an elegance worthy of
Athens in the best of those days when she had
learned to substitute a scrupulous refinement for
more noble and commanding beauties. Even of
Plautus the language is pure and flowing; not,
indeed, controlled by much deference to the
laws of metrical harmony, but full of pith and
sprightliness, bearing the stamp of colloquial
vivacity, and suitable to the general briskness of
his scenes. Yet we miss all symptoms of
deference, in the tone of his dialogue, to the
taste of the more polished classes of society.
The plan and denouement of his plots are care-
lessly contrived. Gaiety, surprise, plays on
words, puns, low jokes, reprobe manners,
caricature, rather than character and true
humour, have been aimed at and achieved by
Plautus.

Terence is as much above him in regularity
and dramatic art, as in elegance and harmony.
He laid his plans with more solicitude, and hit
the essence of human character with a finer per-
ception. But the charm, the glory of Terence,
is his style. He seems to have weighed each
particular word in the balance of an unerring
judgment. Hence he was, and is, exquisitely
delightful to every cultivated mind. As a mere
comic writer, his fault lay in pitching his style
too high. There was not sufficient breadth and
grotesqueness for the appetite of the million. He
was deficient in coarse jocularity, and so the
people left him, in the midst of some of his best
pieces, for the tricks of a rope-dancer! Such
was the temper of the Roman populace, who
liked to laugh with their mouths wide open, and
who, by enforcing a compliance with their
sovereign will, produced the ruin of the genuine
drama.

We pause, for a moment, at the era of Terence,
to mark the rapid improvement of the language
spoken and understood in Rome. At the end of
five centuries undorned by literary efforts, it
had been rough, unixed, and inharmonious; at
the end of fifty years, since the commencement
of its literature, it was graceful in its idioms,
settled in its principles, and pleasing to the ear.
Sprung from the same Pelasgian source with the
Greek, but mixed to a larger extent with bar-
bruous additions, and retarded in its progress by
the habits of Italian life, the Latin tongue, when
Livius Andronicus wrote, was still a crude and
rugged element. With Ennius appeared the
first traces of amelioration. Plautus advanced
some steps. But Terence outstrode all compe-
titors, and reached the goal. We cannot men-
tion a Latin author who excels him. Yet this
boast of Roman letters, this model of composition
in the Roman language, was a foreigner and a
slave!

It was not until half a century later that true
Romans came into the field with a blaze of splen-
dour, that has never forsaken their names.
Something, however, had been accomplished by
them before the brilliant days of Cicero, Caesar,
and Lucretius. Lucilius* had moulded the
careless effusions, half-humorous, half-sarcastic,
of the Ennian school, into the first regular form
of Roman satire; that form, in which the origi-

* Plautus died, B. C. 184—Terence, B. C. 195—159.

* B. C. 148—103.
nality of this species of poetry consists, for, with regard to its essence, Lucilius was deeply read in the Greek old comedy and Iambic invectives, and merely clothed the spirit, learned from them, with a new external dress of hexameter verse, his favourite mode of composition. Still earlier, however, and in a different department of letters, we are called upon to distinguish the names of Cato the Censor, and of Fabius Pictor.* Had anything except his agricultural journal descended to us in a state of good preservation, it might have been possible to praise, on other grounds than those of traditionary fame, the nervous style and masculine eloquence of Cato. But in that treatise he writes like a farmer; and of his other productions, nothing but fragments or uncertain reports have survived. Quintus Fabius Pictor is selected, as the most ancient compiler, in prose, of his country's annals; though his improbabilities, absurdities, and inconsistencies, of which one of his successors loudly complains, appear to fix upon him the title of fabulist rather than even of chronicler. Varro,† likewise, whose life was protracted beyond the deaths of the great men, enumerated at the beginning of this paragraph, came into the world before them. He was, among other things, an agriculturist, a grammarian, a critic, a theologian, an historian, a philosopher, a satirist. Of his miscellaneous works considerable portions are extant, sufficient to display his erudition and acuteness, yet in themselves more curious than attractive. When Petrarch hailed him as the third light of Rome, he was moved, no doubt, by that pedantry, which, in the constitution of his mind, was so largely blended with genius. To us the circumstance of his main interest, connected with these authors, is the light thrown by their style and subjects upon the rise of Latin literature. We cannot fail to be struck by the early appearance of prose composition; but we at once detect its source in the imitative nature of that literature. Where original genius has to pioneer its own way, some time usually elapses before the natural tendency, produced by many causes, to metrical and rhythmical effusions, subsides into an aptitude for composition in prose: but far more rapid is the progress towards this extension of literary labours, where the chief task and aim of authorship are to copy antecedent models. The choice of subjects is the other remarkable feature of the epoch to which we have alluded. It shows, on the one hand, that fondness of the ancient Italians for rural life, which so long retarded the improvement of their language and the dawn of intellectual refinement; while, on the other hand, the works of Varro alone sufficiently testify that not a century had elapsed from the first appearance of literature at Rome, before men of learning, in the peculiar sense of that appellation, were mingled with her poets and annalists. Of the want of freshness in the Roman literature, this is a striking evidence. It can scarcely be said to have passed through the fair and amiable gradations of infancy and youth. All at once came upon it the lineaments of manhood, and even these were soon darkened and sullied by some shades of incipient decrepitude.

Free, however, from every trace of decay or decline, and exhibiting only the pride and beauty of consummate vigour, are those productions which, better than their deeds on the arena of war and politics, have immortalized Cicero* and Cæsar. The coetaneous existence of these remarkable men, and the close relation in which they stood to each other in public life, would force us to view them together, were there no affinity between them as authors. But, in their case, it is assuredly a bond of literary connexion, that they both display the perfection of Latin prose, and supply the purest repository of diction available for that species of composition. Perhaps, too, though their styles are very differently coloured, both were alike fastidious in the selection of words and arrangement of sentences. The exquisite simplicity of the one might be as much the result of art as the swelling pomp of the other. But their art was applied in separate directions. Cicero, not less than Cæsar, was a practical man: but Cæsar, probably by a continual effort, has communicated to his writings also the practical character. Though he wrote quick, we cannot believe that he wrote carelessly; yet while his taste was ever on the watch, while he never misplaced a word, nor was guilty of an inelegance, he stamped an impression of unaffected earnestness, an air of business, on everything that dropped from his pen. Cicero permits the artist always to be visible; may not merely permits, but glories in the revelation of his pains and skill. He wishes to be detected in his work-shop with his tools around him. He is uneasy lest the reader should not esteem him sufficiently elaborate.

Had the orations of Cæsar come down to us in an unmitigated shape, we might have instituted a more full comparison between him and Cicero. For it is chiefly as an orator that Cicero is made the subject of criticism. From the remotest

---

* M. Porcius Cato, B.C. 234—149. Fabius Pictor, about B.C. 220.
* Cicero, B.C. 106—43. Cæsar, B.C. 100—44.
times eloquence ranked high at Rome, as a personal accomplishment, and a means of obtaining or preserving power: from the date of the first appearance of polite learning, the art of rhetoric began to be sedulously cultivated. It would be easy to crowd a long paragraph with the names of distinguished speakers, who owed to their eminence in this respect the proudest political triumphs. But of their harangues little more is left than of their greatness. On the field of literature Cicero towers alone, to maintain the cause of Latin against Grecian eloquence,—and to demonstrate the inferiority of the one to the other. Various reasons have been assigned for the subordination of Roman oratory when put in contrast with that of the Greeks; but the true causes were inherent and unavoidable. One of these causes lies in the innate difference of the Greek and Latin languages; the Greek, by its forms and idioms, susceptible of vast copiousness, and an unwearied flow of thought, pressing on, through clauses and sentences, in regular progression; the Latin, trained to a more periodic turn of composition, yielding indeed ample room for diffuse expression and imagery, but not chaining thought to thought with the same logical coherence or magnetic impulse and attraction. This discrepancy of the two tongues becomes extremely obvious in lyric poetry. It is impossible not to perceive it in comparing Horace with Pindar. And we hold that it prevails hardly less in the higher branches of eloquence: that it would have been impracticable for Cicero to speak in the strain of Demosthenes—with equal closeness, equal energy, and a like impetuosity of passion, feeling, and argument, kindling into fire from their own vehemence, and disdaining all splendour that does not flame out naturally from the subject itself and the most direct mode of treating it. The other great cause of the imperfection of Latin oratory arises from the necessarily artificial nature of all imitation. In Cicero we uniformly see the rhetorician; in Demosthenes we see the man. Demosthenes, such was his skill, seems anxious merely about what he is to say; Cicero, about how he is to say it. He was right in rating high the difficulties of the orator's art; he was either wrong in the method he took to master them, or deficient in power to do so. Partly, perhaps, he was scared by the formidable estimate made by himself of the endowments requisite for success in public speaking. These, as enumerated by Cicero, we may almost compare with the list of accomplishments, which Imlac* demands in the poet; and here, too, we are tempted to exclaim, "enough! thou hast convinced us, that no human being can ever be an orator."

At least, to be a true one, he must not study with too much devotion in the school of Cicero. There is, however, another department of intellectual exertion, in which Cicero may be mentioned as a model, to whose excellence hardly a sufficient tribute has been paid. In philosophy, in the application of original thought to the analysis of mind, and of the moral sense, and to the illustration of their phenomena, his rank is low: but as a philosophical writer he cannot be placed too high. For the exposition of principles imparted by others his genius and style were admirably fitted. Everything conspires to make us regard him, in this capacity, with unalloyed pleasure. His ethical and metaphysical labours were crowded into the close of his active life, and fill up the picture of an amiable character.

The tumults of ambition, the noise of forensic and senatorial warfare, the anxieties of personal danger, seem forgotten, as he receives and repeats the lessons of Plato.

Contemporary with Caesar and Cicero was Lucretius,* the most original, and perhaps, in spite of his subject, the most beautiful of the Latin poets. It was with reference to the confidential and commanding manner of this noble writer, often rising into a high pitch of scornful indignation, that Dryden ascribed to him a perpetual dictatorship: but the same sort of arbitrary will and power may be perceived in his treatment of the stubborn topics, on which a fond attachment to the Epicurean philosophy induced him to exercise his genius. If in anything his subject controlled him, it was in suggesting, as consonant with its own quaintness and austerity, the use of a diction still overrun, even at that Ciceronian era, with the rust of preceding times. But in how many points did he control his subject!—a subject so extensive indeed, yet, poetically considered, so unpromising as "the nature of things." With what a soul does he animate the abstract doctrines of his Grecian master! With what a bodily grace and presence does he then clothe them, and bring them down into the region of sense, and equip them with a picturesque and brilliant garniture! With what charming episodes he relieves the dulness of didactic matter; and even where the heavy theme appears settling into a "palpable obscure," what quick flashes are thrown out of the deepest gloom! If it be true that Lucretius composed his poem during the lucid intervals of a mental disease,

* See Rasselas.

* B. C. 93—92.
we might infer that somewhat of the inspiration of madness pervades its descriptive passages. In such passages alone, it may be added, is the didactic writer really a poet. Where he unfolds a system, he is merely a versifier; it is where he illustrates and embellishes it, that fancy asserts her empire. As an imaginative portrayer of nature, Lucretius has no superior. Some of his very faults, in relation to a pure standard of morals, arise out of his transcendent powers of description. He sees everything with such intense perspicacity, he paints everything in hues so rich and vivid, that, where his theme is indelicate or voluptuous, this irrepressible faculty produces results that are doubly revolting.

Within the limits of the same period we have to notice the sparkling productions of Catullus and of Sallust.* In the works of both we trace the paramount influence of Greek models. Of itself Roman literature had not reached, at the date of Catullus, that era when it would have been natural for the learned or pathetic elegy, or the smart epigram, to make their appearance. But with a style half-Grecian, and a taste wholly so, it was no wonder that he looked for an example to the poetry of Greece, and finding one province yet uninvaded, imbibed and introduced the spirit of the Alexandrian school. Even into his lyric poetry, and his attempts in heroic metre, he infused partly the pensive feeling of his masters in elegiac verse, and partly the grace and point of epigram. But besides this incongruity, which is unquestionably a fault, Catullus errs by being too confined in his range of thought and subjects. He is too tiny a writer. He never produced anything equal to his genius.

Sallust, in a different department of letters, has some strong symptoms of affinity with this learned poet. Circumstances have even caused, through the loss of the larger portion of his writings, that Sallust should resemble Catullus in the scantiness of his literary remains. But more striking than this accidental similarity is that prematureness of style which, in both, could have arisen out of nothing else than the spirit of imitation. In the ordinary progress of events, Sallust should have followed Livy, instead of preceding him; that is, the deep thinker, full of moral and political wisdom, should have come after the lively, eloquent, and picturesque historian. Not that Sallust is deficient in the power of vivid painting. He could not devoutly study and strive to emulate Thucydides without cultivating that faculty. Still, it is always evident that he is more ambitious of being profound than of displaying any other quality; and, fascinating as his compositions are, it would have been better for his fame had he not so often forced upon the finest passages the mannerism of his Grecian master, and darkened their meaning by the use of antiquated diction.

Virgil, Horace, and Livy* must next be grouped together, not only because they lived in the same age, but likewise as the brightest specimens of that splendid era which derives its name, as it derived much of its character, from the sovereignty of Augustus. In some respects this was the golden time of Latin literature—rendered so, to a great extent by the judicious patronage of the emperor himself, and of those exalted persons who imitated his example. Nor should we be surprised at the signal difference between the effect of Augustan patronage upon the literature of Rome, and that of the patronage of the Ptolemies upon the literature of Greece. The latter was directed to an original literature, already on the decline, whose inspiration had been freedom, and the ambition to excel; the patronage of Augustus and his court was bestowed upon an imitative literature, still aiming at improvement, whose inspiration was taste and the ambition to please. This, too, produced the vast increase of nationality, which became conspicuous in the writings of the Augustan age. Though much of the expression and the ornament of these writings was faithfully copied from the Greeks, yet the subjects were more exclusively Roman or Italian. Their very flattery of existing power gives a national tone to the strains of the poets. Virgil and Horace never suffer us to forget that the master of half the world was master also of Rome and of themselves.

We need say but little of the eclogues of Virgil, the amusements of his youth, in which, with all his love of nature, he is never natural, and with the wish to imitate the Sicilian model he has not ventured distinctly to echo the accents of Theocritus. But, with far different power, and a more true conception of Italian scenery and agricultural life, he has given in the Georgics a specimen of didactic poetry, in which we can regret nothing but the form. The more we study this consummate production, the more wonderful does it seem that it should have been written on command, and to serve a political purpose. But Virgil was here employed upon a theme eminently congenial to his taste and his affections. Here, too, he was more independent, both in the selection and in the treatment of his

---


topics, than in any other part of his works. Hesiod was before his eyes only so far that Hesiod had likewise sung of rural scenes and occupations; but Virgil leads us into a new country, filled with new images, and where we feel ourselves under the conduct of a nobler and more eloquent guide. Had the same degree of originality appeared in his epic poem, Virgil might better have supported a comparison, which it is now highly indiscreet in his admirers to institute, with the great minstrel of Greece. But, under existing circumstances, it is wonderful that any one should place the Aeneid in competition with the works of Homer. It is deficient in the primary requisite for exciting a strong interest. The character of the hero is a blank; we neither sympathize with his feelings nor care for his success. How different from those prominent and commanding features that rivet our attention to the persons and the adventures of Achilles and the Wanderer of Ithaca! And for the poet's failure in this respect there is an obvious reason. The character of Aeneas came not to him conveyed by the hot breath of a living tradition. He drew upon his fancy for the image, and that too under no livelier impulse than the wish to make the Trojan prince an allegory of the emperor Augustus. If such an inspiration was bad, the attempt to unite in one poem the distinct plans and excellencies of the Iliad and Odyssey was equally unfavourable to the structure and management of the plot. It has neither the concentrated dramatic interest of the first, nor the free scope and bewitching variety of the second. The Aeneid has striking beauties; but it has not the peculiar charm of the Iliad—it has not the peculiar charm of the Odyssey. Had the wishes of Virgil with respect to its destruction been obeyed, the world would have lost much of splendid expression, dexterous imitation, and graceful imagery, but we are not sure that much fame would have been sacrificed by the author of the Georgics.

Of all the great lights of Latin literature, Horace, though an unblushing plagiarist with regard to the Greek originals, stands most alone in relation to his own countrymen. In lyric poetry he is not approached either by Catullus before him, or by Statius after him; in the easy flow of his epitaphial verse he has no rival; and in satire, however we may rank his merits in comparison with those of Persius and Juvenal, his vein of liberal sarcasm and elegant philosophy is peculiar to himself. Perhaps the balanced judgment, the avoidance of extremes, so conspicuous in the rest of his writings, may be esteemed the true cause why his lyric efforts, pre-eminent as they are among the productions of the Roman muse, bear little resemblance to the nobler effusions of the Grecian masters. The very circumstances of Roman life, in the cultivated and intellectual classes, divided between political occupations, and the enjoyment of excessive luxury, and in either case adverse to that susceptibility of high and keen emotions which is essential to the development of the lyric faculty, opposed an obstacle to his success. But the temper of his mind increased the difficulties with which Horace had to contend. Where he merely translates the minor poems of Archilochus, Alcaeus, or Alceus, or borrows detached thoughts and forms of expression from Pindar, we are pleased with his ingenuity; but, except once or twice on Roman subjects, which seem to have roused the pride of citizenship, we search in vain for the flow and fire of genuine enthusiasm. There is little of Pindaric ecstasy about him. In reading the odes of Horace we figure to ourselves a man of genius, in some delightful retreat, following out the train of sentiments and images that arise in his mind, with great self-complacency and a design to please his patrons or his friends; but there is nothing like the Greek inspiration of a solemn festival, a public triumph, music sounding in the poet's ear, and nations hanging on his lips. In Horace we have point, terseness, and vivacity; in Pindar the glow of a 'fine frenzy' and impetuousity hurrying us along in a breathless transport. These authors well display the opposite tendencies of their different languages,—the condensed vigour of the Roman periodic style—the mingled abruptness and diffusiveness of the not more manly, but more genial and enchanting Greek.

Livy is the third great ornament of the Augustan period. In genius he might, perhaps, justly be ranked even above his poetical contemporaries. His originality alone, had he no other merit, seems to entitle him to this pre-eminence; since he struck out for himself a new path, remote at once from the crude and meagre style of Fabius Pictor and his followers, and from the affected mannerism and ambitious philosophy of Sallust. To rebut imputations upon his veracity, his impartiality, or his diligence in collecting facts and collating authorities, is not necessary here. Looking solely to his literary qualifications for writing history, it is impossible to conceive anything superior to his power of animated narrative and picturesque description, or to the freedom and acuteness with which he delineates striking characters as well as important events. The eloquence that yet lingered in his pages was a rich compensation to his own times, and still
more to after times, for the muteness of oratory in the forum and the senate-house.

Forced out of that sphere of exertion, which could not co-exist with Imperial despotism, however mild, Roman intellect now devoted itself, more exclusively than before, to the cultivation of the poetical faculty. Now too, a species of poetry least congenial to the ancient manliness and iron nerves of the Roman character, came to be peculiarly distinguished. To the elegiac verses of Catullus, allusion has already been made; but the plaintive and amorous Tibullus* may more truly be regarded as the leader of this race of poets, the votaries of melancholy and of love. The impress of the Augustan epoch is deeply marked upon their writings, as it was upon their souls. They had ceased to struggle or to wish for liberty, and in their pleasure or their sorrow, they forgot the impulses of nobler sensations. Such is the tone of the Latin elegy, as it flowed from Tibullus. He has sensibility, tenderness, even enthusiasm, but an enthusiasm that dreams itself away in reveries of passionate fondness. His language is beautiful, but it has the feminine beauty of weakness: the rural landscapes, which he delights to draw, breathe an air of languor and repose. There is truth, indeed, in every line of his composition. How could it be otherwise, when he made his poems a chronicle of his life, and wrote from personal experience? This is the secret of that superior originality, when compared with his elegiac rivals, for which he has been so often praised. It is the originality which must arise from the study and the portraiture of self: for in mere mental vigour and ability he was unquestionably surpassed by Propertius.† Had the latter poet trusted more to his own resources, and less to acquired knowledge and foreign models; had he been more Propertius and less Callimachus, more a Roman and less an Alexandrian Greek; he must have gained a high reputation for truth and feeling, instead of that lower fame which attends ingenuity and learning. The erudition, the fruitful fancy, the unexampled fluency and ease, which distinguish Ovid,‡ would not have advanced him, in this case, to a rank above Propertius, since the play of imagination without genuine sentiment, or the monotonous accents of a voluble but solitary grief, too often make up the sum and substance of his elegiac compositions. Ovid, however, has other, and perhaps stronger claims to admiration, as a writer of hexameter verse. His metamorphoses, though the epigrammatic spirit is too prominent in them for a work of that extent, must without question be esteemed a production of great art, wit, and splendour. Pity that the art is frequently displayed at the expense of nature; that false wit is largely mingled with the true; that mere glitter seems to have satisfied the mind of Ovid as much as real brilliancy; and that, notwithstanding all his genius, he contributed, in no small degree, to hasten that decay of taste, which from this date becomes the leading characteristic of Latin literature.

In satirical composition alone, some may be inclined to dispute the fact of this decay. We no longer find, indeed, that intimate knowledge of human nature, that mitigated gall, and that agreeable variety, which adorn the satires of Horace. But no poet has grander conceptions or finer bursts of occasional tenderness, as well as majesty, than the too often depreciated Persius.* He must have ranked higher in general estimation, had he not, with a mind of a very different cast, plodded too closely in the steps of Horace. His own sincere stoicism could not well put on the air of the Horatian worldly philosophy; and his fierce censure of obscure persons and things is not a happy substitute for the delicate irony which Horace caused to play around all that was most prominent and brilliant in society. From such dark allusions, and from the crude metaphors in which Persius frequently conveys them, Juvenal † is almost entirely free; and it may reasonably be made a question whether his powers of indignant invective, his noble declamation, and his poetic fire, do not place him at the head of all the satirists. He is least indebted to Greek models; a true Roman of the purest strain in his subjects, his sentiments, his diction, and his manner.

But with this exception, if it be allowed to be one, the palmy days of Roman literature had now expired. In prose and poetry, the symptoms of its rapid decline are equally manifest, as we pass in review those authors who followed the last years of Augustus. Into the former branch of composition a new and artificial taste was introduced by Seneca,‡ who was not so much a philosopher as a rhetorician, making display of his false eloquence upon philosophical subjects. The elder Pliny,§ in drawing his scientific knowledge from the Greeks, seems to have forgotten that a style of good Latinity would have been the best vehicle for conveying it to his countrymen. His manner of writing is not only laboured, but deformed with barbarous expres-

---

* B. C. 55. † B. C. 51. ‡ B. C. 43—A. D. 18.
sions, and words that have no vernacular authority. And though in Tacitus* all the strength of Roman genius rallied for a latest effort, yet even the productions of his great mind are marked by peculiarities unlike the manhood of literature. Mannerism verging close on affectation, and the ambition of being always profound, have weakened the effect which must otherwise have resulted from his energy, his sensibility, his high morality, and his political sagacity. In his works, however, the glories of Latin prose find a more brilliant termination than if we extend the catalogue so as to embrace the panegyric on Trajan by Pliny the Younger. The very faultlessness of that extolled attempt is faulty. Its modish beauties and finished workmanship too plainly bespeak an age in which the tricks of art were prized above sterling nature and simplicity.

The poetry of the same interval is not less infected with the great vice of exaggeration and bombast. Lucan,† for example, affords a memorable instance of desperate exertions to force the sickly produce of artificial heat into rivalry with the fruits of natural genius. There was a relationship of mind as well as of blood between him and his uncle Seneca. Surrounded with servility, and subjected to a tyrant's yoke, he indemnified himself by extravagant pomp of language, and the eulogy of departed freedom, for an abject flattery of existing despotism, which after all proved in vain. Besides this defect, the poet of Pharsalia and the civil wars had likewise to contend with the political nature of his subject. The epic muse delights, indeed, in the shadowy realm of obscure traditional history, but she shrinks from the glare of ascertained and definite truth. A theme of that description compels a transference of poetical power from the management of incidents to the elaboration of diction and the painting of characters. Hence arises an abundance of mere rhetoric, of cold fire, that shines and sparkles with vast vehemence, but communicates no genial glow. The mistake of Lucan has been more than once repeated in later times, and against its depressing influence no energies ever struggled with perfect success.

Thus the decline and fall of Roman literature may be divided into three stages. Towards the close of the reign of Augustus, and during that of Tiberius, all that was great and elevating gradually disappeared. Poetry became a sordid device for attracting the overflows of court favour; history sank into a hireling panegyrist, eloquence into an aimless exercise of the schools. The debasement of mind was accompanied by debasement of expression. For genuine strength of language empty parade was substituted, and the semblance of sublimity, banished from thought, took refuge in words.

Between Tiberius and the epoch of Vespasian, the most remarkable characteristic of style was an eagerness for tinsel ornament, revealing itself in a rage for antithesis, a passion for tropes and figures, and a forcible introduction of poetical turns and phrases into prose.

The succeeding Caesars, from Vespasian to the Antonines, generally sought, by liberal encouragement, to revive the vigour of the Roman intellect; but, with all their pains, they could not recall it from the bad direction it had taken. As Tiberius formerly, after the example of Augustus, had established a library, so Vespasian, so even Domitian, and so Trajan made collections of books, which served for little except to adorn the capital. Other efforts were not neglected. Vespasian, avaricious as he was, bestowed salaries on grammarians and rhetoricians: Titus lavish-ed rewards upon orators, poets, and artists: Hadrian founded an Athenaeum for professors of rhetoric, poetry, and philosophy: Nerva and the Antonines set up schools in the great towns of the empire; and Rome, Milan, and Marseilles were visited by numbers, who wished to cultivate mental endowments. But what did all these means and appliances, what did the emulation roused and the attempts made in other quarters effect? The freedom of speech and writing, which Nerva and Trajan restored, arrested for a season, but could not prevent, the extinction of knowledge and of taste. Even the talents of Tacitus and the younger Pliny did not exempt them from the infection of the times; and after their decease, during the latter half of this third period, the state of polite learning became every day more forlorn and hopeless. The authors became fewer and worse. The writers of prose were poor epigrammists, or, if they ventured to be copious, their chief qualities were extravagance, credulity, and folly. The poets, from want of judgment, selected bad subjects, or spoiled every topic by a ridiculous phraseology. Poetry at last died away in the versification of men whose notions of harmony were confined to the computation of syllables, and who thought the nerve and majesty of ancient composition were attained, when they pressed into their own rapid lines the obsolete words of Ennius and Lucilius. In the hundred and eightieth year of the Christian era, when the monster Commodus ascended the throne, he was able by his crimes and cruelties, to outrage and degrade humanity. But Roman

---

literature was beyond the reach of his despotism. It had already expired.

To complete the sketch of literary history in classical times, it is necessary only to notice the after-growth of Grecian literature, long posterior to the Alexandrian epoch, in which some of the raciness of ancient genius seemed to be renewed. Even during the height of Roman ascendency, the Greek intellect had not failed to yield symptoms of life. Thus the historian Polybius,* by the soundness of his judgment, by the proofs he gave of a practised understanding, such as became a statesman and a warrior, by the calm and masculine tone of his narrative, deserved the applause of all cultivated ages and the fame of a great political teacher. It is his style alone that condemns him to a subaltern rank in literature. In it we certainly detect a wide departure from pure atticism, an admixture of Macedonian words and terminations, aggravated by the adoption of forms and inflections from the poets, and of technical phrases from the school of Aristotle. Yet so much was his work admired that, with a few exceptions, it was chosen as the model, both in matter and composition, by subsequent historians. To the acuteness and soundness of the matter, however, the majority of them made no near approach, while they fell even below the level of the style. They displayed more of the subtile diction of the schools, a greater attachment to poetical flowers, and all the vices of a gaudy rhetoric. Of all those who may be classed among the imitators of Polybius, the best writer was Dionysius of Halicarnassus; but it is requisite to pass by the generation in which he flourished, and to glance at the first three centuries after the birth of Christ, in order to recognise the temporary revival of the true Grecian spirit. In poetry, indeed, nothing very excellent appeared; but in biography, satire, history, and criticism, we find ample compensation for this deficiency. Plutarch,† notwithstanding many faults, wrote the lives of great men with a power and liveliness, that shine through all his pedantry, all his far-fetched allusions, and all his incessant attempts at prettiness. Lucian,‡ attic in his taste, and nearly attic in his language, laughs with infinite good humour, and with wit seldom equalled, at the follies of an age which he could not mend. Arius,§ by the elegance and animation, as well as by the title, of his principal work, invites and almost sustains a comparison with Xenophon himself: and Longinus,|| the most sublime of systematic critics, though much of his phraseology is marked with the stamp of the third century, throws lustre upon that period by the perspicacity of his intellect, the force of his imagination, and the extent of his learning.

His is the last individual name which we need mention in connexion with ancient letters; but, before proceeding to a short review of the middle ages, as an introduction to modern literature, we must notice the chief mental phenomena that distinguish the whole interval between the reign of Hadrian and the death of Theodosius, an event with which antiquity may be said to close.

The first thing that strikes us in the writings, both Greek and Latin, of those ages, is the prevalence of principles and opinions imported from the east. So early as in the time of Plutarch we perceive this tendency to orientalism of thought and manner. His Platonic philosophy takes within its range a considerable portion of eastern and Egyptian doctrine, drawn, it is true, from fountains at which Plato himself had drunk, but shown in a more open and undisguised character. Among other oriental contributions, the treasures of the Mosiac Scriptures, and the facts and precepts of Christianity, now began to exert a mighty influence on the progress of the human mind. Their operation, however, was not unopposed; and there is nothing more remarkable, in the intellectual history of our species, than the violent controversy that was long maintained between the Pagan theories and the poetical spirit of heathenism on the one hand, and the truths and maxims of divine revelation on the other. The contest terminated in the banishment of the Pagan philosophers by the emperor Justinian; but its effects survived in the literature of succeeding times, and can hardly be said to have yet wholly disappeared.

A warfare of antagonist principles, so interesting and important, could not be carried on without calling into action an eager appetite for inquiry and a fine display of original power. But partly from the paramount impression made by oriental models, and partly from the controversial heat which led to a hurried and careless manner of composition, the Greek writings of the period we have specified are unfit to stand the test of a rigorous criticism. The heathen authors, who took a part in the great debate, are confused in arrangement and overlaid in diction, and the fire and art of the Christian fathers are obscured by mysticism or injured by an Asiatic pomp and prodigality of phrase. If we look to the west, where the same battle was fought in the Latin language, we shall find the

advantage undoubtedly on the side of the Christian polemics; but provincialisms infest and corrupt their style almost as much as their bitterness, their unfairness, and their vanity misbecome the cause for which they wield the pen. During the fourth and fifth centuries this process of the debasement of the Roman tongue went on with great rapidity. The influence of the provincials began what the irruptions of the northern tribes consummated. In many scattered parts of the empire, it is probable that separate Latin dialects arose; and the change upon the whole structure of the tongue could not fail to be prodigious when the Goths poured into Italy, established themselves in the capital, and began to speak and write in a language previously foreign to them. No one can marvel at the distinct traces of this alteration under the sway of Theodoric.* Here we drop the curtain upon ancient literature. Its rising will reveal new scenes, superior in variety, and not inferior in interest and beauty.

* A.D. 403–526.

END OF PART FIRST.
THE
POPULAR ENCYCLOPEDIA;
OR,
CONVERSATIONS LEIXICON.

CANAILLE—CANAL.

CANAILLE; a French word, signifying the lowest class of people. In the time, however, which immediately preceded the revolution, when the arrogance of the nobility was outrageous, canaille signified, with them, all who were not noblemen. The people adopted the word, during the revolution, in contempt of the nobility. In this sense, Napoleon said, at St Helena, that he sprang from the canaille; i.e., he did not belong to the feudal aristocracy.

CANAL. A canal, in navigation, is an artificial channel for transportation by water. The first inquiry in the project of such a work, accordingly, relates to the amount of transportation that will be accommodated by the route proposed, at some given rate of tolls (for the quantity will be in some degree influenced by that rate). If the project be a mere speculation, or investment of capital by individuals for the sake of income, its expediency will be determined by the net amount of annual tolls it will probably yield; which ought, in this view of the matter, to be equal to the ordinary rate of interest. But the general utility or public expediency of a project of this sort is not determined wholly by this mode of calculation; for, in this view, we must look at the indirect advantages, such as the increased value of lands on the borders of the canal, the increased profits of other works connected with or affected by the one proposed; as in the case of the smaller branches of internal navigation in England, many of which, as will be seen by referring to the subjoined list, are not very productive investments, but doubtless contribute to the large income of the great lines of transportation between the principal towns, as London and Liverpool, by increasing the amount of goods that pass along those lines. To determine the general public utility of one of these smaller branches, therefore, we must estimate, not only the increased value which it gives to coal mines, stone quarries, forests, &c., on its borders, but also its effects in enhancing the value of other canals. But a work of this sort may be, on the whole, of public utility, although an absolute income, in consequence of the investment, can nowhere be traced, but only a reduction of the cost of some article of general use, by means of a diminution of the labour, the number of days' or hours' work, necessary to furnish the article at any place. Thus the proprietors of the duke of Bridgewater's canal are under obligation to supply the inhabitants of Manchester with coal at the rate of 4d. for 140 pounds, which is a great benefit to the inhabitants of that town. This is one of the advantages of this work, which should be taken into the account in estimating its public utility. Another beneficial consequence of any great improvement of this description, as well as those of other kinds, often is to promote some species of arts: for instance, a canal may promote agriculture, horticulture, &c., by irrigation or opening a market. In determining on any canal project, then, as well as in estimating its utility, these various circumstances are to be taken into consideration. The motives, whether of public utility or private emolument, or a union of them both, being sufficient to induce to the undertaking, the next things to be considered are, the obtaining of an adequate supply of water, the particular route to be taken, and the mode of construction. On these subjects, the reader is referred to the treatises more particularly relating to them. The remainder of the present article will be devoted to a general account of some of the most considerable works of this sort. Minuteness of detail and technical accuracy, in regard to the dimensions, &c., cannot be expected in a book of this kind. The length of the canals is probably given with sufficient correctness. The breadth is, in many instances, stated, in the works to which a resort was necessarily had, without distinguishing whether it was that of the bottom or water line, and, in these instances, it has been given, as it was found, the reader being left to refer it to one or the other of these dimensions, according to the breadth of the locks, and other facts stated respecting such canals.

Canals of Egypt. Egypt has been celebrated for its canals from the earliest periods of history. The principal are the canal of Alexandria, between that city and Rosetta and the Nile; that of Jessuf, on the western bank of the Nile, and parallel to it; and that of the Red sea and Nile, across the isthmus of Suez. The existence of this last, though a subject heretofore of some discussion, is now established beyond doubt. It was begun by Neche, son of Pannmeticus, about 616 B.C., and the work was continued by Darius Hystaspes, but was afterwards abandoned, from fear of inundating a great part of Egypt, which is supposed to be lower than the surface of the Red sea. The work was, however, resumed, and completed near a century afterwards, about 521 years before the Christian era, by Ptolemy II.; but a current from the Red sea upon Egypt was prevented, it seems, by a barrier or bank across the canal; or a part of the route may have been left unexcavated. This dam, if narrow, might have been passed by boats on inclined planes, after the Chinese method, or otherwise; but it seems to be more probable, that boats did not pass between the canal and the Red sea, but that the cargoes were carried by land across the in-
terreering barrier, or portion of ground not excavated, and reshipped. Herodotus says this canal was of 4 days' navigation, and wide enough to aduit of 4 vessels to pass abreast. Strabo says it was 100 cubits wide, and of sufficient depth for large vessels. The breadth would probably vary very much, as does that of the canal of Alexandria; for if it was made, for any considerable part of the distance, by embankment instead of excavating, additional breadth might be given without increasing the expense of construction; and, if navigated by sailing vessels, like the canal of Alexandria, the additional breadth would be convenient, though not maintained through the whole route. Beyond the junction of the Rosetta outlet of the Nile, near Rhameneh, passes a little south of Demanhour (the ancient Hermopolis parva), and thence by the northeastern shore of the lake Mareotis, to Alexandria. Two branches pass off in a north-west direction, and one in a southwardly, which communicates with the lake Mareotis. This canal is navigated by sailing-vessels, being, in most parts, of a convenient breadth for this purpose, though, at its entrance from the Nile by its new channel, it is only 19 1/2 feet wide. The old entrance, a little north of the new, is not used, on account of the height of the surrounding ground, except in time of floods. However, at the village of Lenedis, it spread to the breadth of about 55 yards, and keeps this breadth for 2 1/2 leagues, where the banks are 13 feet above the bottom of the canal, and 10 above the surface of the ground. Passing over two leagues more towards Alexandria to Gabel, the breadth is contracted to 20 1/2 yards. It continues about this breadth for four leagues, and is very regular. Beyond Lelola, it widens, varying in the first half league from 109 to 273 yards in breadth. Near Beds, it is 55 yards wide, and the banks 23 feet high. Passing on towards Alexandria, the country sinks by degrees, until the bottom of the canal is on a level with the adjacent territory, and then rises above it, the canal being here formed by embankments; but, for a league before arriving at Alexandria, the ground rises again, so that the canal is here formed by an excavation in the ground. It passes very near the lake Aboukri, on the left, in the course we have been following, and is separated from it, near the western extremity of the lake, only by a wall about 20 feet in thickness.

The water must rise 13 feet above the lowest state of the Nile to enter the Alexandra canal; and, at high water, the greater canal is about two feet deep on an average. The distance, in a straight line, from Rhameneh to Alexandria, is about 15 leagues, but by the course of the canal, 20. The navigation of this canal continues only about 20 or 25 days in the year, during the highest water of the Nile. The French, when in Egypt, were enabled to navigate this canal for six weeks by clearing away about 18 inches of mud near Rhameneh, at the eastern extremity. This canal, which now passes through ruins and deserts, and is navigable for only a few days of the year, was, as late as the 14th century, bordered by a wealthy and populous territory, and, in the time of the Roman and Greek empires, was the channel of an extensive transportation.

**Canals of China.** The Chinese seem to have a more extensive inland canal navigation than any other nation, if not greater than that of all other nations together. On a map of China, from west to east, the principal of which are the Yang-tse, or Kiang-keo, to the south, the course of which is said to be 2000 miles, and its breadth 2 1/2 miles at a distance of 100 miles from its mouth; and the Yellow river, to the northward, which is represented to be still longer. They have also canals within 100 miles of each other, though they are more than 1000 miles apart in the interior of the country. The artificial channels of navigation pass in a northerly and southerly direction across the territory lying between the natural streams, thus making lines of communication between these principal rivers and their various branches, which form the natural channels of transportation in the easterly and westerly direction. As these canals pass over the summits of the intermediate territories between the great streams, the different parts of the canals must be at different levels, and there must, accordingly, be some means for boats to pass from one level to another, which they do mostly by the inclined planes by which they are drawn by men. The ascent and descent, at some of these planes, is 15 feet. The banks of the canals are, in many instances, lined with freestone, and contain sluices to let the water off for irrigating the country and supplying the towns; and in many parts, also, they are beautifully ornamented with trees. The barque in which Le Compte passed from Nimpo on a canal was 70 feet long and 16 feet broad. The management, repairs, and extension of the canals is a very important branch of the internal economy of the empire, and the description and history of these works is said to occupy 70 volumes. A most palpable, though not very definite idea of the extent of these records, as we are not told the size of these volumes. Some of the most extensive of these works have been in operation about 2000 years, having been completed 80 years before the Christian era; and, about A. D. 605, it is said there were completed in the empire 1600 leagues of canals. The Imperial canal, and the continuation of the line of transportation between Pekin and Canton, of which that forms a part, is most frequently spoken of, though the distance of the whole route is variously stated. Male-Brun, in his geography, states it at 1600 miles, but it is stated by others at 990. The navigation over this route occupies about three months. The part of this line called the Imperial canal is said to be about 500 miles in length from the vicinity of Pekin to the Yellow river, which it meets about 25 leagues from the sea, where the river is about a mile wide and 5 or 10 feet deep. This canal is called the Imperial, from its being navigated only by the emperor's boats, which Le Compte estimates at 1000, of 100 tons burthen each. Between the Yellow river and Canton, the navigation is interrupted, for about 30 miles, by a mountainous district, causing a portage of that distance.

**Canals of Italy.** In ancient Italy, besides the canal of the Pontine marshes, intended as a drain, and used also for navigation, the region about the mouths of the Po was intersected by the fossa Augusti, fossa Pòticana, and numerous other canals. It was in Italy that the great improvement, in modern canals, over the ancient and those of China, was first introduced. In 1491, by the construction of locks and sluices to pass boats from one level to another. It was the invention of two engineers of Viterbo, brothers, whose names have not been handed down. This improvement was soon after adopted in the Milanese territory, under the direction of Leonardo da Vinci, the famous painter, who also was celebrated as an engineer. Inland navigation became so important, that the Italian governments paid great attention to their canals from very early times. On this subject, and numerous treaties were published on the construction of locks and the art of making and managing canals. The following are some of the principal canals of modern Italy. The Navigio Grande, between Milan and the river Tesino, 13 miles in length, 60 feet wide at the surface, and 46 at the bottom. It was extended to Milan in
1257, and enlarged, in 1269, with a branch of about 11 miles in length, from Abiato southward. The Martesea canal branches off from the right bank of the Adria, near Concesso (ancient Tricca) ; is 24 miles in length, and the longest branch is 3 miles distant. In Piedmont are the Navigio d'Inta, 35 miles in length, uniting the Dora Baltea and the Sesia, with a branch of 13 miles, to the Gardena river; and a canal of 27 miles from Dora Baltea, a little above the falls of the Po, which, passing Trino, unites with the Po 4 miles below Casal. The 3 short canals are parallel to the Po, and substitutes for it. There are 3 other short canals in this territory. In the duchy of Mantua is the fossa Puzzola, 15 miles in length, from the Mincio to the Tartaro, and the canal of St George, 7 miles long, branching to the lake of Mantua; also the Montanaro, 8 miles from the same lake to the Po, at Borgo Fute; the fossa Muestra, 5 miles from Ozoma to the canal Montanaro; and the Fossero, from the Mincio, 7 miles. In the duchy of Modena is a canal 16 miles in length, from the Modena to Parma, which has several branches, one 5 miles long; in the papal territory is the fossa Rangone, parallel to the Parma, from which a branch passes off to Conte Po Mort or Po di Jerana, and the canal Di Giovanni Niginate, 22 miles long. From Bologna to Ferrara is the canal di Navigio, 24 miles long, and terminating in the great marches. There are, besides, many short branches of the canals, already mentioned, as well as locks and channels for passing rapids in the navigable rivers.

Canals of Russia. The canals of Russia began with those of the Grand Duke Peter the Great, but much improved, afterwards, by Catherine, forms a communication, by water, between Astrachan and Petersburg, or between the Caspian and the Baltic, which is effected, as will be seen by referring to the map, by passing from the Caspian up the Ob, or Irtysh, into the Tobol and Ob; and, leaving which, the canal passes over to the river Schilin, which flows towards the Baltic into the lake Martina, from which flows the river Mista, which, after a course of 234 miles, discharges itself into lake Ilmen, from which issues the Volkh, that runs 130 miles, and empties into the lake Ladoga, which again gives rise to the Neva, that discharges itself into the Baltic at Petersburg; so that these three rivers are, in fact, the same stream, passing through three lakes in its course. It is said that 3345 barques have passed through this canal in one year. There are many other canals in Russia, which we have not space to describe. The canals and rivers supply the channels of a very extensive inland navigation in Russia; so that goods may be transported, by rivers and canals, from the frontiers of China to Petersburg, a distance of 4472 miles; and the line of navigation from St Petersburg to the mouth of the Volga is 2930 miles.

Canals of Sweden. Canals were early opened in Sweden, and the improvement of the inland navigation has always been a subject of great interest to the government. Among the modern canals of this country is that of Stromsholm 80 miles long, the descent 336 feet, the number of locks 25, breadth 18 feet, and depth 4 feet 4 inches. The Kindse canal and the Gottha canal, intended to open a communication between the lake Weser and the Baltic, have been constructed under the superintendence of that eminent engineer Mr Telford. The canal of Trolhatta makes a navigable channel round the rapids of Trolhatta, in the river Gota, consisting of successive cascades, one of 60 feet in height, and, in all, 114 feet, and situated N.E. of Gothenburg, about 45 miles. The project of constructing works, by which to pass these rapids, was long contemplated, and finally accomplished in 1800. These rapids interrupted the navigation of the Gota for about two miles; and the difficulty of making a canal past them was owing to the banks being bold and rocky, as is usual at falls of such extent. They are passed by nine locks, mostly excavated out of solid rock. This is considered a gigantic work, and was executed by a private company, to their own emolument, as well as the public benefit.

Canals of Denmark. The principal canal in this country is that of Keil, which commences about 3 miles north of Keil, and passes 204 miles across the duchy of Holstein to the river Eydar, which, running by Rendsburg, falls into the German ocean at Jamin gen. The Keil canal thus opens a communication between the North Sea and the Baltic. It was begun in 1777, and completed in 1785; is 100 feet broad at the top, 57 at the bottom, and the least depth of water is 10 feet. The descent from the summit towards the Baltic is 253 feet, and towards the German ocean 23 feet. It has 6 locks.

Canals of Holland. This country, it is well known, is intersected, in all directions, by canals, which serve for navigation in summer, and roads of ice in winter. The surface of the water, in many of these canals, is above that of the surrounding country; the lands of which are drained by pumping the water up into the canals; for which purpose numerous pumps are scattered about the country, and kept in operation. For the great ship canal from Amsterdam to Nieuw Diep, see Amsterdam.

Canals of Germany. The improvement of inland navigation in Germany has been obstructed by the division of the territory into numerous small jurisdictions, which, in many respects, independent of each other. The canal between Vienna and Neustadt is 40 miles in length; and that of Francis, completed in 1802, between the Danube and Jeyesse, is of the same length, and has 3 locks. In Prussia are the canals of Bleckede, Wedekim, Muskriee, Frederick William, and the Bromberg. This last was constructed under Frederick the Great, by the engineer Brekenhauff. It is 16 miles in length, has a descent of 67 feet, and 9 locks. See Fossa Carolina.

Canals of Spain. Spain has done almost nothing towards improving its internal navigation. Some canals have been projected, but only a part of the Arragon canal has been completed, consisting of two pieces of canal, both commencing at Navarre. Though this partial execution of the projected navigation has hitherto failed in effecting the populousness, fertility, and wealth of the neighbouring territory, the work stands still; and there seems to be little prospect of the completion of the project.

Canals of France. The canals of France, next to those of Great Britain, are the most important in Europe, in respect to the extent of the territory which they overcome in their construction. The whole length of canal navigation in France is about 900 miles, or about one third part of that of Great Britain. Canal of Briare. The first important work of this kind, constructed in France, was the canal of Briare, called.
also, that of the Loire and Seine, because its object was to connect those two rivers. It was 37 years in execution, being begun in 1605, during the reign of Henry IV., and completed in 1642. It is 54 miles long, and the water from Briare, where it ascends along the river Frezen, by Ouozonne and Rogny, where there are 7 locks; then by Châtillon and Montargis, and, near Cezy, meets the river Loing, which falls into the Seine. The locks of this canal, 40 or 42 in number, were the first-executed in France. They vary from 24 to 144 feet in length, and from 4 to 5 feet 4 inches to more than 13 feet in lift, and are, according to some authorities, 14 feet 5 inches, or, according to others, 15 feet, in breadth. The bottom of the canal is 26 feet wide. It is supplied with water principally by lakes; one of the feeders, that of Privé, is 12 miles in length. The cost of this canal is estimated to be $30,000,000 francs, or about 3,700,000 dollars, which, considering the difference in the value of money, is nearly equal to that of the Erie canal of New York. It is important for the supply of provisions to Paris. The canal du Midi, or Languedoc canal, makes a communication between the Mediterranean and the city of Atlantic ocean at the mouth of the Garonne, passing through the province of Languedoc, and is supplied by the rivers Garonne and Gironde, and their tributaries. It was undertaken in 1664, 22 years after that of Briare was completed, and finished in 1689, having been 149 English miles in length, from the coast of the Mediterranean to Toulouse, where it meets the Garonne; 64 feet wide at the surface of the water, and 34 or 35 feet at the bottom; rising, at the summit, 200 metres, or about 640 feet above tide-water, and having 114 locks, varying in lift from 4 to 12 feet, and navigated by boats 65 feet long, and from 17 to 19 broad, drawing 5 feet 4 inches of water, and of 100 tons burden. The reservoir of St Ferrol is situated at the summit-level, where a body of water more than five French leagues in length, is accumulated, for the supply of the canal, from the streams falling from the neighbouring mountains. This reservoir and the basins at Castelnaudary cover 595 acres. The canal passes under a mountain at Beiers, by a tunnel of 720 feet in length, lined throughout with freestone—a kind of construction novel at the time when the canal was made, though now common. The canal is crossed by road-bridges, and has 55 aqueduct bridges. It was completed under Louis XIV., under the direction of François Andreossi, as engineer. It is estimated to have cost 33,000,000 francs, or about 6,190,000 dollars; in comparing which with the cost of similar works in Great Britain and the United States, allowance must, as above suggested, be made for the difference in the value of money, the same nominal cost, in France, being a much greater actual cost, in this comparison. The canal of Orleans was the next in order of time, having been begun in 1675, and completed in 1692, 12 years after that of Languedoc. It begins at Laon, and ascends by 3440 toises, or a little more than 33 miles long; then follows the valley of the Loire, and crosses towards the river Hala, which it follows to its junction with the Loire at Chatons, the descent from the summit being 400 feet by 50 locks, in a distance of 47,000 metres; the whole length of the canal being about 71 miles, the breadth at the surface of the water, 48 feet, at the bottom 30 feet, the depth of the water 5½ feet, the length of each lock 100 feet, and its breadth 16. The cost of this canal is stated at 11,000,000 francs, or about 2,060,000. The canal of St Quentin unites the Seine with the canal of Flanders. It was projected, in 1727, by the military engineer Devieig, but not constructed until 1810. The original plan, which has been very nearly followed, was to make a canal plumb down to the Meuse, in order to mount St Martin, there pass through a tunnel 3440 toises, or a little more than 33 miles long; then follow the valley of Bellingis and Dau Court to the heights of Trouquoy; there pass through a tunnel 700 toises, a little more than ⅞ of a mile in length, coming out at Ledlin; making the distance of the summit-level 7000 toises, or a little over 8 miles, of which 2950 are open, and 4140, or more than 4½ miles, subterraneous. The length of this canal is 28 miles; in the rise from St Quentin to the summit-level, there are 5 locks, and in the descent to Cambrai, 17. The cost is stated at 12,000,000 francs. Besides the above canals, 42 others are enumerated in the Encyclopédie Moderne, as completed, or in the course of construction, in France.

Canals of Great Britain. The English were a century after the French in commencing the construction of canals upon a large scale. The first considerable work of this description was the Sankey canal, for which an act of parliament was passed in 1755; the object of the act being the improvement of the navigation of the Sankey brook, which was afterwards changed to that of a separate canal of 12 miles in length. The work on this canal was in progress in 1758, and the duke of Bridgewater obtained an act of parliament for making Worsley brook navigable from Worsley mill to the river Irwell, for the purpose of facilitating the transportation of coal.
from his estate to Manchester; but, seeing the advantages of still-water navigation over that of a river, he conceived the project of a canal over dry land, passing the river Irwell by an aqueduct, and thus making a communication between his coal-mines and the town of Manchester on one level. The plan was subsequently extended, and the duke, who lived 14 years after the commencement of the execution of his project (he died in 1772, at the age of 56) devoted his time and his fortune to the execution of his great work, with the assistance of an engineer distinguished for his genius. He diverted all his re-

The following are the principal Canals in Great Britain. (Originally denotes the first assumed cost per share, where the actual cost is not ascertained.)

<table>
<thead>
<tr>
<th>Name</th>
<th>Length in miles</th>
<th>Breadth.</th>
<th>Depth.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abercaw</td>
<td>75</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>Aberdeenshire</td>
<td>1900</td>
<td>190</td>
<td>5</td>
</tr>
<tr>
<td>Andover</td>
<td>1790</td>
<td>179</td>
<td>5</td>
</tr>
<tr>
<td>Ashby-de-la Zouch</td>
<td>1800</td>
<td>224</td>
<td>5</td>
</tr>
<tr>
<td>Ashton-under-Line</td>
<td>1771</td>
<td>185</td>
<td>5</td>
</tr>
<tr>
<td>Basingtoke</td>
<td>1780</td>
<td>190</td>
<td>5</td>
</tr>
<tr>
<td>Birmingham</td>
<td>1772</td>
<td>294</td>
<td>6</td>
</tr>
<tr>
<td>Birmingham &amp; Fazeley</td>
<td>1790</td>
<td>216</td>
<td>5</td>
</tr>
<tr>
<td>Brock and Abergavenny</td>
<td>1776</td>
<td>68</td>
<td>2</td>
</tr>
<tr>
<td>Bridgewater</td>
<td>1758</td>
<td>60</td>
<td>6</td>
</tr>
<tr>
<td>Bristol and Taunton</td>
<td>1793</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Borrowstowness</td>
<td>1793</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Cadley &amp; Uttoxeter</td>
<td>1820</td>
<td>126</td>
<td>4</td>
</tr>
<tr>
<td>Caledonian</td>
<td>1820</td>
<td>126</td>
<td>4</td>
</tr>
</tbody>
</table>

The following are the principal Canals in Great Britain. (Originally denotes the first assumed cost per share, where the actual cost is not ascertained.)

<table>
<thead>
<tr>
<th>Name</th>
<th>Length in miles</th>
<th>Breadth.</th>
<th>Depth.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abercaw</td>
<td>75</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>Aberdeenshire</td>
<td>1900</td>
<td>190</td>
<td>5</td>
</tr>
<tr>
<td>Andover</td>
<td>1790</td>
<td>179</td>
<td>5</td>
</tr>
<tr>
<td>Ashby-de-la Zouch</td>
<td>1800</td>
<td>224</td>
<td>5</td>
</tr>
<tr>
<td>Ashton-under-Line</td>
<td>1771</td>
<td>186</td>
<td>5</td>
</tr>
<tr>
<td>Basingtoke</td>
<td>1780</td>
<td>190</td>
<td>5</td>
</tr>
<tr>
<td>Birmingham</td>
<td>1772</td>
<td>294</td>
<td>6</td>
</tr>
<tr>
<td>Birmingham &amp; Fazeley</td>
<td>1790</td>
<td>216</td>
<td>5</td>
</tr>
<tr>
<td>Brock and Abergavenny</td>
<td>1776</td>
<td>68</td>
<td>2</td>
</tr>
<tr>
<td>Bridgewater</td>
<td>1758</td>
<td>60</td>
<td>6</td>
</tr>
<tr>
<td>Bristol and Taunton</td>
<td>1793</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Borrowstowness</td>
<td>1793</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Cadley &amp; Uttoxeter</td>
<td>1820</td>
<td>126</td>
<td>4</td>
</tr>
<tr>
<td>Caledonian</td>
<td>1820</td>
<td>126</td>
<td>4</td>
</tr>
</tbody>
</table>

From Glamorganshire to Aberystwyth. Length of the canal 14 miles, breadth 5. Number of shares, 221; originally £100; value in 1824, £20.

From Aberdeenshire to Don road, at Inverness bridge.

From Southamptown water to Andover; has been partially abandoned. Number of shares, 220; originally £100; value in 1824, £20.

From the Coventry canal, at Marston bridge, to an iron railway, 23 miles long, at Ticknell. The first 30 miles are level, forming, with the Coventry and Oxford canal, a level of 72 miles, without break in the line of planes.

Branches. It has tunnels at Ashby-de-la Zouch and Snarnton (the length of the tunnel is 700 yards), and an iron railway, 6 miles in length, for the Glodesthill mines. It has 3 aqueduct bridges. At Bootlecpool, a steam-engine is erected, to convey the water to a feeder for the summit-level. Number of shares, 1822; cost, £1200; price in 1821, £250.

From Rockdale canal, at Manchester, to Huddersfield, at Dukinfield; has 3 aqueduct bridges; boats of 20 tons burden. Number of shares, 1790; average cost, £110.

From river Calder, below Wakefield, to Barnby bridge; has an aqueduct bridge and 25 locks. Number of shares, 720; cost, £100; price in 1831, £250.

From Wye to Basingtoke; has 72 bridges and 30 locks. Number of shares, 1900; cost, £100; price in 1831, £250. The Tingles branch is 5 miles in length. The boats are of 40 tons burden. It has a tunnel of 7 miles.

Commences in the Birmingham and Staffordshire canal, and terminates in the Birmingham and Fazeley canal. The boats are 70 feet long and 7 wide, and of 22 tons burden. Number of shares, 4000; originally £100; price in 1824, £210. The tunnel is not to exceed 14 per cent. from the Coventry canal, at Whittington brook, to Birmingham canal, at Farmer's bridge: has 44 locks; boats 22 tons burden. Number of shares, 1000; amount of shares, £150.

From the Monmouthshire canal to Brecon. There is, at Abergavenny, an iron railway a mile and a half in length, at Waula Dew another 4 miles, and at Llangrove another 1 mile. It has a tunnel of 220 yards, and 3 aqueduct bridges. Number of shares, 1000; originally £100; price in 1831, £250.

From the tide-way of the Mersey, at Runcorn Gap, and at Longford bridge divides into 2 branches, one terminating at Pennington, near the town of Leigh. The whole lockage is the 83 feet at the Mersey, in rising from tide-water, by 10 locks. This canal, with a part of the Trent and Mersey canal connected with it, makes a level of 70 miles, 30 of which are on this canal. Mr Cary states that there are about 26 miles of canal under ground within the mountains at Worsley. It has 3 principal aqueduct bridges, and several smaller ones. Arched branches pass off from it at considerable distances, under the town of Manchester, from one of which the colts are hoisted up to supply the inhabitants, which the proprietors, successors to the duke of Bridgewater, are bound to furnish them at 6d. for 140 lbs.—an advantage to which much of the prosperity of that town has been attributed. The embankment over Stratford meadows is 900 yards long, 17 feet high, and 112 feet wide at the base; that at Burton bridge is 900 yards long and 40 feet high. The tunnel is 26 miles long. Number of shares 600; amount £100; price £5.

From Taunton bridge to the mouth of the Axe, below Bristol. The operations on this canal were at a stand in 1834.

From Anchole to Calator. A branch of the Grand Trunk canal, terminating at Uttoxeter.

Stipenduous canals pass through a chain of lakes, or locks, and narrow arms of the sea: and, by making 211 miles of canal, and deepening the beds of the rivers Lough and Ogle, and dredging to deepen a part of Loch Ness (in the whole a distance of 43 miles, making the total length of excavation 25 miles, with a cut-off, up and down, of 190 feet), an interior navigation of 252 miles is opened across the central part of Scotland, from the Murray Firth, on the eastern coast, to Cannyre, on the western, and in the future to the northern coast of Ireland; being one and a half times the distance of the navigation between the same extreme points, round the northern coast by the Orkneys. It has 27 locks, including the tide-locks, one of them 150, but most, if not all, the others 180 feet long, and all 40 feet wide; thus opening a ship-navigation through the midst of the country, rising, at the summit-level, 94 feet above the tide-water of the eastern coast, and 303 feet above that of the western, showing the ocean to be 25 feet higher on the eastern. At Fort Augustus, where it leaves Loch Ness in a north-western direction, this canal is cut through
the glades of the fortification, thus adding to the military defences as well as to the appearance of the fort, which, with the fire locks of masonry rising behind, presents a grand combination of civil and military engineering amid romantic mountain scenery. From Loch Ness, passing in the westwardly direction of the canal to Loch Oich, 11 miles, the land is 20 feet above the water line, which, with the depth of water in the canal, makes an excavation, in this distance, of 40 feet in depth, with a bottom of 40 feet in breadth. To save rock-cutting, in descending, in the westwardly direction, as before, from Loch Oich to Loch Lochy, the natural difference of the surfaces of the two lakes being 32 feet, the whole area of Loch Lochy, which is 10 miles in length and 1 in breadth, is raised 18 feet. In the last 2 miles, before the canal, in its westwardly direction, enters Loch Eil, there is a descent of 64 feet, which is passed by 3 tunnels, each 190 feet long by 40 in breadth. These locks are founded on inverted arches, exhibiting a solid and continuous mass of masonry 500 yards in length and 20 yards wide, in which, as late as 1824, and 2 years after its construction, no flaw had been discovered. The gates are of cast-iron. This system of locks has received the fanciful appellation of Neptune's Staircase, and the appearance of large vessels, with their masts and rigging, as they ascend these stupendous locks, from the hill towards Loch Eil is one of the grandest and imposing, exhibiting a striking instance of the triumph of art. In the distance of 8 miles, from Loch Lioch to tide-water in Loch Eil, the canal, in passing along the north-westerly bank of the river Lochy, crosses, by aqueduct bridges, 3 large streams and 23 smaller ones. Since the construction of this canal, upwards of a million of forest-trees have been planted along its borders. The cost of this great national work was,

Management and travelling expenses, £9,000
 Timber, £6,000
 Machinery, cast-iron work, &c., 121,000
 Quantities and Masonry, 115,000
 Shipping, 11,000
 Labour and workmanship, 41,000
 Houses and buildings, 4,500
 Purchase and damage of land, 47,000
 Horse labour, 3,000
 Road-making, 4,000
 Incidental expenses, 2,000
 Add, to complete the dredging, 7,700
 £35,100

Assuming the number of miles operated upon to be 25, the canal cost £35,100 per mile. It was constructed under the direction of Mr. Telford, Esq. As yet it has turned out an unprofitable speculation. During the year 1820, the total revenue of the canal, arising from tollage and all other sources, amounted to only £2,275, while the ordinary expenditure, during the same year, amounted to £2,575.

From a sea-basin, near Cardiff, on the Severn, to the Nethy, near Inverness; is connected with various railways, one of which is 90 miles long. Number of shares, 600; cost, £272 13s. 4d.; price in 1824, £260.

From the Dee, at Chester, to Nantwich, where it communicates with the Whitechurch branch of the Ellesmere canal.

From the Trent, at Stockport, to Chesterfield; has 65 locks and 2 tunnels, together 2850 yards long, and 5 feet wide. The lower part of the canal is navigable for boats of from 30 to 60 tons burden, and this being but 20 or 28 feet broad, is navigable for boats of only 30 or 20 tons burden. These boats are 70 feet long and 7 feet broad. Number of shares, 1500; cost £100; price in 1831, £170.

A part of the line of canal between London and Liverpool. Number of shares, 500; amount, £100; price, £170.

From loch Gip to loch Crian. Number of shares, 1851; cost, £50; price in 1831, £2.

From the Erweswash canal, at Langley, to Cromford. It has several tunnels, and passes the river Derwent by an aqueduct 209 yards long and 30 feet high. The arch over the channel of the river is 80 feet broad. Another aqueduct over a branch of the Derwent is 200 yards long and 50 feet high. Each aqueduct cost about £28,000. Number of shares, 400; cost £23 2s. 11. 6d.; price, £40.

From Grand Burry canal to Croydon. It has 29 locks. Number of shares, 456; original price, £100; price in 1831, £17s. 6d.

From the river Derwent between Swinton and Mexborough to Barnsley canal. The boats are from 50 to 60 tons burden. It has two branches, of 33 and 12 miles.

From the Kempten and Avon canal to the river Stour; but not completed in 1844; has a branch 8 miles long.

From Dublim, at the mouth of the Liffey, to the river Shannon, near the town of Moy. It passes 24 miles across a marsh, in which the absorbing nature of the soil rendered the work enormously expensive.

<table>
<thead>
<tr>
<th>Name</th>
<th>Length</th>
<th>Locks</th>
<th>Price</th>
<th>Owners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiff, or Glamorgan</td>
<td>1775</td>
<td>25</td>
<td>600</td>
<td>94</td>
</tr>
<tr>
<td>Chester</td>
<td>1775</td>
<td>174</td>
<td>170</td>
<td>87</td>
</tr>
<tr>
<td>Chesterfield</td>
<td>1776</td>
<td>46</td>
<td>380</td>
<td>82</td>
</tr>
<tr>
<td>Coventry</td>
<td>1790</td>
<td>27</td>
<td>96</td>
<td>36</td>
</tr>
<tr>
<td>Crinna</td>
<td>1803</td>
<td>9</td>
<td>117</td>
<td>13</td>
</tr>
<tr>
<td>Cromfad</td>
<td>1794</td>
<td>18</td>
<td>90</td>
<td>44</td>
</tr>
<tr>
<td>Croydon</td>
<td>1801</td>
<td>96</td>
<td>152</td>
<td>108</td>
</tr>
<tr>
<td>Dewne and Dover</td>
<td>1804</td>
<td>9</td>
<td>157</td>
<td>66</td>
</tr>
<tr>
<td>Derby</td>
<td>1794</td>
<td>9</td>
<td>78</td>
<td>86</td>
</tr>
<tr>
<td>Dorset &amp; Somerset</td>
<td>1803</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dublin &amp; Shannon</td>
<td>1776</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erewash</td>
<td>1776</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edinburgh &amp; Glasgow</td>
<td>1783</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the Worcester and Birmingham canal. It has 61 locks; 6 tunnels, one 3770 yards in length, another 623 yards, and the other 250 yards, all 11 feet wide and near one of them, the Lagan tunnel, it passes 9 locks, nearly contiguous. Number of shares, 2000; originally, £100; price in 1844, £203.
CANALS.

<table>
<thead>
<tr>
<th>Name</th>
<th>Length in miles</th>
<th>Acres &amp; Decimals in feet and decimal parts</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eilemsere &amp; Chester,</td>
<td>1854</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ter, and branches,</td>
<td>1829</td>
<td>755</td>
<td>6 9</td>
</tr>
<tr>
<td>Erewash,</td>
<td>1777</td>
<td>141</td>
<td>15 4</td>
</tr>
<tr>
<td>Fazeley,</td>
<td>1796</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firth and Clyde,</td>
<td>1799</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Glasgow branch,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foss Dyke,</td>
<td>1819</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Glasgow and Ardrossan,</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Length in miles</th>
<th>Acres &amp; Decimals in feet and decimal parts</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glenkens,</td>
<td>1808</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Gloucester,</td>
<td>1798</td>
<td>198</td>
<td></td>
</tr>
<tr>
<td>Hookerth branch,</td>
<td>1820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Junction,</td>
<td>1820</td>
<td>597</td>
<td>6 3</td>
</tr>
<tr>
<td>Paddington branch,</td>
<td>1820</td>
<td>46</td>
<td>2</td>
</tr>
<tr>
<td>6 other branches</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Surrey,</td>
<td>1801</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Grand Western,</td>
<td>1798</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Tiverton branch,</td>
<td>1777</td>
<td>642</td>
<td>6 9</td>
</tr>
<tr>
<td>Grand Trunk,</td>
<td>1797</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>St. branch,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Union,</td>
<td>1834</td>
<td>130</td>
<td>5 5</td>
</tr>
<tr>
<td>Gruntham,</td>
<td>1790</td>
<td>393</td>
<td>4 4</td>
</tr>
<tr>
<td>Hastings,</td>
<td>1799</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Hereford &amp; Gloucester,</td>
<td>1790</td>
<td>845</td>
<td>6 1</td>
</tr>
<tr>
<td>Huddersfield,</td>
<td>1819</td>
<td>770</td>
<td>3 8 5</td>
</tr>
<tr>
<td>Kennet and Avon,</td>
<td>1801</td>
<td>95</td>
<td>6 6</td>
</tr>
<tr>
<td>Kingston and Leominster,</td>
<td>1797</td>
<td>544</td>
<td>11 8</td>
</tr>
<tr>
<td>Lancaster,</td>
<td>1796</td>
<td>497</td>
<td>3 8</td>
</tr>
</tbody>
</table>

Limitinghew, by another aqueduct bridge still more stupendous. Beyond this, to the south of Callander, the canal had to be carried through an excavation or tunnel of 600 yards long. Besides these very expensive undertakings, there were many of smaller moment. Altogether the length of the Union Canal is 51 miles; its breadth, including towpath and thirty yards; where the boats turn, 100 yards, with a depth of five feet throughout.

This canal is said to be the first constructed in England for agricultural purposes, as well as trade. It has 1252 yards of tunneling. Number of shares, 3054; cost £323; price in 1818, £272.

From the Trent to Cromford canal.

Is a part of the Liverpool line, joining the Grand Trunk with the Co-ventry canal. It is entirely level. The Fazeley and Birmingham, and the Birmingham, are continuations of this.

From the tide-water, at the junction of the river Carron with the Forth, to Glasgow. It was the first considerable work of the kind undertaken in Scotland, having been commenced in 1777 and completed in 1790. It ascends, from the Forth to the summit, by 20 locks, 156 feet, in 101 miles, and keeps this level 15 miles, to Glasgow and, one mile beyond that city, terminates in the Monkland canal basin. About 22 miles north of the port of Dundee, near Glasgow, a branch of the canal passes on 84 miles, crossing the Kelvin by a stone aqueduct, to the tide-water at Bowling bay, to which it descends by 19 locks, 71 feet in length and 20 in breadth. When full, it has 5 feet of water. Number of shares, 159; amount of share, £100; price per share in 1811, £200.

From the Trent, at Torksey, to the Witham. It is a level.

This canal was prepared for the purpose of carrying goods and coals from Glasgow and Renfrewshire to the port at Ardrossan. From a variety of circumstances it was never cut further than from Glasgow to the town of Johnston, from whence a railway proceeds to Ardrossan (q. v.) £7.

It was upon this canal that the light passage-boats, lately introduced, were first used with success. The original thought, we believe, belongs to Mr Houstoun of Johnston, who, in 1809, got a model made in wood, which surpassed, on trial, all expectation. They are now constructed of very thin sheets of iron, not exceeding the thickness of a shilling, and used on various canals throughout the United Kingdom. The best, and indeed the earliest manufacturers of them, are Messrs Hannah & Reid, smiths in Fazeley. Those made for the Glasgow and Ardrossan canal are 70 feet long, 5 broad, and weigh only 17 cwt. They carry with ease 70 passengers, and are dragged at a great rate by a couple of horses. The whole cost of one of them amounts to only £150. The secret of their excellence lies in their shape and construction, by which the horses are enabled to drag them above the surge, which is formed by all vessels in a state of motion, and which impedes their progress. Nothing can be smoother or less fatiguing to the traveller than these elegant conveyances; and the invention of them, at a time when rail roads were but threatening to supplant canals, has been fortunate for those interested in the latter.

From the Dee, at Kirkcudbright, to Delry.

A channel for ship navigation, to avoid the windings of the Severn from Berkeley Pill, where it leaves that river, to Gloucester, where it joins the river again. Number of shares, 1900; price in 1814, £100; and a loan of £20 per share, making the investment, £110 per share.

A part of the line between London and Liverpool, from Brentford to the Oxford canal at Bracknell. It has 101 locks; passes the river Ouse and its valley by an embankment about half a mile in length and 20 feet high. It has a tunnel at Blisworth, 3300 yards in length, 18 feet high, and 15 wide; and another at Bromford, 3460 yards long, the other dimensions being the same as that of the Blisworth tunnel. Number of shares, 11,600, originally, £100; price, £70. From the Thames, at Rotherhithe, to Mitcham. It is of large dimensions, being navigable by the Thames boats. The company pays to London annually, £50, for the junction of the canal with the Thames.

From the mouth of the Ex, at Topsham, to Tavistock bridge; in 1838, was but partially finished. Number of shares, 3800; cost £29; price in 1831, £25.

A part of the line between London and Liverpool. It has 4 tunnels, in length 3840 yards, and 9 feet wide. Number of shares, 1300; price in 1824, £2150. The tunnelage is from 31 to 414 per mile.

From the Manchester, Bolton and Bury canal, at Bury, to the Leeds and Liverpool, at Church.

From the Severn, at Gloucester, to the Wye, at Hereford. It has 3 tunnels, of 210, 1300, and 440, making, in all, 3950 yards. In consequence of the opening of this canal, the price of coals at Ledbury was reduced from 4s. to 6d. per ton. Shares, originally, £100; price in 1844, £20.

From Ramsden's canal, at Huddersfield, to the Manchester, Ashton and Oldham canal, at Dukinfield bridge, near Marston. It has a tunnel of 5500 yards in length. Number of shares, 6288; cost, £5714; price in 1831, £10 9s.

From the Avon, at Dolemead, near Bath, to the Kennet and Newbury bridge. It has an aqueduct bridge over the Avon. The boats are of 20 or 26 tons burden. Number of shares, 3350; cost, £25 5s.; price in 1831, £15 16s.

From the Severn, at Avryll, to Kingston. It has two tunnels of 3800 and 2200, making 3060.

From Kirby Keudal to Houghton. It has tunnels at Hinchay and Chorley, 800 yards long in the whole. It passes the Lough by a stone aqueduct, 50 feet high, on 5 arches, each of 70 feet span. It has also a road aqueduct, near Blacknall, 60 feet high. The boats are 50 feet long.
Leeds & Liverpool. 1771 130 541 94 4 8
Leicester. 213 220 197
Leicester and Northamptonshire Union. 1803 432 407 93
Loughborough. 1726 92 41 43
Manchester, Bolton, and Berry. 1797 15 157 124
Hasington branch. 4
Market Weighton. 1770 11 35 32
Munichland. 1770

<table>
<thead>
<tr>
<th>Name</th>
<th>Length</th>
<th>Acres &amp; Descent in feet and decimal part</th>
<th>Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leeds &amp; Liverpool</td>
<td>130</td>
<td>541 0 4 8</td>
<td>4 8</td>
</tr>
<tr>
<td>Leicester</td>
<td>213</td>
<td>220 197</td>
<td></td>
</tr>
<tr>
<td>Leicester and Northamptonshire Union</td>
<td>432</td>
<td>407 93</td>
<td></td>
</tr>
<tr>
<td>Loughborough</td>
<td>92</td>
<td>41 43</td>
<td></td>
</tr>
<tr>
<td>Manchester, Bolton, and Berry</td>
<td>15</td>
<td>157 124</td>
<td></td>
</tr>
<tr>
<td>Hasington branch</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Weighton</td>
<td>11</td>
<td>35 32</td>
<td></td>
</tr>
<tr>
<td>Munichland</td>
<td>1770</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(CANALS)

and 14 broad. Number of shares, 11,609; cost, £47 6s. 8d.; price in 1815, £21.
From Liverpool to Leeds. The boats navigating between Leeds and Wigan are of 30 ton burden; those below Wigan, and on this side Leeds, of 30 tons. The tunnels at Foulsbridge and Finsbury are in the whole, 1609 yards long. It has a beautiful squint bridge over the Aire. The locks are 70 feet long and 164 feet wide. The number of locks is 256; originally, 800 each; price in 1813, £110.00. Tonnage on merchandise, 144 per mile; on coal and lime, 120; on bricks, 100.
From the Loughborough basin to the Seashore, which has been rendered navigable as far as Leicester. Number of shares, 543; cost, £140; price in 1815, £218.
From Leicester to Market Harbour. It has 4 tunnels, 1056, 990, 899 and 896, in the whole 2812, yards in length. Number of shares, 1897; cost, £230 10s.; price in 1815, £214.
From the Trent, near Sawley, to Loughborough. Number of shares, 84; cost, £142 17s. 6d.; price in 1815, £219.
From the Trent to the Lowther canal to Skerton. Number of shares, 200; originally, £100; price in 1815, £200.
From the river Nith, at the Giant's Grave, to the Aberdare canal, at Aberneth. It serves for the transportation of copper and lead ore from Cornwall to Glamorganshire. Number of shares, 217; cost, £107 10s.; price in 1815, £200.
From the Thames and Severn canal to the Wilts and Berks. From the Trent, at Nottingham, to the Cromford canal, near Longley bridge.
From Molton Mowbray to Oakham. Number of shares, 522; cost, £100; price in 1815, £225.
From the Coventry canal to the river Isle at Oxford, and a part of the grand line between Liverpool and London. It has 3 squint bridges of very considerable magnitude and 18 tunnels at Newbold, 165 yards long and 11 feet wide, and one at Fenny Compton 1189 yards long and 96 wide. It rises, from the level of the Coventry canal, in 454 miles, to the summit at Stratton Tolls, 74 feet 1 inch, by 12 locks; and descends, from the summit at Stratton, in 35 miles, to the Isis, 165 feet, by 30 locks. It has 188 stone and brick bridges. It cost £179,648 stock, besides £139,000 loan, above half of which has been paid off. Number of shares, 1796; originally, £100; price in 1831, £250.
From the Manchester, Ashton, and Oldham canal, at Dickensonfield, to the Canal Milton basin. It has a railway 6 miles long. It passes the Mersey, by a bridge 100 feet high, of 3 arches, each of 60 feet span. Number of shares, 3600; cost, £48; price, £20.
From the river Arun, near Little Hampton, to the bay connected with Portsmouth harbour. Number of shares, 2520; cost, £500; price in 1831, £210.
From the Calder and Hebble navigation to the Huddersfield canal. The last link, near London, of the chain connecting that city and Liverpool. It commences at Paddington, from the Grand Junction canal, and meets the Thames at Limehouse, descending by 12 locks, to a basin communicating with a ship lock. The locks have double chambers, which are estimated to make a saving of one third of the usual quantity required. It has 2 tunnels, one at Maid's Hill, 370 yards long, the other under dwelling, 500 yards. Number of shares, £1,415; cost, £235 6s. 8d.; price, 18.
From the river Ure, at Milby, to Ripon. From the Bridgewater canal, in the town of Manchester, to the Calver and Hebble navigation, at Sowerby bridge. It has 49 locks, 8 squint bridges, a tunnel of 70 yards in length, and several reservoirs. Number of shares, 569; cost, £605; price, £70.
From Dublin, in a westward direction, to the Shannon, at Tullamore, nearly parallel to the Dublin canal, and about 10 miles distant from it. Its greatest elevation above the sea is 307 feet, to which it ascends from Dublin by 23 locks and descends to the Shannon by 23 locks.
From the Mersey and Irwell navigation, at Fiddler's Ferry, to Sutton Heath mines. It has 10 locks, and also a tunnel, near St Helen's. It was the first canal constructed in England.
From the sea, at Hythe, to the mouth of the river Rother. It is a shallow canal, having locks to keep in the water at low tide. It is large enough to receive vessels of 120 tons burden. Each of its extremities is defended by strong batteries. It was constructed on account of Bonaparte's landing decoy on England, and hence its present name of the Royal Military canal.
From Shrewsbury to the Shropshire canal. One half of the ascent is effected by locks, the other had by inclined planes. It has 1 tunnel. Number of shares, 500; originally, £165; price in 1831, £250.
From the Severn, at Cosford, to the Shrewsbury canal, at Downham. It has long spurs extends and railways, but no locks. From the Kennett and Avon canal, at Monkton Combe, to Paulton. The boats are 72 feet long and 7 broad. It has 1 tunnel. Number of shares, 400; original cost, £50; price in 1831, £160.
From the river Severn, at Steventon, to the Grand Trunk Canal. It has 48 locks. Its boats are of 30 tons burthen. It has 3 tunnels. Number of shares, 700; cost, £240; price in 1831, £710. The tollage is not to exceed 14d. per mile.

From the river Trent, at Kesby, to the Don, at Enfield. It, from the Stafford at Worcestere, to Stratford-upon-Avon, the Dudley Canal. It has 20 locks. Number of shares, 300; originally, £240; price in 1831, £250.

From the river Teign, at Newton, to Rovey Tracey. From the river Severn, at Framilord, to the Thames and Severn Canal, at Wallbridge.

From Swansea harbour to Hen Ynoadd. Like the Neath Canal, it serves to transport copper ore from Cornwall to Glamorganshire founderies. Number of shares, 200; originally, £100; price in 1831, £200.

From the river Tamar, at Calstock, to Tavistock. It has a tunnel at Morwellham, 400 feet below the surface. This tunnel led to the discovery of a copper mine. Its boats are 15 feet in length and 5 feet in breadth. Number of shares, 360; originally, £100; price in 1831, £210.

From the Thames, at Gravesend, to the river Medway. This canal has loans to a large amount. Number of shares, 483; amount, £400; price, £4.

From the Stroudwater canal to the Thames and Isis navigation. The boats are of 70 tons burthen, being 60 feet long and 5 broad. It has a tunnel at Sapperton, 250 feet below the top of the hill of rock under which it passes. The bottom of this tunnel is an inverted arch.

From the Warwick and Napton canal, near Warwick, to the Digbeth branch of the old Birmingham canal. It has a tunnel at Fazeley 500 yards in length. It has 29 locks.

From the Warwick and Birmingham to the Oxford canal. Number of shares, 980; originally, £300; in 1831, £210.

From the River Wey, near Godalming, to the north branch of the Arun river navigation. Number of shares, 600; cost, £210; price in 1831, £32.

From the Kennet and Avon canal, at Semington, to the Thames and Isis navigation.

From the Severn, at Diglip, below Worcester, to the Birmingham and Fazeley canal, at Farnell Bridge.

From a detached part of the Fazeley canal, at Huddersfield, to the Birmingham canal, at Wolverhampton. The boat are of 18 tons burthen. It has 28 locks.

The works near Yarmouth open an inland navigation in two directions; one 30 miles, by the Yare, the other 30 miles, by the Waveney, without a lock. The river Yare discharges at Yarmouth, about 50 miles below Norwich, but the navigation is obstructed by shoals and shifting sands at its mouth. To avoid these obstructions, the river is to be made navigable for sea-going vessels from Norwich to a place 30 miles down the river, called Beccledy Ferry, where a new cut of 2 miles is to be made across the marshes, to join the river Waveney at St. George's bridge, whence the water communication proceeds by a small stream (Oulton Dyke) and two lakes (Oulton Broad and Lepling), from the latter connected with the sea by a channel 700 yards long and 40 feet wide, with a sea-lock 30 feet wide in the clear and 24 feet deep, for the purpose of admitting sea-going vessels. Oulton Dyke and Oulton Broad are to be deepened. The lock constructed at the outlet of lake Lepling makes an artificial harbour, the first that has been formed in England. This lock has folding gates not only for landward and seaward, so as to admit of vessels passing in or out at any time of tide, and whether the water be higher on the outside or inside. The harbour covers about 300 acres, the whole contents of which it is proposed, occasionally, to let off at low water, to keep open the channel from the sea.

AMERICAN CANALS. It is difficult to obtain exact information relating to the works of this description in America. Some of them mentioned in the following list are merely projected, and others are not yet completed; nor is it now easy to ascertain precisely what degree of progress has been made.

CANAAS OF Canada.—Welland canal was constructed from 1824 to 1829. Its length is 416 miles; its breadth at the surface 58 feet, at the bottom 25 feet, and its depth 8 feet. This line of navigation passes from the mouth of Ouse river, on lake Erie, north-eastward, to strike at a point of the Welland or Chippeewa river; and, taking the course of that river downstream, 11 miles, proceeds from thence northward, across the mountain ridge, and down to the mouth of Twelve Mile creek, on lake Ontario. The distance from lake to lake is 43 miles. The deepest cutting, near the summit, is 56 feet. It has 35 locks, 125 to 100 feet long, 32 to 22 feet wide. The capital stock of the company is £200,000; the number of shares 16,000. This canal admits of sloop navigation, and opens a communication between lake Erie and lake Ontario in the same vessels which navigate those lakes, and saves discharging and reloading cargoes. One of the purposes of its construction was to prevent the trade of that part of Upper Canada which communicates with the great western lakes from being diverted to New York, by the route of the Erie canal. Its execution was facilitated by taking advantage of natural channels of slack water. — Rideau canal is a projected navigation for 122 miles, from Hull, on the great Ottawa, to the Gananoqui, on the St. Lawrence, at the Kingston mills. — La Chine canal is 10 miles in length, from Montreal, on the St. Lawrence, directly to Upper La Chine, on lake St. Louis, cutting off a bend in the river, and avoiding the bend of St. Leonard, 420 miles in length, from Hull, on the great Ottawa, to the Gananoqui, on the St. Lawrence, at the Kingston mills. — Isle Verrault canal is a projected work of five miles in length, from St. Louis lake, at the foot of St. Anne's, to the head thereof, by a canal passing either at the back of St. Anne's, or else across the Isle Verrault. — Grenville canal is a projected work of 12 miles in length, from the head of Long Sault or Ottawa falls, at the village of Grenville, by a lateral canal, to the foot of Carillon rapids, opposite Point Fortune; for sloop naviga-
tion. Estimated cost, £250,000.—La Petite Nation canal is a projected artificial channel of navigation, of 50 miles in length, from the foot of Carillon rapids, in the United States, across the peninsula, to the St Lawrence, at Prescott.

Canals of the United States. Immense improvements have been made in inland navigation, both by rivers and canals, during the fifteen years from 1810 to 1831. More than 1,000 miles of canal have been made during that time, besides vast improvements in river navigation; and, in 1831, the numerous works of this sort, already commenced, are prosecuted with unremitting activity. Only a very general outline of these improvements, so important both in a political and economical view, can be given in this work.

Canals in New England.—Cumberland and Oxford canal. This navigation, partly natural and partly artificial, extends about fifty miles, from Portland to Sebago pond, in Maine. The head of the canal is in the town of Bridgton, at the termination of Long pond, which is 10 miles in length. This pond, together with Brandy pond and Sebago pond, with their outlets, constitutes 27 miles of the canal; 24 locks only are necessary. Tolls are, per mile, for planks, 6 cents per 1000 feet; shingles, 2 cents a thousand; wood, 6 cents a cord, per mile; timber, 6 cents a ton, per mile; goods in boats, 6 cents a ton, a hundred miles, but only for each lock.

Middlesex canal was completed in 1808. It opens a communication between Boston harbour and the Merrimack river, a distance of 27 miles. It has but one summit level, 104 feet above Boston harbour, and 32 above the level of the Merrimack, at the place of its junction with that river in Chelmsford, above Pawtucket falls; on which falls are situated the great manufacturing establishments of Lowell. Its breadth at the surface is 30 feet, at the bottom 20 feet, and its depth of water 3 feet. It makes part of a line of water communication between Boston and the central part of New Hampshire. There are on this canal 20 locks of different lifts, of which the highest is 12 feet. The locks are 75 feet long in the clear, 10 feet wide at the bottom, and 11 feet at the top. The number of aqueducts, over rivers and streams, is 7; and there are 50 bridges, having stone arches in the arches. Cost, constructed by the Middlesex canal company, incorporated in 1789. The tolls, in 1824, were, for boats, 14,181 dollars; rafts, 5770 dollars; in the whole, 19,954 dollars.—Bow canal was made in 1812, and is the continuation of a line of navigation, of which the last mile was made by the Middlesex canal; 3,450 feet; 145 dollars per foot; 1 lock, 20 feet wide, 6 feet deep; 2 locks, 50 feet wide, 7 feet deep; 1 lock, 100 feet wide, 9 feet deep; 1 lock, 200 feet wide, 10 feet deep; 2 locks, 400 feet wide, 12 feet deep. From these locks, the water falls 150 feet in a mile; the lockage 25 feet. Its dimensions, and the size of the locks, correspond to those of the Middlesex canal, being designed to pass the same boats. It passes a fall in the Merrimack of 25 feet, with 4 locks. A dam is constructed across the river, at the head of the falls. Expense of the whole work, 19,000 dollars. —Hookset canal, another work on the Merrimack, 50 rods in length, is also a part of the same line of navigation, and passes Hookset falls, in that river, by a lockage of 16 feet. These falls are lower down the river than the Bow canal. It has 3 locks. Cost, of the whole work, 30,000 dollars. —Amoskeag canal, one mile in length, is another part of the same navigation, being eight miles farther down the Merrimack, at Amoskeag falls, which are passed by this canal with a lockage of 45 feet. It has 9 locks and several dams. Cost, 60,000 dollars.—Union canal, a continuation of the navigation, having 7 locks in 1 mile, is immediately below the Amoskeag canal, and comprehends 6 sets of locks. Cost, 35,000 dollars. Cromwell's falls, which are below, on the same river, are locked at an expense of 9000 dollars; and 15 miles lower down are the Wiscassett falls, which have been locked at an expense of about 12,000 dollars. The line of navigation above described commenced at a very early period in the history of the United States, and the undertaking evinced great public spirit and enterprise on the part of the persons who engaged in it, whose inadequate pecuniary remuneration has however, operated as a discouragement to similar enterprises in New England.—Pawtucket canal, a branch of the navigation above described, is a channel of about a mile and a half in length, passing Pawtucket falls on the Merrimack, and facilitating the navigation of that river from Chelmsford, where the Middlesex canal meets the river, to Newburyport, situated near its mouth. It is in the town of Lowell. A dam is made across the Merrimack, above those falls, a short distance below the termination of the Middlesex canal, for the purpose of regulating the height of water for supplying the Pawtucket canal, which was originally made merely for the passage of rafts and boats, and corresponded in dimensions to the other works on the same river above, and to the Middlesex canal. About the year 1820, the proprietors of the manufacturing establishments, which have, during the short subsequent period of about ten years, grown to so surprising a magnitude, and which are still rapidly increasing, purchased the Pawtucket canal, and have expended the sum of 100,000 dollars in the enlargement of 90 feet in breadth, and four in depth, which not only serves for the original purpose of this canal, in passing these falls, which are in the whole about 32 feet in height, but also supplies immense hydraulic works, used for the purposes of manufacturing. —Farmington canal was commenced in 1826, upon the plan of connecting, by a line of 78 miles of entirely artificial navigation, Connecticut river at Northampton, in Massachusetts, with New Haven harbour. It is 36 feet in breadth at the surface of the water, 20 at the bottom, and four feet in depth; and passes from New Haven to Farmington, in Connecticut, and from thence to Colebrook. The locks are 80 feet in the clear, and 12 feet wide. Its commencement at New Haven is from a basin of 20 acres capacity. It is (in 1831) nearly completed, and wholly under contract, from New Haven to Southwick ponds, in Massachusetts, a distance of 40 miles, at an expense of 7,500 dollars. 

Hampshire and Hampden canal is a projected work, of 20 miles in length, in Massachusetts, in continuation of the Farmington canal, from Southwick ponds to Northampton; lockage, 298 feet.—Enfield canal, and the three others next mentioned, are short cuts made at the expense of the proprietors of mills. In the latest of these improvements, having been commenced by a company, under a charter granted in 1824. It is 53 miles in length, and passes the Enfield falls, in the state of Connecticut. It has three stone locks, each 10 feet lift, 90 feet by 20. This canal adds 40 miles to the steamboat navigation up the Connecticut. Like the Pawtucket at Lowell, on the Merrimack, it is intended both to facilitate navigation and supply hydraulic works. It is a very important improvement, and does great credit to the undertakers.—South Hadley canal, the next artificial channel of navigation up the Connecticut, is in South Hadley, in Massachusetts. It is 2 miles in length, and overcomes the rapids in the Connecticut at the place, amounting to about 40 feet. There is a cut in this canal, 40 feet deep, 300 feet long, in solid rock. This improvement, and also the one next mentioned, was undertaken by the proprietors of mills, and chartered in 1792.—Montague canal, in the town of Montague, also in Massachusetts, is the next in order, higher up the Connecticut. It is 3 miles in length, 26 feet broad, and 3 deep. By this canal the navigation passes the Montague falls, which commence
above Miller's river; it terminates above the mouth of Deerfield river; lockage, 75 feet. — Bellows Falls canal is a short artificial channel, higher up the Connecticut, in the state of Vermont, for the purpose of passing Bellows falls. — Blackstone canal (see that article for a description of this canal). A few miles above Pawtucket, the Blackstone, and Black river, join the Pawtuckatuck, and pass up along its western bank a great part of its route, and is wholly supplied by the waters of this river and its tributary streams and ponds, some of the latter being made use of for extensive reservoirs, whereby, in the dry season, all the water used by the canal, and, taken away from the various manufacturing works established at the different falls on the river, is replaced, and supposed, indeed, to be more than compensated for. This canal facilitates and greatly increases the trade from the northern part of the state of Rhode Island, and the interior central part of Massachusetts, to the market of Providence, that of New York, and the ports of the Middle and Southern States.

New York Canals.—The state of New York has an extensive system of artificial inland navigation, connecting the various inland waters, and lakes by the canals the head of lake Champlain, lake Ontario, lake Erie, and Delaware river. — Champlain canal is 634 miles in length, 40 feet wide at the surface, 28 feet at the bottom, and 4 feet in depth. This, and the Erie, Oswego, and Cayuga canals, were made by the state, at the public expense, and remain under the direction and control of the state government, as public property. The Champlain canal passes from Albany to Whitehall, on lake Champlain, connecting Hudson river with that lake. This canal commences at Whitehall, at the head of slope navigation on lake Champlain, and, immediately rising by 3 locks, 26 feet, proceeds on a level 53 miles up the valley of Wood creek, enters the western end of lake Champlain, is continued by its channel for 3 miles, to a lock of 4 feet lift, which extends the navigation up the creek 3/4 miles farther, to Fort Anne village, where, after rising by 3 locks 24 feet, it leaves the creek, and proceeds 12 miles on a summit level, through the towns of Fort Anne and Kingsbury, to Fort Edward. Here it receives the waters of the Hudson, above the great dam in that river, by a feeder of half a mile in length, and soon after descends 30 feet by 3 locks into the Hudson, below the dam. The great dam is 900 feet long, 27 feet high, and through it lock an ample supply of water for the summit level. Fort Edward and the navigation is continued, for the present, down the channel of the Hudson, 8 miles, to the head of Fort Miller falls; around which it is carried by a canal on the east bank of the river, half a mile long, and having 2 locks of 18 feet descent. From Fort Miller the river is made navigable for near three miles farther, by a dam, the head of the Saratoga falls, just above which the canal leaves the river on the western side, and proceeds on a level for 17 miles, through Saratoga and Stillwater, Schuyler's flats, and over Fish creek, by an aqueduct, to a point two miles below Stillwater village. From this point to Waterford, where the canal enters the Mohawk, and meets the Erie canal, a distance of 9 miles, it descends 86 feet by 9 locks, 6 of which are in the town of Waterford. From Waterford, the Hudson is now made navigable for sloops to Troy, 36 miles below, by a dam across the river at the latter place, 1100 feet in length, 9 feet high, and having a sloop lock, at its eastern extremity, 114 feet long, 30 feet wide, 9 feet lift. The cost of this lock and dam was 92,270 dollars. — Erie canal, extending from Albany on the Hudson to Buffalo on lake Erie, is 360 miles in length, 40 feet wide at the surface of the water, 28 feet wide, the bottom 16 feet, and the depth of 4 feet of water. It has 2 summit levels in this distance, and the whole lockage is 692 feet.

It was completed in 1825. The locks are 83 in number, all of stone masonry, each 90 feet long in the clear, and 15 feet wide. From Buffalo, the canal proceeds 10 miles to Tonnewanta creek. The Tonnewanta is then used for 12 miles; thence by a deep cut 7/4 miles to Lockport, where it descends 60 feet in 11 locks; then passes from Oswego to aqueduct 63 miles to Rochester, where it crosses the Gennese, by an aqueduct of 9 arches, each 50 feet span. Here it is supplied by a navigable feeder, 2 miles long, connecting it with the Gennese; thence it crosses the Mohawk, 19 miles, by 67 locks and canals. Here it descends 126 feet, and crosses Mud creek twice by aqueducts. At Montezuma, the level of the canal ascend, and, in a distance of 27 miles, to Salina, rises 67 feet. In Salina commences the 1st lock, 92 miles to Lockport, of 189 miles, 30 feet by 4 locks, and an aqueduct over the Mohawk, of 3 arches. From the foot of Little Falls, the canal continues for 70 miles down the valley of the Mohawk, on the south side of the river, to Niskayuna, 4 miles below Schenectady, where it crosses the Mohawk, having a descent of 28 feet, to a lock of 4 feet lift. A little to the west of the Cohoes falls, a feeder enters from the Mohawk, and connects the Erie with the Champlain canal; and the united work then proceeds to Albany, 87 miles, in which distance it descends 44 feet, and terminates in the tide waters of the Hudson. Cost, 7,000,000 dollars. — Oswego canal is a branch of the Erie. The navigation passes from Smith's Falls, to Syracuse, connecting lake Ontario with the Erie canal. It has 123 feet of lockage, all descending towards lake Ontario. One half of the distance, is a canal connected with Oswego river by locks and dams; the other half is a slack-water navigation on the river. Its structures consist of 22 bridges, 1 aqueduct, 7 culverts, 2 waste weirs, 8 dams across the river, 13 locks of stone, and 1 of stone and timber. Cost, 355,115 dollars. It has been made since the Erie canal. — Cayuga and Seneca canal, another branch of the Erie, made in 1826, extends from Geneva to Montezuma, connecting Seneca and Cayuga lakes with the Erie canal. The work consists of 10 miles of independent canal, and 10 miles 24 chains of slack-water navigation. There are 7 locks, embracing 733 feet of lockage, 19 bridges, 5 safety-gates, 5 dams, and 6 culverts. Cost, 211,000 dollars. — Delaware and Hudson canal is not, like the preceding, a work of the state, having been made by a private company. It is 64 miles in length, 32 feet wide at the water's surface, 20 feet at the bottom, 4 feet in depth, and has 615 feet of lockage. It commences on the western side of the river Delaware, at Carpenter's point, and passes across to the Hudson, which it enters 4 miles below Kingston, and thus connects those two rivers. It also unites, in Pennsylvania, with the Lackawaxen canal. These canals, when united, extend 117 miles. Length from the tide water of the Rondout, to the summit level between the Hudson and Delaware, 38 miles, with a rise of 535 feet. From the summit level to the Delaware, is 26 miles, and a descent of 80 feet. Up the Delaware to the mouth of the Lackawaxen, is 17 miles, and a rise of 148 feet. Up the Lackawaxen to head water, at Kean's pond, is 35 miles, and a rise of 605 feet. Total locks, 142, and 1,100,000 dollars. Canal 1 mile and 205 feet, 125 feet wide, 60 feet deep. The Delaware and Hudson canal company were incorporated in 1823. Tolls not to exceed 9.
cents per mile per ton of coal, and 4 cents for other merchandise; the same for every 100 feet, cubic measure, of timber, and every 1000 feet boards, and every 5000 shingles.

New Jersey.—Morris canal was commenced in 1825. 1827, extended from 50 feet wide at the surface, 16 to 18 feet at the bottom, and 4 feet in depth; the whole lockage is 1657 feet. It extends from Jersey city, on the Hudson, across the state of New Jersey, to the Delaware, opposite Easton, where it connects with the Lehigh canal. The summit level is near Lake Hopatcong. On the western division, from the feeder at the summit level to the Delaware, are 7 locks, overcoming a difference in level of 67 feet, and 11 inclined planes, overcoming 691 feet. On the eastern division, between the summit level and the Passaic, there are 17 locks, overcoming a difference of 156 feet, and 13 inclined planes, overcoming 743 feet. There are, within these limits, 4 guard-locks, 5 dams, 30 culverts, 12 aqueducts, 200 bridges and uplands. The aqueduct across the Passaic, at Little Falls, is of cut stone, the duct resting on a single arched of 80 feet, with 50 feet radius, and measured from the under side to the water line, that is, to the coping of the side-walls; extent, from wing-wall to wing-wall, 215 feet.—Delaware and Raritan canal is a projected work in the same state.

Pennsylvania canals. The state of Pennsylvania has a very extensive system of canal navigation, a very large part of which has been undertaken by the state at the public expense.—Schuylkill canal and navigation was commenced in 1816, and has been in operation a number of years. Its length is 110 miles; lockage, 620 feet, or only 5-64 feet per mile; is 36 feet wide at the surface of the water, 24 feet at the bottom, and 4 feet deep, and extends from Philadelphia to Reading, and from thence to mount Carbon. It is sometimes called the Schuylkill navigation. It comprises 31 dams, commencing at Fair Mount water-works, near Philadelphia, by which is produced a slack-water navigation of 45 miles; also 23 canals, extending 65 miles; 126 locks, 17 feet wide, 80 feet long, of which 26 are guard-locks. There are 17 arched aqueducts; a tunnel of 450 feet, cut through and under solid rock; 65 toll and gate-houses. The dams vary from 3 to 27 feet in height. Total cost of the improvements, January 1, 1850, 2,236,957 dollars. 1825, 1,895, 65; in 1826, 1830, 58,149 dollars; 1828, 87,171 dollars; 1829, 129,089 dollars. It was constructed by the Schuylkill navigation company, incorporated in 1815. The company may declare a dividend not exceeding 25 per cent. per annum, and the tolls are to be regulated accordingly.—Union canal and navigation, constructed in 1827; length 82 miles, exclusive of a navigation of 78 miles; lockage, 520 feet; 36 feet wide at the surface, and 24 feet at the bottom, and 4 feet deep. It extends from 4 miles below Reading to Middletown, connecting the Susquehanna and Schuylkill river navigation, and Schuylkill canal, and at Middletown with the great Pennsylvania canal; the summit level is at Lebanon. The canal begins, at its eastern end, in the Schuylkill works, and ascends along the western bank of the Schuylkill to the valley of the Tulpehocken, and passes up that valley to the east end of the summit level, within 5 miles of Lebanon, rising 311 feet by 54 locks, of various lifts of from 8 to 4 feet. The summit extends 6 miles, 78 chains, part whereof is a tunnel of 890 feet, 18 feet wide, 14 high, opening into Clark’s creek valley, along which the canal descends, and, having crossed the Tulpehocken river, terminates at Middletown. Descend from summit, 208½ feet, overcome by 39 locks. It has 43 waste weirs, 49 culverts, 135 road and farm bridges, 12 aqueducts, one of which is 276 feet in length. On this canal are extensive water-works for raising the water of the Swatara to the summit. Cost, 20,000 dollars per mile. Rates of toll to be regulated so as not to give more than 12 per cent. per annum, made 30 feet wide at the surface, 20 feet at the bottom, and 4 feet in depth. It commences at the termination of the Delaware and Hudson canal, near Carpenter’s point, and unites with a rail-road at Honesdale. (See Delaware and Hudson canal.) In 1825, the Lackawaxen canal and coal company were authorized to act in union with the Delaware and Hudson canal company. The tolls are not to exceed ½ cents per ton per mile on boats transporting stone, coal, &c. Great quantities of Lackawaxen coal are transported along this canal.—Lehigh canal and navigation was completed about 1829, is 463 miles in length, 60 to 65 feet wide at the surface, 45 feet at the bottom, and 5 feet deep; the lockage is 360 feet. It extends from Easton on the Delaware to Stoddarts-ville, connecting the Morris canal with the Mauch Chunk railroad. Cost, 1,558,000 dollars. It consists of 5 canals and 41 locks. The ponds connecting the several lengths of canal are all cleared out in the channel to the width of 50 feet. The canals are furnished with 43 locks, from 6 feet lift to 9, whereof 2 are guard-locks, besides 5 other guard-locks at the pools respectively; dimensions, 22 feet wide, 100 feet long. There are 8 dams, varying in height from 6 to 16 feet. The lock walls are constructed of rough stone. There are 4 aqueducts, 32 culverts. Cost, 25,000 dollars per mile. The Lehigh coal and navigation company were incorporated in 1818. Tolls not to exceed 3 cents per ton per mile for boats, and every ton of shingles in rafts, from the Great Falls to the mouth of Nescopeking creek; and from thence to the mouth of the Lehigh, one cent per mile; and the same toll is paid for 1000 feet boards. —Conestoga navigation, 18 miles in length, with a lockage of 70 feet, passes from Safe Harbour, on Susquehanna river, at the mouth of Conestoga creek, up the course of the creek, to Lancaster. The navigation is effected by a series of locks and dams, the pools never affording less than 4 feet depth of water; the locks are 100 feet by 22, in the chambers; the towing path is on the south side of the river. Cost, 4000 dollars. In 1825, 25,000 dollars. It is incorporated in 1825; they are authorized to receive to the amount of 15 per cent. on the sum expended, and the legislature may regulate the rate of tolls, provided they do not reduce them below that rate.—Conewango canal is 2½ miles in length, with a lockage of 21 feet, and passes from the foot to the head of Conewango falls, west side of Susquehanna river, York county, Pennsylvania; and the same, east side, Dauphin county. Two dams, one of 800, the other of 500 feet, are connected with the works. There are 1 guard and 3 lift locks, each 110 feet long, by 18 wide. —Pottsville and Columbia canal, from Schuylkill canal, by the state of Pennsylvania, and great progress has been made in constructing the different branches. It includes a number of canals, running in different directions, and known by different names; it consists of five divisions: 1. The Transverse division commences in Columbia, the Philadelphia and Columbia rail-road terminates, and runs on the Susquehanna to Dunsmore’s island, 44.45, miles, at the mouth of the Juniata, thence on the Juniata to Huntington, 89 miles; thence from Huntington to near Holidaysburg, 59 miles. The division of railway proposed from Huntington, has been changed, and the road to Johnstown is 37 miles; this road crosses the Alleghany, and at its lowest crossing place is 1364 feet 7 inches above the basin at Holidaysburg, and 1141 above
that of Johnstown. The canal then runs from Johnstown to Pittsburgh, 1041 miles, down the Kiskimenis and Alleghany. 2. The Middle division is from the mouth of the Juniata up the Susquehanna to the boundary line of New York, 204 miles. 3. The West Branch division from Northumberland, by canals usually emploved in the bay and canal of that river, to a dam above the mouth of the Bald Eagle creek, and thence across the small peninsula there formed, to a dam on the Bald Eagle, near Dunstown. Ascent, by 14 locks, 101 feet; distance, 681 miles. 4. The eastern division is in the valley of the Delaware river, from 9 miles above Philadelphia, and running to Easton, 60 miles. From Easton it is to be continued, under the name of the Delaware canal, to meet the Delaware and Hudson canal at Carpenter's point, 663 miles. Begun in 1827. 5. The western, or Ohio and lake Erie division, is to extend from the mouth of the Kiskimenis up the Alleghany and French creeks, and thence to the town of Erie, uniting the Ohio and lake Erie, 213 miles.—French creek feeder runs from Ben- mis's mill, on French creek, along the eastern side, 9 miles, down to a point opposite the Connonough on westward; hence by the Alleghany, and over westward 12|3 miles, to Connoquenchy lake, 21|4 miles, Delaware and Maryland.—Chesapeake and Delaw- are canal was commenced in 1824, and opened for navigation in 1829. It is 13|3 miles long, 66 feet wide at the surface of the water, and 10 feet deep, being intended for steep navigation between the riv- er Delaware and Chesapeake bay. It leaves the Delaware 45 miles below Philadelphia, and passes across the peninsula to the Chesapeake. This canal has 2 tide and 2 lift locks, of 100 feet in length by 26|3 feet breadth, within the chamber; it is navigable for vessels of 500 tons, and carries a large trade. At the eastern termination of the canal, at Delaware city, a harbour extends 500 feet along the shore, from which two piers, that distance apart, pro- ject 250 feet into the river, nearly opposite to Port Delaware. Between the harbour and the canal, the Delaware tide-lock opens the communication. In this canal is a deep cut of 32|3 miles, 764 feet in depth at the place where the greatest excavation was made. The summit level is 12 feet above tide-water.—Port Deposit canal is a public work of the state of Mary- land, of 10 miles in length, from Port Deposit, on the Mouth of North river, to the 1st division of the Licking and Walnut creek, northward to the boundary line of Maryland and Pennsylvania.—Potomac river canals. At Little, or Lower Falls, three miles above Washington, is a canal 2|5 miles long; difference of level, 37 feet 1 inch, overcome by a series of 4 sets of locks, of so- lid masonry, 80 feet long, 12 wide. At Great Falls, nine miles above, is a canal 1200 yards long, lined with walls of stone; difference of level, 76 feet 9 inches, surmounted by 5 sets of locks, of solid mas- sonry, 100 feet long, 10 to 14 wide; lifts from 10 to 18 feet. Both here and at Little Falls, the canal dim- ensions are 25 feet wide at surface, 8 feet at bottom, 4 feet deep. Canal works, on a smaller scale, are constructed at Seneca falls, Shenandoah falls, House's falls. These works were executed by the Potomac company, incorporated in 1784, by Maryland and Vir- ginia; but they are to be surrendered to the Ches-apeake and Ohio canal company.—Chesapeake and Ohio canal, commenced in 1828. The proposed length is 341|4 miles; the breadth, at the surface of the water, 60 to 80 feet; at the bottom, 50 feet; the depth of water, 6 to 7 feet. According to the plan of this canal, it will pass from tide-water of the Potomac river, through the lock gates at Point of Columbia, and terminate near Pittsburg, in Pennsyl- vania. The first 2 miles of this canal above George- town are 70 feet wide on the surface and 7 feet deep; the next 2 miles are 80 feet wide, 6 feet deep. Five miles from Georgetown, the canal is so planned that a branch may be constructed to Alexandria, another to Baltimore, and another to the navy-yard in Wash- ington. The remaining distance to the Point of Rocks (44 miles) is to be 100 feet wide; walls of stone are to be of stone, 100 feet by 15 feet in the clear. The eastern section of this canal, from one mile below Cumberland to tide-water at Georgetown, is 186 miles 1535 yards; descent, 638 feet. The middle section is from Cumberland to the mouth of Cas- selman's river, 20 miles; the western section includes the summit level, where a tunnel, 4 miles 80 yards long, passing under a ridge of the Alleghany of 865 feet elevation, is necessary, with a deep cut of 1000 yards long at the western end, and another deep cut of 140 yards at the eastern end,—each of these cuts opening into a basin, of 880 yards in length and 64 in width. Length of summit level is five miles 1280 yards; lockage of the whole middle section is 1961 feet. The western section is from the mouth of Cاسلman's river to Pittsburg, 85 miles 348 yards, embracing a descent of 619 feet; lockage on the whole canals above the summit, to the estimate of the cost was 22,375,000 dollars, but it is maintained that the cost will not exceed 10,000,000 dollars. The United States have authorized a sub- scription of 1,000,000 dollars to the stock of this company. To be constructed by the Chesapeake and Ohio canal company. Charter granted by Virginia in 1824, confirmed by Maryland and con- gress in 1825. Tolls not to exceed fifteen per cent. dividend.

Ohio. The state of Ohio has commenced the con- struction of canals, as public works, on a very liberal scale.—Ohio State canal. From Cleveland, down to the Ohio, to the Ohio at the mouth of the Scioto; lockage, 1185 feet; length of the main line is 306 miles; feeders, 15 miles; total, 322 miles. Estimated expen- ses, 2,501,000 dollars. The route is from Ports- mouth, on the Ohio (where it is 474 feet above tide level, and 94 below lake Erie), up the valley of the Scioto, to Piketown; thence crossing the river to near Chillicothe; thence again crossing the river, it continues along the eastern bank to the Big Bely creek, where it receives a feeder, ten miles long, from the Scioto at Columbus; it then passes up the valley of Walnut creek to the Licking and Walnut creek summit, between the head waters of those streams. From the summit it continues down the valley of Licking creek to Rocky Fork, and thence across the valley to the Tomaka, and down to it near its junction with the Muskingum. From this point the ascent commences, and the line passes up the Muskingum valley to White Woman's creek; cross- ing this, it proceeds up the valley of the Tuscarawas Fork, first on the western, then on the eastern bank, to a point where its two head-waters unite near the south-west angle of Portage county. This is the western of the Portage summit, extending 10 miles. From the north of the Portage or Akron summit (499 feet above the Ohio at Portsmouth, 973 feet above the Atlantic, 406 above lake Erie), it passes down the Cuyahoga valley, first on the west, after- ward on the east side of the river, to within 6 miles of the mouth at Cleveland, for which 6 miles the river channel with a towing-path is to be used.—Miami canal, 40 feet wide at the surface, and 4 feet in depth, from Cincinnati on the Ohio to the Maumee, near the head of lake Erie, was commenced in 1825. Length of main line, 265 miles; feeders, 26 miles; total, 290 miles; lockage, 172|3 miles; expenses, 2,929,557 dollars. The entire line from Cin- cinnati to Dayton is (1831) completed. This division
embraces 28 locks; ascents from the Ohio, at low water, 108 feet; length of canal, 65; feeders, 2; total, 67 miles; cost, $74,852 dollars. From Dayton the line is to be extended to Lake Erie. The summit level, commencing 18 miles north of Dayton, extends 60 miles within a single lock; and this, togeth- er with 43,295 dollars cost of the line, make up all its waters from feeders from the Mad and Miami rivers. To aid the state in extending this canal to lake Erie, there is assigned by congress, of the public lands which the same shall pass through, a quantity equal to one-half of five sections in width, on each side of the canal, from the junction of the Maumee river, at the mouth of the Auguila, the United States reserving each alternate section; pro- vided this extension be commenced within five years from May, 1828, and finished within twenty; the canal to be a highway for the United States, free from toll.

Virginia and North Carolina. Appomattox river canals. These canals are for the purpose of improving the navigation of the Upper and Lower Appo- mattox.—James river canals. The river is navigable, for vessels of 125 tons burthen, to a little below Richmond; and the city, there are 5 locks, overcoming an ascent of 80 feet, and connecting the tide water with a branch in Shockoe hill. From this basin proceeds a canal, 25 feet wide, 3 deep, for 2½ miles, where it enters the stream; at 3 miles farther are 3 locks, overcoming an ascent of 34 feet, and a short canal leading to Westham, at the upper end of Great Falls. James and Jackson river canal and navigation, from Richmond basin, by canal, up the James river valley, to the head of Maiden's falls, Goochland county, Distance, 304 miles; width of canal, 40 feet; depth, 3½; finished in 1825; cost, 569,657 dollars. Also from the Wateree falls, or Piney island, by canal, along the margin of James river to the mouth of North Branch, in Rockland county. Distance, 7 miles. The fall is overcome by lockage 96 feet; cost, 345,000 dollars.

Shenandoah canals, for the improvement of the Shenandoah. They are situated near Port Republic. A fall of 50 feet is overcome by six short canals with stone locks.—Dismal Swamp canal is 22½ miles in length, 40 feet wide, and 6½ deep, passes from Deep creek to Joyce's creek, at the head of Pasquotank river, connecting the waters of the Chesapeake and Albemarle sounds; partly in Virginia and partly in North Carolina. This canal was finished, upon a circumscribed plan, in 1822. Its dimensions have since been enlarged. Every quarter of a mile, the canal is widened 60 feet, for turn-out stations. The locks newly constructed correspond in dimensions with those of the Chesapeake and Delaware canal; and the old ones may be so altered when necessary. The summit level is 16½ feet above the Atlantic at mid-tide, and is supplied by a feeder of five miles, from lake Drummond. The basin, at Deep creek, is half a mile in length, and 15 feet above the level of tide water. The North-west canal connects North-wester river (which empties into Curritsuck sound in North Carolina) with the main canal, requiring a cut of 6 miles. This canal is 24 feet wide, 4 feet deep. Weldon canal is 12 miles in length, along the Weldon or Great Falls in Roanoke river, in which distance the river descends 100 feet. Donnille and Dan river canals are a series of improvements on the upper branches of Roanoke river. The expenditure of the Roanoke navigation company, for these purposes, has been about 350,000 dollars.—Cape Fear river canals, from New Inlet, at Smith's island, at the mouth of the river, for about 22 miles, to the Wilmorton, and thence, by a course of lock and dam improvements, up to the head thereof, formed by the union of Deep and Haw rivers, below Haywood-borough, in Clatsun county; distance, 200 miles. These canals, &c., are for the purpose of improving the navigation of the river. This work is prosecuted by the state of North Carolina. Water river and Catawba river canals, from the confluence of the Congaree river and the latter, the latter, as also of the Catawba river, across North Carolina, to near the source thereof. Distance, by the river channel improvements and lateral canals together, 275 miles.—Santee, Columbia, and Saluda canals, from Columbia, through the Columbia canal, into Broad river, and then into Saluda river, Broad to Saluda river, up which and through Dreer and Lorick's canals, on to the Abbeville county line, near Cambridge; also from Santee river, by the Santee canal, into Cooper's river, and down this river to the port of Charleston. Distance, by mixed navigation, 150 miles. These comprise 5 canals with 28 locks, overcoming falls of 217 feet. The Santee and Cooper's river canal is 22 miles long, uniting Santee river to the head of Cooper's river. The ground rises, by an ascent of 35 feet to the summit level, by 4 locks, towards Cooper's river, the descent is 68 feet, there are 6 locks, an ascent of 50 feet by 2 locks, each 60 feet long by 10 feet wide. The canal is 32 feet wide at top, and 20 feet at the bottom; 4 feet deep. It was completed in 1802, at an expense of 659,677 dollars. Winnow canal is 10 miles in length. It unites the Santee river with the Winnow bay.

Kentucky. Louisville and Portland canal is about two miles in length, 50 feet wide at the bottom, with a lockage of 22½ feet. It was not fully completed in 1831. It passes from the Ohio, at Louisville, to a point of the same below the rapids, near Portland. Distance, by the bend of the river, three miles; by thugh the Portland and United States canal company, which was incorporated in 1825. The canal is for the passage of large vessels. It commences from the lower end of a basin or estuary, which extends along the shore of the river for the whole length of Louisville, and is connected with the river at its upper end. From the lower part of this basin, the canal traverses the point formed by the bend of the river at the falls, and re-enters the river at Shippingport. The bottom is to be 50 feet wide, sunk 4 feet below the level of the basin at Louisville, at time of low water; the banks to be elevated at the top of the lock to the height of 10 feet. This is known at Louisville which makes forty-two feet from the bottom of the canal, and to be sloped as 1½ base to 1, so far as respects the upper or earthen portion; underneath there is a solid bed of stone for a foundation the whole length of the canal, and this, cut perpendicularly, to the requisite depth, varying from 1 to 10 feet; the slope above which, to the top of each bank, faced with stone. There are 3 lift-locks, of 7 feet each, and a guard-lock at the lower end of the canal; dimensions, 190 feet long by 50 feet wide. In the chamber. The United States have contributed towards this important work.

Georgia. Savannah and Ogeechee canal is 16 miles in length, 33 feet wide at the bottom, and 5 feet in depth, passing from Savannah river, commencing at Savannah, to the Ogeechee river; lockage, 20 feet; estimate of cost, 102,376 dollars; locks 18 feet wide, 50 long. It is continued from the Ogeechee to the Alantaibah. Louisiana. New Orleans and Teche river canal is a projected navigation of 100 miles in length, from a point on the Mississippi, opposite New Orleans, to the waters which unite with the Teche river, at Lake Faisalt. From the water on the Teche, up the Wilmorton, and thence, by a course of lock and dam improvements, up to the head thereof, formed by the

Carondelet canal is 1½ mile long, 33 feet wide, and
4 feet deep, and extends from bayou St John to a basin in the rear of the city of New Orleans. This canal is without locks. Through it the tide flows into the basin.—Lafourche canal passes from the river Plaquemine 16 miles to Gaussier, thirty miles up the Mississippi. It is opened from the right bank into a small creek, uniting with lake Verret. It is through this channel, at high water, that boats are taken to and from the lower part of Attacapanus to the Mississippi, or from the latter stream; navigable only in times of high flood.—Plaquemine cuts from the Mississippi into bayou Plaquemine, at its eflfux from the Mississippi. The mouth of the Plaquemine is closed by a raft of timber, and the canal (a short cut of about 400 yards) was made across the point, below the bayou. It is only navigable in times of high floods.

CANALETO; 1. A Venetian painter, born in 1687, whose true name was Antonio Canale. He is celebrated for his landscapes, which are true to nature, and his architectural paintings. He died at London, in 1768. There is a bird's-eye view of Venice painted by him. He first used the camera obscura for perspective. 2. Bernardo Bellotti, who was likewise a good artist, and painted at Dresden many Italian landscapes, also goes by this name. He lived in Dresden, where he was a member of the academy of painters, and died in 1770.

The Canary Islands are a chain of islands in the Atlantic, considered as belonging to Africa, the most easterly being about 150 miles from Cape Horn. They are 13 in number, 7 of which are considerable, viz., Palma, Ferro, Gomera, Tenerife, Grand Canary, Fuerteventura, and Lanzarote. The other 6 are very small; Graciosa, Roa or Rocca, Aldegran Canella, Cla/es, In- fer, and Lobos. Lon. 13° 29'—19° 10' W.; Lat. 27° 30'—29° 30' N. The extent and population of the seven largest, according to Leder, are given in the following table:  

<table>
<thead>
<tr>
<th>Island</th>
<th>Population</th>
<th>Payn. Pop. to l.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenerife</td>
<td>73</td>
<td>70,000 954</td>
</tr>
<tr>
<td>Fuerteventura</td>
<td>66</td>
<td>60,000 142</td>
</tr>
<tr>
<td>Grand Canary</td>
<td>69</td>
<td>50,000 1033</td>
</tr>
<tr>
<td>Palma</td>
<td>27</td>
<td>22,000 387</td>
</tr>
<tr>
<td>Lanzarote</td>
<td>29</td>
<td>10,000 264</td>
</tr>
<tr>
<td>Gomera</td>
<td>14</td>
<td>7,500 526</td>
</tr>
<tr>
<td>Ferro</td>
<td>7</td>
<td>5,000 714</td>
</tr>
<tr>
<td>Total</td>
<td>270</td>
<td>174,000 644</td>
</tr>
</tbody>
</table>

Hassel states the population of the whole at 181,000, and the square miles at 3213. The soil of these islands is very fertile, and produces all kinds of grain, fruits, and pulse in great abundance; so that the name of Fortunate Islands, which the ancients gave them, was well deserved; but the method of cultivation practised by the natives tends very little to its improvement. All the islands furnish good wine; but the preference is given to the wines of Palma and Tenerife. The situation of the Canaries, the salubrity of their climate, the fertility of their soil, and the quality of their productions, all conspire to render them the most valuable of the Spanish colonies. The exports amount to 242,000 dollars annually, and consist of wine, raw silk, soda, and fruits. One of the most recent works on these islands, and probably the most valuable one, is Leopold Von Buch's Physikalische Beschreibungen der Canarischen Inseln, (Physical Description of the Canary Islands,) by Leopold Von Buch; Berlin, 1825, 4to. They are of volcanic origin, and were, as has been stated, known to the ancients. Juba II., king of Mauritania, described them first with some degree of accuracy. He graced a triumphal entry of Caesar into Rome, which was instructed in all branches of liberal knowledge, and became a highly accomplished prince. Pliny followed his description of the islands. Juba called the Canaries Proper Fortunatus, but Madeira and Porto Santo, to, Purpureba. Of the island of Ferro, which he calls Omnibros, and of the others, he gives an interesting account. The loss of this work is the more to be regretted, as we might reasonably hope to find in it some information respecting the people who originally inhabited these islands. This people understood how to embalm their dead, who were sewed in goat-skins, put into coffins of one piece of wood, and placed in grotoes. These mummies smell agreeably, but fall to dust if they are taken out of their goat-skin coverings. The Spaniards relate strange things of the civilization of these tribes, called Guanaches, of their respect for women, of their chastity, and aristocratic constitution. Their language resembled that spoken on the neighbouring continent; but we know too little of it to be able to give any opinion respecting it. Between 1316 and 1334, the Spaniards, pressed by the Moors, discovered and conquered these islands; and they are laid down with accuracy in the old map which Andreas Bianco published in Venice, 1436. The Spaniards seem, however, not to have esteemed these islands much; for the Infante of Portugal, Henry the Navigator, on his first voyage to be taken possession of, and prosecuted his discoveries from them to the coast of Guinea. In 1478, the Spaniards undertook again the conquest of the Canaries. At the end of the 15th century, they had subdued the original inhabitants entirely; and they extinguished their race almost entirely. At present, the islands are inhabited almost entirely by Spaniards; only a few Portuguese reside there. Teneriffe (q. v.), is an island of basaltic formation, thrown up by internal convulsions. The fortified capital is the seat of the governor, has 8400 inhabitants, and an excellent harbour on the eastern side of the island. Another city, Laguna (8800 inhabitants), is the seat of the bishop (who has an income of about £6000 sterling), and of the tribunals. The island Lanzarote, or Lance-lotta, contains three volcanoes, and, in 1833, experienced violent eruptions. Five islands of this cluster are uninhabited. The people of the Canaries are rigid Catholics.

CANARY-BIRD, or CANARY FINCH. See FINCH.

CANARY, GRAND, or CANARIA; an island in the Atlantic ocean, about 180 miles from the coast of Africa. It is the most fertile and pleasant of the Canary islands, to which it gives name. Canary, or Cividal de Palmas, is the capital of the island. See Canaries.

CANCER, in astronomy; the fourth sign in the zodiac (q. v.), marked thus ⃣⃣, which the sun enters on the 21st day of June, thence called the summer solstice. It consists, according to Kepler, of 17, according to Bayer, of 35 stars, two of which are of the third magnitude. Flamstead made a catalogue of 83 stars, the comparative brightness of several of which will be found estimated by doctor Herschel (Phil. Trans. lxxxvi., 311). The tropic of Cancer is a small circle of the sphere, parallel to the equator, from which it is 23° 27' distant, and marks the sun's greatest northern declination. It is so called because it passes through the beginning of the sign Cancer.

CANCER. In medicine, this name is given to a roundish, unequal, hard, and livid tumour, generally seated in the glandular texture. Though this is the texture in which it is believed always to originate, it may extend to others. This is doubted by some; and the disease which is often met with in the immediate neighbourhood of advanced cancers, and in different circum-stances, is, by them, ascribed to mechanical pressure of the cancerous tumours, aided by the acrid discharges which accompany its ulceration. The name was derived from a supposed resemblance of the tumour to a crab, and furnishes a good example of the
nomenclature from resemblance, which was very much in use in the early periods of the sciences. Two forms of cancer are recognized by physicians. They may rather be called two states or stages of the same disease. One of these, and the first, is carcinoma, scirrhous or incurable cancer, of the old. The second is the open, or ulcerated cancer—ulcerated carcinoma, as it is designated by writers. Under proper internal treatment, the second stage may be kept off for some time; and, in favourable cases, the extirpation of the tumour by the knife may effect a cure. The disease is kept in check, in the first case, but is not removed, and is very prone to pass into the ulcerative stage. The fact that this can be deferred, by proper treatment, is an important one. The sufferings of the patient are thus made less, especially during the first stage; and even in the last, their severity is much mitigated. One very early symptom of carcinoma is pain. This pain differs from that which ordinarily accompanies local diseases of a different kind. It is described as lancinating, occurring somewhat in paroxysms, and resembling the suffering which the sudden passage of a sharp and pointed instrument would produce in the part. Besides this, there is always more or less dull pain present. The progress of the disease, and the occurrence of the second stage, are marked by increased pain of both kinds; by increase in the size of the tumour, angina, and the greater inequality in the surface, a darker colour, and increased tenderness on pressure. When ulceration is just established, and even a little before, the patient complains of general irritation of the skin; the stomach is disturbed; and symptoms of constitutional irritation, more strongly marked, make their appearance. Ulceration begins on the surface of the tumour, and parts are destroyed, in succession, from without, until the whole texture presents a mass of disease. Instead of this destructive ulceration, we have, in many cases, fungous masses projecting from the diseased surface; and these, at times, attain a considerable size. But it is not a characteristic of carcinoma to grow, and become as large as other diseases of some of the organs in which it appears. This is especially true of it when seated in the womb. An offensive, saucious discharge proceeds from the ulcer. Bleeding often takes place from it, especially when fungous, either from mechanical irritation, though slight, or from accidental excitement of the arterial system only. Carcinoma is a malignant disease. Its tendency is to death. The constitution has not power to overcome it; and hence, when left to itself, it is certainly mortal. Internal remedies do little more than palliate symptoms, or prevent the rapid progress to ulceration, which belongs to the disease. The only remedy is the knife; and, in cases in which the constitution and neighbouring parts are not contaminated, extirpation by the knife has removed the disease entirely. There are parts of the body which are liable to carcinoma, in which extirpation cannot be practised, and some in which, though an operation has been performed, death has, nevertheless, followed. In cases of this sort, especially those of the first class, palliatives only can be resorted to; such remedies, namely, as mitigate suffering, and retard the progress of the disease.

CANCER ROOT, or BEECH DROP (arobanche Virginiana, L.); a parasitic plant, indigenous in America, growing almost exclusively on the exposed root of the beech tree. The whole plant is powerfully astringent, and the root of a brownish colour, spongy, and of a very nauseous bitter taste. It has been applied more externally than internally to the cure of cancer. The one-flowered cancer-root (arobanche uniflora) is used in the same manner. All parts of the plants are used in medicine.

CANCER ROOT—CANDELABRA. Torches and lamps were the means used by the ancients for obtaining artificial light. The latter were either suspended from the ceilings of their rooms, with chains, or placed upon small, movable tables (lampadaria, candelabra, and candelabrum). The candelabra were originally made of cane, with one plate fixed above and another underneath, or with feet, for supporters. The Greeks called these λαμπαδορραγία. The Greek artists produced, in ornamenting these lamp-stands, the richest forms, which, always, however, had reference to the original cane, and were encircled with an infinite variety of beautiful ornaments. Sometimes they were shafts in the shapes of columns, which could be shortened or drawn out; sometimes the luxuriant acanthus, with its leaves turned over; sometimes they represented trunks of trees entwined with ivy and flowers, and terminated by vases or bell flowers at the top, for the reception of the lamps. Examples of these forms may be found in the British museum and the Louvre, but particularly at the Vatican, where a gallery is filled with marble candelabra. Candelabra of yet more delicate forms, of bronze, inlaid with silver and other metals, have been found in Herculaneum. The following represent three of these, of different shapes. In ancient times, Taranto and Rhegium were famous for the elegant candelabra. The graceful and expressive form of this utensil was made use of for colossal works of art, particularly on account of its resemblance to the holy torches employed in the worship of Esculapius. The largest and grandest of those monuments was the Pharos, at the harbour of Alexandria. In modern times, this ancient form has been used for an ingenious Christian monument. At the place where (721) the first church in Thuringia was founded by Boniface, the apostle of the Germans, only a few relics remaining
CANDIA—CANDIA. 17

of the building, which had served for more than ten centuries as a Christian temple, a candelabrum, 30 feet high, formed of sand-stone, was erected (Sept. 1, 1811), as a symbol of the light which spread from this spot.

CANDI, or CANDY (anciently Maogamnanum); a city of Ceylon, and capital of a country to which it gives name; 80 miles from Columbo; lon. 80° 44' E.; lat. 7° 36' N. The town is a poor, miserable place, surrounded by a mud wall. The kingdom is fertile, intersected with rivers, and well furnished with woods. It was annexed to the British dominions in 1816. See bishop Heber's Narrative of a Journey through the Upper Provinces of India, 2nd ed., with Notes upon Ceylon, vol. ii, p. 188, et seq.

CANDIA (in the Turkish language, Kirid, called, in the most ancient times, Idea, from mount Ida, afterwards Crete), one of the most important islands of the Turkish empire, situated in the Mediterranean (lon. 23° 40'—26° 40' E., and lat. 34° 50'—35° 55' N.), 81 miles from the southern extremity of the Morea, 92 miles from Rhodes, and 230 from the African coast; is 100 miles long, 14—50 broad, and contains 4025 square miles; is bounded on the west by the sea, covered with forests, runs through the whole length of the island, in two ranges, the western part of which is called by the Venetians Monte di Spakhia (formerly Lence); the eastern part, Lastiti or Sethisa (formerly Dicto). On the north side, it declines moderately to a fertile coast, provided with good harbours; on the south side, steeply to a rocky shore, with few roadsteads; and reaches its greatest height in the lofty Psiloriti (the ancient Ida), 7670 feet high, and always covered with snow. Mountain torrents, which are swollen in the winter and spring, but almost dry in summer, conduct the waters to the sea. Numerous springs give fertility to most of the valleys, in which, and on the declivities of the mountains, is seen a luxuriant vegetation. The air is mild; the summer is cooled by the north winds; the winter is distinguished only by showers of rain. The island would, therefore, be a most delightful residence, and supply its inhabitants, as formerly, with grain, wine, and oil, wool, flax, silk, and cotton, fish, honey, game, cattle, the noblest fruits of the south, and even with metals, in abundance, did not the oppressions and cruelties of the Turks prevent all cultivation, and render it impossible for the inhabitants, instead of being 1,200,000, as in the time of the Greeks, or 900,000, as in the time of the Venetians, amount only to 300,000, half Greeks, half Turks) to attain more than the most indispensable necessities of life. Manufactures, trade, navigation, the arts, sciences, are not to be thought of. All the harbours, with the exception of that of Canea, are filled with sand, and the cities are mere aggregations of rubbish. The capital, Candia, the seat of the pacha, has 15,000 inhabitants; Retimo, 6000; Canea, the ancient Cypotina) the most important place of trade on the island.

According to Homer, king Idomeneus sailed from this island to Ilion, with 80 vessels. The Greek mythology made Crete the scene of many of the adventures of the gods and heroes. Here Saturn reigned, and afterwards Minos, 1300 years before Christ. After the banishment of the kings, Crete became a republic, and then a seat of the Cilician pirates, till it was conquered by the Romans. In the year 823, it passed from the hands of the Roman emperors in the East into those of the Saracens, who built the capital, Candia, on the ruins of Herculis, but were expelled by the Venetians. In 1408, the Venetians, with the good will of the inhabitants, the Byzantine sovereign sold the island to the Venetians in 1204, who, aware of its importance, fortified most of the cities, won the
hither followed, they approached the fortress by employing a great number of men in diging a deep ditch, throwing up the earth towards the place, and continuing to move it forward with shovels, till they reached and filled the trench. During sallies and well-applied mines, however, kept the Turks in check for a long time, and often destroyed their works; but, having finally succeeded in establishing themselves on the bastion of St André, they found beyond it strong intrenchments, which withstood the most violent assaults; and the approach of winter found the besiegers no farther advanced. In the spring of 1699, the Turks pursued the attack with bravery, insuring the defense of the remaining part of the island, in a short time, nothing but a heap of earth and stones remained to the Venetians of the bastion of St André, and their last defence was a wall, thrown up during the winter, as a general intrenchment. In this extremity, the dukes of Beaufort and Navailles appeared with a French fleet and 7000 troops. A desperate sally was undertaken with this new reinforcement. A mine, which was to serve as a signal, and throw the Turks into confusion, did not explode: on the contrary, a Turkish powder magazine blew up when the French had already got possession of the trenches. The assault was made an attempt to recover them. This explosion filled the French with such a fear of concealed mines, that they fled in disorder to the fortress, and left 200 men dead on the field, among whom were many brave officers, and the duke of Beaufort. At the same time, the Christian fleet, consisting of 80 ships and 50 galleys, which were to attack the Turkish camp in the bank, was thrown into disorder by the batteries on the coast, and the blowing up of a ship of 70 guns, and the sally was entirely unsuccessful. This misfortune increased the discord which already existed to such a degree, that the dukes of Navailles, convinced that the preservation of the fortress was impossible, embarked his corps, and returned to France. Individuals belonging to the other troops joined the French; the Maltese, and almost all the volunteers, also, departed shortly after; a new assault of the Turks was more successful than the previous ones, and brought them to the palisades of the last intrenchment; the garrison, amounting to scarcely 3000 men, was desponding and disobedient; quarrels distracted the commanders, and every thing announced that the place must fall at the next assault. It was resolved, therefore, to receive the surrender of war, the terms of capitulation gave the garrison and inhabitants liberty to depart within 12 days, and to take with them all their property, even the artillery which had been introduced into the city during the siege, and left the Venetians in possession of Suda, Garnabusa, and Spinalonga. Sept. 27, 1699, the city was surrendered, after a war of 25 years, a blockade of 13 years, and a siege, in which the trenches had been open 2 years, 3 months, and 27 days. Its defence must serve as a model to the latest ages, as one of the bravest recorded in history, and proves what Christian courage could effect against Turkish fury and superiority of numbers, even at a time when the European art of war was imperfect, and the Turkish empire was at the zenith of its prosperity. At the time of the capitulation, the garrison consisted of only 2500 soldiers. 30,986 Christians, and 118,754 Turks were killed, disabled during the war; 29,580 were made by the Turks; 96 soldiers by the Christians; 472 mines were sprung by the former, 1173 by the latter; 509,692 cannon shot were fired by the fortress, and 180,000 cwt. of lead used for musket balls by the Christians. The Turks found the city in a ruinous state, and in the possession of the capital, they now endeavoured to expel the Venetians from the strongholds which remained to them on the island; and, before the expiration of the 17th century, Garnabusa fell into their power by treachery, and Suda and Spinalonga by surrender. They made Candia in the usual manner. Three pachas, at Candia, Canea, and Retimo, governed the island. On account of the funds of these pachas, the inhabitants of the western mountains succeeded in forming a government of their own, under Turkish protection, in the name of the Prince of Candia. This, however, the Venetians, who were not always observed, they were wont, in such cases, to take up arms, were often defeated, but never entirely subdued. The pachas having demanded hostages of them in 1821, they joined the Greek insurgents. Even under the Venetian government, the Candites had the reputation of suffering no infringement of their privileges, and would not permit the Venetians to establish, as in the other districts of Greece, a nobility, degli possidenti, by whose means they might hold the other inhabitants under the yoke of the podesta. Had the mountainines been armed, and made a common resistance, the power of the Turks over the island, it would probably have been impossible for the invaders to have maintained themselves in Candia. The Spachhites have played the same part in Candia as the Mainotes in the Morea, excepting that they have not escaped the tribute of the poll-tax. The energy of the inhabitants seems to be now relaxed. (See Greek Insurrection.) The historical importance of ancient Crete, in a mythological point of view, and as a seat of ancient civilization, is shown by Hock's Kreta (Gott., 1823.). In 1817, F. W. Sieber, a German physician, penetrated far into Crete, and made many observations on it, which has principally in view the improvement of natural history and medical science. See his Reise nach der Insel Kreta—Voyage to the Island of Crete (Leips., 1825), 2 vols, with plates and a map. CANDIDATE (from the Latin candidatus, white-robed, because, among the Romans, a man who solicited an office appeared in a shining white garment—toga candida). The candidati of the Romans wore no tunic; either as a sign of humility, or in order to show the wounds received on their breasts. The time of their canvassing was two years, during which they were allowed to use an ancient weapon. They delivered speeches to the people, or had them delivered by others, with the consent of the magistrates. This was called profiteri nomen suum, and the year, annus professional. After this year, they requested the magistrate to enter their names on the list of candidates for the office sought for. An aspirant was seldom refused permission to deliver his speeches; but he was not yet necessarily treated as a candidate by the magistrates, or proposed to them by the people on the day of election. Before that was done, his life was subjected to a scrutiny in the senate, after the pretor or consil had received his name. If the senate accepted him, he was permitted to offer himself, on the day of election, as a candidate. The formula, by which permission was granted, was, rationem habello, remittiabo; if he was not accepted, he received the answer rationem non habello; non remittiabo. As Cic. Fam. xvi. 12.) On these days, the candidates tried to insinuate
thugianin general, who endeavoured to decide the
date of Rome by one blow; but the senate, consider-
ing that the Roman army consisted of 87,000 men,
while that of the enemy amounted only to 50,000,
among whom were 10,000 horse, and would have
no point of support in his own Senate, or the con-
suls to give battle. Hannibal, seeing that their plan
was changed, allowed Varro to gain a slight advan-
tage in a skirmish of cavalry. The Romans left their
strong position at Caesarea, on the banks of the
Aufidus, and the whole army crossed the river. The
Roman Varro drove up his troops and the infant,
with his right wing protected by the river. At the
same time, Hannibal forced the Aufidus, and led his small
army to the attack. The Romans had their own
cavalry on the right wing, that of their allies on
the left, and the infantry, as usual, in the centre. Ham-
nibal opposed the Numidian cavalry to that of the
Roman allies, and that of the Spaniards and Gauls to
the Roman. His infantry from Africa he divided
into two bodies, each of them near the cavalry. At
some distance from both wings, the Spaniards and
Gauls, on foot, arranged in an oblique angle, occupied
the centre. Hannibal stationed his right wing; and
Hannibal himself commanded the centre. He had
calculated that the wind called Volturnus, which blew
regularly at certain hours in that country, would, at the
time of attack, throw dust and sand in the eyes of the
Romans, and thus compel them to retire. The consul
Emilius Paulus, was wounded by a Balearian slinger,
soon after the light troops had begun the engage-
ment. The first shock of the Roman cavalry upon the
Spaniards and Gauls was violent. After the fight had
lasted for a long time, they ailed, and fought
himself. The Gauls and Spaniards then broke through
the dismounted Romans, and cut them down. The
Roman infantry, to assist their horse, moved in a
curved line towards the wing, under very disadvan-
tageous circumstances, and attacked the Spanish
and Gallic infantry, which retired in good order into the
interval, as Hannibal had commanded. By this
means, Hannibal was enabled to attack the Romans
in flank, as they advanced incautiously, with the
African infantry, which he had kept back for this
purpose. Thus surrounded, and contracted into a
small compass, the Romans fell in great numbers, and
were compelled to summon the consuls, Emilius and
Servilius, and the proconsuls, Servilia and Attilius. The
Numidian horse destroyed those who fled from the field of
battle. The victor made 13,000 prisoners. The Romans
lost, according to their own lowest statements, 45,000
men; according to the highest, 70,000. Hannibal
collected the gold rings of the knights who had fal-

en, and sent some busbels thereof to Carthage. But
the victory had also weakened his own army. He
was in want of money to recruit his troops. This
want, rather than the short period of luxurious liv-
ing in winter-quarters at Capua, obliged him, at
length, to give up the hope of conquering Italy, after
a war of 17 campaigns. See Hannibal.
CANNES, or CANES; a small seaport of France,
on the shore of the Mediterranean, in the depart-
ment of the Var; population, about 2800. Cannes is
famous as the place where the memorable march of
Napoleon through France began, when he returned
from Elba. He landed here March 1, 1815.
CANNIBALS. See Anthropophagi and Caribs.
CANNING, George, a distinguished political ad-
venturer, was born in London, April 11, 1770. His
father, a man of considerable abilities and literary
cultivation, had offended his family by his marriage
to a lady of beauty and accomplishments, but without
fortune, and died in 1771, leaving his widow desti-
tute. She had recourse to the stage for support,
but was not very successful, and was afterwards twice

\[\text{\textcopyright 2023} \]
Canning, married. Her second husband was an actor; her third, Mr. Humm, a linen-draper of Exeter. She lived to see the success of her son, from whom she ever received the tenderest marks of filial love. Canning, who had inherited a small estate in Ireland, was educated at Eton, where he was distinguished for industry, vigour, and a delicate elegance of taste, and, at the age of 15, formed the plan of a periodical paper, called the Microcosm, of which he was the principal editor. In 1787, he was entered at Oxford. His vacations were passed with Sheridan, by whom he was introduced to Burke, Fox, and other erudite and fashionable wits. But he and Sheridan had already announced him in parliament, as the future ornament of his party. Canning entered into terms with Pitt, by whom he was brought into parliament in 1793. During the first session, he remained silent. His maiden effort was made in 1794, on the Sardinian treaty, and rather disappointed expectation. In 1794, he took the degree of M.A., and, from that time, resided constantly in London. In 1796, he was under-secretary of state. In 1797, he projected, with some of his friends, the Anti-Jacobin, or Weekly Examiner, of which Gifford was appointed editor. Canning contributed much to the periodical, and other articles to this periodical. In 1798, he supported Wilberforce's motion for the abolition of the slave-trade, and continued always an advocate for the amelioration of the condition of the blacks. In July, 1800, Canning increased his fortune and influence by a marriage with Joanna, daughter of general Scott, a lady with a fortune of £100,000. The administration being dissolved in 1801, Canning became a member of the opposition, until the restoration of Pitt in 1804. In 1807, he was appointed secretary of state for foreign affairs in the Portland administration. A political misunderstanding with lord Castlereagh led to a duel between the two ministers, and a very close contest in which the latter was slightly wounded. This dispute occasioned the dissolution of the ministry. In 1810, he opposed the reference of the Catholic claims to the committee of the whole house, on the ground that no security or engagement had been offered by the Catholics. Some of his most brilliant speeches were on this subject. He invariably supported the admission of the Catholics to power, not as an abstract question of right, but as a matter of expediency—of hourly increasing expediency. The adoption of the measure being then a matter of policy, the state of the condition of affairs, and the security with which it should be accompanied, were, with him, elements of the question. He proposed securities, in 1813, which, with the bill, were rejected. He supported, in 1812 and 1813, the same motion which he had opposed in 1810; and, in 1821, two bills in favour of the Catholics having been introduced into the house of commons, he observed, "that the moment was peculiarly favourable for discussion; that they were in possession of a peace achieved by Catholic arms, and cemented by Catholic blood." To Canning was principally owing the first blow which shook the throne of Napoleon; the British policy in Spain was directed and animated by him. "If there was any part of his political life," he declared, "on one occasion, in which he gloated, it was that, in the face of every difficulty, encouragement, and prophecy of failure, his had been the land which had committed England to an alliance with Spain." "Never," said he, on another occasion, "ought we to relinquish our hold of the Peninsula. The ruler of France has one grand object, to which he stands pledged—the establishment of his dominion in the Peninsula. If he fails, defect must be punished." In 1812, he was elected member of parliament for Liverpool; from which he was also returned in 1814, 1818 1820. In 1814, he was appointed minister to Portugal, and remained absent about two years. In 1819, he declared his decided hostility to parliamentary reform, in whatever shape; and his speech on Lord John Russell's motion for reform, in 1822, is among the most finished specimens of his eloquence. On the night of the proceedings relative to the question, he declared, that "there are no investigation, he felt an unalterable regard and affection;" and soon after resigned the presidency of the board of control, and went abroad. Having been nominated governor-general of India, he was on the point of embarking when the marquis of Londonderry called him to the cabinet and informed him that he was to be appointed for foreign affairs (Sept. 16, 1822). One of his earliest acts, in this situation, was to check the French influence in Spain; and, in a debate on this subject (April 28, 1823), he observed, "It is true that there is a contest going on in the world between the spirit of unlimited monarchy and the spirit of unlimited democracy. Between these two spirits there is a strife openly in action, or covertly at work, throughout the greater portion of Europe." It was in this session that Brougham accused him of "the most monstrous truckling which the history of politics could furnish." Canning, he immediately, and exclaimed, "That is false." The affair was settled, after some explanations on the part of Mr. Brougham. He continued to support the propositions in favour of the Catholics, and, in 1825, communicated to foreign ministers the determination of his majesty to appoint chargés d'affaires to Colombia, Mexico, and Buenos Ayres. In consequence of the attempts made by Spain to assist the malcontents of Portugal, it was immediately determined, by the ministry, to support the regency of that country. On this occasion, Canning concluded his speech with these remarkable words, "I am aware that the next war, which should be kindled in Europe, would be a war of opinions. It is the contemplation of this new power, in any future war, which excites my most anxious apprehensions." And, in answer to the argument, that the ministers had encouraged the attack upon Portugal, by having permitted the occupation of Spain by France, he uttered the memorable words: "Was it necessary that we should blockade Cadiz? No. I looked another way; I resolved that if France had Spain, it should not be Spain with the Indies. I called the new world into existence to exclude the bills of the old." After April 12, 1827, his appointment to be prime minister was announced. His administration was terminated by his death, the 8th of August following; but not until it had been crowned by the treaty of London (July 6), for the settlement of the affairs of Greece. As an orator, Mr. Canning was shown, graceful, and prepossessing, with a brilliant wit and caustic satire, though neither formed on a very masculine taste. He possessed, in a great degree, the art of a rhetorician—could, with a small stock of ideas, make a great appearance of intellectual resources, and could fill the ear without satisfying or informing the understanding. His predestination to general views was solely in words. In no case did he strike his own interests out of consideration. During his career, the leading domestic subjects on which the British parliament was called upon to legislate were the following: the liberty of the press, the emancipation of the Catholics, the test and corporation acts, the corn laws, and reform in parliament. Those of a foreign nature were, among others, the various overtures of peace between Britain and France, the settlement of Europe on the final overthrow of Napoleon, the treatment of the Poles, the Spanish revolution, and recognition of the South American republics. On all these questions, with two exceptions, he invariably
supported the high Tory side. The exceptions were, the emancipation of the Catholics, and the recognition of the South American republics. The former he advocated merely as a matter of expediency; for his support of the test and corporation acts showed how limited his views were regarding religious toleration. The latter was a showy parade, which brought re Julian, without endangering his position; for Spain was a mere cypher, and the recognition could do no harm to any established privileges on this side of the Atlantic. On the whole, Mr Canning can only be characterized as a political adventurer, who attached himself in all cases to the strongest party, and laid aside his principles to the last degree to get into that party. When, indeed, he obtained the premiership, his conduct gave indication of his being regulated by more lofty principles, but death speedily interfered with any expectations that were formed of him in that position.

**CANNON**—A heavy metallic gun, which is moved by the strength of men and horses. It is mounted on a carriage, and iron (formerly stone or leaden) balls are projected to a distance from it by the force of gunpowder. The interior of the cannon is called the bore. The solid piece of metal behind is named the ram, and termed the rammer in the button. The **petal** (so called because they were used in the form of this animal) are the handles by which the piece is mounted or dismounted. The aperture through which the fire is introduced into the bore, to ignite the charge, is called the vent or touch-hole, in which a small tube, used to contain the priming, is placed previous to firing. The supports, which are denominated carriages, are mounted on trucks, as in the case of ship-guns or garrison-guns, or on two wheels, as in the case of field-pieces. When a field-piece is to be moved, a two-wheeled frame is fixed to the wheels, or to the rammer, and this process is called to **timber up**. The charge, or cartridge, is a bag filled with powder, carried near the cannon. The cannon is fired by means of the match, which is a lighted bunch of tow, wound round a small stick; or by a tube, filled with the priming-powder, from which a piece is broken off every time, and forced into a stick, to light the charge. On board most of the British ships there are cannon fired by means of locks. To perform the labour required in managing cannon is called to **serve the guns**. Cannon were formerly dignified with great names. Twelve, cast by Louis XIII., was called after the 12 peers of France. Charles V. of Spain named his Twelve apostles. One at Bois le Duc is called the Devil; a 60 pounder, at Dover Castle, is named Queen Elizabeth's pocket-pistol; an 80 pounder, at Berlin, is called the Thunderer; another at Malaga, the Terrible; two 60 pounders at Dremen, the Messengers of bad news. In the beginning of the 16th century, names of this sort were abolished, and the following came into general use: cannon royal, or carthorn, carrying 48 pounds; bastard cannon, or 3 carthorn, 56; ½ carthorn, 24; whole culverins, 18; demi-culverins, 9; falcon, 6; macker, lowest sort, 5; ordinary, 6; largest sort, 8; basiliak, 48; serpentine, 4; aspic, 2; dragon, 6; siren, 60; falconets, 3, 2, and 1; milliers, which carried a ball of 10 or 12 ounces; rapiers carried one of 16 ounces. Cannons are, at present, named, from the weight of the ball, not the gauge. The length of the cannon is in proportion to the calibre. Cannon took their name from the French word **canne** (a reed). Before their invention, machines were used for projecting missiles by mechanical force. These were imitated from the Arabs, and called **agiens**; whence **engines**. The first cannon were made of wood, wrapped in mercurous folds of linen, and well secured by iron hoops. They were of a conical form, widest at the muzzle. Afterwards, they received a cylindrical shape. At length they were made of iron bars, firmly bound together, like casks, by iron hoops. In the second half of the 14th century, they were formed of an alloy of copper and tin, and, in process of time, other metals were added. Some attribute the invention of the cannon to the Chinese, and say that there are now cannon in China, which were made in the 80th year of the Christian era. From the Chinese the Saracens probably learned to manufacture them, and Cathli- cists, a deserter from Heliopolis, in Phoenicia, made them known to the West, about the year 1470 (676), to the name of Constantius Pogomatas. Bombers were brought into use in France in 1338, and, according to another and more doubtful authority, Solomon, King of Hungary, used them in 1073, at the siege of Belgrade. From all these accounts, it appears that the true epoch of the invention of cannon cannot be exactly determined: it is certain, however, that they were actually in use about the middle of the 14th century. In 1370, the people of Augsburg used cast cannon. In the beginning of the 15th century, nearly all the countries of Europe, except Russia, where cannon were first cast in 1475, were provided with them. The lead cannon, which were invented and employed by the Swedes, between 1620 and 1632, in the 30 years' war, were lined with tubes of wood or copper, and secured on the outside with iron rings. The art of firing red-hot balls from cannon was invented by major-general Weiler, of the electorate of Branden- burg. In the commencement of the 16th century, Maurice of Switzerland discovered a method of casting cannon whole, and boring them, so as to draw out the interior in a single piece. Arms for expedi- tious firing, loaded from behind, and having the charge closed in with a wedge, were invented by Daniel Speckle (who died 1659) and Ullmann. Charles Milon invented a kind of air cannon, 2 feet long, 3 inches diameter in the thickest part, 12 lines caliber, charged with inflammable air, and fired with a Lay- den jar, or a piece of cat-skin, by which 12 dis- charges can be made in a minute. It stands on a frame of glass, and may be directed to any point. In 1740, cannons were made of ice at St Petersburg, and balls of many pounds weight were projected without injuring the pieces. (See Steam-Gun, Gun-Boat.) Cannon-look is a contrivance invented by one Rousseau, and placed in the garden of the palais royal, and in many places of note. The tube, or the glass is fixed over the vent of a cannon, so that the sun's rays, at the moment of its passing the meridian, are concentrated, by the glass, on the priming, and the piece is fired. The burning-glass is regulated, for this purpose, every month. For the use of cannon in naval warfare, see **Ship.**

**CANO, ANTON** or **ALEX.** a painter, sculptor, and architect. The variety and extent of his talents made him the Michael Angelo of Spain, whom he also resembled in his private character. He was born in 1608, at Grenada, studied in Italy, with Pacheco, and first made himself known by the statues which he executed for the great church of Lebrina. In his 24th year, he had acquired the fame of a great artist, and was (1638) appointed painter to the king. In this capacity, he executed several celebrated pictures, and was rewarded with the royal pension. For some prosperity, and for some success, a dreadful event destroyed his happiness. His wife was one day found murdered, and his house plundered. Instead of a suspected Italian servant, who had fled, Cano himself, convicted of a connexion with another woman, was condemned by the judges as guilty of the murder. He was put to the torture; but his right arm was spared, from respect for his...
talents. He bore the torture with silent fortitude. The king pardoned him. He became a priest, and was made a racionero (receipt-keeper) of the church, where he spent the remainder of his life in a pious and exemplary manner, and died in 1676.

CANOBUS. See Canopus.

CANOE, also CANOA; the term generally used to designate the small vessels which uncivilized people, living near the water, use. In the East Indies, there is a kind of boat which goes by this name, sometimes from 40 to 50 feet long, and 5 or 6 broad. The North American Indians generally impel their canoes with paddles, which have a very large blade, and are managed perpendicularly. The canoes of Canada are of the most fragile texture, and of so little weight, that, in passing from one river to another, the boatmen carry them on their heads across their portages. They are mostly covered with bark, the pieces of which are sewed together with a kind of grass. This bark is generally not more than a quarter of an inch in thickness; yet, in these frail vessels, the Indians and Canadians do not hesitate to descend very dangerous rapids. The Esquimaux are exceedingly dexterous in the management of their canoes. These consist of a light, wooden frame, covered with seal-skins, sewed together with sinews. The skins are not only sewed round the bottom and sides, but likewise over the top, forming a complete deck, and having only one opening to admit the Indian to his seat. To this hole a flat hoop, rising about four inches, is fitted, to which is fastened the surrounding skin. The paddle is about 10 feet long, light, and flat at each end. In the Esquimaux language, the canoe is called a kaiak, or man's boat, to distinguish it from umiak, the woman's boat, which latter is a large boat for transporting the women, with their families and possessions. The Greenlanders and Esquimaux use the same kind of canoes, and it is astonishing, when we consider their insignificant construction, at what a distance from the regions they commonly inhabit, these people, especially the former, are found in them. In the islands of the South sea, the natives have a double canoe, united by a strong platform, serving, in this way, as one vessel. Such a canoe is capable of carrying a number of persons, and a considerable lading. Captain Cook gives us a long account of the different kinds of canoes used in Otaheite.

CANON; a person who possesses a prebend, or rectorate, and performs the performance of divine service in a cathedral or collegiate church.

CANON, in the arts. When art has succeeded in producing beautiful forms, the question arises, with what proportions beauty of form is united. Artists of genius first started this question, and imitators, inferior to them in talents, scrupulously followed their results, and naturally called some existing work into a model for every performance. Among the Greeks, the celebrated statuary Polycletus (q. v.) first instituted such inquiries; and, as he generally represented youthful, pleasing figures, it is probable that he has the standard of beauty in the youthful form. The canon (the model statute) of Polycletus was accordingly a statute, which was made principally for the purpose of showing the beautiful proportions of the human form in a youth just ripening into manhood. No copy of it is known to exist; the artist proposed a model of proportion quite a new system (see the following article). The Protestant churches reject the Apocrypha as books not belonging to the rule of faith. Respecting the value and the number of the books belonging to the canon of the New Testament, the opinions of Christians were much divided till the 6th century. As early as the 3rd century, some fathers held that the Gospels interpolate into the Evangelion (the four evangelists) and the
The Apostolic (the Acts and Epistles of the Apostles). The five historical books, the Epistles of Paul, the First Epistle of Peter, and the First Epistle of John, were universally acknowledged to be genuine in the Greek church, but in the Gallican and Armenian church, and in the Christian church of India and the Saracens, the first four were not admitted. In the Roman church, the first three were always believed to be genuine, by most persons, and the Apocalypse by many. These books were received, in the second half of the 4th century, in the Egyptian church (where Athanasius first used the term canonical), and in the Western church. In the Eastern church, properly so called (the dioceses of the patriarchs of Constantinople, Antioch, and Jerusalem), only the Catholic Epistles were of canonical authority at that time; the Apocalypse not till the 6th century. The canon of the Roman church has not, however, been altered, and the Protestant churches hold it in common with the Greek and Catholic church.

The Catholic church is a collection of the gemininess and canonical character of the single books of the Bible, even when they were unconvincing to the books, have produced no alteration in the established canon. The reasons of the ancient fathers of the church for or against the canonicity of any book were mostly historical and traditional, and built on philological criticism; they are still the most tenable and rational: the philosophical grounds are more subject to be affected by extraneous influences. Modern criticism has attacked, with success, the genuineness of single passages; but it has failed in its attempt to destroy the canonical authority of whole books. With respect to the Apocalypse, or Revelation of John, however, a large number of the Protestant commentators incline to the side of the assailants.

Canon is also the name of the prayers which the Catholic priests repeat before, at, and after the consecration of the host.

In Arithmetic, algebra, &c., canon denotes a formula obtained by the solution of a problem, and containing the rule by which all examples, comprehended under the general problem may be solved.

Canon (as understood in the Christian church, &c.) * The distinguished characteristic of the Catholic religion, is the authority which it attributes to tradition, by which revelation continues in life and power. The Holy Scriptures are esteemed sacred by the Catholics, because the church has transmitted them from age to age as sacred, and illustrative of revelation, as far as any writings can be. The church has only declared what writings have been handed down as of divine origin. The catalogue of these Holy Scriptures is the canon; the writings themselves are called Canonical Books. In this sense, the Protestant church has no canon; it rejects the authority of all the traditions of the church. Hence, in order to be consistent, it must leave every Protestant, on free investigation, to decide what books he will regard as canonical. But the Bible, the pillar of the Protestant faith, is made up of separate canonical books; and, by putting such a course, the basis of the Protestant faith might be undermined. It has been agreed, therefore, however inconsistently, to adopt the New Testament canon of the Catholic church. But, in fixing the canon of the Old Testament, the decisions of the Catholic church have been rejected; and, contrary to the African councils and the usages of the Roman church, established by the council of Trent, part of the 1st, 2nd, and 3rd Isaiah, and the Apocalypse, are not admitted. The Catholic church, by the council of Trent, first admitted the writings of the fathers and doctors of the church, and the writings of the patristics or Jesus the Son of Sinach, the two books of Maccabees, the Song of the Three Youths in the Fiery Furnace, described in Daniel, together with the two last chapters of this prophet, are thrown out as uncannonic and apocryphal. It is worthy of mention, that a controversy on this subject broke off the negotiations for a union of the Catholic and Protestant churches, which commenced in the beginning of the 18th century, between Leibnitz, Molanus, and Bosquet.

Canon and Caput in Councils. A council is not only the church universal assembled, which declares the faith of the members, and fixes the doctrines to be defended, but it also possesses the supreme power in the administration of all ecclesiastical affairs, which have not immediate reference to doctrines (as liturgies and rules of discipline). In the language of the church, a distinction is made between these two kinds of ordinances. Such as respect doctrine are called canons; and every other precept or regulation, caput or decretum. The latter are subject to be changed, as the spirit of the age requires, and hence lay no claim to infallibility; they can be altered at pleasure, while the former are the unalterable decrees of the infallible church of the Lord. The council of Trent makes a distinction between the two, and the capita on church discipline are superscribed De Reformacione. It would be a great mistake to view these capita as doctrinal truths, and then to reproach the church with establishing erroneous dogmas as truths essential to salvation.

Canon Law [written by a Catholic]. The famous Gravina begins his Institutes of the canon law thus:—Since the word law is imperative, and includes the idea of physical enforcement, the ancient church preferred to apply to its precepts the milder term of rule or canon (from the Greek kanon, rule), which agrees with the language of the council of Trent, and the most able canonists, as Van Espen, &c. Canons, therefore, are the laws which the church has promulgated; and by canon law in English, is understood the whole body of ecclesiastical ordinances, and regulations. The church has been, from the time of its establishment, a free society, possessing and exercising the right of forming laws for itself, either by positive enactment, or by the gradual growth of custom. The regulations of the apostles, the decrees of the general and particular councils, and of the bishops, constitute these laws. Even when, after the downfall of paganism, the Christian church became connected with the state, it retained this legislative power. If the Theodosian code authorized authority, it was only in consequence of reception. The more the organization of the church became settled, the more frequent became the regulations and orders of the supreme bishop (the decretales). There is no question about the authority which was allowed to these decretales, and it is useless to inquire here whether this authority originated from positive enactment or from customary observance. The ecclesiastical as well as the political law, is to be traced, in part, to each of these sources. In the course of time, collections were made of these canons, arranged in chronological order (Collectio Canonum). These collections came into use in the fourth century, and were for many years the only writing on canon law. * In the original 'Conversations Lexicon,' there are several articles so distinguished. In those cases where the Protestant view of the subject is also given, we think proper to repeat them, because many Protestants are so desirous to see the tenets and doctrines of the Catholics stated by their own writers.—Ed.
of Dionysius the Little acquired almost the authority of laws. Equal authority also, was allowed to the collection of canons ascribed to Isidore, bishop of Seville, which appeared in the ninth century. This famous collection is falsely attributed to Isidore, and abounds in spurious interpolations. It was entitled the Isidore Code, and is by some scholars brough from Spain. The object of the interpolations of the Pseudo-Isidore was probably to give an historical basis to a system grown up out of observation, which transferred many of the former rights of the metropolitans to the pope. After the 10th centu-. cius the case in the same hand before prevalent, of collecting chronologically the ordinances of the church, and studying them from the sources, was given up, and systematical compendiums of ecclesiastical law began to be drawn from these canons. In these compendiums, it is true, literal extracts of the canons were retained, but often mutilated, and separated from their proper connexion. The most important of these compendiums is that of the Benedictine Gratian, of Chi, which he finished in 1151, in the convent of St Felix, at Bologna. Gratian treated the subjects of the canon law according to a system which was his own and was divided into seven books, laid down principles, which he established by quotations from the original decrees. By means of these authorities, with additions of his own, he extended his principles further, and endeavoured to reconcile apparent contradictions in the law, or, where they could not be reconciled, to determine which part was binding. Hence the title of his work—Concordantia Discordantium Canonum. He divides the whole subject into three parts: in the first, he begins with a general essay on law, particularly ecclesiastical law, and treats of the officers of the church, their character, rights, duties, consecration, and share in the government of the church; the second part contains the system of the powers of the church, particularly of its jurisdiction and judicial processes; the third part embraces the rules respecting religious rites, the liturgy, the sacraments, &c. This new collection met with great success. Within 10 years after its appearance, the universities of Bologna and Paris had their professors of canon law, who taught from Gratian's work; and within a short time, it superseded all former chronological collections. As the civil law acquired authority in so many countries from the circumstance that it was taught in the universities, so the Decreta-. tum Gratiani was in the same way, become a code, and with more reason, since it expounded a law really existing; and what Gratian had added was, to a certain degree, considered as commentary. Any direct co-operation of the popes in elevating the Decretum Gratiani to the authority of a code has never been proved. This Decretum, however, is only the first part of the present Corpus Juris Canonici. After the appearance of the Decretum, new decrees of councils and new decreals were promulgated, which several authors collected into appendices. All these new collections pope Gregory IX. ordered to be put in order, which he had formed himself, and under each division, they are called Extravagantes Johannis XXII.; and, at a later period, the subsequent decreals, to the time of Sextus IV., who died in 1484, called Extravagantes Communes, appeared. These Extravagantes have not altogether the authority of law. Under pope Pius IV., a commission of 35 persons (the correct number is not known), was appointed to revise the Decretum Gratiani. The labour was continued under Pius V., and completed under Gregory XIII., and sanctioned by a bull of July 1, 1580. The latter bulls have the force of law, if they concern a subject on which the pope has an unquestionable right to legislate, or as far led, in the English law, courts Christi- tianum (curia Christianitatis), or ecclesiastical courts; 2. the military courts; 3. the courts of admiralty; 4. the courts of the two universities. The reception of these laws in general, and the different degrees of their reception in these courts, are grounded entirely upon custom, corronbread, in the case of the universi- ties, by acts of parliament. The courts of common law have a superintendence over these courts. An appeal lies from all of them to the king.

**CANONICAL BOOKS.** See Canon and Apo- stolic constitution.

**CANONICAL HOURS** are certain stated times of the day, devoted, more especially by the Roman church, to the offices of prayer and devotion, as matins, lauds, sixth, ninth, vespers. In England, the canonical hours are from 8 to 12 in the forenoon, before or after which marriage cannot be legally per- formed. The term is also used.**

**CANONIZATION;** a ceremony in the Roman church, by which deceased persons are declared saints. Alexander III., in 1170, pronounced it an exclusive privilege of the papal chair. This cere- mony is one of the most solemn in the Roman church. This decree is an example of the qualifications of the deceased person recommended.
for canonization, in which his manner of life and the genuineness of the miracles ascribed to him are strictly examined; and an advocate of the devil, as he is called, is appointed, to assail the memory of the candidate, but, of course, always loses his cause. If the examination is satisfactory, the pope pronounces the candidate to be restored to the church, and, until the time to collect new proofs of his merits (e. g., of miracles performed by his relics), the actual canonization generally takes place many years afterwards; and then a day, usually the anniversary of the death of the new saint, is dedicated to his honour, his name is inserted in the Canon of the given Mass for Saint in the Mass (hence canonization), churches and altars are consecrated to him, and his remains are preserved as holy relics. The last instance of canonization occurred in 1803. See Saints.

CANOPIUS, or CANOBUS, in Egyptian Antiquities, is the name given to large-bellied vessels, used formerly for preserving the water of the Nile fresh and fit for drinking. They were frequently made of basalt (as the fine canopus of green basalt in the villa Alani), and decorated with figures in relief on the outside to commemorate the events that occurred in the Mus. Pio. Clementinum, with spiral flutings; or they were formed from black, burned clay. Under the shape of such a vessel, surmounted by a human head, connected also sometimes with serpents, and similar attributes, the Egyptians worshipped one of their beneficent deities. The city Canopus or Canobus, between Alexandria and the western mouth of the Nile, is said to have derived its name from this deity. The worship of Serapis was introduced, in the room of that of this rude idol, under the first Ptolemy. (See Part 1st of Creuzer's Symbolik, where reference is made to an inscription respecting the worship of the same, see Creuzer's Dionysus.) According to Eusebius, the sphericall shape of the vessel was to express the universal nature, or the world. The human head upon it signified the all-enlivening spirit (os), which was denoted also, in former times, by the figures of a ball and a serpent. According to Zoega (Numi Egypthi Imperatori, page 34), Canopus was the same as Knoph, which seems to come from the same root, and denotes the kind, protecting god. There are traces, in Italy, of the worship of this deity, in that country.

CANOVA; a city in Lower Italy (Terra di Bari), famous for the tombs in its vicinity, near the field where Hannibal defeated the Romans. They are cut in rocks, on a hill. Vases of course, whitish clay have been found in them. In 1813, a beautiful burial-chamber was opened. It had a small ante-chamber, supported by pillars, and contained the corpse of a warrior in armour, with a helmet on his head, but one leg bare. The body crumpled to dust as soon as it was exposed to the exterior air. The wall of the apartment contained a fine basso relievo. A corner lamp and a mirror given at Piraeus, a few years since, were also found here. (See Millin's Description des Tumbeaux de Canosa ainsi que des Bas-reliefs, des Armures, et des Vases peints qui y ont été découverte en 1813 (Paris, 1813, folio), with correct representations).

The paintings upon the vases are the most important part of this discovery. They refer to the Greek-Italian mysteries of the oldest inhabitants.

CANOVA (near Reggio, in the duchy of Modena); a mountain castle, now in ruins. Adelheid, widow of King Lotharius, was besieged here, in 931, by Boniface II., when she offered her hand and the crown to the besieging army. It was afterwards possessed by many. In the 11th century, Canova belonged to Matilda, duchess of Tuscany, with whom Gregory VII. resided, in 1077, when he imposed a severe penance upon the excommunicated emperor Henry IV.

CANOVA, Antonio; the third sculptor of modern times, who has formed an epoch in Italian statuary. Michael Angelo Buonarroti was the first, Bernini the second. Canova may be considered as the restorer and founder of a new school, as far as it respects softness and delicacy of execution, and excellent handling of the marble. He was born, Nov. 1, 1757, at Possagno, in the Venetian territory. While a boy of 12 years old, he displayed his talents by modeling the figure of a lion in butter, which was placed on the table of Faleri, the signeur of the place. The Faleri, father and son, sent him, therefore, as an apprentice, to a statuary in Bassano, where he acquired skill in the mechanical part of the art. His first work, executed in his 17th year, was an Eurydice, in soft marble, of half the natural size. He was now sent to the academy of Venice, where his proper study of the art commenced. He gained several prizes, and excited expectations which he more than equalled in the sequel. The first work, which he was commissioned to execute, was the statue of the marchese Poleni, of the natural size, for the city of Padua. Sir William Hamilton, British ambassador at Naples, was one of his earliest and most efficient patrons. In his 23d year, he finished the group of Desdesmus and Icarus; of the natural size, in Carrara marble. It is remarkable as a juvenile work, but is only a faithful imitation of common nature. The se- nate of Venice sent him, in 1779, to Rome, with a salary of 300 ducats. Here the first fruit of his study was an Apollo crowning himself with laurel, three palms high, in marble. It is weak, and without character. The art of the sculptor has advanced beyond the mere imitation of nature; and this statue is to be considered as his transition to the ideal. A group as large as life—Theseus sitting upon the slain Minotaur—was the first large work by which Canova made himself known in Rome (1783). It is one of his best works. Theseus has the character of a hero; and the forms show the study and style of the antiques. It was received with universal applause, and count Fries, in Vienna, purchased it. In 1783, Canova undertook the execution of the tomb of pope Clement XIV., in the church Degli Apostoli. He modelled the usual style of tomb, and only improved on the depraved taste of the school of Bernini. He next made the group of Cupid and Psyche, where he first displayed his own peculiar style, of which loveliness is a striking characteristic. The figures are exceedingly delicate and graceful; yet there is no point of view from which the countenances of both can be seen at the same time; besides, the wings of Cupid project disagreeably from the group, which presents too many interstices. About the same time, he executed the likeness of the young prince Czartoriski, in the charac- ter of Cupid. He was about twenty years of age. In 1786, a very sumptuous and am- bition marble, the tomb of pope Clement XIII., in St Peter's. It was finished in 1792, and is dis- guished by its colossal size and simple style. (See the engraving of Raphael Morghen.) The figure of Religion is objected to as stiff; the long rays, the huge cross, and the petty folds of the lower dress, give her a tasteless air. The Genius has more beauty of appearance than depth of expression. Mean- while, the fame of the artist continually increased. He established, in the palace of the Venetian am- bassador, a school for the benefit of young Vene- tians. His busts, emperors of several European countries; another group of Cupid and Psyche; a group of Venus and Adonis (in which the figure of the lat- ter is particularly beautiful), for the Marchese Verio.
in Naples; the tomb of the Venetian admiral Emo, for the republic of Venice. This is a combination of base-relieves, with figures in full relief. Canova also made a very lovely Psyche, standing, half-dressed, with a butterfly in her left hand, which she holds by the wings with her right hand, and contemplates with a smile. He also modeled, in this time, many base-relieves, mostly scenes from the life of Socrates, taken from ancient fable and history, which cannot all be called successful. Only one of these models, which represents the city of Padua as a sitting female figure, he executed in marble. A repentant Marquise of the natural size, life-size to the work, in marble, in which he has carried the expression of the melting and the soft to the highest degree. The relaxing effect of repentance is expressed with great truth. His Hebe is a delightful figure. In an easy and animated attitude, the smiling goddess of youth hovers upon a cloud, pouring nectar, with her right hand, into a bowl, which she holds in her left. Two vessels, as well as the corona of Hebe, and the edges of her garment, are gilt. Canova is fond of a variety of material, and often endeavours to give to his statues the effect of pictures. He repeated this and the preceding effect next displayed in a theatrical, in the raging Hercules hurling Lichas into the sea. The group is colossal, and Hercules somewhat larger than the Farnesian; but it makes a disagreeable impression, which proves that the genius of Canova was not adapted to such subjects. His representation of the two pugilists, Kreugas and Democles, is much more successful. A standing group of Cupid and Psyche, which has been often repeated, was the triumph of his art. Psyche here appears again holding the butterfly. A Palamedes, subsequently executed by Canova, in marble, was overthrown by His Excellency in 1805, by an explosion and broken in pieces. In 1796 and 1797, Canova finished the model of the celebrated tomb of the late archduchess Christiana of Austria, wife of duke Albert of Saxo-Teschen, which, in 1805, was placed in the church of the Augustines at Vienna. The design of it is original; for the first time, the great artist ventured to leave the common track. In 1797, he made the colossal model of a statue of the king of Naples, one of his finest works. In the beginning of the revolution, the studio of Canova was in great danger from the Jacobins; but the lovely Psyches, Hebes, and the group of the six Parcae, had been saved by the work-shop of the artist, in the back part of which the royal coffin was concealed. This statue, 15 palms high, was executed in marble, in 1803. During the revolution of 1798 and 1799, Canova accompanied the senator prince Rezzonico on a journey through Germany. After his return, he remained for some time in the Venetian territory, and painted, for the church of his native village, Possagno, an altar-piece, in which are represented the dead Christ, the Maries, Nicodemus, and Joseph, and, on high, God the Father. He afterwards executed, in Rome, his Persius with the head of Medusa, which, when the Apollo of Belvédère was carried to France, occupied its place and pedestal. This statue increased the fame of Canova more than any of the preceding works. But Persius has no decided character. It is only an imitation of the Apollo. The separate parts are of exquisite beauty in form, as well as in masterly, delicate finishing. The magical charm of the finish dazzles the eye, and makes us often forget the more severe forms of the art. Far less successful is the Mars pacificer, of equal size. In 1802, Canova was made, by Pius VII, superintendent of the Roman works, a pensioner of the State, of the income, that, in the same year, he was invited by Bonaparte to Paris, to make the model of his colossal statue. In the beginning of 1803, the model of the emperor's bust, and afterwards that of his colossal statue, was to be seen in the workshop of the artist. It is impossible to conceive a more characteristic likeness, exhibiting, at the same time, the ideal character of the ancient heroic style. We have not a more successful work than this. The figure of the statue is not so good. George IV, presented him with the model of the duke of Wellington. The statue of madame Letitia Bonaparte was purchased, in 1819, in Paris, by the duke of Devonshire, for 36,000 franes. Among the later works of the artist are a Washington, of colossal size, standing, now in the state-house at Raleigh, the seat of government of North Carolina; the tombs of the cardinal of York and of Pius VII.; the busts of Pius VII. and of Francis II.; an imitation of the Medicean Venus; a Venus rising from the bath; a portrait statue, lying, half-dressed, upon a couch; the tomb of the late engraver Volpato; the colossal group of Theseus killing the Minotaur, far surpassing his earlier works in the heroic style; the tomb of Alferi, for the countess of Stolberg, in Florence, and erected in that place (the weeping Italia, a colossal statue in marble, is particularly admirable). The statue of the execution of the marchioness of S. Croce; a colossal base-relievo, in marble; a Venus; a dancing girl, with almost transparent garments; the portrait statue of the wife of Lucien Bonaparte, with the lyre in her arms; a large marble statue, with beautiful drapery; a colossal Hecate; a Paris; a Muse, larger than the natural size; a model of a colossal Ajax; and the model of a sitting statue, in rich robes, of the archduchess Maria Louisa of Austria. After the second fall of Napoleon, in 1815, Canova was commissioned, by the pope, to demand the restoration of the statue of the captive Gaul, which had been taken from Paris to London, and returned to Rome in 1816, where Pius VII. inscribed his name in the golden book of the capitol, declared him "to have deserved well of the city of Rome," and made him marquis of Ischia, with a pension of 8000 scudi. Canova died at Venice, Oct. 15, 1822.

In his manner of treating the marble, a particular endeavour to produce the appearance of the greatest softness is visible. Not satisfied with giving to the surface of the marble the most delicate finish, by means of the rasp and the pumice-stone, he has introduced a considerable number of exquisite figures, and prepared with soot, which he applies, after the last polish, in order to break the dazzling white of the marble, and to give it the soft, mellow appearance of ivory or wax. This excessive refinement in finishing is more attractive to amateurs than to true connoisseurs. Canova used to make his models of a small size, in wax, then in clay, of the same size as the work was to be. From this last a cast was taken in gypsum. The first shaping of the marble from the cast he left to skilful workmen.

As a man, Canova was respectable and amiable. He was active, open, mild, obliging, and kind towards everybody. He had neither the pride nor the envy of an artist. His opinion of himself was very modest, notwithstanding his fame was spread throughout all Europe. He was not only disinterested, but animated by the noblest benevolence. He assisted promising young artists, and established prizes for the encouragement of the arts. When the pope conferred upon him the title of marquis of Ischia, with an estate producing 5000 piastres of rent, he dedicated the whole of it to the support and encouragement of poor and deserving artists. In short, his moral character, that, even among his many rivals, there is but one voice respecting his worth as a man. His last work was a large group, the prin-
CANTANE—CANTERBURY.

27.

Chapel figure of which represents Religion victorious. It was intended to be placed in Rome, as a monument commemoratory of late events, the expense to be defrayed by a subscription in England. Canova was also an agreeable painter, but, strangely enough, more of a colourist than a correct designer. (See the Life of Canova, by Missinni; 4 vols., Prato, 1824; also, the Biografia, by the count Gugliem.; Venice, 1823). Engraved representations of all his works have appeared in Italy and at Paris.

CANTÉN (Charles Hilderbrand, von), founder of a famous establishment for printing Bibles, which goes under his name, was born in 1697, at Linden- burg, in what is now a dominion of Russia. He had travelled much in Europe, went, in 1688, to Berlin, where he was appointed page of the elector of Brandenburg, and served as a volunteer in the Netherlands. A dangerous sickness obliged him to leave the military service. He went to Halle, where he became familiarly acquainted with Spencer. His wish to spread the Bible among the poor led him to form the idea of printing it with stereotype plates. Thus originated the famous institution, called, in German, Die Cantenieische Bibelanstalt, of which we shall speak more in the article Franke. Canstein published, in 1703, a collection of the Odes of Horace.

CANTABRICA; the richest and most valiant of all the Iberian tribes, who dwelt in the ancient Hispania Tarraconensis, and inhabited the greater part of what is now La Montana, and the north-west part of the present province Burgos. In ancient history, Cantabria is generically used to denote all the inhabitants of the northern mountains of Spain. Cantabria is the name which was given to the country they inhabited.—Oceanus Cantabricus is the ancient name of the Bay of Biscay.

CANTACZERUS, Jon, a Byzantine emperor and historian, was born in 1295. While minister of Andronicus III., he negotiated a favourable peace with the Greeks in 1336, and repelled the encroachments of the Turks, who had rebelled against the authority of Andronicus in 1341. Cantacuzenus became regent during the minority of the young emperor, John Paleologus. He defeated the Bulgarians and Turks, as- sumed the diadem, and entered Constantinople, victorious over his rivals, in 1346. He used his power with moderation, and endeavoured to heal the wounds which five years of civil war had inflicted on the state; but religious disputes, civil dissensions, and foreign enemies, soon disturbed his government; and the jealousy of Paleologus, the rebellion of his own son, war, plague, the frightful disorders which prevailed in the empire, and his own loss of popular fa- vor, induced him to renounce the crown. He retired to a monastery (1355), where he employed himself in literary labours. He is considered one of the greatest among the successors of Constantine. His Four Books of the Byzantine History were printed in 1646 (Paris, 3 vols., folio), and belong to the collection of the Byzantine historians. His other works, principally theological, are partly printed and partly in manuscript.

CANTAL; a chain of mountains in Upper Auvergne, France, the highest peak of which, called le plomb de Cantal, is said to be nearly 6000 feet above the level of the sea. They give name to a department. See Department.

CANTATA; an elegant and passionate species of vocal composition, consisting of an intermixture of air and recitative. It was invented by Barbara Strozzi, a Venetian lady, who flourished about the middle of the 17th century, and was at one time ex- tended to such length as to form a little opera, but has since been cultivated in Italy, Germany, and England, only as chamber music.

CANTENE, a French cantine, Spanish cantina signifies both a bottle-case and a tavern for soldiers. (Compare Crane.) Roderick was of the Order of the Garter, and was obliged to divide his meat into minute portions for holding an officer's eating utensils; likewise, a semi-cylindrical tin case, carried over a soldier's knapsack, to hold his cooked victuals in; also a vessel to hold the mutton of spirits or wine served out to the British troops when employed abroad.—Cantemir, moreover, signifies a public-house, licensed in British barracks or forts, to sell liquors and tobacco to the soldiers.

CANTEMIR, Dimitrius, was born in Moldavia, in 1675. At the age of fifteen, he was sent as a hostage to Constantinople, where he remained four years. He became the pupil of his friend, Johannes in 1692, under his father, upon whose death, in the succeeding year, he was chosen prince of Moldavia, at the age of twenty. This choice was not confirmed by the Porte, and he was ordered to reside at Constantinople, where his abilities soon gained him the favour of the government; and he was twice nominated hospodar of Moldavia. He successfully used his influence to transfer that dignity to his brother. He was appoint- ed the third time, in 1710, with the promise of the annexation of Wallachia, and exemption from tribute. Notwithstanding this promise, as soon as he was invested with his office, he was called upon for the amount usually paid on such occasions. Heentered, therefore, into a treaty with the czar Peter, by the terms of which the principality was to be hereditary in the family of Cantemir, under the protection of the czar, whom Cantemir was to assist in his war with Turkey. The czar, however, being abandoned by the Poles and betrayed by the Moldavians, was obliged to retire, and Cantemir took refuge in his dominions, with the rank of prince of the Russian empire. He died at Astrakan, in 1723. Cantemir spoke eight languages, and understood the ancient Greek, French, and Scalianian. He was a member of the academy of Ancien at Berlin, 1717. At his request, the friends of the Faculty of Science at Berlin, called History of the Growth and Decay of the Otto- man Empire (in Latin). It has been translated into English (London, 1734, 2 vols., folio), French, and German. He is the author, likewise, of the Present State of Moldavia (in Latin), and the System of the Mohammedan Religion, which have both been published. His other works are in MS.

CANTERBURY, the capital of the county of Kent, is situated 55 miles S.E. from London. It is sup- posed to have been a place of importance before the Roman invasion, the Roman name Durovernum being clearly latinated from the British prefix: Duro, water, although antiquaries much differ as to the re- mainder of the compound. Drudiacal remains have also been often found here, together with the British weapons termed Celts. Its importance under the Roman dominion is proved by many circumstances; and especially by the discovery of a great variety of remains of that people; added to which, Roman bricks have been found in certain portions of the re- maining walls. It derives its present name from the Saxon appellation of Cant-war-a-byrg, the Kentish- man's city. During the residence of Ethelbert, king
of Kent, the memorable arrival of St Augustin took
place in 596; an event which, through the influence
of his queen Bertha, was rapidly followed by the
conversion of this king and his people to Christian-
ity; and the foundation of the archiepiscopal see of
Canterbury. In the eighth, ninth, tenth, and eleventh
centuries, the city was dreadfully ravaged by the
Danes, and on one occasion, in 1011, with much
brutal ferocity, that nearly the whole of the inhabitants,
including women, children, and the archbishop him-
self, were barbarously massacred, and the cathedral
burnt to its bare walls. It gradually, however, re-
covered, and at the conquest, it was far surpass
in prosperity and respectability, as the most
refined. The ecclesiastical im-
portance of the place, in particular, advanced with
great rapidity, which was consummated by the mur-
der of Thomas a Becket, whose politic canonization
by the pope rendered Canterbury the resort of pil-
gims from every part of Europe. Not only were the
priory and see benefited by the offerings of the rich
devotees, but the prosperity of the town itself was
greatly advanced by the money spent in it by so
many wealthy strangers. Erasmus describes the
church, and especially the chapel in which he was
interred, as glittering with the gold and jewels offer-
ed by the great nobles, and wealthy visitors of
his shrine; all of which Henry VIII. appropriated
to himself on the dissolution of the priory in 1539,
when he ordered the bones of Becket to be burnt to
ashes. Several of the English monarchs have made
a temporary visit to Canterbury, which was also
occupied by Oliver Cromwell in the civil wars,
whose troopers made a stable of the cathedral.
Canterbury is of an oval shape, and the four prin-
cipal streets are disposed in the form of a cross, with
a great number of smaller streets, lanes, and alleys.
Its situation has been considerably improved by the
half-century, especially as respects paving, watch-
ing, lightening, and the removal of cumbersome projections and signs. The culture of hops being carried on all
round the city, it is rendered one of the first hop-
markets in England; it has also been celebrated from
time immemorial for the excellence of its brown.
Much business arises from its situation on the high
road to France, which has induced many Jews to settle here, where they possess a synagogue.
The archbishop of Canterbury is primate, and met-
ropolitan of all England, and deemed the first peer
in the realm after the royal family. He places the
chapter on the primate's head in the cathedral, and
wherever the court may be, the king and queen are
deemed his parishioners. The four prelates of Lon-
don, Winchester, Lincoln, and Rochester, are re-
spectively his provincial dean, subdean, chancellor, and
chaplain. His province comprehends the sees of
twenty-one suffragan bishops, and he has the no-
mination of the several officers belonging to the
ecclcsiastical courts, over which he presides, and the
privilege of conferring degrees in the faculties of
law, physic, and divinity. The present venerable
cathedral, was a repair and revival of that built by
Lanfranc, the first primate after the conquest, the
whole of which was nearly destroyed by fire in 1174.
It exhibits specimens of the style of every age from
the Norman accession to the period of the dissolution
of monasteries. Population in 1831, 14,463.
Of the dyes and tints, the
Spanish fly (in medicine);
the name of a kind of fly, the Spanish vesicatoria,
Geoffry; meloe vesicatoria, Lin.; lytta vesicatoria,
Fab.; belonging to the family of the trichelidés.
They are very common in Spain, Italy, and France,
where they are found in large families on the ash,
willow, and alder. Their body is black, from 3 to 10
lines long; the feelers are black, setaceous, com-
posed of 12 articulations; the elytra long, flexible,
of a shining, golden green, and the tarses of a deep
brown. Their colour is strong, penetrating, peculiar,
and unpleasant; their taste extremely acrid; their
powder is of a brownish grey, intermixed with shin-
ing particles of a metallic green colour. According
to Robiquet, they contain, with several other ingre-
dients, a peculiar substance, called cantharidin. (p. v.)
These insects are, of all the vesiculating, peculiar
those which are most commonly used. Their action
is principally confined to the skin; however, their
active principles may be absorbed, and cause serious
accidents. The application of a blister is often fol-
lowed by nausea, vomit, hematuria, priapism, &c. Taken
internally, they greatly destroy the appetite; they
cause violent pain, extreme thirst, and violent
peristaltic movements in the intestines, and especi-
ally affect the genito-urinary organs, which they
stimulate violently. In certain disorders, they are
administered in small doses, as powerful stimu-
lants. The medicine is of a very dangerous charac-
ter, and its use requires the greatest caution on the
part of the physician. Several species of blistering
fly are found in America, some of which are more
powerful than the Spanish fly.
CANTHARIDIN, the vesicating principle of the
cantharides, or Spanish fly, is white, in small, crys-
talline plates, insoluble in water, volatile, soluble in ether, boiling oils, and alcohol, from which it precipitates by cooling. The vesicating prop-
erties could be extracted from cantharides by oil of
turpentine, and probably a satisfactory ointment
be prepared by merely evaporating the oil of turpentine at a moderate temperature. See Can-
tharides.
CANTICLES. See Solomon, Song of.
CANTIUM; an ancient territory in South Bri-
tain, whence the English word Kent is derived, sup-
posed to be the first district which received a
colony from the continent. The situation of Canti-
um occasioned its being much frequented by the Ro-
mans, who generally took their way through it in
their marches to and from the continent. Few places
in Britain are more frequently mentioned by the Ro-
man writers than Portus Rutupensis. Portus Dubris
(now Dover), Durobrivae (now Rochester), and Durovernum (now Rov-
chester and Canterbury) were also Roman towns and
stations. Cantium, in the most perfect state of
the Roman government, made a part of the province
called Flavia Caesarisania. See Kent.
CANTO FERMO; the name given to the ancient
chief mountain of the Umbroid colony, which were adopted as standing melodies. These chants, until
counterpoint was discovered, were unaccompanied,
or only harmonized with octaves.
CANTO FIGURATO. This term was applied,
by the old Christian Ecclesiastics to the canto fermo
in its more cultivated state, when harmony began to
assume modulation.
CANTON, the principal city of the Chinese
province of the same name, otherwise called Quang-tong, or
Koo-nen, is situate in 23° 7' N. lat., and 118° 14' E.
lon., on the banks of the river Taho, which is here
very wide. This city, distinguished for size, wealth,
and a numerous population, is the only seaport in
China open to the ships of Europe and America.
The estimate of missionaries, that it contains 1,000,000
of inhabitants, is exaggerated. The number is pro-
ably nearer 750,000. The circuit of the walls,
which are 140 feet in diameter, is above nine
miles. Only about a third part, however, of the space
enclosed is covered with buildings; the rest is occu-
plied with pleasure-gardens and fish-ponds. The
neighbouring country is very charming, hilly towards
the bay of Tongking, and a most beautiful
picturesque. The houses are mostly of one story; but
those of the mandarins and principal merchants are
high and well built. In every quarter of the town and the suburbs are seen temples and pagodas, containing the images of Chinese gods. The populous streets are long and narrow, paved with flat stones, and adorned at intervals with triumphal arches. Shops line the sides, and an unbroken range of piaza protects the occupants of the houses, and sheltering foot-passengers, from the rays of the sun. At night, the gates are closed, and bars are thrown across the entrances of the streets. The traders express themselves with sufficient fluency in the languages of their European and American customers, with whom they deal almost exclusively, selling their wares, as blackened with experience as the vessels on which the commerce and productions of the empire are transmitted. The principal articles of export are tea, India ink, varnish, porcelain, rhabar, silk, and nankeen. A company, consisting of twelve or thirteen merchants, called the Cohong, is established here, by order of the government, for the purpose of purchasing the cargoes of the vessels, and furnishing them with return cargoes of tea, raw silk, &c. This society interferes, undoubtedly, with private trade, but adds greatly to the security of the foreign dealer, as each member is answerable for all the rest. Carriages are not used here, but all burdens are transported on bamboo poles laid across the shoulders of men. All the inhabitants of distinction make use of litters. Chinese women are never seen in the streets, and Tartar women but seldom. The European factories, via the Dutch, French, Swedish, Danish, and British, are situated on a very commodious quay, on the banks of the river. Nearly a league from Canton is the Boat-town, which consists of about 40,000 hanks of various kinds, arranged close to each other in regular rows, with passages between them, to allow other vessels to pass. In this manner they form a kind of floating city, the inhabitants of which have no other dwellings, and are prohibited by law from settling on shore. As this is the only emporium in the empire for foreign commerce, which is carried on not only by Europeans and Americans, but also to a great extent by the Chinese themselves, with almost all the ports of India and the eastern Archipelago, the trade between these vessels, which, on the average, is at once, is said to exceed 5000. An American paper, issued twice a month, called the Canton Register, has lately been established at Canton. The British and American commerce with Canton is very extensive. The British trade is divided into two branches: that carried on between China and Great Britain, or the Company's trade; and that carried on between China and the British possessions in India, which is chiefly in the hands of private individuals. The imports to China consist of woollens, copper, iron and lead, glass and earthenware, and jewellery. Since 1824-5, the East India Company have exported nothing from China except tea, (see Tea Trade). The trade between China and British India is of more value than the Company's trade between China and Great Britain. The chief article of import from India to Canton used to be cotton wool; but this branch of trade has lately declined. The importations of manufactured cottons and twist from Great Britain is now the principal import. The following table gives the amount of imports from Canton into the ports of the United States, also the exports of domestic and foreign goods from the United States to Canton, from 1821 to 1827:

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports</th>
<th>Dut. Exp.</th>
<th>Fow. Exp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1821</td>
<td>3,111,951</td>
<td>388,343</td>
<td>3,063,608</td>
</tr>
<tr>
<td>1822</td>
<td>5,693,698</td>
<td>749,200</td>
<td>5,644,498</td>
</tr>
<tr>
<td>1823</td>
<td>6,472,972</td>
<td>617,000</td>
<td>5,855,972</td>
</tr>
<tr>
<td>1824</td>
<td>5,618,062</td>
<td>300,400</td>
<td>5,317,662</td>
</tr>
<tr>
<td>1825</td>
<td>7,117,200</td>
<td>2,400,000</td>
<td>4,717,200</td>
</tr>
<tr>
<td>1826</td>
<td>7,422,400</td>
<td>24,400</td>
<td>7,198,000</td>
</tr>
<tr>
<td>1827</td>
<td>7,617,400</td>
<td>280,000</td>
<td>7,337,400</td>
</tr>
</tbody>
</table>

The climate of Canton is healthy, warm in summer, but pretty cold in winter. Provisions, including various luxuries, are abundant.

CANTYRE, or KINTYRE, the southern division of Argyleshire. Mull of Kintyre, the south promontory of the peninsula.

CANTUÉ, king of England and Denmark, ascended the throne of both kingdoms, A.D. 1015. He was called the Great, on account of his power, as Alfred had been for his virtue. The barbarities committed by the Danes in England excited Ethelred II., the twelfth king of Saxon descent, to a bloody vengeance. In 1013, he caused all the Danes, women and children, to be massacred on the same day. The sister of Swen, then king of Denmark, he caused to be beheaded in his presence. Swen landed in England, and laid waste the country with fire and sword. Ethelred had escaped to Normandy. Swen died 1014, before he had time to confirm the Danish possessions in the island. This was accomplished, however, by his son and successor, Canute. He began his reign by devastating all the eastern coast of his new kingdom, and causing the English, who were given to his father as hostages, after he had cut off their noses and hands, to be drowned at Sandwich. He then received reinforcements from Denmark, and extended his ravages in the south of England. The valiant Edmund marched against him with an army, and, although he was several times overthrown, through the treachery of Edric, his brother-in-law, he still maintained himself against Canute, so that the English and Danish armies were probably in a long continued contest, sought to bring about a division of England between the two princes. A solemn treaty secured to Canute the north of England, and to Edmund the south. But only a month after this contract, Edmund was assassinated by two chamberlains, hired by Edric; and Canute became master of all England. At a general assembly of the states, he induced false witnesses to affirm that Edmund had appointed him heir to his crown, to the prejudice of his two minor children. After the assembly had confirmed this settlement, Canute sent the two young princes to Sweden, where, it is probably true, he would put them to death. The latter, however, sent them to Hungary, where they met with the kindest reception, Canute, who had begun his reign with barbarity and crime, afterwards became humane, and finally pious, and even superstitious. He commenced a more equitable administration from Denmark, by the English natives who had betrayed their king, and by causing Edric to be hanged, and thrown into the Thames. He restored the Saxon customs at a general assembly and insured to the Danes and Englishmen equal rights and equal protection of person and property, so that the northern and southern coasts of the island were advanced, to the enjoyment of all the inhabitants. He erected churches and monasteries, and even performed a pilgrimage to Rome, where he obtained important privileges for the schools of England. It was this spirit of piety that animated him, when, to confound his flatterers, he seated himself upon the strand, and commanded them to draw near to retire. As they advanced, and bathed his feet, Ca-
nate arose, and said, that He only was almighty, whom the ocean obeyed when he proclaimed, "Thus far shalt thou go, and no farther." His last expedition was against Malcolm, king of Scotland. He died four years after, A. D. 1036, at Shaftesbury. By his will, he left Norway to his eldest son, Sweyn; to the second, Harold, England; and to the third, Harle.

Canzonets, a kind of lyric poem, of Provencal origin. It is found in the Italian poetry of the thirteenth century. At first, it was quite irregular, but was confined by Petrarch to more fixed and regular forms. Hence it is called canzonettas. It was also divided into stanzas, consisting of short verses, and a regular disposition of the rhymes through all the stanzas. In the selection of his verse, however, and of the disposition of the rhymes which he will observe in his poem, the poet may follow his pleasure. Not only light, pleasing songs of love, gayety, and mirth, but poems on solemn and lofty subjects, and of an elevated dithyrambic strain, are included under this name. The latter subjects, however, are better adapted to the canzonet Pindarico, which was first introduced into the Italian poetry, in the sixteenth century, by Luigi Alamanni, and owes its perfection chiefly to Chiaribra. It is distinguished from that of Petrarch by a bolder flight, loftier ideas, greater freedom in the choice and disposition of the verses, and by the form of the stanzas, which is borrowed from the Greek chorus. The Pindaric canzonets are divided into strophes, antistrophes, and epode, and are called canzonet alla Greca. Those divisions are sometimes called ballata, contraballata, and stanco; or volta, ricolta, and stanz; almost all of which signify the same as the Greek divisions: the Greek names are the most common. There is also the canzonet alla Greca Grisone, original intended to be sung at a dance (ballato). It is called also ballata. It is not employed by the Italian poets later than the sixteenth century.

Canzonet, Canzonetta (poetry and music); in Italian poetry, a canzone (q.v.), consisting of short verses, much in use with the poets of the fifteenth century. Rimuccini, and, after him, Chiaribra, have used it in modern times, and given it more grace. Canzonets are generally expressive of tender feelings.

In music, canzonet signifies a short song, in one, two, or three parts; but, in England, it is more generally applied to the two latter.

Cautchouc. This substance, improperly termed elastic gum, and more commonly, from its application to remove pencil-marks from paper, India rubber, is obtained from the milky juice of several plants, which are natives of the torrid zone. The chief of these is the Guayana Greanaucou, or urca elastica, and urca elastica. Cautchouc is brought principally from South America. This juice, obtained from incisions, is applied, in successive layers, over a mould of clay, and dried by exposure to the sun, and to the drying wind. When perfectly dry, the mould is broken, leaving the caoutchouc in the form of a hollow ball. In its solid state, caout-

chouc is of a close texture, distinctly fibrous, of a light brown colour, or sometimes nearly white. Its elasticity is such that it can be stretched to a great extent; and, on removing the stretching force, it recovers its original dimensions. Its softness and pliancy are increased by heat. Boiling water makes it very soft, and newly cut or pressed closely together, may be firmly united. By a great heat it is fused, and may, in that state, be applied, as proposed by Mr Atkin, to the surface of steel instruments, which it will cover with a transparent film, that effectually preserves them from rust. It is insoluble in alcohol and water or cold, but dissolves very quickly when purified by washing in water, dissolves it; and, by evaporation, the caoutchouc may be recovered unchanged. Oil of turpentine softens it, and forms with it a sort of paste, that may be spread as a varnish, but is very long in drying. The fluid now commonly used to dissolve it is the purified naphtha from coal tar, which is, at the same time, a cheap and effectual solvent, and which does not change its properties. This solution is employed to give a thin covering of caoutchouc to cloth, which is thus rendered imperious to moisture. Caoutchouc is also used as a bed under cushions. It is made by twisting a slip of it round a rod, and causing the edges to adhere by pressure, when softened by maceration in warm water. It is also used for over-shoes; and its solution in oils forms a flexible varnish.

It was not until about the year 1736 that this very extraordinary natural production was made known in Europe. It is obtained by making incisions through the bark of the tree, chiefly in wet weather. From the wounds thus made the juice flows abundantly. It is of a milky-white colour, and is conducted by a tube or leaf, supported by clay, into a vessel placed to receive it. Some writers assert that, on mere exposure to the air, it gradually hardens, and others, that it goes through a certain process for this purpose, which the Indians of South America keep as a profound secret. It is usually brought to Europe in the form of pear-shaped bottles, which are formed by spreading the juice over a mould of clay, exposing it to a dense smoke, or to a fire, till it becomes so dry as not to stick to the fingers, when, by certain instruments, it is formed into tubes of various shapes, and stretched to the outside with various figures. This done, the clay in the inside is moistened with water, and picked out. India rubber is remarkable for the flexibility and elasticity which it acquires on attaining a solid state, and also for the numerous useful purposes to which it is capable of being applied. By the Indians, it is sometimes formed into boots, which are impenetrable by water, and which, when smoked, have the appearance of leather. Bottles are made of it, to the necks of which are fastened hollow reeds, through which the liquor contained in them can be sipped at pleasure. One of these, filled with water, is always presented to each of the guests at their entertainments. Flamebeaux are likewise formed of this substance, which give a very brilliant light; and it is said that a torch of it, an inch and a half in diameter, and two feet long, will burn twelve hours. The Indians also make of Quina itajara a species of cloth with the hardened juice of this tree.

C a p : the cover of the end or head of any thing. The word is very often used in the mechanical arts. In ship-building, cap is a square piece of timber placed over the head or ridge of the place in which is a round hole to receive the top or top-gallant-masts, which are thus kept steady and firm.
Cap of a block; a semicircular projection from the sides and round the end of a block above the pins.

Cap-merchant; the purser of a ship.

To cap verses is an exercise of the memory among school-boys; the one repeating a verse, and the second proceeding where he left off, and so on with the rest.

Caps were not worn by the Romans for many ages. When either the rain or sun was troublesome, the lappet of the gown was thrown over the head; and hence all the ancient statues appear bareheaded, excepting, sometimes, a wreath or the like. The same usage prevailed among the Greeks, to whom, at least during the heroic ages, caps were unknown. The sort of caps or covers of the head in use among the Romans, on divers occasions, were the phitra, pileus, cecullus, galerus, and palliolum, which are often confounded by ancient as well as modern writers.

The general use of caps and hats is referred to this year 1449. The first seen in Europe were used at the entry of Charles VII. into Rouen. From that time, they began to take the place of chaperons, or hoods. When the cap was of velvet, they called it mortier; when of wool, simply bonnet. None but kings, princes, and knights were allowed to use the mortier. The cap was the head-dress of the clergy and graduates. Pasquin says that it was anciently a part of the head worn by the people of the robe; the skirts whereof, being cut off, as an incumbrance, left the round cap an easy, commodious cover for the head; which cap, being afterwards assumed by the people, those of the gown changed it for a square one, first invented by a Frenchman, called Patrouillet. He adds, that the giving of the cap to the students in the university was to denote that they had acquired full liberty, and were no longer subject to the rod of their masters. It is in imitation of the ancient Romans, who gave a pileus, or cap, to their slaves, in the ceremony of making them free; whence the proverb vocare servos ad pileum: hence, also, on medals, the cap is the symbol of Liberty, who is represented holding a cap in the right hand, by the point.

CAPE. Of the immense number of capes, which have received names from navigators, the limits of the present work will permit us to enumerate only a few.

Cape Ann; a cape on the coast of Massachusetts, in the township of Gloucester, forming the northern limit of Massachusetts bay; lat. 42° 33' N.; lon. 70° 37' W.

Cape Breton; an island of North America, belonging to Great Britain; situated in the gulf of St Lawrence; separated from Nova Scotia by the strait of Fronsac, about three miles wide. This island is about 110 miles in length, and from twenty to eighty-four in breadth, full of mountains and lakes, and intersected by a great number of creeks and bays. The soil is fertile, and abounds in timber. In the mountains are coal mines; in the valleys, excellent pasture; and the coast abounds in fish. The chief towns are Louisburg, Sydney, and Aricht. Population, 30,000. Lat. 45° 34' to 47° 2' N.; lon. 50° to 61° 20' W.

Cape Cod; a noted cape and peninsula on the coast of Massachusetts, on the south side of Massachusetts bay; lat. of the cape, 42° 9' N.; lon. 70° 14' W. The peninsula is sixty-five miles in length, and from one to twenty in breadth, and is in the form of a man's arm, bent inward both at the elbow and the wrist. Though mostly sandy and barren, it is nevertheless populous; and the inhabitants derive their subsistence chiefly from the sea. The cape was discovered by Capt. Myles Standish, who gave it its name from having taken a great quantity of cod-fish near it.

Cape Fear; a dangerous cape on the coast of North Carolina, being the southern extremity of Smith's island, at the mouth of Cape Fear river; lat. 33° 32' N.; lon. 78° 23' W.

Cape Fear; a river of North Carolina, the largest and most important that flows wholly within that state. The north-west, or principal branch, rises in the northern parts of the state, flows southerly, passing by Fayetteville, and above Wilmington. Thirty-five miles from its entrance into the ocean, it is joined by the north-eastern branch. The Cape Fear is navigable for vessels of 300 tons to Wilmington, and for steam-boats to Fayetteville.

Cape Français. See Cape Haytien.

Cape of Good Hope; in the southern part of Africa; lon. 18° 24' E.; lat. 33° 55' S. Bartholomew Dias discovered it in 1493. The tempestuous sea which beat against it prevented him from landing; he therefore called it Cabo dos Tormentos (see Camoens); but John II. changed it to Caba do Bons Esperança. It was first doubled by Vasco da Gama. The Portuguese never formed any permanent settlement here. See next article.

Cape of Good Hope; a British colony, near the southernmost part of Africa. It was nowhere more than an early fixed upon this point as a watering-place for their ships, first colonized in the middle of the seventeenth century. Reducing the Hottentots (q. v.) to slavery, or driving them beyond the mountains, they extended the Cape settlement to nearly its present limits. It was captured by the British in 1795, restored at the peace of Amiens, 1806, and again taken in 1806; since which time it has remained in their possession. The colony extends about 230 miles from north to south, and 550 from east to west; from 30° to 34° 30' S. lat., and from 18° to 29° 30'E. lon. The space included within these limits is about 129,000 square miles, with a population of about one to a square mile. On the west and south, it is washed by the ocean, and, on the north, it is bounded by a range of lofty mountains. The principal bays on the coast are Saldanha, Table, Plattenburg, Algou-bays. Cape Agulhas is the most southern point of the old world. In the interior, almost every variety of soil and surface is found. Several ranges of mountains, running nearly parallel to the southern coast, divide the country into successive terraces, between which lie belts of fertile land, or vast barren plains. On one of these, called the Great Karoo, is 300 miles long and 100 broad, presenting a scene of complete desolation. In fact, according to Barrow, nearly seven-tenths of the colony are destitute of vegetation during a great part of the year. The summits of the Nieuweit Gebirge, the highest chain of southern Africa, are covered with perpetual snow. The Table mountain is a stupendous mass of naked rock, rising, almost perpendicularly, about 3585 feet in height. The colony is deficient in navigable rivers for vessels of any considerable burden. The principal streams are the Dood, and the Berg, flowing into the Atlantic; the Breede, Groot, and Great Fish, emptying themselves into the Indian ocean. The last, in part of its course, separates the Cape colony from Caffiria. The spring and autumn are temperate, and the most agreeable part of the year. The heat is excessive in summer, and, on account of the elevation of the surface, many parts experience the extreme of cold in winter. The soil is, of course, various, but its general character is not that of fertility. The cultivation is very imperfect, the inhabitants depending principally on pastureage. Wheat and maize are cultivated, but with very little success; and oranges, lemons, and figs are good, but all kinds of nuts have failed. The aloe and the myrtle grow to a
The sheep are of the broad-tailed kind. Lions, tigers, wolves, hyenas, buffaloes, and jackals are numerous; and the mountain goats or chamois inhabit the mountains. There are also pelicans, flamingoes, parrots, and many kinds of aquatic birds. Nuisious reptiles are not numerous. Fish are plentiful on the coasts. The capital is Cape Town (q. v.). Scarcely any manufactures have been introduced into the colony, and its commerce is very limited. Some British merchants have settled at Cape Town, and the trade appears to be increasing. The principal export is Cape wine. The imports are in small quantities, and consist of cloths, hardware, furniture, hats, &c. The average amount is about a million of dollars. The value of the colony to Great Britain, however, be estimated at its real value. It is important, principally, as being the connecting link between that kingdom and her possessions in the East. The Dutch settlers, who live in the interior, are called boors, and are in a very degraded condition. Indolent and stupid, everything about them is a farrago of the utmost wretchedness in the midst of plenty.—See Barrow's Travels in Southern Africa; Vaillant, Lichtenstein and Campbell's Travels, and the Rev. Mr. Larrobe's Visit to South Africa, in 1815 and 1816. Beauvoir, the French traveller, has also lately given interesting information on the south of Africa.

Cape Hottentots; a noted and dangerous cape on the coast of North Carolina; being the projecting point of a long reef of sand, extending from Ocracoke inlet to New inlet; lat. 35° 14' N.; lon. 75° 30' W.

Cape Haydens (formerly called Cape Francois, or Le Cap, and, during the reign of Christophe, Cape Henry); a town of Hayti, and the caput of the island and republic; lon. 72° 16' W.; lat. 19° 46' N. It is situated on the north coast; was founded in 1770; burnt in 1792, by the blacks; was the last town in the French in the west; but was surrendered by them to the blacks in 1803; it then became the capital of the black emperor, Henry Christophe. Before it suffered so severely by intestine convulsions, it contained a number of elegant buildings, about 900 houses of stone and brick, and a population of from 8 to 12,000; some say 20,000, 12,000 being slaves. It is situated in a very fertile tract, and has one of the most secure and convenient harbours in the island. It is built on a cape at the edge of a large plain, sixty miles long and twelve broad, between the sea and the mountains. Its situation is not favorable, as it is screened from the land wind by the mountains, and thus left exposed to the unmitigated fervour of the sun's rays. The plain is well watered and highly cultivated. It is cut through by straight roads, forty feet broad, lined with hedges of lime and lemon trees, leading to plantations which produce as great a quantity of sugar as any spot of the same size in the world.

Cape Horn; a cape on the south coast of Terra del Fuego. It is the southern extremity of South America; lat. 55° 59' S.; lon. 67° 21' W. The navigation round Cape Horn is very dangerous, on account of frequent tempests; yet, of late, it has been the common course of vessels, being found much preferable to the tedious passage through the straits of Magellan. The shore is inhabited by Indians, of whom little is known. The cape was discovered by Jacob le Maire, a Dutchman, in 1616. It is cold, lofty, and covered with wood. Cape Lookout; a dangerous cape on the coast of North Carolina; lat. 34° 22' N.; lon. 76° 37' W. Cape of Good Hope; lat. 33° 6' S. lon. 18° 23' E. Population in 1818, 18,173; of whom 7400 were whites, 1905 free blacks, 810 apprentices, 536 Hottentot, 7492 slaves. It is agreeably situated, rather more than thirty miles from the cape of Good Hope, properly so called, at the head of Table bay, in a valley between the Table and Lion mountains. It is defended by a castle of considerable strength, and contains a courthouse, a guard-house, a Calvinistic church, a Lutheran church, a theatre, and 1145 houses, many of which are fine. The tone of society is wholly commercial, the minds of all classes being bent on trade. There was not, in 1818, a public school nor a bookseller's shop in the town. The streets are broad, but ill-paved. The price of provisions is very reasonable. The town is well supplied with springs of excellent water, sufficient also for the ships. There are many trees, and the climate is probably secure from September to May, while the S.E. winds prevail. During the rest of the year, when the wind blows generally from the N. and N.W., ships are obliged to resort to False bay, on the opposite side of the peninsula. A missionary is supported here by the London Missionary Society.

Cape Verde (anciently, Arsenarium); on the west coast of Africa; lat. 14° 44' N.; lon. 17° 31' W.

Cape Verde Islands; islands of Africa, in the Atlantic; so called from cape Verde, opposite to which they are situated; 300 miles W. cape Verde, and between 15° and 15° N. lat. There are eleven in Portugal. As to their number, some reckon ten, others fourteen or more, by giving the name of islands to those which are only rocks. They are, in general, mountainous; the lower hills are covered with a beautiful verdure, as well as the extensive valleys between; but with little water, except what is found in ponds and wells. They are said to have been, and probably were, known to the ancients, under the name of Gorgades. The air is extremely hot and unwholesome. It rarely rains; and the ground is so hot that one can hardly stand in places exposed to it. The houses are of split wood, which pass the night in the open air, for the great heat is often succeeded by a sudden cold, which proves mortal to such as are exposed to it. The soil is, for the most part, stony and barren; nevertheless, some parts produce rice, maize, bananas, lemons, oranges, citrons, pomegranates, figs, and melons. Grapes are gathered twice a-year. The manufacture of leather and salt forms the principal riches. Two of the islands, St. Yago and St Philip, depend immediately on the king, and are the only ones fortified. The number of inhabitants is calculated at 100,000. Few whites are now seen in the governor and the other officials. The chief town is Porto Praya. In the small island of Mayo, much salt is made. Numerous vessels, principally American, visit this place for the sake of obtaining it, and bring flour to give in exchange. In 1827, the imports into the United States from these islands amounted to 77,425 dollars; the exports to them from the United States, to 104,165 dollars. The island of Fuego, one of the group, consists of one single mountain, formerly a volcano, according to lieutenant Mudge, 9,790 feet above the level of the sea.

Cape Pio Branca; a noble Venetian lady, whose singular adventures and final elevation have rendered her exceedingly remarkable. She was born about 1542, being the daughter of Bartolomeo Capello, a
patrician of Venice. She early fell in love with a young and handsome clerk in the banking-house of Salviati of Venice. Their daughter, the object of the intrigue was the pregnancy of the lady, and the flight of the lovers to Florence, where they married, and Bianca lay in of a daughter. Here they lived some time in great apprehension and obscurity, until some accident or contrivance introduced Bianca to the notice of Francis, son of Cosimo, grand-duke of Tuscany. Her uncommon beauty and engaging manners made an immediate impression on a prince notorious for his attachment to the sex; and the consequence was, that she and her husband were quickly settled in a splendid palace, and the latter made chamberlain to the grand-duke. Francis intrusted Bianca with a large share of public business. Bianca was, in the mean time, introduced at court, and became the object of great admiration; and it is asserted, that, even at that time, Francis promised to marry her, should they become released from the marriage ties by which they were each of them bound. This took place in a very few years on her part. Buonaventuri, having engaged in an intrigue with a woman of rank, was assassinated by her family; and Francis now avowedly proclaimed Bianca his mistress. As Francis, who had no issue, passionately desired ever to have a son, the way to the grand-duchess's heart was by the means of having a child. A legitimate son, produced to him soon after by his duchess, induced him to be less open in his attentions to Bianca; but the death of his wife, very soon after, opened to the latter a road to her final elevation, and she was quickly united to Francis by a private marriage. Her ambition, however, was not to be gratified without publicity; and she induced the grand-duke to send a solemn embassy to Venice, to inform the senate of his marriage, and to request them to confer on Bianca the title of daughter of the republic, which honour was supposed to entitle those on whom it was bestowed to a royal alliance. That government assented, and Bianca, being crowned daughter of the state, was solemnly installed grand-duchess of Tuscany in 1579. In 1582, the legitimate son of Francis expired; and, soon after, he declared Antonio his lawful son, although, it is said, Bianca had acknowledged her imposition. Ferdinand, the brother of Francis, and his lawful heir, was placed on the throne by the latter, no doubt, with the greatest attention to the subsequent reported pregnancies of the duchess, until the state of her health setting all idea of further progeny aside, she essayed to effect a reconciliation between the brothers, and Ferdinand paid a visit to Florence. He had been there but a short time, when Francis fell ill, at his hunting village of Poggio, where his brother was a guest; and, two days after, the duchess being seized with the same symptoms, they both died, about a week's illness, in October, 1587, Bianca being then in her 46th year. The known character of the Medici family caused this catastrophe to be attributed to poison; and a story is current, that Bianca, intending to poison Ferdinand with a prepared viand, he had the address to make the duke and duchess eat of it themselves. As there was no direct motive for the attempt at the period, and it rests only on the bare relation, and a single story, it is more reasonable to suppose that a malignant fever, at an unhealthy season, was the real cause of the sudden termination of so extraordinary a career. The hatred of the Florentines has made Bianca a monster of vice and cruelty; a thousand absurd stories were propagated of her propensity to magic, and other crimes; and, perceiving the impossibility of gaining their affections, she employed trains of spies and informers, which added still more to their anxiety. The character of the lady, it seems, was a woman of consummate beauty, an address, with little or no principle; and such was the character of the Italian courts, at the period in which she flourished, that she had only to act in the spirit of the times, to become very nearly as vicious as the Florentines described her. CAPER. Caper are the unopened flower-buds of a low shrub (Capparis spinosa), which grows from the crevices of rocks and walls, and among rubbish, in the southern parts of France, in Italy, and the Levant. The stems of the caper-bush are trailing, and two or three feet long. The leaves are alternate, or somewhat oval shape, veined, and of a bright-green colour; and the flowers are large and beautiful, with four petals, and white, with a tinge of red.—In the south of France, the caper-bush is very common. It grows wild upon the walls of Rome, Siena, and Florence, and, when trained against a wall, flourishes even in the neighbourhood of Paris; notwithstanding which, it is almost unknown in English gardens, where it cannot be made to flower without the aid of artificial heat. It is cultivated, on a large scale, between Marseilles and Toulon, and in many parts of Italy. In the early part of the summer, it begins to flower, and the flowers continue successively to appear, until the commencement of winter. The buds are picked every morning, before the petals are expanded; and, as they are gathered, they are put into vinegar and salt. When a sufficient quantity is collected, they are distributed, according to their size, into different vessels, again put into vinegar, and then packed up for sale and exportation. This pickle is much used in sauce for boiled mutton. To persons accustomed to it, the taste of capers is unpleasant; but, after a little while, the palate becomes perfectly reconciled to it. The flower-buds of the marsh-marigold (Caltha palustris) and nauturtiums are frequently pickled, and eaten as a substitute for capers. The bark of the root, cut into slices, and dried in small rolls or quills, like cinnamon, is sometimes used in medicine, in cases of obstruction of the liver.
and mayor of the palace under the Merovingian dynasty, had displaced that royal house, and usurped the third part of the ancient kings of the Franks. After a space of 235 years, his own descendants, the Carolvian monks experienced a similar fate. Under the last Carolvian kings, destitute alike of energy and wisdom, Hugh the Great, duke of France (by which was then understood the Isle of France), Orleans, and Bourbon, endeavored to assert his power as that of the mayor of the palace under the Merovingians. On the death of Louis V., without children, in 987, his uncle Charles, duke of Lower Lorraine, laid claim to the throne, which the Franks had sworn to preserve to the family of Charlemagne. The French nobility, supported by pope John X V, proclaimed Hugh, son of Hugh the Great, duke of France and count of Paris, king, with the surname of Capet (capetus, capito, broad-head; or, more probably, from a sort of hat, capatus). The valiant Charles of Lorraine was surprised in Laon, by the treachery of a bishop, and made prisoner. He died, some afterwards, in prison, and his son Otho, duke of Lower Lorraine, died in 1006. Both his younger brothers died childless in Germany. Thus the race of Capet was left in possession of the throne of France. According to some historians, Hugh Capet was descended from a German family. He was married to a German princess, and had a son, Hugh I. of Germany (duke of Saxony). Hugh was crowned at Rheims, and swore to preserve to the nation, and particularly to the powerful nobility and clergy, all their existing privileges. By his wise measures, he gave permanence to his dynasty, which, next to the family of Guielp, is the oldest sovereign house at present existing. (See Bourbon.) Hugh and the succeeding monarchs, till Louis VII., took the precaution to have their successors invested with the royal title during their own life-time. Thus Hugh Capet, by uniting his hereditary duchy, consisting of Paris, Isle de France, and Burgundy, inalienably with the crown, may be regarded as the founder of the French monarchies. The seigniorial use was prohibited by his successors, particularly in the times of the crusades, and by the establishment of standing armies. All the political statements illustrative of this subject are collected by the marquis de Pastore, peer of France, in his continuation of the Ordinances des Rois de France de la troisieme race, tvi., xvi. (Paris, 1811, 1814, 1820, fol.), with which may be compared the essay of the advocate Beugnot, which obtained the prize of the academy of inscriptions, Essais sur les Institutions de St Louis (Paris, 1821).

CAPI AGA; in the Turkish court, the superintendent of the eunuchs. He also announces all who desire to speak to the grand vizier, and introduces foreign ambassadors to an audience. — Capigi (capid-sech) is a name applied to the guards or door-keepers of the seraglio, in number about 400. Their superintendent is called Capigi Bischki. They likewise carry out ordinary orders. Among their duties is that of carrying the cord to those who are to be strangled.

CAPIAS A writ or process of capias is one whereby the sheriff is ordered to arrest the body of the defendant, either before judgment, to compel him to answer to a suit; and this is called a capias ad respondendum; or, after the judgment, to compel him to satisfy the judgment; and this is called a capias ad satisfaciendum, commonly a writ in troth. In case of injuries without force, the civil law, and, originally, the common law, did not authorize the arrest of the defendant before judgment; that is, the arrest to answer; and, upon feudal principles, says Sir William Blackstone, "the person of a feudal was not liable to be attached for injuries merely civil, lest, thereby, the lord should be deprived of his services." The first writ of capias ad respondendum was given by act of parliament in 1267, 32 Henry III., c. 23, sec. 1, which provided, that, "if bailiffs, which ought to make account to their lords, do withdraw themselves, and have no lands or tenements whereby they may be restrained, they shall be attached by their bodies, so that the sheriff shall cause them to come to make their account." This act applied to a particular description of receivers, and supported them not only to be debtors, but also to have in their own lands the evidence of the amount of the debt, the production of which was one object of the process. The statute of 13 Edward I., c. 11, passed in 1285, eighteen years after the former, extends this process to "all manner of receivers bound to yield account," and provides "if they be absconded, or being in the hands of any of the said receivers, the bodies shall be arrested; and, by the testimony of the auditors, shall be sent into the next gaol, and be imprisoned in irons under safe custody, and remain in prison at their own cost, until they have satisfied their master [the creditor] fully of their arrearages."

This statute seems to suppose the proof and establishment of the debt before the arrest, and, so far, seems to have the character of a ca. sa.; but it is considered a capias ad respondendum by Sir William Blackstone; so in Jacob's Law Dictionary, and, indeed, generally. And it appears that the practice of arresting on mesne process, that is, before judgment, to answer, in civil suits, grew out of these statutes; for the subsequent statutes of 25 Edward III., c. 17 (A.D. 1359), providing that "such process shall be made in writ of debt, dehntia of chattels, and taking of beasts, by writ of capias, as is used in the writ of detinui, and of Inf. Brev. (5 Geo. II., 1559), providing that "like process shall be hereafter, in actions upon the case, as in action of trespass or debt;" evidently have reference to an arrest to answer. A writ upon which a suit is commenced is either a capias, distress, or summons; either the person of the defendant is seized, and if bail is (capi-) imprisoned until the trial, or his goods or lands are seized as a guarantee of his appearance to answer; and more often, in modern times, to obtain a lien to secure satisfaction of the judgment; or he is only summoned, that is, merely has notice that a suit has been commenced before such a court, by such a plaintiff, and is to be heard at such a time. This last is uniformly the process adopted in claims of land. But by the statute of 5 Geo. II., c. 27, since made perpetual by another statute, it is provided, that, "in all cases where the cause of action shall not amount to ten pounds, an affidavit shall be made and filed of such cause of action, and the sum specified in such affidavit shall be endorsed on the writ, for which sum the sheriff shall be taken liable, and no more."
CAPILLARY TUBES.

ends, be immersed in a fluid which adheres to glass, as water, the liquid within the tube will rise to a sensible height above the surface of that without. This rise is explained by the attraction which exists between the glass and the fluid. Liquids, as do not adhere to glass (e.g., quicksilver) do not rise in the tube: on the contrary, they stand lower within than without. The mutual action of the elementary particles of matter, of which capillarity is a noted instance, gives rise to phenomena as interesting, and, in certain cases, as susceptible of being attached to theory, by rigorous mathematical reasoning, as the phenomena of universal gravitation. The ascent of liquids in capillary tubes engaged much of the attention of experimental philosophers about the beginning of the last century. Hauksbee found that the ascent of the liquid does not depend in any way on the thickness of the tube, and that when two plates, forming any small angle with each other, are plunged vertically into a fluid, the fluid which rises between them takes the form of an equilateral hyperboloid; from which it followed, that, in tubes of the same matter, the ascent of the liquid follows the inverse ratio of their interior diameters. In order to explain these facts, all succeeding philosophers seem to have agreed in assuming the existence of a cohesive force among the particles of the liquid, and an opposite force resisted only by the surfaces of those of the tube. But these attractive forces can only be defined by their relative intensities at an equal distance, and the law according to which they diminish as the distance is increased. Now, there are no data from which either their relative intensities or the law of their variation can be determined; we are, therefore, reduced to choose among a number of hypothetical laws, all equally possible; and the explanation, of course, depends on the particular hypothesis we adopt; hence the theories of Clairaut, Young, Laplace, and Poisson.

Clairaut was the first who attempted to reduce the phenomena of capillarity to the laws of the equilibrium of fluids, and exactly analyzed all the forces that concur to elevate the liquid in a glass tube. He showed that the portion of the liquid which is elevated in the tube above the exterior level, is kept in equilibrium by the cohesive force of the column itself, one of the two forces that is due to the attraction of the meniscus terminating the column, and the other to the direct attraction of the tube on the molecules of the liquid. Clairaut, however, regarded this last force as the principal one, and even supposed the attraction of the tube to extend as far as the meniscus above the tube. He thus contrary to the nature of molecular forces, which extend only to insensible distances. The action of the tube has, in fact, no influence on the elevation or depression of the contained liquid, excepting in so far as it determines the angle under which the upper surface of the fluid intersects the sides of the tube. Neglecting, therefore, this force as insensible, there remains only the action of the meniscus to support the weight of the elevated column. But though Clairaut made an erroneous supposition respecting the nature of molecular attraction, and failed in the attempt to demonstrate from theory, that the ascent of the liquid is inversely proportional to the diameter of the tube, he showed that a number of hypotheses, regarding the law of attraction, may be laid down, from any one of which that law of ascent may be deduced; and he demonstrated that the result, namely, that if the attraction of the matter of the tube on the fluid differs only by its intensity, or co-efficient, from the attraction of the fluid on itself, the fluid will rise above the surrounding level when the first of these intensities exceeds half the second. Young referred the phenomenon of cohesion to the joint operation of attractive and repulsive forces which, in the interior of fluids, exactly balance each other, and assumed the repulsive force to increase in a higher rate than the attractive; and thus the mutual distances of the molecules are diminished. From these considerations he was led to discover a very important fact in the theory of capillary action, namely, the invariability of the angle which the surface of the fluid makes with the sides of the tube.

Laplace published his theory of capillary attraction in 1806 and 1807, in two Supplements to the Mécanique Céleste. Assuming the force of molecular action to extend only to imperceptible distances, he demonstrated that the form of the surface of the liquid is a principal cause of the capillary phenomena, and not a secondary effect, and determined the part of the phenomena which is due to the cohesive attraction of the molecules of the fluid to each other, as well as that which results from their adhesion to the molecules of the tube. The separate consideration of the cohesive and adhesive forces leads to two equations, which comprehend the whole theory of capillarity—a general equation, common to all those points of the capillary surface of which the distance from the sides of the tube is greater than the radius of the sphere of molecular action; and a particular equation belonging to those points which are situated within the distance from the surface of the tube, or are within the sphere of its action. This last equation will obviously express the angle which the surface of the meniscus makes with the sides of the tube; an angle which, as it depends only on the nature of the tube and that of the liquid, is constant, and given in every case, the liquid and the tube supposed homogeneous. Laplace further supposes, in the case of elevation, that an infinitely thin film of the liquid first attaches itself to the sides of the tube, and thus forms an interior tube, which acts by its attraction alone to raise the column at a determinate height. The height of the column, consequently, depends on the cohesion and density of the liquid. Poisson has reinvestigated the whole theory of capillary attraction. Taking the most general case of the problem, he considers not merely the surface of a single liquid, but the surface formed by the combination of different kinds of liquids, placed, the one above the other, in the same tube, and deduces the two equations which determine the form of the separating surface, and the angle under which it intersects the sides of the tube. These equations are, in form, the same as those of Laplace; but the determinant factors, with all constant quantities they include, are very different; and their numerical values would be so likewise, if these, instead of being determined experimentally, could be calculated a priori from the analytical expressions. This, however, cannot be done without a knowledge of the law according to which the molecules of the liquid attract each other, as well as of that which regulates the action of the tube on the liquid. In applying his general solution to the explanation of the principal phenomena of capillarity, he has taken occasion to correct some inaccuracies of Laplace. The demonstration which Laplace had given of the invariability of the angle which the surface of the liquid makes with the sides of the tube was not altogether satisfactory; and he had even supposed that it changes its value when the liquid reaches the summit of the column.

Poisson has demonstrated that the invariability of this angle will always be preserved, unless the curvature of the interior of the tube is infinitely great; or, in other words, unless its radius is infinitely small, and of the same order of magnitude as the radius of the sphere of molecular action. Hence the angle
cannot vary when the liquid reaches the summit of the tube; for, however small the radius of the tube may be, it is always incomparably greater than the radius of the sphere of molecular action. The great importance of this theory of molecular action, which has been mentioned above, will become much more apparent; and it must soon form the principal basis of rational mechanics, which has too long continued an abstract science, foun ded, not on a real, but an imaginary state of bodies. The gradual progress of discovery renders it more and more probable that there are only two laws according to which all the forces of nature decrease, the first being proportional to the inverse square of the distance, and the second to a function of the distance of which we know nothing, except that it vanishes altogether when the distance has a sensible magnitude. The gravitation of the great bodies of the universe, the electric and magnetic forces, whether attractive or repulsive, are instances of the former; while the vibrations of elastic bodies, the communication of motion, whether by shock or by pressure, as well as capillary attraction, the refraction of light, and chemical actions, depend on these two laws. We have at present no method of determining them; but it is certain that there are a number of forces, the effects of which may be deduced upon the same principle. Now, it is from this last class of forces that the laws of equilibrium and motion ought to be deduced, and not from hypotheses entirely gratuitous respecting the absolute hardness, rigidity, and incompressibility of bodies—qualities which have no existence in nature. The only obstacle to the attainment of this desirable result seems to be the difficulties of the calculus. It is, indeed, impossible to deduce the laws of motion from the action of molecular forces in any other manner than by the application of a very refined and difficult analysis; yet the subject promises some interesting and valuable considerations which go far to obviate the mathematical difficulties. For example, in deducing the equations of equilibrium of solid and liquid bodies, it is not necessary to compute the total force acting on an isolated molecule. These equations depend on the resultant of actions which take place between two portions of the same body, of insensible magnitude, but comprising each an extremely great number of molecules. The resultant of the aggregate forces of the different molecules comprehended within the sphere of action of an individual molecule, is therefore, a determinate, and if the molecules are similar, and independent of any irregularity in their distribution, the same resultant is also independent of the magnitude of the radius of the sphere of action, which cannot be determined in any precise manner, and with respect to which we only know that it is insensible. It is on these hypotheses that the computation of molecular forces is essentially founded.—See Foreign Quarterly Review, vol. ix., and Poisson’s Nouvelle Théorie de l’Action Capillaire (Paris, 1831).

CAPILLARY VESSELS:—The minute vessels in which the arteries terminate, and from which, in a way we have already considered, the veins receive, and into which the veins empty, are called the veins. The distinction between the arteries and veins is, therefore, lost in these vessels. The support of the solid, and the formation of the fluid, parts of the system take place especially in these vessels.

CAPITAL, in political economy, is the stock of valuable exchangeable commodities possessed by individuals or a community. This is the usual and more limited meaning of the term; for, in comparing the capital of one individual with that of another, we have in mind the amount of money for which the stock of each can be exchanged. The market value is in view. In estimating the capital of a community, it is necessary to take into consideration the debts due to and from him; and many men of large capital are only possessed of claims upon others; their whole stock is in the hands of others at interest; and they have only promised for a certain amount of money, and actually possess neither lands nor goods to any considerable value; while others possess large quantities of both, and yet have little money. They owe, in money, the value of the greater part of the whole of their possessions. Now it is plain that no individual can undertake production, to any large extent, without an extensive stock. He must have land to cultivate, or materials to work up, and implements to work with. Even in manufactures, without capital, unable to purchase clothes, cooking utensils, food enough to support him till he can obtain a new supply, and implements, such as a hatchet, gun, canoe, fishing gear, to procure this supply. The first expense of industry is to supply the implements, apparatus, and machinery for his own employment; and so society and the arts advance, and the operations of industry are extended, the implements, apparatus, machinery, and materials, requisite in conducting the processes of production, must be proportionally accumulated; and these will constitute a part of the capital of a community, and also of an individual, which is essential to success in productive processes. We have already seen how great is the difference in the amount of capital one in proportion to the extent of his individual capital; or, if he have credit, then his resources for producing will depend upon the capital of others—in other words, that of the community to which he belongs.

In considering the aggregate capital of a community, we may put out of the question all the debts due from any of the members to others; for, whether these be great or small,—and they will vary according as the practice of giving credit is more or less in use,—still the capital of the community will consist in its lands, buildings, ships, machinery, materials on hand, implements, etc., and in all those things which bear a value in the market. Provided the community owes no debts abroad, these will constitute its aggregate capital; and, if its members are indebted abroad, we find its actual net capital, as in the case of an individual, by deducting the amount of its debts from the value of its possessions, without regarding the debts due from some of its members to others.

In comparing the capital or wealth of two communities, we may be led into an error by comparing the value of their possessions in gold and silver, since the value of the same articles of wealth, or commodities, are of different value in different countries, by whatever standard the comparison be made. If, for instance, we compare the value of the metals in reference to the wages of a common day-labourer, we find he has two or three pence a-day in Egypt, and twenty or forty pence in Britain. We shall find the same diversity in other things. If we take a horse, of the same beauty and serviceable qualities, for an example, we shall find his price, in money, to be twice as great in one place as in another. In order, therefore, to make such a comparison through the medium of the metals, or by adopting them as a common measure, we shall, in the first place, correct the measure itself, and ascertain whether an ounce of gold, in one of the places between which the comparison is to be made, is worth a half of an ounce or an ounce and a half in the other; and the way of correcting the standard would be, to take equal quantities of a great number of articles of the same kind, and substitute for the two places the equivalent quantities of equivalent articles, as nearly as their equivalence can be ascertained, and compare their money prices in the two places. But this correction of the common measure is not very easily made. The means of acquiring them is as various as the periods, in the same community, are very defective; and the only attempt at any scale of value, of this description, known to the writer of this article, is
CAPITAL.

that of Mr Evelyn, published in the Transactions of the Royal Society of London for 1798, and corrected, shows the comparative value of money, in two states or kingdoms, to be ascertained, and then a valuation of all the property in each, of every description, to be made, the capital of each and the comparative capital of the two are thus ascertained. But this comparison would not show the comparative resources of the two, either for war or for production. This will appear from the obvious fact, that a river like the Hudson is a greater facility to transportation than the Languedoc canal; yet, in making a return of the property, or the estimation of the capital of France, the Languedoc canal would be reckoned as an asset, whereas the Hudson river, though of equal or greater utility, would not appear as constituting a part of the capital of New York.

The inhabitants are the great agents of production in every country; and, though their productive efficiency will be influenced, very essentially, by the amount of capital, fertility of the soil, quality of its products, facilities of transportation, and arrangements of industry, still the character, habits, and skill of the agents themselves are the most important circumstances in estimating the productive resources of a community. Industry and skill will rapidly create capital. Mr. Malthus, in his essay on population, estimates that the whole value of the capital of a country is consumed and reproduced every three or four years. But the training of a population, and forming its character and habits, is a work of many years. The most important ingredient in the national resources is, therefore, not only no part of its capital, but is a thing of very slow growth, and results from the combined and long-continued influence of a thousand causes, moral, physical, and political, too complicated to be disentangled, and so blended that the action of each cannot be distinctly traced. Economists have confined their views of production too much to considerations of capital, and neglected, or, at least, not given sufficient weight to, the other economical capacities and resources.

Capital is distinguished into floating, or moveable, and fixed; the former consisting of things that may be moved, and are susceptible of manual delivery; the latter, of those confined to one place, as a house or piece of land. We use the terms in a different sense when applied to any particular establishment, by the floating capital of which is meant that which remains after payment is made for all their apparatus and the implements of their business, and which is usually in a state fit to be further employed, or transported, or to pass through the process, whatever it is, which constitutes the business conducted. Thus one carrying on a flouring-mill wants a floating or disposable capital, over and above the cost of his works, to be invested in wheat to be floured, and flour not yet disposed of. This instance illustrates what is meant by the floating or disposable capital of a whole community, bearing that movable, exchangeable stock of things on land, over and above the fixtures and apparatus of production, including lands, buildings, ships, working animals, all the implements of the arts, with necessary food, clothing, and a stock of seed sufficient for the time requisite for reproduction. What remains over these is the disposable capital, and, in a flourishing community, the disposable floating capital is constantly invested in new fixed capital, implements and apparatus of production. A dealer, by Mr. Coulson, in his treatise on agriculture, part of its implements and apparatus of industry; or, what is, in effect, the same thing, it does not repair and replace the damage of use and decay. The idea is held out in many economical treatises, that a community cannot have a surplus capital; that is, it cannot have more capital than it can make use of in its consumption and reproduction. As no grounds whatever are given for this notion, it is entitled to no consideration; for the position is certainly, at the first view, very improbable, since we know very well that men may accumulate; and why they may not, in any possible case, accumulate a surplus, does not appear by any plausible reason; and whether such accumulation may be useful or not, will depend entirely upon the kind of articles of which such accumulation consists. If it consist in articles of the value of which depends on the prices in foreign markets, the excess may be of no value at all; for it may so depress the foreign prices as to counterbalance all the indirect advantage arising from the cheaper supply, for a time, of the domestic demand.

Fictitious capital generally means nothing more nor less than excessive credits, which throw the management and disposition of a great deal of property into the hands of persons who are not able to answer for the risks of loss from its bad management, or other causes. A whole community, in the aggregate, can have fictitious capital only in case of its members having an excessive credit in a foreign country. But the members may, among themselves, have a fictitious capital, by too great facility of drafts in their dealings with each other, and the fiction, in this case, is in their false promises of payment.

CAPITAL, in geography; a city in which reside the highest authorities of a district, province, country, &c. Capitals, in the modern meaning of the word, can hardly be said to have existed in ancient times; at least, they were then only the seat of the sovereign, but not the centre of all the national activity. Rome only, perhaps, excepted; but this city was, for a very long time, the state itself, and, at a later period, the tyrant of the whole empire, rather than the head of a well-organized body. In Asia there existed, indeed, in ancient times, capitals of very large empires; but they are not to be compared to the capitals of large modern empires, since the channels of communication and intercourse had not then reached that degree of perfection which enables them, in our days, to bring into close connexion all parts of a country. Each province was, therefore, left much more to itself. It would be difficult to determine whether the good or evil consequences of large capitals, in modern times, are greater, and such an examination would far exceed our limits; otherwise, it would be very easy to point out, in every department of civilization, the disadvantages of social intercourse, politics, arts, &c., both salutary and pernicious effects, resulting from the influence of capitals. It seems to us a matter of little doubt that it must be regarded as disadvantageous to any country, if the capital censes to be the concentration of the skill, genius, and strength of a nation, for the benefit of the whole, and by a disproportionate superiority destroys the importance of the rest of the country, as we find to be the case with Paris, which, as has been often observed, contains France. In Germany, the state of things is quite the reverse. There is no city which can boast of being the point of national concentration. The consequences have been very advantageous to science, and somewhat disadvantageous to literature. In politics, this want of a central point has had melancholy consequences for Germany. London never exercised that degree of influence which England would have had if she possessed but one capital, Paris; one reason of which may be, that the two most extensive institutions for the diffusion of knowledge are not sented in the metropolis. The system of concentration has, there is little doubt, been carried to an extreme in Europe; the best of every
thing having been collected in the capitals, and the
provinces having been almost stripped of pictures, dis
ciplines, and laws, as well as of the inhabitants, the
result is a fact admitted, and a returning to the prac
tical system is perceptible. The great increase of wealth
and consequence, which the capitals of large empires in
Europe have acquired in modern times, by the intro
duction of the bureau system (q. v.), which has been
instituted in one place, the different departments will,
have had great influence
on military operations, having made the capture of the
capital now far more important than formerly. In
the United States, the word capital is not used of
icially, but, instead of it, the phrase seat of govern
ment, which is, in most cases, the largest place of
the state. It is not the place to discuss, whether it
would be more beneficial to the whole country if the seat of the general government were
in one of the largest cities of the United States. As
it is now, to use the words of a traveller, "Wash
ington must by no means be considered as the capital
of the United States, and the seat of government: It is a
camp of business."

CAPITAL, in architecture. See Architecture.

CAPITAL OFFENCE. See Crime.

CAPITAL PUNISHMENT. The questions most
closely discussed by philosophers and jurists un
der this head, are, on what grounds can governments
be justified in inflicting the punishment of death; 2. as to the ex
pediency of such punishment; 3. as to the crimes to which, if any, it may be most properly confined and li
mited; 4. as to the manner in which it should be inflict
ed. A few words will be said on each of these points.

1. As to the right of inflicting the punishment of death. This has been doubted by some distinguished persons; and the doubt is often the accompaniment of a highly cultivated mind, inclined to the indul
gence of a romantic sensibility, and believing in human perfeetibility. The right of society to punish offences against its safety and good order will scarcely be doubted by any considerate person. In a state of nature, individuals have a right to guard themselves from injury, and to repel all aggressions by a force or precaution adequate to the object. This results from the right of self-preservation. If a person at
tempted to injure my life, I have a right to repel him by reasonable force. If I cannot secure myself but by
taking the life of the assailant, I have a right to take it. It would otherwise follow, that I must submit to a wrong, and lose my life, rather than preserve it by means adequate to prevent it. It cannot, be denied that, in a state of nature, men may repel force by force, and may even justly take away life, if necessary to preserve their own. When men enter society, the right to protect themselves from injury and to redress wrongs is transferred, generally, from the individuals to the community. We say that it is generally, so, because it is not always true that, in
many cases, the natural right of self-defence must remain.
If a robber attacks one on the highway, or attempts to murder him, it is clear that he has a right to repel the assault, and to take the life of the assailant, if necessary for his safety; since society, in such a case, could not afford him any adequate and prompt redress. The necessity of instant relief, and of instant application of force, justifies the act, and is recognized in all civilized communities. When the right of society is once admitted to punish for offences, it seems difficult to assign any limits to the exercise of that right, short of what the exigencies of society require. If a state have a right to protect itself and its citizens in the enjoyment of its privileges and its peace, it must have a right to apply means adequate to this object. The object of human punish
ments is, or may be treachery; first, to reform the offender; secondly, to deter others from offending; and, lastly, to preserve the safety of the community, by depriving the offender of the danger of the execution of the law
chief. The first consideration rarely enters into hu
man legislation, because of the inadequacy of our means to produce great moral results by the infliction of punishment. The two latter considerations enter largely into the modern systems of punishment. Who is to be the judge, in such cases, what is the adequate punishment for any offence? Certainly, punishments ought not to be inflicted, which are utterly disproportionate to the offence, and beyond the exigencies of society. No government has a right to punish cruelly and wantonly, and from mere revenge; but, still the discretion must be vested somewhere, to say what shall be the degree of pun
ishment to be assigned to a particular offence. That discretion must be, from its nature, justly a part of the legislative power, and to be exercised according to the actual state of society. It may, nay, it must be, different in different ages, and in different countries; for the same punishment, in one age or country, may be sufficient to suppress an offence, or render it comparatively harmless, in another age or country, wholly fail of the effect. If mild punishments fail of effect, more severe must be resorted to, and the more severe, the more it reject
s society in its vital principles, or safety, or interests. The very frequency of a crime must often furnish a very strong ground for severe punishment, not only as it furnishes proof that the present punishment is insufficient to deter men from committing it, but from the increased necessity of protecting society against dangerous crimes. But it is often said, that life is the gift of God, and therefore it cannot justly be taken away, either by the party himself, or another. If he cannot take it away, he cannot confer that power on others. But the fallacy of this argument is ob
vious. Life is no more the gift of God than other per
sonal endowments or rights. A man has, by the gift of God, a right to personal liberty and locomotion, as well as to life; to eat and drink and breathe at large, as well as to exist; yet no one doubts that, by way of punishment, he may be confined in a solitary cell; or that he may be compelled to live a solitary life in free air, or compelled to live on bread and water. In
short, no one doubts that he may be restrained in the exercise of any privileges or natural rights short of taking his life. Yet the reasoning, if worthy any thing, extends to all these cases in an equal degree. If, by his crimes, a man may justify the re
al rights, why, at his life? But we have seen that it is not true, even in a state of nature, that a man's life may not be taken away by another, if the neces
sity of the case requires it. Why, then, may not so ciety do the same, if its own safety requires it? Is the safety of one person more important than the safety of the whole community? Then, again, as to a man's inability to confer on others a right which he does not himself possess. Suppose it is so; the con
sequence which is deduced from this does not, in fact, arise. Blackstone, indeed, in his Commentaries (4 Comment. 5), seems to deduce the right of society to punish capital offences, in certain cases (that is, in cases of mala prohibita, and not mala in se), from the consent of the offenders. The marquis Beccaria, on the other hand, denies that any such consent can con
fer the right, and therefore objects to its existence. But the notion of consent is a mere theory, having no foundation in fact. If a foreigner comes into a country, and commits a crime at his first entrance, it is a very forced construction to say that he consents to be bound by its laws. If a pirate commits piracy, it is almost absurd to say
that he consents to the right of all nations to punish him for it. The true and rational ground on which the right rests, is not the consent of the offender, but the right of every society to protect its own peace, and interests, and property, and institutions, and the utter want of any right, in other persons, to disturb, or meddle with, or establish the right of the party, nor, from consent, but from the legitimate institution of society. If men have a right to form a society for mutual benefit and security, they have a right to punish other persons who would overthrow it. There are many cases where a state authorizes life to be taken away, the law being to which is, not doubted. No reasonable man doubts the right of a nation, in a just war, especially of self-defence, to repel force by force, and to take away the lives of its enemies. And this right is not confined to repelling present force, but it extends to precautionary measures, which are necessary for the ultimate safety of the nation. In such a war, a nation may justly insist upon the sacrifice of the lives of its citizens, however innocent, for the purpose of insuring its own safety. Accordingly, we find that all nations enroll militia and employ troops for war, and require them to hazard their lives for the preservation of the state. In these cases, life is freely sacrificed by the nation; and the laws enacted for such purposes are deemed just exercises of power. If so, why may not life be taken away by way of punishment, if the safety of society requires it? If a nation may authorize, in war, the destruction of thousands, why may it not authorize the destruction of a single life, if self-preservation require it? The mistake, however, is in supposing that life cannot be taken away without the consent of the party. If the foregoing reasoning be correct, such consent is neither supposed nor necessary. In truth, the expediency of a privilege consists in the benefit all the persons who are subject to the regulations of a society, by their own free consent, as the necessary and proper basis on which all the rights of such society depend, is, at best, a gratuitous supposition; and it sometimes leads to very incorrect results. It may be added, that the Scriptures most clearly recognize and justify the infliction of capital punishments in certain cases.

2. As to the expediency of capital punishment. This opens a wide field for discussion. Some able men, who do not doubt the right, do still deny the expediency of inflicting it. It may be admitted, that a very great part of this difficulty may be first removed, if the point is to punish any but very enormous and dangerous crimes. The frequency of a crime is not, of itself, a sufficient reason for resorting to such a punishment. It should be a crime of great atrocity and danger to society, and which cannot otherwise be effectually guarded against. In inflicting punishments on any offence, we should consider what are the objects and ends of punishment. It is clear that capital punishment can have no effect to reform the offender himself. It may have, and ordinarily does have, the effect to deter others from committing a like offence; but, still, human experience shows that even this punishment, when inflicted for small offences, which are easily perpetrated, and to which there is great temptation, does not always operate as an effectual terror. Men sometimes are hardened by the frequent spectacles of capital punishments, and grow indifferent to them. The right follows, not the bloody codes are not those which have most effectually suppressed offences. Besides, public opinion has great weight in producing the acquittal or condonation of offenders. If a punishment be grossly disproportionate to the offence, if it shock human feelings, there arises, insensibly, a sympathy for the victim, and a desire to screen him from punish-
there, than in other countries less abundantly and cheaply supplied with the necessaries of life. Brevity, with his characteristic humanity and sagacity, has strongly urged that the certainty of punishment is more important to deter from crimes than the severity of it. At present, there is great danger that the pardoning power, in its free forms of government, will, in a great measure, overthrow this salutary principle. Its exercise, therefore, ought to be watched with the greatest jealousy and care, lest the abuse of it should lead to the introduction either of absolute impunity for offences, or of more extensive capital punishments. It will probably be found, from the experience of other nations that capital punishment ought not wholly to be dispensed with. On the other hand, it may be safely affirmed, that there is no positive necessity to apply it to a very large number of crimes. Treason, murder, arson, piracy, highway robbery, burglary, rape, and some other offences of great enormity, and of a kindred character, are not uncommonly punished in this manner; but beyond these, it is extremely questionable whether there is any necessity or expediency of applying so great a severity. Still, however, as has been already intimated, much must depend upon the opinion and character of the age, the habits of the people, and upon the sound exercise of legislative discretion. What may be deemed uselessly severe in one age or country, may be positively required by the circumstances of another age or country.

4. As to the manner of inflicting the punishment of death. This has been different in different countries, and in different stages of civilization in the same countries. Barbarous nations are generally inclined to severe and vindictive punishments; and, where they punish with death, to aggravate it by prolonging the sufferings of the victim with ingenious devices in cruelty. And even in civilized countries, in cases of a political nature, or of very great atrocity, the punishment has been sometimes inflicted with many horrible accompaniments. Tearing the criminal to pieces, piercing his breast with a pointed pole, pinching to death with red-hot pincers, starving him to death, breaking his limbs upon the wheel, pressing him to death in a slow and lingering manner, burning him at the stake, crucifixion, sawing him to pieces, quartering him alive, exposing him to be torn to pieces by wild beasts, and other savage punishments, have been sometimes resorted to for the punishment of death, as, for example, in the ancient Grecian states, the modes of punishment were also severe, and often cruel. But the most general mode of punishment, in ordinary cases, seems, both in Greece and Rome, to have been by hanging. Whether the ancient Greek mode of capital punishment, the mode used in Rome, and probably the mode any civilized nation, or any civilized party should choose, has ever been adopted in any modern nation, we are unable to say. As far as we have been able to learn, it is not in use among any Christian people; and the idea of suicide connected with it would probably prevent any such nation from adopting it.

Whether executions ought to be in public or in private, has been a question much discussed, and upon which a great diversity of opinion exists among intelligent statesmen. On the one hand, it is said that public spectacles of this sort have a tendency to brutalize and harden the people, or to make them indifferent to the punishment; and the courage and firmness with which the criminal often meets death, have a tendency to awaken feelings of sympathy, and even of admiration, and to take away much of the horror of the offence, as well as of the punishment. On the other hand, it is said that the spectacle of punishment, in deterring others from the like offence, cannot be obtained in any other way. It is the only means to bring home to the mass of the people a salutary dread and warning; and it is a public admonition of the certainty of punishment following upon crimes. It is also added, that all punishments taken out and burned while he is yet alive, to have his head cut off, and his body divided into four parts, and these to be at the king's disposal. But, generally, all the punishment is remitted by the crown, except the hanging and beheading; and when it is not, by convocation of the officers, the criminal is drawn on a hurdle to the place of execution, and is often committed not dishonored until actually dead. In other cases, the punishment is now simply by hanging, or, in the military and naval service, by shooting. In France, formerly, the punishment of death was often inflicted by breaking the criminal on the wheel. (Damiens was torn to pieces by horses, after he had been tortured, and at last resorted to; the ancient hermits suffered other horrid tortures.) The usual punishment now is beheading by the guillotine. In cases of parricide, the criminal is conducted, barefooted, and covered with a black veil, to the place of execution, where his right hand is cut off just before he is beheaded. In Austria, the general mode of punishment is by hanging. In Prussia, hanging is rarely inflicted; but the usual punishment is beheading with a heavy axe, the criminal's head being first tied to a block. In other German states, the uncertain mode of execution by the sword still exists. Sand was first thrown on the condemned man, and then the axe was laid to his head. It should be remarked, however, that, in Germany, hanging has always been deemed the most infamous sort of punishment; and the scutcheons have often been commuted for beheading by the sword, as a milder mode of punishment. In the United States of America, hanging is the universal mode of capital punishment; and, indeed, the constitution of the United States contains a provision, declaring that "cruel and unusual punishments shall not be inflicted." In China, murderers are cut to pieces; robbers, not. In Russia, the punishment of death has been frequently inflicted by the knout. In Turkey, strangling, or sewing the criminal up in a bag, and throwing him into the sea, are common modes of punishment. In the Roman code, many severe and cruel punishments were prescribed. During the favoured times of the republic, many of these were abolished or mitigated. But again, under the emperors, they were revived with full severity. In the ancient Grecian states, the modes of punishment were also severe, and often cruel. But the most general mode of punishment, in ordinary cases, seems, both in Greece and Rome, to have been by hanging. Whether the ancient Greek mode of capital punishment, the mode used in Rome, and probably the mode any civilized nation, or any civilized party should choose, has ever been adopted in any modern nation, we are unable to say. As far as we have been able to learn, it is not in use among any Christian people; and the idea of suicide connected with it would probably prevent any such nation from adopting it.
CAPITANATA.—CAPITULARY.

41

ought to be subjected to the public scrutiny, so that it may be known that all the limits requires, and no more, has been done. If punishments, even when inflicted in private, it could never be known whether they were justly and properly inflicted upon the persons condemned; or whether, indeed, innocent persons might not become the victims.

In England, the court before which the trial is had declares the sentence, and directs the execution of it; and its warrant is a sufficient authority to the proper officer to execute it. In the courts of the United States, there is a like authority; but in the laws of many of the states, there is a provision that the execution shall not take place, unless the warrant be the warrant of the governor, or other executive authority. In cases of murder and other atrocious crimes, the punishment in England is usually inflicted at a very short interval after the sentence. In America, there is usually allowed a very considerable interval, varying from one month to six months. In England and America, there lies no appeal from the verdict of a jury and the sentence of a court, in capital cases. In France, there may be a review of it in the court of cassation (q. v.). In Germany, there is, in criminal as in civil cases, a right of appeal; hence, in that country, few persons were executed after 1500. Since the 16th century; and in England and America, the very fact that the verdict and sentence are final, produces great caution and deliberation in the administration of criminal justice, and a strong leaning towards the prisoner on trial. Capital punishment cannot be inflicted, by the general humanity of the laws of modern nations, upon persons who are insane or who are pregnant, until the latter are delivered and the former become sane. It is said that Frederick the Great required all judgments of his courts, condemning persons to death, to be written on blue paper; thus he was constantly reminded of them as they lay on his table among other papers, from which they were readily distinguished. He usually took a long time to consider such cases, and thus set an excellent example to sovereigns of their duty.

CAPITANATA; a province of Naples, bounded N. and E. by the Adriatic, S. by the country of Bari and Basilicata, and W. by the Molise. This was the ancient Apulia Daunia. The whole country is a vast plain, and the soil generally sandy, with few trees, and scarcely any springs or rivers of fresh water. The soil, however, is very productive, and feeds a great number of cattle. Salt is made along the coast. The Gargano is the only mountain: on its sides are plantations of oranges. The coasts are defended by twenty-two towers. The principal towns are Lucera, Foggia, St. Severo, and Volturara. Population, 264,800. Square miles, 3289. Manfredonia is the principal seaport. Capitanata forms what is generally called the spur of Italy.

CAPITAN, CAPITANS; the hereditary chieftains to be taken possession of the district of Maina, the mountainous country of the ancient Messenia. They exercised, under the Turkish government, an arbitrary jurisdiction, without any kind of responsibility. With the bay, whom they chose from among themselves, they formed a kind of great council. The bay took care that the harrateli, or poll-tax, was paid to the Turks, and was the agent in all dealings with the pacha. Generally the capi- tani were robber chieftains, who lived retired in rocky fastnesses, and defied the Turks and their neighbours. They united only if resistance against the Turks became necessary. At other times, they lived at war amongst themselves. From this wild oligarchy most of the generals of the modern Greeks have sprung; their Colocotroni, Odysseus, Nike- tsa (called Turkophugos) and others. The pauletari, or the Greek Sir-ups, as they were called, who, like robbers, followed the orders of the capitani as long as they had confidence in them, and met with good success. The French colonel Voutier has given us interesting information concerning them.

CAPITÊTE CENSUS were the Roman citizens, of the lowest class, who possessed no property. They had this name because they were counted by their heads, not by their property, in the divisions of the centuries.

CAPITOL, now Campidoglio; the citadel of ancient Rome, standing on the Capitoline hill, the smallest of the seven hills of Rome, formerly called the Saturnine and the Tarpeian rock. It was begun A. C. 614, by Tarquinus Priscus, but not completed till after the expulsion of the kings. At the time of the civil commotions under Sylla it was burned down, and rebuilt by the senate. It again suffered the same fate twice, and was restored by Vespasian and Domitian. The latter caused it to be built with great splendour, and instituted there the Capitoline games. Dionysius says the temple, with the exterior pillars, was 280 feet long and 186 broad. The whole building consists of three temples, consecrated to Jupiter, Juno, and Minerva, and separated from one another by walls. In the wide portico, triumphal banquets were given to the people. The statue of Jupiter, in the capitol, represented him sitting on a throne of ivory and gold, and consisted in the earliest times of clay painted red. Under Trajan, it was formed of gold. The roof of the temple was made of bronze: it was gilded by Quintus Catulus. The doors were of the same metal. Splendour and expense were lavished upon the whole edifice. The gilding alone cost 12,000 talents (above £2,000,000), for which reason the Romans called it the golden capitol. On the pediment stood a chariot, drawn by four horses, at first of clay, and afterwards of gilded brass. The temple itself contained an immense quantity of the most magnificent presents. The most important state papers, and particularly the Sibylline books were preserved in it. The present capitol is one of the most interesting spots in Rome. From the summit of the middle building, the spectator has a splendid view of one of the most remarkable regions in the world—the Campagna up to the mountains. The museums contain some of the finest collections of statues and paintings. The stairs leading up to the equestrian statue of Marcus Aurelius are beautiful. Everything contributes to render the capitol venerable and interesting. The name of capitol is also given to the edifice in Washington, where congress assembles. Some of the states of North America, and all the states of South America,

CAPITULARY. The word capitulary is generic, and denotes every kind of literary composition divided into chapters. Laws of this description were promulgated by Childerbert, Clothaire, Carlo- man, and Pepin, kings of France; but no sovereign seems to have had them so much at heart as the emperor Charlemagne, who appears to have wished
CAPITULATION—CAPO D'ISTRIA.

to effect, in a certain degree, an uniformity of law throughout his extensive dominions. With this view, it is supposed, he added to the existing codes of feudal laws many other laws, divided into capitularies, or small chapters or heads, sometimes to explain, sometimes to amend, and sometimes to reconcile or remove the difference between them. They were generally promulgated in public assemblies, composed of the sovereign and the chief men of the nation, both ecclesiastical and secular. They regulated equally the spiritual and temporal administration of the kingdom; and the execution of them was intrusted to the bishops, the courts, and the missi regii. But it must be remembered that the latter, the French kings of the first and second race, to dispense law and justice in the provinces. Many copies of these capitularies were made, one of which was generally preserved in the royal archives. The authority of the capitularies was very extensive. It prevailed in every kingdom under the dominion of the Franks, and was submitted to in many parts of Italy and Germany. The earliest collection of the capitularies is that of Angesise, abbot of Fontenelles. It was adopted by Louis the Debonnaire and Charles the Bald, and was publicly approved of in many councils of Germany. It had omitted many capitularies in his collection, Benedict, the Levite or deacon of the church of Mentz, added three books to them. Each of the collections was considered to be authentic, and of course was appealed to as law. Subsequent additions have been made to them. The best edition of them is that of Baluze, in 1597. The capitularies remained in force in Italy longer than in Germany, and in France longer than in Italy. The incursions of the Normans, the intestine confusion and weakness of the government under the successors of Charlemagne, and, above all, the publication of the epitome of canon law, termed the Decretum Graecum, in the year 1150, which totally superseded them in all religious concerns, put an end to their authority in France. Butler's Horae Juridicae Subsecv. 1525–1594.

CAPITULATION formerly signified a writing drawn up in heads; now commonly used, in military language, to signify the act of surrendering to an enemy upon stipulated terms, in opposition to surrender at discretion. In the fifteenth century, capitulations, as they were called, were presented by the commanders of the French army to the newly chosen abbots and bishops, who were obliged to swear to observe them as laws and conditions for their future rule. The ecclesiastical electors obtained, after the fall of the Hohenstaunen family, certain advantageous promises from the new emperors, which were called capitulations. When Charles V. was proposed as emperor, and it was apprehended, on account of his foreign education, that he would disregard the German constitution, he was obliged to make oath, that he would not reside without the German empire, nor appoint foreigners to office in the empire, &c. This was called his election capitulation. Such a Wohlecapitulation was afterwards presented to every new emperor, as a fundamental law of the empire, and shook the constitution of the German government to its very foundations, since the electors, at the choice of every new emperor, made several demands on the imperial privileges. The Wohlecapitulationen were acknowledged bargains, certainly unique in history.

CAPNIST, or KAPNIST, WASSIL WASSILJEWITSCHE, Russian counsellor of state, member of the academy of St Petersburg and other learned societies, one of the councilors of the secret office of state in 1776, was the rival of his friend and relation, the celebrated poet Derschavin (q. v.). He translated Horace with applause. The collection of his works appeared at Petersburg in 1806 (Lyric Poems, by Wassil Capnist). He wrote a comedy, called Judeda, in 1799, and a tragedy, called Antigone, in 1815. His critique on Homer's Odyssey, published in Russian and French, is more acute than profound. His odes have not the easy and bold character by which those of Derschavin are distinguished, but they have a charm of another kind. Purity of style, richness of thought, and a sound philosophy, connected with deep and genuine feeling, are Capnist's characteristic traits. Some years ago, he retired to Obnokhowska, his country-seat, and wrote a drama for the masques till his death, which took place Oct. 28, 1823, in his sixty-seventh year.

CAPO D'ISTRIA (the ancient *Egide*); a seaport of Austria, on the gulf of Trieste, eight miles south of Trieste; lat. 45° 31' N.; population 5,119; is a bishop's see, and the capital of a district, containing 65,150 inhabitants. The town is two miles in circumference, and has, besides the cathedral, thirty other churches, six convents, hospitals, and other public buildings.

CAPO D'ISTRIA, John, count of, formerly Russian and Austrian, president of Greece, was born at Corfu, 1780, where his father was a physician, and studied medicine at Venice. When the Russian troops occupied the Ionian islands, in 1799, Anthony Maria de Capo d'Istria, his father, was at the head of the government. But, after the islands were again made dependent on France, in 1807, in consequence of the peace of Tilsit, he entered into the Russian service. He afterwards returned to Corfu, became a senator there, and died, April 17, 1821, aged eighty years. His son continued in Russia, where he was first employed in the office of count Rumannof, and afterwards went as Russian ambassador to Vienna. In 1812, he conducted the diplomatic business of the army of the Danube, of which admiral Tschitschagoff was command-in-chief. When this army was united with the great Russian army, after the retreat of the French, Capo d'Istria managed the diplomatic correspondence at head-quarters, under the emperor's direction, and soon gained the confidence of his monarch to such a degree, that he was afterwards engaged in the most important public business, and appointed secretary of state for the department of foreign affairs; at that point he was raised to the order of Saint Anne, grand-cross of the royal Austrian Leopold order, and of the Prussian order of the red eagle. In 1813 he was Russian ambassador to Switzerland, negotiated with the Austrian ambassadors the new relations of this republic, and, in Sept., 1814, was present at the congress of Vienna as Russian plenipotentiary, from which the downfall of Napoleon, in 1815, recalled him to the head-quarters of the allies at Paris. As imperial Russian plenipotentiary, he subscribed the treaty of Paris, Nov. 20, 1815, and returned with his monarch to Peters burg, where he took a very active part in the business of the council of state. His endeavours for the restoration of the republic of the Ionian islands, for the support of the established religion in Russia against the intrigues of the Jesuits, and for the delivery of the Greeks from the Turkish yoke, are well known, as also his attempts to suppress the attempts of the Greeks, and Stroganoff returned from his mission to Constantino ple, in 1822 count Capo d'Istria left the public service, and retired, as a private man, to Germany and Switzerland, living chiefly at Geneva, till the year 1827, when he was elected a member of the council of d'Istria. Whether from his attachment to Russian interests, or from the
jealousy and impatience of restraint of the chiefs, Capo d'Istria speedily became extremely unpopular; and the islands and the province of Mahra prospered. In the summer of 1831, the Mamelukes, under General Maimal, demanded a concession of the national assembly, the establishment of the liberty of the press, and the release of certain state prisoners, among whom was Mavrocordato. A provisional government was established, under these leaders, and the insurgents took possession of Poros, with the Hellas and the rest of the Greek fleet lying in that harbour. In August, a Russian fleet appeared off Poros, which stood in to attack the ships, while the troops of the president attacked the town. Maimal, however, blew up the ships, to prevent their falling into the hands of the Russians; and the troops of the president, which found Poros deserted by its inhabitants, reduced it to ashes. Meanwhile, the Mamelukes were acting against the government by land; but the appearance of the Russian fleet in the gulf of Coron obliged Maimal, who had been co-operating with the Mamelukes with a small squadron, to destroy it, as he had previously done the Greek fleet in Poros. In October, George, the son, and Constantine, the brother of Pietro and Bartolomeo, repaired to the Russian line for the purpose of assassinating the president; and they accomplished their object on the ninth, at the door of the church. The one discharged a pistol at his head, the other stabbed him in the back, and he fell dead upon the spot. Constantine was immediately put to death by the bystanders, and George was detained in custody.

CAPOC; a sort of cotton, so short and fine that it cannot be spun. It is used in the East Indies to line palanquins, to make beds, mattresses, &c.

CAPONIER, or CAPONNIERE, in fortresses; a place which is covered against the fire of the enemy, on the sides, sometimes also above, and serves for the connexion of two works, or for maintaining an important point. In particular—1. a passage secured by two parapets, in the form of glacia, which leads through the dry ditch, from one work to another; for instance, from the chief wall to the ravelin. If it be discovered, this gap is given from one side, and consequently only one parapet is made, it is called a demi-caponnier; if it is covered above with hurdles or with wood, it is called a coffr; but this word is often used indifferently for caponnier. 2. Small block-houses in the covered way, for its defence, or to sustain a cannon. One of these, if it be placed above the glacis, and Scharnhorst proposes them, under the name of field-caponniers, for the salient angles of field fortification.

CAPPODOCIA, in antiquity; one of the most important provinces in Asia, once a famous kingdom; bounded W. by Lyconia, S. by Cilicia and Syria, E. by Armenia, and N. by the Pontus Euxinus. In the period of the Persian government, Cappadocia comprehended all the country between the Halys and Euphrates. By the former river, it was separated from Phrygia and Paphlagonia; by the latter, from Armenia; therefore the region afterwards called Pontus was comprehended in this territory. The Persians divided it, according to Strabo, into two strataxes, which bore the name of Cappadocia Magna, afterwards Cappadocia Proper; and Cappadocia Minor, afterwards Phrygia Minor; division, however, was always strictly observed. The Persian strataxes governed, at a later time, under the title of kings, and sometimes made themselves independent. At the time of the famous retreat of the 10,000 Greeks, both the Cappadocians seem to have been under the rule of Mithridates, who had partici-

CAPOC—CAPSTAN.
two cylinders, differing in diameter. On the extremity of the cylinder D, the rope CED is fixed, passing round the pulley E, which is attached to the weight to be lifted by means of the hook F, the rope being coiled round the larger cylinder, so that while the bar B urges the barrel round, the rope untwists itself from the larger barrel, and passes round the smaller cylinder. To ascertain the power of the capstan, let us suppose the diameter of the barrel C is 21 inches, those of the under cylinder and pulley each 20 inches. Since the diameters of the two barrels are to one another as 21 to 20, the circumstances will be in round numbers as 63 to 60, therefore there will be 1.05 times as much power coming to the capstan than was uncouled, and the half of this, or 1/2 inches, will be the space through which the weight has been moved; and, knowing the length of the bar, it is easy to determine through what space the power was moved; and as this is greater than the space through which the weight has moved, so will the power of the capstan be. The great advantage of this form of the machine, which seems to be of Chinese origin, is, that it has no recoil.

CAPTAIN. This is one of those many words derived from the Latin of the middle ages, and now to be found in all the different idioms of Europe. Captain comes from the Latin caput, head, and signifies, first, a governor of a province, who, in the first half of the middle ages, was generally a military man. Thus the word captain soon came to be used chiefly to denote a high, or rather the highest, military officer. Optiz, an early German poet, calls God, Lord, Master, Captain; and, in English, Christ is called the Captain of our salvation. Like many other words, however, this has, in the course of time, lost much of its dignity, and in military technology, now signifies the commander of a small body, a company; and in maritime language, the master of a vessel. In Britain and America, the master of the smallest craft, and even the chief man on a raft is styled captain. In the latter part of the middle ages, when armies were not yet so regularly divided and subdivided as at the present time, captains were the commanders of those small bodies of which the armies consisted. These were generally collected by their commander, who entrusted a company, into the service where most pay or most booty could be obtained. The practice of carrying on wars, by troops collected in this manner, prevailed to the greatest extent in Italy, where the continual quarrels of the numerous small states afforded ample employment. These armies were dispersed and unsettled. These companies play an important part in the history of the middle ages, particularly that of the two centuries preceding the reformation, and had a very important influence on the manners and morals of the south of Europe. They are further interesting to the student of history, because they are so unlike any thing at present existing. We refer the reader, for some further remarks on this subject, to an able article on Macchiavelli, in the Edinburgh Review, March, 1827.

Captain, in modern armies, is the commander of a company of foot, or a troop of horses. In the British army, he appoints the serjeants, corporals, and lance-corporals of his company—a right which belongs, in other armies, to the commander of the regiment. In the horse and foot-guards, the captains have the rank of lieutenant-colonels in the army. In the French army, besides the commanders of the companies of the line, commanders of certain detached bodies of guards, &c., are called captains, and have, sometimes, a very high rank in the army.

Captain-lieutenant is, in the British army, a lieutenant, who, with the rank of captain, commands a troop or company in the name of some other person. The latter being usually captain of the first company of his regiment, the lieutenant is commanded by his deputy as captain-lieutenant.

Captain of a merchant ship; he who has the direction of the ship, her crew, rating, &c. In small vessels he is more ordinarily called master. In the Mercantile Marine, he was called master, or master-captain.

Post-captain; a British officer commanding any man-of-war, from a ship of the line down to a ship-rigged sloop. Formerly a twenty-gun ship was the smallest that gave post-rank; but, by a late regulation, the largest class of ship-sloops has been added to the list of post ships; and post-captains, under three years' standing, are now appointed, unless they happen to be selected as flag-captains to admirals' ships. After being three years posted, they are appointed to frigates, which they may continue to command till they are of ten years' standing, when they are generally removed to fifty or sixty-four gun ships, preparatory to their taking the command of ships of the line.

Captain-general signifies, in England, the first military rank, power, and authority in the realm; therefore the king is, by the constitution, captain-general, or generalissimo, of all the forces in the United Kingdoms. In 1700, the king degenerated this rank, with the powers annexed to it, to the duke of York. In France it is an ancient title, which conferred an almost unlimited power on the person who possessed it, in the district where he commanded. But it never corresponded to that of generalissimo except in the case of the duke of Savoy, in 1685, in the time of Louis XII. The count de Tessé was French captain-general in Italy in 1702. The title is not in use at present, nor would it agree with the existing organization of the administration. In Spain the rank of a captain-general corresponds with that of a marshal of France, who has the command of an army. This title was also given to the head of a province, in the Spanish colonies in South America, which was divided into viceroys and captain-generalships (capitanias-generales); thus Chili was a captain-generalship. The captain-generals were not placed under the viceroys, but accountable only to the king, through the council of the Indies. The captain-general of Venezuela, for instance, had no connexion with the viceroy of New Grenada. They decided, in the last instance, on all legislative, judicial, and military affairs, and presided in the real audiencia. The time during which these governors remained in office was indefinite and dissolutive. It was in order to prevent them from becoming too powerful. The consequence was, that the colonies were oppressed the more to enrich the governors, for rich one day when he left his office.

CAPTURE. See Prize.

CAPUTA, a port in the province of Catanzaro, in the kingdom of Naples, in the district of Capua; it is so called from the Latin caput, head. This town is situated in a fertile and hilly district, and is remarkable for its wines and its saltpetre. It is visited by many pilgrims, who come to the church of Santa Maria della Cava, which is said to contain the remains of one of the twenty-four convenors of the last council of Nice, held in this city. Jan. 11, 1797, it was taken by the French, and, in 1809, it did not resist the Austrians. The ancient Capua, one of the finest and most agreeable cities of Italy, was so important, that it was compared to Rome and Carthage. Hannibal went into quarters here after the battle of Cannae, and promised to make the city the capital of Italy. Capua therefore formed an alliance with him, but was reconquered five years after. The Vandals laid it waste. Narses restored it, but the Lombards devastated it again. There are still many ruins here.
Around Capua lie the fertile Campanian fields, which produced three crops a-year. Living was cheap here, and the climate healthy, so that it was a favourite place of residence for the Romans.

CAPUCHINS, religious of the order of St Francis. See Franciscans.

CAPUT-MORTUUM (dead head); a technical expression, in chemistry, for the deposit in the retort, arising from dry distillation; because, if the operation is carried too far, volatile substances cease to be given off.

CAQUETÁ; a large river in South America, which rises about sixty miles south of Popayan. Being enlarged by the addition of several streams, it takes a course due east about 300 miles, when it divides into three branches, one of which falls into the Ica; another takes the name of Yupura, and the third forms the principal stream of the Negro.

CARABINE; formerly, a kind of guns, which are now out of use. At present, short guns used by the cavalry, have this name. Tacticians entertain very different opinions respecting this kind of arms. Some think that they are of no use whatever, as the aim from a horseback is generally unfixed, and every man, every soldier, every regiment of cavalry is armed with a carbine. The word carabine is found in all European languages, with different endings only. Many derive the word from Calabria, which, for a long time, was famous for a certain light cavalry of the people of Calabria, which should not be extraordinary. Du Fresne derives the word from a kind of arms called chaunarin, of which mention is made in the fourteenth century.

CARABOBO; a province of Colombia, forming, according to the law of June 23, 1824, with the province Caracas, the department of Carabobo. The residence of the governor of Carabobo is Valencia. This name has been rendered famous by the battle of Carabobo, which was decisive of the independence of Colombia. It was fought June 24, 1821, soon after the armistice concluded between Bolivar and Morillo had expired. Bolivar, having formed a junction with Paez in Varinas, advanced to attack the Spanish general La Torre, who had taken a strong position upon the heights commanding the only pass by which his army could be approached. The battle was commenced by Paez, who led on his division in person, and displayed an imperious air of himself and his followers, drove the Spaniards from their entrenchments, and thus gained a complete victory, before the second division, under general Cedeno, came up. Of all the troops, the British, in the service of the republic, distinguished themselves most; they chiefly decided the day, and suffered most severely. The battle in which most of the British and Irish served received the name of Battle of Carabobo. Caracas, La Guaira, Carthagena, Cumaná, and all that portion of Venezuela which is dependent upon them, were permanently secured to the patriots by this victory.

CARACALLA, Antoninus Bassianus, eldest son of the emperor Severus, was born at Lyons, A.D. 188, and appointed by his father his colleague in the government, at the age of thirteen years. Nevertheless, he attempted his life. Severus died A.D. 211. He was succeeded by Caracalla and Geta. The two brothers, from their earliest years, hated one another inveterately. After a campaign against the Celts, they concluded a disgraceful peace. They then wished to divide the empire between them; but their design was opposed by their mother, Julia, and by the principal men of the state. Caracalla now resolved to get rid of his brother, by causing him to be assassinated. After many unsuccessful attempts, he pretended to desire a reconciliation, and requested his mother to procure him an interview with his brother in private in her chamber. Geta appeared, and was stabbed in his mother's arms, A.D. 212, by several centurions, who had received orders to this effect. The praetorian guards were prevailed upon, by rich donations, to proclaim Caracalla sole emperor, and to declare him the rival emperor to the state. The tyrant caused Geta's children and friends to be put to death. (See Papinian.) Dion estimated the number of victims at 20,000. He afterwards executed many of the murderers of his brother, and caused him to be placed among the gods. His pattern was Sylla, whose tomb he restored and adorned. Like this dictator, he enriched the soldiers with the most extravagant largesses, which extortion enabled him to furnish. Cruel as Caligula and Nero, but weaker than either, he regarded the senate and the people with equal contempt and hatred. From motives of avarice, he gave all the freemen of the empire the right of citizenship, and was the first who received Egyptians into the senate. Alexander, whose habits he imitated, and Achilles, were the objects of his deepest veneration. He went to Ilum to visit the grave of Homer's hero, and poisoned his mind about the Romans by the example of Peumachus, who reigned in Cappadocia, and fled to Persia in his grief for Patroclus. His conduct in his campaigns in Gaul, where he committed all sorts of cruelties, was still more degrading. He marched over the Rhine to the countries of the Catti and Alemanii. The Catti defeated him, and permitted him to repass the Rhine only on condition that he should pay a large sum of money. He marched through the land of the Allemanni as an ally, and built several fortifications. He then called together the young men of the tribe, as if he intended to take them into his service, and caused his own troops to surround them and cut them in pieces. For this barbarous exploit, he assumed the name Alemanicus. In Ducia he gained some advantages over the Goths. He signed a treaty of peace at Antioch with Artabanus, the Parthian king, who submitted to all his demands. He invited to Antioch Abgares, the king of Edessa, an ally of the Romans, loaded him with chains, and took possession of his states. He exercised the same treachery towards Volagases, king of Armenia; but the Armenians flew to arms, and repulsed the Romans. After this, Caracalla went to Alexandria, to punish the people of the city for ridiculing him. While preparations were making for a great war, he offered hecatombs to Serapis, and visited the tomb of Alexander, on which he left his imperial ornaments, by way of offering. He afterwards devoted the inhabitants, for several days and nights, to plunder and butchery, and sent them, in order to have a view of the bloody spectacle, on the top of the temple of Serapis, where he consecrated the dagger which he had drawn, some years before, against his brother. His desire to triumph over the Parthians induced him to violate the peace, under the pretence that Artabanus had refused him his daughter in marriage. He found the country undefended, ravaged it, marched through Media, and laid siege to Ctesiphon. The Parthians, who had retired beyond the Tigris to the mountains, were preparing to attack the Romans, the following year, with all their forces. Caracalla returned without delay to Mesopotamia, without hav- ing even seen the Parthians. When the senate rece-ived from him information of the submission of the East, they decreed him a triumph, and the surname Parthicus. Being informed of the warlike preparations of the Parthians, he prepared to renew the con- test; but Marcus, the pretorian prefect, whom he had ordered to remain at Tarsus, A.D. 215, on his way to the temple of Lunius, Caracalla erected at Rome some splendid monuments, magni- cent baths, which bear his name, and a triumphal arch, in commemoration of the achievements of Severus.
CARACAS—CARAVAN.

CARACAS; a province, which, with the province of Carabobo, constitutes, according to the law of June 29, 1824, the department of Venezuela, one of the twelve departments of Colombia. (See Venezuela.) The city of Caracas, or Leon de Caracas, is the ca-
pital of the province of Venezuela, formerly a cap-
tain-generalship; lon. 67° 5' W.; lat. 10° 31' N. In 1812, the population was estimated at 50,000. March 26 of that year, the city was partly destroyed by an earthquake, and nearly 12,000 persons were buried in the ruins. By the political events which followed this catastrophe, the population of this ill-fated city was reduced, in four or five years, to less than 25,000. The city is situated five leagues from the sea, from which it is separated by a chain of mountains, at an elevation of 3000 feet above the ocean. A good road traverses the mountains to the port La Guayra. Caracas carried on a considerable trade. The greatest part of the productions of the whole province, consisting principally of cocoa, coffee, indigo, cotton, sarsaparilla; and the Varinas to-
bacco, is brought here for sale, or to be exchanged for European manufactures and productions. The temperature is generally between 77° and 82° Fahr. in the day, and between 69° and 72° at night; but this general mildness is connected with great fluctua-
tions in the weather. Humboldt, among the vapours of November and December, could sometimes hardly fancy himself in one of the temperate valleys of the torrid zone, the weather rather resembling that of the north of Germany. Caracas is the seat of the intendant of Venezuela, and has a college, a court of justice, nine churches, and five convents. The streets are straight and well built, intersecting each other at right-angles, at a distance of about 300 feet. The inhabitants consist of whites, descendants of Spaniards, free coloured people, a few slaves, and Indians. The first are either merchants, planters, professional or military men, very proud, and disdaining all kinds of labour. The women are considered very handsome, having large black eyes, full of ex-
pression, jet-black hair, and fine complexions; but they are careless of their figures. They seldom leave their houses except to go to mass, when they wear the long veils called mantilias, covering nearly the whole body. They possess considerable natural tal-
ent and vivacity, but little or no accomplishments. Caracas, as is well known, has been conspicuous throu-
gout the history of Venezuela and New Granada against Spain.

CARACCI. See Caracci.

CARACCIOLI, LOUIS ANTOINE, $; born in 1721, at Paris, of an ancient and distinguished Neapolitan family. His talents for conversation procured him a distinguished reception, in Rome, from Benedict XIV. and Clement XIII. He afterwards went to Germany and Poland. After having educated the children of prince Rzewuski, in the latter country, he returned to Paris, and wrote his Lettres du Pape Clement XIV. (Ganganelli), which display a kind spirit, a benevo-
 lent philosophy, and fine taste. They also contain intelligent observations on many situations of life. For a long time, they were thought to be the genuine productions of the pope, and excited the greatest interest in France, and throughout Europe. He died 1760.

CARACCIOLI, marquis de, the friend of Mar-
monde and D'Alembert, born in 1711, was, about the middle of the eighteenth century, Neapolitan ambassador in London and Paris. He was esteemed one of the first ornaments of the accomplished so-
ciety of the capital of France. He died in 1789, in the hotel of which he was St-Stacy.

CARACCIOLI, FRANCESCO, brother of the duke of Roccaromanza, was distinguished as Neapolitan ad-
miral, in 1793, at Toulon; but, being treated by his court with contempt, he entered the service of the Parthenopean republic, and repelled, with a few ves-
sels, an attempt of the Sicilian-English fleet to eff-
fect a landing. When Rufino took Naples in 1799, Caraccioli was arrested, contrary to the usual cus-
tomary capitulation, was condemned to death by the junta (see Spezie), was hanged at the mast of his frigate and thrown into the sea. His death is a blot on the fame of Nelson.

CARACTAUS; a king of the ancient British people called Silius, inhabiting South Wales. He de-
defended his country seven years against the Ro-
mans, but was at last defeated, and led in triumph to the emperor Claudius, then at York, where his noble behaviour and pathetic speech obtained him liberty, A.D. 42. Buchanon, Monpenny, and the other ancient Scottish historians, make this heroic prince one of the Scots monarchs.

CARATIES, or CARJEANS, among the Jews; those who reject the tradition of the Talmud, and hold merely to the letter of Scripture, in opposition to the Rabbiisten. See Rabbi.

CARAVAGGIO. A large town, in the 500 Fahr. province of Asiatic Turkey, east of Natolia, comprising about 35,000 square miles. It is intersected by the Kisil Jermak, which, after a course of about 350 miles, flows north into the Black sea. Carmania comprehends the ancient Pamphylia, and a great part of Cilicia, Pisid-
ia and Cappadocia Minor. Rzewuski united it to the Ottoman empire in 1488. The inhabitants carry on some trade with camels' hair, goats' wool and opium. The population probably does not exceed from 150 to 200,000. Cogni, or Konich (lat. 38° 10' N., lon. 32° 25' E., 308 miles east of Smyrna, and 150 north of the shore of the Mediterranean) is the capital. There is also a town of this province called Carmania.

CARAVAGGIO, MICHAEL ANGELO AMERIGHI, or MORICI, called Michael Angeo da Caravaggio, a cele-
brated painter, born at Caravaggio, in the Milan-
esi, in 1560, was at first a journeyman mason, but soon applied himself to the study of painting, studied in Milan and Venice, and afterwards went to Rome, where he distinguished himself. He may be con-
sidered as the inventor of a manner which has led a crowd of imitators. His characteristic traits are vigour and truth of chiaro-osuro, combined with excellent colouring. He was fond of introducing breadth of planes, and tone of the sky; whereby a great effect is given to the light. To aid him in producing this effect, the room in which he worked was illu-
minated by a skylight, and the walls were painted black. He excelled in the painting of naked figures. His faults are obvious. Narrow and servile imitation of nature was his highest aim. Annibal Caracci and Domenichino were, perhaps, less distinguished than Caravaggio during their lives, but after their death were ranked higher; because, without ne-
gotiating colouring and the study of nature they aimed at correctness of design, and dignity of con-
ception. His violent character involved him in many difficulties. He died as early as 1609. The painters who have imitated him most are Manfredi, Valentin, and Ribeira, called Espagnol.

CARAVAGGIO. See Caldra.

CARAVAN, or KARAVAN; a Persian word used by the caravanserai companies which travel together in the Levant and in Africa, for the sake of se-
curity from robbers, having in view, principally, trade or pilgrimages. Such a company often have more than 1000 camels to carry their baggage and goods, which are generally distributed on the line, so that they are about a mile long. On account of the exces-
sive heat, they travel mostly early in the morning. As every Mohammedan is obliged to visit the tomb
of Mohamed once at least during his life, caravans of pilgrims go to Mecca every year, from various places of meeting. The leader of such a caravan to Mecca, who carries with him some cannon for protection, is called Emir Emir. Trading caravans choose one of their own number for a leader, whom they call a Caravan Baseli. Much information on the subject of caravans is to be found in the travels of Niebuhr, who made many journeys with them, and describes them, as it is well known, minutely and faithfully. For an account of some of the most important routes pursued by the caravans in Africa, see the article Africa.

CARAVAN TEA. See Tea.

CARAVANSARIES, in the East; a sort of inn, situated in countries where there are no cities or villages for a considerable extent, to furnish travellers with a shelter. Some of them are built with much splendour, though they are generally unfinished, and the traveller is obliged to bring with him his bed and carpet. In many, the hospitality is gratuitous. It is common for a pious Mohammedan to establish, during his life or by will, one or several of these caravansaries. This kind of benefaction is considered peculiarly agreeable to the Deity, and promotive of the eternal happiness of the founder. Sometimes persons are kept in these establishments to show the way to the caravans for some distance. See Khan.

CARAWAY SEEDS (fructus carvi) are a stimulant and excitant, the fruit of a biennial plant (carum carvi, Linnaeus), a native of Europe, growing particularly in the south of France.

CARBON. Charcoal, as we are familiar with it in common life, contains hydrogen and saline and metallic sotds. Accordingly, it became necessary to introduce a peculiar term for its pure base, and the one adopted by chemists was carbon. This element, besides forming the inflammable matter of charcoal, exists largely in animal substances, and is extensively distributed in the mineral kingdom. The only body in which carbon has been found to exist in a state of absolute purity, is the diamond. This precious stone has always been esteemed as the most valuable of the gems, a superiority which it owes to its hardness, lustre, and high refractive power. Diamonds are brought from India and from Brazil. Those of India, which is the longest known, are principally found in the kingdom of Golconda and of Vizianourg. Those of Brazil, discovered at the commencement of the seventeenth century, belong to the district of Serro-do-Frio. The situations in which they occur are such as to favour the idea of their recent formation; since they exist disseminated through a loose, ferruginous sandstone, or quite detached in a sandy soil; and, in both cases, are situated at no great depth below the surface. In Brazil, the conglomerate in which they exist is called cascado; from which they are extracted by washing, in the same manner as gold. The diamond uniformly occurs crystallized, and presents a great variety of forms; all of which yield readily to mechanical division parallel to all the planes of the regular octahedron, which, therefore, is the form of the primary crystal, and under which figure it is sometimes found in nature. The faces of its crystals are very frequently curved, so as to communicate to them a rounded appearance. They are commonly limpid; and are either colourless, or of a yellowish, bluish, yellowish-brown, black-brown, Prussian blue, or rose-red colour. Specific gravity, 3-5. It is very hard; but the numerous and delicate experiments of Sir H. Davy, and several other chemists, failed in detecting any thing else in its composition; and, although there exists no great differ-

1 carat may be about 21'6 grains, or ± 5.8
grams.
2 carats = 16 X .538 = 5.8
3 carats = 24 X .538 = 12.1
4 do. = 4 X .58 = 1.89
10 do. = 10 X 1.89 = 24.8
This rule, however, is not extended to diamonds of more than twenty carats. The larger ones are disposed of at prices inferior to their value by that computation. The snow-white diamond is most prized by the jeweller. When transparent, and free from cracks, it is said to be of the first water. The following are some of the most extraordinary diamonds known:—one in the possession of the rajah of Mulluck, in Bengal, which kind of beauty is considered peculiarly agreeable to the Deity, and promotive of the eternal happiness of the founder. Sometimes persons are kept in these establishments to show the way to the caravans for some distance. See Khan.
enue between the diamond and charcoal, in their ex-
ternal properties, we are forced to believe that they
are identically of the same nature. The diamond is,
therefore, pure carbon, and differs from charcoal
(leaving out of question its trding impurities) only in
the arrangement of its molecules.
The substance in which carbon exists next in pu-
rity is charcoal. For common purposes this is pre-
bred by piling billets of wood in a pyramidal form,
with vacuities between them for the admission of air,
covering them with earth, and immuring them a
short time. The amount of the heat, part of the combustible
substance is consumed, part is volatilized, together with
a portion of water, and there remains behind the lig-
neous fibre only of the wood, in the form of a black,
brittle, and porous body. When required pure, and
in small quantities, for the purposes of the chemist,
it may be obtained by immersing the wood in sand
contained in a crucible exposed to heat. According
to the experiments of Messrs Allen and Pepys, the
weight of charcoal obtained from 100 parts of differ-
ent woods was as follows:—fire, 18-17; lignum vitae,
17-75; box, 20-25; beech, 15; oak, 17-40; mahog-
any, 15-75.
Lamplblack is charcoal in a state of minute division,
and is prepared for the demands of trade from the
dregs which remain after the eliuation of pitch, or
else from small pieces of fir-wood, which are burned
in furnaces of a peculiar construction, the smoke of
which is made to pass through a long horizontal flue,
terminating in a close, boarded chamber. The roof
of this chamber is made of coarse cloth, through
which the current of air escapes, while the soot, or
lampblack, remains behind.—Cook is a peculiar kind
of charcoal, which remains in the retort, after the
heating of coal to procure the coal gas.
Ivory-black, or animal charcoal, is obtained from
bones made red-hot in a covered crucible, and con-
sists of charcoal mixed with the earthy matters of
the bone.
Wood charcoal, well prepared, is of a deep-black
colour, brittle and porous, tasteless and inodorous.
It is insufiable in any heat a furnace can raise; but,
by the intense heat of a powerful galvanic apparatus,
it is hardened, and at length is volatilized, presenting
a surface with a distinct appearance of having under-
gone fusion. The density of charcoal, according to
Mr Leslie's list shown in that of the diamond itself,
although its specific gravity has usually been consid-
ered as low as 2-00. Charcoal is insoluble in water,
and is not affected by it at low temperatures; hence
wooden staves, which are to be immersed in water,
are often charred to preserve them.
Owing to its peculiarly porous texture, charcoal
possesses the property of absorbing a large quantity
of air, or other gases, at common temperatures, and
ofyielding the greater part of them when heated.
It appears, from the researches of Saussure, that dif-
erent gases are absorbed by it in different proportions.
He found that charcoal prepared from box-wood ab-
sorbs, during the space of twenty-four or thirty-six
hours, of—
Ammoniacal gas, 90 times its volume;
Muriatic acid, 85 do.
Carbonic acid, 35 do.
Oxygen of nitric acid, 23-8 do.
Hydrogen, 1-75 do.
Charcoal likewise absorbs the odoriferous and col-
ouring principles of most animal and vegetable sub-
stances. Thus, all saline substances, which, from
the adherence of vegetable or animal extractive mat-
ter, are of a brown colour,—as crude tarat, crude
nitre, tannins of all kinds, and other salts
—may, after being digested through the medium of
water with charcoal, be obtained white by a second
crystallization. Resins, gum-resins, asafoetida, opi-
um, balsams, essential oils, and many other substan-
ces, even those that have the strongest smell, are
rendered nearly inodorous when they are rubbed with
charcoal, or heated in closed vases, or when solutions of them
in alcohol are macerated with the charcoal, and
repeatedly through it. A number of the vegetable
oxides and infusions also lose their colour, smell, and
much of their taste, by the same process. Com-
mon vinegar, on being boiled with charcoal powder,
becomes colourless. Malt spirit, by distillation with
charcoal, is freed, from its disagreeable flavour. In
the same manner wines, also, become colourless, and
distilled waters lose their odours. Water, which,
from having been long kept in wooden vessels, as
during long voyages, has acquired an offensive smell,
is deprived of it by filtration through charcoal pow-
der, or even by agitation with it for a few minutes,
especially when a few drops of sulphuric acid have
also been added. Hence, also, it has been found
that, by clarring the inside of casks for keeping wa-
ter, it may be preserved a long time without spoiling.
Charcoal can even remove or prevent the patres-
cence of a stock in a glass of water. If a piece of
charcoal become tainted, the taste and smell may, in
a great measure, be removed, by rubbing it with charcoal
powder; and it may be preserved fresh for some time
by burying it in the same substance. To pro-
duce these effects, however, it is necessary that the
charcoal should have been well calcined and newly
prepared.

The uses of charcoal are extensive. It is used as
fuel in various arts, where a strong heat is required
without smoke, as in dyeing, and in various metal-
large operations. By cementation with charcoal,
iron is converted into steel. It is used in the usual
manufacture of gunpowder, in its finer state of aggrega-
tion, under the form of ivory-black, lamp-black, &c.
It is the basis of black paint; and, mixed with fat
andresinous matter, to give a due consistence, it
forms the composition of printing ink. It is used
to destroy colour and odour, particularly in sirups;
to purify honey; to resist putrefaction; to confine
heat, and for a number of other important purposes.
When charcoal is heated to a certain degree in
the open air, or in oxygen gas, it takes fire, and
burns with the production of an elastic vapour, which
has been called carbonic acid gas. It is used in
the manufacture of salpeter.
It exists, combined with lime, in the different varieties
of limestone, marble, and chalk; and, if any of these
substances be exposed to a strong heat, the affin-
ity of the acid to the lime is so far weakened, that it
assumes the elastic form, and may be collected. An
easier mode is also practised for effecting its dis-
union, through the affusion of one of the more
powerful acids.

From the experiment of the direct formation
of this acid, by the combustion of charcoal in oxygen
gas, its composition has been determined to be 22-7
carbon and 77-3 oxygen. Tennant illustrated its
nature analytically, by passing the vapour of phos-
phorus over chalk, or the carbonate of lime, heated
to redness in a glass tube. The phosphorus took
oxygen from the carbonic acid, charcoal, in the form
of light, black powder, was deposited and the
phosphoric acid, which was formed, united with the
lime.

Carbonic acid is a colourless, inodorous, elastic
fluid, which possesses all the physical properties of
the gases in an eminent degree, and requires a pres-
sure of thirty-six atmospheres to condense it in
the liquid state. Its density, or specific gravity, compared with common
air, is 1-5277. It extinguishes burning substances
of all kinds, and is incapable of supporting the re-

CARBON.
spiration of animals, its presence, even in a moderate proportion, being soon fatal. An animal cannot live in air which contains sufficient carbonic acid for extinguishing a lighted candle; and hence the practical rule of letting down a burning taper into old well-stocked pits, before going down, so often prescribed. When an attempt is made to inspire pure carbonic acid, a violent spasm of the glottis takes place, which prevents the gas from entering the lungs. If it be so much diluted with air, as to admit of its passing the glottis, it then acts as a narcotic poison on the sensitive nerve-paths by which so often proves destructive to persons sleeping in a confined room with a pan of burning charcoal. Lime-water becomes turbid when brought into contact with carbonic acid, from the union of the lime with the gas, and the insoluble nature of the compound thus formed. Hence, lime-water is not only a valuable test of the presence of carbonic acid, but is frequently used to withdraw it altogether from any gaseous mixture that contains it. Carbonic acid is absorbed by water. Recently-boiled water dissolves its own volume of carbonic acid, at the common temperature and pressure; but it will take in much more if the pressure be increased. Water and other liquids, which have been charged with carbonic acid under great pressure, lose the greater part of the gas when the pressure is removed. The effervescence which takes place on opening a bottle of ginger beer, cider, or brick champagne, is owing to the escape of carbonic acid gas. Water which is fully saturated with carbonic acid gas sparkles when it is poured from one vessel to another. The solution has an agreeably acidulous taste, and gives to litmus paper a red stain, which is lost on exposure to the air. On the addition of lime water to it, a cloudiness is produced, which at first disappears, because the carbonate of lime is soluble in an excess of carbonic acid; but a permanent precipitate ensues, when the free acid is neutralized by an additional quantity of lime-water. The water which contains carbonic acid in solution is wholly deprived of the gas by boiling. The agreeable pungency of beer, porter, and ale is, in a great measure, owing to the presence of carbonic acid; by the loss of which, on exposure to the air, they become stale. All kinds of spring and well-water contain carbonic acid, which they absorb from the atmosphere, and to which they are partly indebted for their agreeable flavour. Boiled water has an insipid taste, from the absence of carbonic acid. Carbonic acid is always present in the atmosphere, even at the summit of the highest mountains. Its origin is obvious. Besides being formed abundantly by the combustion of all substances which contain carbon, the respiration of animals is a fruitful source of it, as may be proved by breathing a few minutes into lime-water. It is also generated in all the spontaneous changes, to which dead animal and vegetable matters are subject. The carbonic acid proceeding from such sources is commonly diffused equably through the air; but, when any of these processes occur in low, confined situations, as in the galleries of mines or in wells, the gas is then apt to accumulate there, and form an atmosphere called choke damp, which proves fatal to any animals that are placed in it. These accumulations take place only where there is some local origin for the carbonic acid; for example, when it is generated by fermentative processes going on at the surface of the ground, or when it issues directly from the earth, as happens at the grotto del Cane, in Italy, and at Pyrmont in England. 

Though carbonic acid is the product of many natural operations, no increase of its quantity in the atmosphere is discoverable. Such an increase ap-
or the charcoal. When the first is used, an oxi-
dye or iron is the product; when charcoal is employed, the 
charcoal itself is converted into carbonic oxide. 
CARBONARI (colliery); the designation of a large 
political society in Italy. According to the Me-
moirs of the Secret Societies of the South of Italy, 
particularly the Carbonari, translated from the Ori-
ginal Manuscript (London, 1821), it emerged from 
its former obscurity in 1818. It has published in-
structions, catechisms of the different degrees, sta-
tutes, rituals, and so on, which give, however, only 
a partial view of the subject, without entering into 
the secret motives of the leaders, and the real spirit 
of the whole society. They have a tradition that 
they were founded by Francis I. of France, on which 
count they drink to his memory at their festivals. 
It is evidently going too far to associate them with 
the disturbances among the German peasantry in 
the beginning of the 16th century, or to look for 
their origin in the oppressive forest laws of the 
Norman kings of England. If, however, as their antiquity is 
not doubted, they could be proved to be a 
branch of the Waldenses, their 
which aims at evangelical purity and a rejection of 
traditions, would be best accounted for. According 
to Botta's Histoire d'Italie, the republics fled, un- 
der the reign of Joachim (Murat) to the recesses of 
the Abruzzi, inspired with an equal hatred of the 
French and the Pope. They formed a secret confedera-
tion, and called themselves colliery. Their 
chief, Capobianco, possessed great talents as an om-
tor. The war cry—"Revenge for the land crushed by 
the wolf!"—revealed the objects of the society. 
Ferdinand and Caroline endeavoured to obtain 
their assistance against the French. Prince Moltemi him-
self a republican at heart, was sent to them for this 
purpose. Count Orloff, in his work on Naples, as-
cribes the foundation or revival of the Carbonari to 
queen Caroline of Naples: others assert that Magli-
ella, the former minister of police, gave this society 
its present importance. Magghella, a native Geno-
ese, was made minister of police in the time of the 
Ligurian republic, and, after it was united with 
France, director of the tobacco monopoly. When 
Murat ascended the throne of Naples, he employed 
him in the department of police, and, after the lapse 
of few months, assigned him minister of police. All his efforts 
were directed to the union and independence of Italy; 
and, for this purpose, he made use of the society of 
the Carbonari, which he reformed and extended. In 
1812, he urged his sovereign to make himself inde-
pendent of Napoleon, and to raise the standard of lib-
erty and independence in Italy. Murat was sup-
ported by the Carbonari (who desired a constitution) 
only during the short intervals in which it was hoped 
that he would act according to these suggestions. In 
the sequel, he informed his brother-in-law, Napoleon, 
of the designs of Magghella, and delivered him, as a 
native Genoese, to France, where he lived, for some 
time, under the superintendence of the police. In 
1815, he returned to Italy, and exerted his influence 
chiefly in the States of the Church, then occupied by 
Murat. After the expulsion of Murat by the Austrian 
armies, he was first carried to a Hungarian fortress, 
afterwards delivered to the king of Saxonia, imprison-
ed for a year, in Penestrelles, and then set at liberty. 
The ritual of the Carbonari is taken from the colliery. 
Clearing the wood of wolves (opposition to tyranny) 
is the basis of their symbols. By this, they are said to 
be based; at first, only deliverance from foreign 
domination; but, later times, democratic and monarchical 
principles have sprung up, which were 
probably discussed chiefly among the higher degrees 
of the order. They call one another good cousins. 
Those of the second degree are called Pythagoreans, 
and the oath of admission is, "Hatred to all tyrants!" 

Of the third degree, whose existence cannot be doubt-
ed, little is known. There are even traces of a fourth 
degree, a secret society, designed to avenge a great 
common head seems not to have been effected. The 
separate societies in the small towns entered into a 
connection with each other; but this union extended 
no farther than the province. The place of assem-
bley is called the hut (borsaet): the exterior parts are 
called the sepia, and the last is called the 
colliery (vendita). The constitution of all the huts 
of the province is called the republic, generally bear-
ing the ancient name of the province; for instance, 
the republic of West Lucania, in Principato Cita, 
which consisted of 182 huts, and had its seat at Se-
lera; the East Lucanian republic, in the province of 
Basilicata, chief seat at Potenza; the republics of 
Hirpinia, Daunia, &c. The chief huts (alta vendita) 
at Naples and at Salerno endeavoured to effect a ge-
neral union of the order, at least for the kingdom; 
but the attempt appears to have been unsuccessful. 
To what degree, however, the feeling of hatred was 
prevalent, and the resentment of the facts, from the 
that the order, soon after its foundation, contained from 24,000 

The mention of March alone, about 650,000 new members are said to 
been admitted. While clubs joined the 
little republic in Abruzzi, in March, 
1814, contained 1200 armed members of the order. 
The terms of admission could not, of course, have 
been difficult; even notorious robbers became Car-
bonari; and the assertion, that their admission ef-
fected an immediate reformation of their life, will not 
meet with much credit. The clergy and the military, 
in particular, seem to have thronged for admission. 
The religious character of the order appears from its 

The spirit shows most clearly the import-
ance of the order; for it is far more difficult to be 
suppressed than the political spirit, and indicates a 
more universal and profound excitement. The Car-
bonari seem to have borrowed many forms from the 
freemasons, but did not, probably, originate from 
them. Even in Italy, in 1812, it is stated that 
the order was much more in 

The tendency and the constitution of the Carbonari, during the 
reign of Napoleon, see Hermes, xii.) After the suppres-
sion of the Neapolitan and Piedmontese revolution, in 
1821, the Carbonari, throughout Italy, were declared 
guilty of high treason, and punished as such by the 
laws. Some interesting facts concerning them are 
contained in De Witt's Fragments from my Life and 
Time (Brunswick, 1827) ; but the book is such a mix-
ture of prevarication and exaggeration, that it is of 
little value to any reader who is not sufficiently ac-
quainted with the political affairs of that time to dis-
stinguish the false from the true. The Carbonari have 
added one more to the attempts of Italy to realize 
a wish as old as its misfortunes; that is, to attain deliv-
erence from a foreign yoke, and to become united 
under one government. There has been an attempt in 
Italy. Even in 13th century, it is called his country 
;}
CARBONIC ACID—CARDAN.

CARBONIC ACID. See Carbon.
CARBONIC OXYDE. See Carbon.
CARDUNCE. See Garnet.
CARDUNCE, in surgery; a roundish, hard, livid and painful tumour, quickly tending to mortification, and (when it is malignant) connected with extreme debility of the constitution. When this complaint is symptomatic of the plague, a pestilential bulbo usually attends it. (See Plague.) The carbuncle is seated deeply, in parts provided with cellular membrane, and therefore does not soon discover its whole dimensions, nor the ill digested matter it contains.

CARCASS (in French, carcasse), in military language, a closed, reflectible, and card-playing. The painted, the German, the card-playing, was discovered, of Asia and Africa, this supposition would be placed beyond doubt. It is asserted, that the Arabs or Saracens learned the use of cards from the Gipsies, and spread the use of them in Europe. The course that card-playing took, in its diffusion through Europe, shows that it must have come from the East, for it was found in the eastern and southern countries before it was in the western. The historical traces of the use of cards are found earliest in Italy, then in Germany, France, and Spain. The first cards were painted, and the Italian cards of 1299 are acknowledged to have been so. The art of printing cards was discovered by the Germans, between 1350 and 1360. The Germans have, moreover, made many changes in cards, both in the figures and the names. The lasagnechiptsip, which is regarded as the first German game with cards, is a German invention. Of this game we find an imitation in France, in 1302, under the name of lasunenet, which continued to be played there till the time of Moliere and Regnard, and, perhaps, still longer. The first certain trace of card-playing in France occurs in the year 1361, and Charles VI. is said to have amused himself with it during the sickness which ended his life, in 1428.

The modern French figures are said to have been invented in France between 1430 and 1461. It has been said that cards were known in Spain as early as 1332, but this opinion is supported by no evidence. The earliest indication of card-playing in Spain is its prohibition by the King of Castile, John I., in 1387, when it must, consequently, have been very prevalent. One of the best works on the different games at cards is the well-known treatise of Boyle. (For the different games, see the respective articles.)

CARDAMOM, small (cardamomum minus; anomum cardamomum, Linnaeus); a perennial plant growing in the East Indies. The fruit is used as a stimulant and excitant. Triangular capsules, from four to five lines in length, of a yellowish-white, contain the seeds, which are of a brown colour, a pleasant, aromatic smell, a warm, pepper-like taste, well adapted for use either in medicines or as a condiment. In France, it is much less used than in Britain and the United States.—The great and middle cardamoms are furnished by other species of anomum, as yet unobserved and undescribed. They may be only varieties of the preceding. Their properties are not so energetic.

CARDAN, or CARDANO, GERONIMO (Hieronymus Cardanus). This famous philosopher, physician, and mathematician, was born in 1501, at Pavia, and was educated, from his fourth year, very carefully in the house of his father, a physician and lawyer in Milan, distinguished for his learning and integrity. In his twentieth year, he went to Pavia to complete his studies; and, after two years, he began to explain Euclid. He was, subsequently, professor of mathematics and medicine in Milan. He then returned to Pavia, again visited Milan, taught, for some time, at Bologna, and, meeting with some difficulties there, went to Rome. Here he was received into the medical college, and was allowed a pension by the Pope. He went to Paris, and the following year to the kingdom of Denmark, on account of the climate and of the religion of that country. The latter reason for his refusal appears strange from a man who was accused of irreligion; but his biographers differ with regard to his religious opinions. Contradictory passages are cited from his works, which cannot surprise us in one who was lost in cabalistic dreams and paradoxes, and pretended to have a familiar demon (demon familiaris), from whom he received warnings, &c. All this excited the theologians against him, who attacked his orthodoxy, and even accused him of atheism, but mainly with a view of his fame. It is certain, however, that Cardan was superstitious, but his chimeras were in opposition to the reigning superstitutions of the age. He believed so implicitly in astrology, that he drew his own horoscope several times, and ascribed the falsehood of his predictions, not to the uncertainty of the art, but to his own ignorance. His two works, De Subtilitate and De Rerum Varitate, contain the whole of his natural philosophy and metaphysics, and are curious as an instance of a strange mixture of wisdom and folly. Cardan wrote, also, on medicine. His writings on this subject, amid much trash, contain some sound ideas. His fame as a physician was so great, that the primate of Scotland, who had been sick for ten years, and had consulted the physicians of the king of France, and of the emperor of Germany, without success, invited him to Scotland, and was restored to health by his prescriptions. His highest claims to the greatest of the learned rest on his mathematical discoveries. Algebra, which, from the time of its origin, had been cultivated almost exclusively in Italy, excited, at that time, much rivalry among the mathematicians, who carefully kept their discoveries secret, in order to triumph in the dispute with each other in them. It was the secret which Cardan, was, said that Tartaglia had discovered the solution of equations of the third degree, and obtained the secret from him by stratagem and under promise of silence, but published the method, in 1545, in his Ars magna. A violent dispute arose, which cannot now be decided with certainty. The honour of giving his name to the invention has remained to him who first made it known, and it is still called the formula of Cardan. It is universally believed that Cardan discovered some new cases, which were not comprehended in the rule of Tartaglia; that he discovered the multiplicity of the roots of the higher equations, and, finally, the existence of negative roots, the use of which he did not, however, understand. His tranquillity was disturbed, not only by the attacks of his enemies, but also by his own extravagances, which are related in his own works, De Præstidígio, no matter how these were a consequence, they are exposed with so much frankness, that those who have judged him with indulgence have been obliged to suppose him subject to fits of insanity. He died, probably, in 1576, according to some accounts, by voluntary starvation, that he might not焉ary the rumor in which he had been suspected that his death would occur. All his works,
CARDIFF—CARDINAL.

53
to the number of more than fifty, are contained in the edition of Lyons, 1683, in ten vols., folio.

CARDIFF, or CAERDUFF, a town in Glamorgan-shire, South Wales, situated upon the banks of the river Taff. It is irregularly built, is a busy trading-place, and the capital of the county. Cardiff, meaning the "fortress on the Taff," is said to owe its origin to Jestyn ap Gwrgan, who built the town out of the ruins of the adjacent Roman station at Roath, in the year 1060. Robert Fitzhamon, a kinsman of William the conqueror, first resided here in the year 1091, and is supposed to have erected the castle in the year 1087 or 88. Near the entrance of this strong-hold, Robert, duke of Normandy, was confused by his brother, Henry I., for twenty-six years, having been previously deprived of his sight by that unnatural usurper. During Cromwell's wars, Cardiff castle was bombarded for three successive days, and only yielded at last from the treachery of a deserter. Population in 1831, 6187.

CARDIGAN, a maritime county of Wales. The surface of the northern and eastern parts is mountainous, but interspersed with fertile valleys; while the southern and western districts are more level, and covered with rich meadow land. The soil in these valeis is chiefly peat, capable of growing either grain or grass, by the application of lime: the higher grounds consist of a light sandy loam, and the mountains are composed chiefly of clay-slate. The agricultural produce of this county is comparatively small; black-cattle, sheep, and wool, are the staple commodities; but corn is sometimes procured by importation from other counties. Few counties of England or Wales are richer in mineral treasures, and few or none also derive so little benefit from the possession. Silver, lead, and copper, have been found, but they have yielded very little. Molland, near Llandovery, acquired the fortune which he expended in conducting the new river to London, in the silver and lead mines of Clynhymlog; but this, as well as thirty-five mines of copper, lead, and silver, all contained in the hills of this county, and worked successively at various times, is now totally abandoned. Perhaps the want of coal in the vicinity, may be the occasion of the discontinuance of some works, as it renders the produce of others necessary to be exported to the smelting-furnaces of Swansea and of Bristol. The principal towns are, the borough and county-town of Cardigan, Aberystwyth, Aberaeron, Tregaron, and part of Newcastle-in-Elym. The county is one of the most sacred, and has numerous monastic establishments. Population of the county in 1831, 64,780; of the borough and parish, 2795.

CARDINAL; a clergyman of the Catholic church, who has a right to a vote in the choice of the pope. The cardinals are next in dignity to the pope, enjoy the rank of princes, and, since 1631, have borne the title of "eminence." The origin of the dignity of cardinals is uncertain. The name is derived from cardinalis (distinguished). The same name was given, under the emperor Theodosius, to the highest civil officers of the state. Till the eleventh century, the title of cardinal was common to all clergyman who actually officiated in any church. From this time the popes, having grown powerful, formed a college, a secret council of ecclesiastics of high rank, to whom, alone, the title of cardinal was soon reserved, by way of "eminence" and, under Alexander III., in 1160, they obtained the exclusive power to elect the pope, with much opposition, however, on the part of the other Roman clergy, and much scandal. Innocent IV. (1243-1254) gave them a rank above the bishops, together with the red hat, and Boniface VIII. (1294) made them, or princes of the church. Urban VIII. gave them the title "eminence," instead of "iustissimi," which they had enjoyed till then.

With the pope, they form the sacred college, and are divided into three ranks—fourteen cardinal-deacons, fifty cardinal-priests, and six cardinal-bishops, who take their names from the ancient bishoprics, Ostia (to which is added that of St Rufus), Porto, Sabina, Palestrina, Frascati, and Albano. In 1526, their number was fixed at seventy by Sixtus V.; but it is by no means necessary that this number should be always full, and, in modern times, it has generally not been so. The number of bishops only is always complete. The choice of the cardinals depends solely on the pope. He causes the names of those who are supposed to be rival candidates to be put forth, and the formula―"Fratres habebatis?" (Ye shall receive as brethren, &c.)—the red cardinals' hat is sent to those elected, to inform them of their election. Their dress consists of a surplice, with a short purple mantle, and a small cap, over which they wear a hat, with silk strings and tassels at the end. The colour is either red or violet. The prerogatives of cardinals, in different countries, are different. (For those which they enjoy in France, see the article Cardinal in the Dictionnaire de Theologie, Toulouse, 1817.) The king of France gives a cardinal the title of count, and, for a time, the right to exercise jurisdiction in the diocese. The soul of a cardinal, the title of a cardinal, the present of a cardinal is, in France, and in Italy, called legatus a latere or de latere. A province, the governor of which is a cardinal, takes the title of a legation. The income of the cardinals is, at present, not large, and, compared to that of some of the rich clergy in England, is small. The importance and authority of the cardinals has, of course, sunk very much in modern times, like those of the other dignitaries of the Catholic church, the pope himself included. Formerly, they preceded the princes of the blood, sat at the right of kings, on, or near the throne, and were considered as the second order of the church. For the manner in which they choose the pope, see Concile.

CARDINAL POINTS; the four intersections of the horizon with the meridian and the prime vertical circle. They coincide with the four cardinal regions of the heavens, and are, of course, 90° distant from each other. The intermediate points are called collateral points.

CARDINAL VIRTUES, or principal virtues, in morals; a name applied to those virtues to which all the rest are subordinate, or which comprehend all the others. The distribution of the virtues, which lies at the foundation of this notion, had its origin in the popular division of the virtues into cardinal and other virtues, of which the cardinal character is found here as in the elements of nature. These principal virtues, as enumerated by Plato, are, prudence, temperance, fortitude, and justice. The three first seem to relate to the duties of man towards himself, and to correspond with the triple division of the soul into the intellectual, the irrational (the seat of the sensual desires), and the seat of the affections, which connects the two first. Justice either relates to our duties to others (God and men), or is the union of the three first virtues. This division appears to be peculiar to the old Pythagoreans. Aristotle divided them still further. The Stoics, too, made the same division in their system of morals, and Cicero introduced it into his Offices. Plotinus and many New-Platonicists divide the virtues into four classes—civil or political, philosophical or purifying, religious, and, lastly, divine or pattern of justice. This division of the virtues is the division which is chiefly found in all philosophical views. The influence of the ancient philosophers has made the preceding cardinal virtues also a part of the Christian code. Some add to them the three Christian virtues, so-called—faith, charity, and hope—and call the former philosophical. The admiration of artists has represented the cardinal virtues under sensible images. In modern times, this divi-
tion is regarded as useless in treating of ethics; and, in order to judge of it correctly, we must form a just notion of the idea which the ancients attached to the words άνεσι and virtus (virtue).

CARDING; a preparation of wool, cotton, hair, or flax, by passing it between the iron points, or teeth, which are called cards, to comb, disentangle, and arrange the fibre. The cards are very important instruments, essential to the working of the wool in the manufacture. &c. Before the wool is carded, it is smoothened with oil, whereof one-fourth of the weight of the wool is required for wool destined for the wool of stuffs, and one-eighth for that of the warp. The CARDING WORKS of 1831, were conducted beautifully on the northern bank of the Clyde, and watered on the east by the Leven. It is seven miles in length and from three to four in breadth; and the ground rises with a gradual ascent from the shore for upwards of two miles, until it terminates in a ridge of hills, which separates it from land in the vicinity of the Leven and Loch Lomond. Very extensive print-fields, which employ several hundred persons, are situated at Dalquharn and Cordale. In the old mansion-house of the former was born Dr Smollett, to whose memory a pillar has been erected. Upon the lawn of the latter is situated a castle, of which no vestige now remains, in which King Robert Bruce breathed his last. Population in 1831, 3396.

CAREERING (in French, faire obfette, carrener); heaving the vessel down on one side, by applying a strong purchase to the masts, so that the vessel may be cleansed from any filth which adheres to it by breasting.—A half carere takes place when it is not possible to come at the bottom of the ship; so that only half of it can be careden.

CAREW, THOMAS, an English poet, supposed to have been born in 1556, and to have died in 1639; the subject of much eulogy to Ben Jonson, Dave- 
nant, and other writers of the period. He seems to have died in 1639, having, in the mean time, exhib- ited the not unusual transformation of the courtly and libertine fine gentleman into the repentant de- votee. Carew is coupled with Waller, as one of the improvers of English versification. It does not appear that any edition of his poems was published during his life-time; but Ollis, in his notes on Lanyon's, asserts that his sonnets were more re- quest than those of any poet of his time. The first collection of his poems was printed in 1640, 12mo; the last, in 1772. His elegant masque of Carum Brittannicum was printed, both in the early editions and separately, in 1651, and the whole are now in- cluded in Chalmers' British Poets. Carew was much studied by Pope; and doctor Percy also assisted to restore him to a portion of the favour with which he has lately been regarded. Specimens both of the sublime and the pathetic may be found in his works; the former in his admirable masque, and the latter in his epistles on lady Mary Villiers.

CARGILITATES; a name of the sect more gene- rally known under the denomination of Camaronesian (q. v.).

CARIACO; a seaport town in Colombia, in the province of Cumaná; lon. 39° 39' W.; lat. 10° 39' N.; population, 6500. It is situated to the east of the gulf of Carico, near the mouth of a river of the same name, on a large plain, covered with plantations. The climate is very hot, the air damp and unhealthy. Its trade is in cotton and sugar. The gulf of Carico is sixty-eight miles long, and thirty- five miles wide; it is adorned with a hundred islands, surrounded by lofty mountains, and the waters quiet.

CARIATIDES. See Caryatides.

CARIBBEAN SEA; that part of the Atlantic ocean, which is bounded N. by the islands of Ja- maica, St Domingo, Porto Rico, and the Virgin islands, E. by the Caribbean islands, S. by Colombia, and W. by Guatimala.

CARIBBEES ISLANDS; the West India islands, so called, which lie in a line from Anguilla N. to Tobago S. They are divided into two groups from the eastern group is called Caribbean sea. The name has been loosely applied to the whole of the West India islands, but is more particularly understood of that archipelago which lies between the 55th and 63d° W. lon., and the 11th and 19th° lat. The principal are St Christopher, the island of Columbus, Antigua, Montserrat, Marigalante, called Leeward islands (q. v.); Dominica, Martinico, St Lucia, St Vincent's, called Windward islands (q. v.); Grenada, Tobago, Barbadoes, &c.

CARIBBE or ST LUCIA BARK. Under the general denomination of cinchona, several barks have been comprehended which are not the products of the real cinchona (q. v.), and which, in fact, neither contain cinchonia nor quina, and cannot, conse- quently, be subjected as a febrifuge for the true species of cinchona. One of the principal substitu- tes of this kind is the Caribbean or St Lucia bark, which is procured from the exotena Caribea (Per- soon), a tree growing in the West Indies. This bark is in convex fragments, covered with a yellow epidermis, commonly thin, but sometimes hard and spongy, with deep fissures, of a yellow, red, or brown tint internally, of a fibrous texture, offering here and there small, shining, and crystalline points, of a very bitter taste, and very faint smell.

CARIBBES; the original inhabitants of the Caribbean islands (q. v.), who, in consequence of the rapid immigration of European colonists emigrated from North America to the neighbourhood of Florida, to these islands, and to Guiana, in South America, where they live inde- pendent, and have been joined by many runaway Negros. They often engage in wars against the European colonists. They were almost entirely ex- pelled from the islands in the eighteenth century. On St Vincent, there are only a hundred, and on Dominica, only thirty families of red Caribbes. They are of an olive-brown colour, but they paint themselves with arnuto, as a defence against insects. On the island of St Vincent, there are black Carib- bees, sprung from the intercourse of black slaves and Caribbean women. Their number amounts to 2000-families. They are of a dark-brown colour, and notwithstanding all the efforts of the British, they maintain the independence of their quarter of the island. The red Caribbes are distinguished for their activity and courage. They inhabit villages, governed by an elective chief, whom the Europeans call captain. They assemble for battle at the sound of a conch. Next to the Patagonias, they are perhaps the most robust nation with which we are ac- quainted. They devour the flesh of their enemies with great voracity. Their language, one of the most sonorous, and one of the softest in the world, contains nearly thirty dialects.

CARICATURE (from the Italian caricare, to load, to overcharge; charger, with the French). A caricature is therefore an exaggerated representation of the qualities and peculiarities of an object; but in such a way that the likeness is preserved, or even made more striking. The effect of such a representa- tion need not be always ridiculous; it may also be terrible. Ben David says, "A child of the usual size, with the head and arms of a giant, is a horrid caricature, from the intercourse of black slaves and white, with a little mouth, and a small voice, is a ridiculous one." Considered in reference to the fine
arts, external deformities, which do not spring from the fault of the persons afflicted, and therefore excite compassion rather than disgust, can never be the proper subjects of caricature; for, besides that the moral sense is offended, the arts are not permitted to commit this sinless, and the purpose of the bodying and representing character. Such corporeal disfigurements, however, as arise from moral defects, and all disagreeable peculiarities of manner and appearance which spring from the same cause, are fair subjects of caricature. These caricatures are to be considered as poetical representations of moral and intellectual deformities, of the vices and follies of individuals, or of whole classes, sects, &c., as dramatic pictures, which acquire interest from the moral views with which they are composed by the painter, and understood by the spectator. With this object, Leonardo da Vinci has drawn his caricatures. He represents the quarrelsome, the peevish, the braggart, the slothful, the bloated glutton, the dissipated rake, the awkward clown, the laughing fool, &c., all with fidelity, but with exaggeration. Caricatures may be tragic or comic. To the former belong the infirmities of moral degeneracy; to the latter, those of intellectual deficiencies arising from self-neglect. They were in use even among the ancients, who had among their masks a number of caricatures. Hogarth is an unrivaled master of caricature. Leonardo da Vinci, Annibale Caracci, Giacca, Cazotte, and Ramberg, were also distinguished in this branch of art. The political caricatures of the English are of a striking and peculiar kind, often exhibiting a greater sensibility for political liberty than for dignity and beauty, but abounding in wit and bold humour. Gilray and Bumbury may be considered as the chief masters in this kind of caricature. The French caricatures are rather exaggerated representations of life than satirical ideals. The Italians have too strong a sense for the beautiful to relish caricatures, and the Germans are too grave to excel in these sportive productions. Grose, in London (1788), published rules for the drawing of caricatures, with an essay on comic painting; and Malcolm, an Historical Sketch of the Art of Caricature, with Graphic Illustrations, London, 1813, 4to. An ingenious method of obtaining caricature likenesses is to draw the likeness on leather, and then to transfer it to paper, so that the caricature may be exaggerated while the resemblance remains.

CARILLONS. See Chimes.

CARNITHIA; a duchy of the Austrian monarchy. See Austria.

CARISSIMO, GIACOMO; a famous Italian musical composer of the seventeenth century. He was born at Padua, and was living as late as 1672. He wrote many oratorios, cantatas, and motets, and his contemporaries praised him for his characteristic expression of feeling, and his easy, flowing style. He deserves most honour for the improvement of the recitative, having been the first composer who properly treated of the verbal language. He wrote, also, it is said, the first church cantatas.

CARITA (Italian, from the Latin caritas); a name, in the fine arts, applied to the representation of Christian love. It is exhibited under the figure of a tender mother, in the midst of her children, manifesting her kindness and affection for them. In this way, for instance, Andrea del Sarto has represented it in a picture which was formerly in the Napoleon museum. A careful and tender mother, holding two children, of whom one lies upon her breast, and the other is refreshing itself with sweet fruits, while the bright moonlight beams softly near her, are the prominent parts of the picture. This representation of loveliness and tenderness united was unknown to ancient art.

CARLTON, Sir Guy, lord Dorchester, was born at Strulane, in Ireland, in 1724, and, entering the army, became lieutenant-colonel in the guards in 1748. In 1755, he accompanied general Amherst to America, where he distinguished himself at the siege of Quebec, and was presented with the rank of colonel in the army in 1762, and, at the siege of the Havannah, signalized himself by his bravery. In 1772, he was appointed governor of Quebec, and created major-general. By his great exertions, he saved the whole of Canada, the capital of which was besieged by the American generals Montgomery and Arnold. The inhabitants joined the British troops, and, after an obstinate resistance, the Americans were repulsed, and Montgomery was killed at the head of his army. In consequence of this exploit, he was knighted, and, the next year, became a lieutenant-general. In 1781, he was appointed to succeed Sir Henry Clinton, as commander-in-chief in America, where he remained until the conclusion of the war. In 1786, he was again created governor of Quebec, Nova Scotia, and New Brunswick; and, as a reward for his long services, he was raised to the seat of a viscount. In the latter part of his life, he lived at Oxford, in the county of Oxford. He died in 1808, aged eighty-five.

CARLI (GIOVANNI RINALDO), count, called sometimes CARLI-RUBBEN, from the title of his wife, was born in 1720, at Capo d'Istria, of an ancient noble family, and early manifested an inclination for the study of the middle ages, with which he connected the study of belles-lettres and of poetry. In his twenty-first year, the senate of Venice made him professor of astronomy and naval science. On account of a ridiculous controversy between him and the abbot Tartarotti, on witches and witchcraft, he was accused of heresy. Maffei put an end to the controversy by his La Magia Antiquitatis. The care which his large estates required compelled Carli to resign his professorship and retire to Istria, where he spent his time in the study of antiquities, on which he has written some valuable treatises. He was afterwards appointed by the emperor president of the highest commercial court at Milan, and, subsequently, president of the college of finance in the same city. He published his works, 1784—1794, complete in fifteen volumes, under the title Opere del Sig. Comandatore Giovanni Rinaldo, Conte Carli, Presidente, &c.; but, in this edition, his American letters are not contained, which form a work of five volumes. He died in 1795.

CARLIN; the most celebrated harlequin of the French stage. Some writers consider the word harlequin as derived from his name. He was born at Turin in 1713. His true name was Carlo Antonio Bertinazzi, and Carlin is the abbreviation of Carlini, the Italian diminutive of Carlo. In 1741, he went to Paris, took part in the Italian comedy there, and performed, for forty-two years, in the character of Harlequin, both in Paris and in London. Carlin praised him not only as one of the best comic actors, but also for his excellent manners and elegant appearance in society. He enjoyed the greatest favour with the parterre, and addressed the audience with a familiarity not allowed to any other actor. He was still more successful in improvisation than in the performance of written parts, and has performed a whole piece of five acts (Les vigies-sie Infortunes d'Arlequin) in this manner. The union of mirth and benevolence, the grace of his figure and manners, and the respectability of his private character, made him beloved by all. In 1784, he was knighted, &c.

Dans ses gestes, ses tons, c'est la nature même, Sous la mascar de l'amitié, à découvert sur l'aînée. Many bon-mots and witty sayings by him were long
CARLISLE—CARLISLE. 55

current in Paris. The melancholy temper of his latter years formed a remarkable contrast with his mirth on the stage. He was the author of a piece in five acts, Les nouvelles Métamorphoses d’Arlequin, 1763.

CARLISLE: a city of England, and capital of Cumberland, situated 301 miles N. W. from London, and 109 miles from Edinburgh. It occupies a gentle eminence at the confluence of the Eden and the Calder, a short distance S. E. of the point where the great Roman wall crossed the former river. It was called by the Romans and Britons Luguvallum, contracted by the Saxon to Lacel, and added to the word Gaer, chief name of the city, to form the modern name of Carlisle, signifying the city near the wall. Being a frontier-town, it was strongly fortified with walls, citadel, and a castle, under both Saxons and Normans. The former are said to have been first built by Egfrid, king of Northumbria, in the seventh century. They had three gates, named English, Irish, and Scottish gates, and enclosed a triangular site. The west wall was 1000 yards in length, the eastern wall 460 yards, and the northern wall 650 yards. In the various improvements of the city, all these walls, gates, and fortifications, have been removed, except a portion of the great mural walls of the castle, which was erected by William Rufus, on the corner of a bold eminence overlooking the river Eden. The latter is still kept in repair, and maintained as a garrison, with a governor, lieutenant-colonel, store-keeper, and other stationary officers. Carlisle is highly celebrated in border history and in the wars between England and Scotland. It was destroyed by the Danes in 875; from which time it lay in a state of desolation until fortified and improved by William Rufus. David, king of Scotland, died here in 1153, after his retreat from the fatal battle of the Standard, and, in 1216, it was taken by Alexander, king of Scotland. It was subsequently repeatedly besieged by the Scots, but could not be taken again, until 1645, when a party of the Scottish army on the side of Parliament starved it into a surrender. It was, in 1648, surprised and captured by Sir Philip Musgrave, a royalist, but ultimately yielded to the skill and fortune of Cromwell. In 1746 it made little more than a nominal resistance to the Scottish army, under Charles Edward, to whom the mayor and aldermen delivered the keys of the city on their knees. The officers of the garrison, on this occasion, were murdered after their retreat: for high treason. Carlisle has received the peaceable as well as warlike visits of many English and Scottish sovereigns; among whom was Mary Queen of Scots, whose English imprisonment commenced here. The port of Carlisle extends from the Sark, which divides Cumberland from Scotland, to Bank End near Maryport. Large vessels cannot discharge their cargoes nearer than Fishers Cross, a distance of twelve miles; but the ship-canal, completed in 1823, and extending from Carlisle to Solway Firth, affords a communication with the sea. The English vessels of from sixty to eighty tons, and is likely in the sequel to contribute greatly to the wealth and prosperity of the city. The trade is chiefly of a consisting description, the foreign commerce being confined to Whitby and Scarborough. Here is a custom-house. The principal manufactures in Carlisle are woollen cloths, worsted, shag and scotch grey cottons, osnaburghs, coarse linen, drills, pocketing, worsted shag, silk and cotton fancy pieces, stamped cottons, hats, chamois and tanned leather, linsey, nails, coarse knives, stockings, dressed flax, soap, candles, m consecutively. Population in 1791, 1,960; in 1801, 2,391; in 1811, 2,806; in 1821, 3,206; in 1831, 3,606; in 1841, 4,006.

CARLISLE; a post-town and capital of Cumberland county, Pennsylvania, 114 miles W. Philadelphia. Population in 1830, 2908. Dickinson college was founded in this town, in 1783, and continued a respectable and flourishing institution till about 1816, when its operations were suspended. It has been reorganized, and its operations were resumed in January, 1822. The principal officers are a president and three professors. There is a grammar-school connected with the college, in the United States, and in Canada there are several other places called Carlisle.

CARLOS, Don; infante of Spain; son of Philip II. and Maria of Portugal; born at Valladolid, 1545. His mother died four days after his birth. He himself was left when he was only a few months old, under the charge of Carlisle, signifying the city near the wall. Being a frontier-town, it was strongly fortified with walls, citadel, and a castle, under both Saxons and Normans. The former are said to have been first built by Egfrid, king of Northumbria, in the seventh century. They had three gates, named English, Irish, and Scottish gates, and enclosed a triangular site. The west wall was 1000 yards in length, the eastern wall 460 yards, and the northern wall 650 yards. In the various improvements of the city, all these walls, gates, and fortifications, have been removed, except a portion of the great mural walls of the castle, which was erected by William Rufus, on the corner of a bold eminence overlooking the river Eden. The latter is still kept in repair, and maintained as a garrison, with a governor, lieutenant-colonel, store-keeper, and other stationary officers. Carlisle is highly celebrated in border history and in the wars between England and Scotland. It was destroyed by the Danes in 875; from which time it lay in a state of desolation until fortified and improved by William Rufus. David, king of Scotland, died here in 1153, after his retreat from the fatal battle of the Standard, and, in 1216, it was taken by Alexander, king of Scotland. It was subsequently repeatedly besieged by the Scots, but could not be taken again, until 1645, when a party of the Scottish army on the side of Parliament starved it into a surrender. It was, in 1648, surprised and captured by Sir Philip Musgrave, a royalist, but ultimately yielded to the skill and fortune of Cromwell. In 1746 it made little more than a nominal resistance to the Scottish army, under Charles Edward, to whom the mayor and aldermen delivered the keys of the city on their knees. The officers of the garrison, on this occasion, were murdered after their retreat: for high treason. Carlisle has received the peaceable as well as warlike visits of many English and Scottish sovereigns; among whom was Mary Queen of Scots, whose English imprisonment commenced here. The port of Carlisle extends from the Sark, which divides Cumberland from Scotland, to Bank End near Maryport. Large vessels cannot discharge their cargoes nearer than Fishers Cross, a distance of twelve miles; but the ship-canal, completed in 1823, and extending from Carlisle to Solway Firth, affords a communication with the sea. The English vessels of from sixty to eighty tons, and is likely in the sequel to contribute greatly to the wealth and prosperity of the city. The trade is chiefly of a consisting description, the foreign commerce being confined to Whitby and Scarborough. Here is a custom-house. The principal manufactures in Carlisle are woollen cloths, worsted, shag and scotch grey cottons, osnaburghs, coarse linen, drills, pocketing, worsted shag, silk and cotton fancy pieces, stamped cottons, hats, chamois and tanned leather, linsey, nails, coarse knives, stockings, dressed flax, soap, candles, m consecutively. Population in 1791, 1,960; in 1801, 2,391; in 1811, 2,806; in 1821, 3,206; in 1831, 3,606; in 1841, 4,006.

CARLISLE; a post-town and capital of Cumberland county, Pennsylvania, 114 miles W. Philadelphia. Population in 1830, 2908. Dickinson college was founded in this town, in 1783, and continued a respectable and flourishing institution till about 1816, when its operations were suspended. It has been reorganized, and its operations were resumed in January, 1822. The principal officers are a president and three professors. There is a grammar-school connected with the college, in the United States, and in Canada there are several other places called Carlisle.
CARLOS.

whom he had writen would not omit to inform the king. This was, in fact, done; and, indeed, don Juan himself told Philip what don Carlos had confided to him. It is believed that he was touched by the sufferings of the people of the Netherlands; that he had been invited by them to place himself at their head, and that this plan, from its bold and extravagant character, had gained his approbation. Philip himself seemed to believe that his son intended to go to the Netherlands. The baron Montigny lost his head on this account. The infante had often shown a vehement desire to participate in the government. But Philip, jealous of his own authority, treated his son contemptuously, whilst he committed him to the duke of Alva, to Ruy Gomez de Silva, don Juan of Austria, and Spinola. Don Carlos conceived an invincible aversion to them. He could not bear that Alva should have received the government of Flanders, which he had requested for himself. The architect of the Escorial, Luis de Foix, gives the following facts relating to don Carlos, which have been preserved to us by De Thou. The prince had always under his pillow two naked swords, two loaded pistols, and, at the side of his bed, several guns, and a chest full of other fire-arms. He was often heard to say: "Is there any sign that his father had deprived him of his bride?" On Christmas evening, he confessed to a priest that he had resolved to murder a man. The priest, therefore, refused him absolution. The prior of the monastery of Atocha artfully drew from him expressions, from which it could be inferred that he meditated an attempt upon his own father. The confession was then communicated to the king, who exclaimed, "I am the man whom my son intends to murder; but I shall take measures to prevent it." Thus Philip, a jealous husband, a gloomy and suspicious king, and an unfortunate father, impelled by hatred or fear, by policy or superstition, resolved on the destruction of his only son, in whom he saw only a criminal, unworthy of the crown. On the night of Jan. 18, 1568, while don Carlos was buried in a deep sleep, count Lerma entered his chamber, and removed his arms. Then appeared the king, preceded by Ruy Gomez de Silva, the duke of Feria, the grand prior of the order of St. John, brother of the duke of Alva, and several officers of the guard, and state councillors. Don Carlos still slept. They awakened him: he beheld the king, his father, and exclaimed, "I am a dead man." Then, addressing Philip, he said: "Does your majesty wish to kill me? I am not mad, but reduced to death by my sufferings." He conjured, with tears, those who were present to put him to death. "I am not come," answered the king, "to put you to death, but to punish you as a father, and to bring you back to your duty." He then commanded him to rise, deprived him of his domestics, ordered a box of papers under his bed to be sealed, and committed him to the care of the duke of Feria and six noblemen, endeavouring not to permit him to write, nor to speak with any one. These guards clothed don Carlos in a mourning dress, took from his chamber the tapestry, the furniture, and even his bed, leaving him nothing but a mattress. Don Carlos, full of rage and despair, caused a large fire to be kindled, under pretext of the extreme cold of the winter, and threw himself suddenly into the flames, for the purpose of self-destruction. It was with difficulty that he was rescued. He attempted, by breaking open his bed, to make his life by thirst, by hunger, by eating to excess; he also attempted to choke himself by swallowing a diamond. After Philip had endeavoured to justify his measures to the pope, and the principal sovereigns of Europe, the king also gave notice to the superior clergy, to the courts of justice, and to the cities of his empire, of what had passed, he referred the case of the prince, not to the inquisition, but to the council of state, under the direction of cardinal Espinosa, who was state councillor, grand inquisitor, and president of the junta of Castile. This court is said, after a minute examination, and hearing many witnesses, to have condemned him to death. But it is a mistake; to suppose that the sentence was executed by means of a poisoned soup, or that his arteries were opened in a bath, or that he was strangled. Fereras and other Spanish historians report, that he died of a malignant fever, after having taken the sacrament with much devotion, and having asked his father's forgiveness, to which Philip, after a long interval, signed, March 2, the judicial order for the formal arrest of the prince, for whom the pope, and all the princes to whom Philip had written, in particular the emperor Maximilian II., had interposed in vain. The execution of the order of imprisonment was committed, by Philip, to Ruy Gomez de Silva, prince of Evoli. The prince displayed all the violence of his passionate disposition. He obstinately refused to confess, lived irregularly, and his fury inflamed his blood to such a degree, that even ice-water, which he used daily, could not refresh him. He ordered a great quantity of ice to be laid on his body, and ran and barefoot upon the stone floor, and, for eleven days in June, took no food but ice. The king then visited him, and addressed to him some words of consolation; after which, the prince eat to great excess. This brought on a malignant fever. Meanwhile, don Diego Brilseca de Muguamones, member of the council of Castile, conducted the trial. The prince had not the slightest official notice of it. In July, Muguamones drew up a report to the king, from the testimony of the witnesses, and from the papers of the prince, which had been set aside, stating that don Carlos was guilty of treason, in having plotted against the life of his father, and in having attempted to make himself master of the government of Flanders by a civil war; but that it must depend on the king whether he would have the infinite judged according to the common laws of the kingdom. Philip declared that, as king, his conscience did not permit him to make any exception from the laws in favour of a prince who had shown himself so unworthy of the throne. He believed that the recovery of the prince's health was not to be expected; and that, therefore, he ought to be permitted to take food without any restraint, which would cause his death; that the disease was incurable, and death was inevitable, in order to induce him to confess, and secure his eternal welfare. The judicial records make no mention of this resolution of the king; no judgment was written or signed; and the secretary Pedro del Hoyo observes, in a note, that the judicial process had proceeded thus far, when the prince was carried off by sickness, and that, therefore, no judgment was rendered. With this the written accounts of other persons, who were employed in the palace of the king, agree. In consequence of the declaration of the king, the cardinal of Espinosa and the prince of Evoli thought it advisable to leave the death of the prince to the progress of the disease. To the physician of the king, Oli- varez, who had the care of the prince, this purpose of the prince of Evoli was communicated. On the 28th of July, he administered a medicament, not very efficient, and which was to become fatal, and advised the infante to prepare himself for his approaching death by taking the sacrament. This don Carlos did, July 21, and asked pardon of the king, his father, through his confessor. Philip granted it, and also his blessing. Upon this, don Carlos received the sacrament, and made his will.
CARLOVITZA—CARLSBAD.

The struggle lasted during the 22d and 23d of July. The prince listened, during that time, with calmness, to the loud demands of the clergyman. On the night of the 23d, the king visited him, gave him his blessing, without being recognized by the prince, and withdrew weeping. Soon afterward, at four o'clock in the morning of the 24th of July, 1568, don Carlos expired. He was buried, as became his rank, yet without any funeral solemnity, in the convent of the Dominican nuns, El Real, at Madrid.—The virtuous queen Elizabeth died, Oct. 23d, of the same year, in childhood, and not by poison, as the enemies of Philip asserted. Philip II., in 1592, ordered the judicial acts to be locked in a box, and to be deposited in the royal archives of Spain, and the checking of "demagogie tendencies," a central police-commission was organized. The congress, moreover, complained of dangerous theories every day becoming more and more widely spread, &c.

CARLSRUHE, or CARLSCHRON, or CARLSCRON; a sea-port of Sweden, capital of the province of Blekingen, or Carlsron; lon. 16° 33' E.; lat. 56° 17' N.; population in 1810, 10,539; in 1815, 11,680. The greatest part stands upon a small, rocky island, which rises gently in a bay of the Baltic. The suburbs extend over another small rock, and along the mole close to the landing-place. The basin, which is adorned with one or two handsome churches, and a few tolerable houses of brick; but the buildings in general are of wood. The suburbs are fortified, towards the land, by a stone wall. The entrance into the harbour, which, by nature, is extremely difficult, from a number of shoals and rocky islands, is still further secured from the attack of an enemy's fleet by two strong forts, built on two islands, under the batteries of which all vessels must pass. The harbour is large and commodious, with depth of water sufficient for ships of the first rate. The exports are timber, tar, potash, tallow, and marble. Carlsrona is the principal depot of the Swedish navy.

CARLSRUHE (German, which means the rest of Charles), the capital of the grand-duchy of Baden, was laid out in 1715, and is one of the most regularly-built towns in Europe. The castle of the grand-duke stands in the centre of the city, from which nine streets run at regular distances from each other, to the circumference of a circle enclosing the area of the city, and thus forming a star. Other streets in tersest these in parallel circles. The roads leading to the city correspond to this regular disposition, as is seen by the circle which is struck by these roads, often leaves upon the traveller the impression of monotony, rather than that of agreeable order. The city contains 17,323 inhabitants and 1170 houses. It is ornamented with several beautiful public buildings. The court library contains 70,000 volumes; the botanical garden, 6,000 species of plants. There are also here several valuable museums and cabinets, several institutions for the promotion of literature and the fine arts, one for the deaf and dumb, and some manufactories. Lon. 20° 45' E.; lat. 49° N.

CARLSBAD (so called from his native town, Carlsstad, in Franconia; his proper name was Adalbert). Carlsbad is also known on account of the Congress of Carlsbad. This congress was only for Germany, and is to be considered as one of the many consequences of the increase of a liberal spirit in the German nation, and the unwillingness of the monarchs to keep their promises respecting liberal institutions. The final act of this congress was closed May 15, 1829, and made a law of the German confederation on July 2. The object of the congress, according to its own resolves, was, to decide upon measures for the safety, and happiness of the nation. Several laws were passed for the establishment of a stricter police in the universities, which, since that time, have been brought into closer contact with the governments, and officers have been appointed to watch over the conduct of the students. Periodical works, and such as contain less than twenty sheets, were put, for five years, under a severe censorship; and the diet was to have the right to suppress any books which disturbed the peace or attacked the dignity of any member of the confederation, or tended so to do. For the detection and prosecution of secret political societies throughout Germany, and the checking of "demagogie tendencies," a central police-commission was organized. The congress, moreover, complained of dangerous theories every day becoming more and more widely spread, &c.
Whilst Luther was at Wartburg, Carlstadt's zeal urged him to acts of violence. He even instigated the people and students to the destruction of the altars and the images of the saints, greatly to the displeasure of Luther, who lost the friendship of Carlstadt by his opposition to his outrages. In 1534, he delivered a public address to the students of the University of Wittenberg, in which he had preached at Jena against the disturbances which he had excited, so that the elector Frederic banished him from the country in September, 1534. Carlstadt, upon this, commenced the controversy respecting the sacrament, denying, in opposition to Luther, the bodily presence of Christ in the sacrament. This controversy was carried on with the bitterest animosity; and, Zwingius having declared himself in favour of Carlstadt's doctrine, a dispute commenced between the Swiss and Wittenberg theologians, which ended in the separation of the Calvinists and Lutherans. Carlstadt, in the mean time, being suspected, not without reason, of having taken part in the revolt of the peasants in Franconia, was obliged to wander through Germany, and, being ultimately reduced to extreme distress, sought relief of Luther, who procured him an asylum at Kernberg, on condition that he should retract his erroneous opinions. Here he lived nearly three years. His restless mind, however, soon led him to break his promise, by the publication of some writings in 1532; and he even went so far as to plot against Luther's person. To escape from the consequences of his conduct, he repaired to Switzerland, at the end of the same year, where he was appointed vicar of Alstadt, in the valley of the Rhine; in 1539, deacon at Zurich; and, in 1541, vicar and professor of theology at Basle, where he died in 1541 or 1543.

CARMAGNOLE; a name applied, in the early times of the French Republic, to a dance, and a song connected with it. The appellation originated, probably, from the city of Carmagnola, in Piedmont. The dance was first used at the time of the indignation of the people on account of the veto allowed to the king on the resolves of the national assembly. The carmagnola was commonly sung and danced at popular festivals, executions, and riots of popular discontent. Afterwards, the name was also applied to the national guards, who wore a dress of a peculiar cut, and to the enthusiastic supporters of the revolution. Several members of the national convention were called carmagnoliers—to distinguish, perhaps, this name to their communications to the assembly.

Petits carmagnoles is a name given, by the people in Paris, to boys who sweep chimneys and black boots, chiefly Savoyards; probably taken from the name of the city before mentioned.

CARMARTHEN. See Caerphilly.

CARMEL; a mountain in Palestine, constituting part of Lebanon, on the southern frontier of Galilee, in the pachalic of Acca. It consists of several rich, woody heights, separated by fertile and habitable valleys, within a circuit of about twenty-eight miles, and terminates, at the mouth of the Kishen, in a lovely plain, which forms the southern coast of the gulf of Phœnissia or Acca, on the Mediterranean. Upon different parts of this mountain there are ruins of churches and monasteries from the time of the Christian kingdom of Jerusalem, and the cave which, according to tradition, was inhabited by the prophet Elias. From the 4th century, Christian hermits have chosen mount Carmel for their abode. It was not, however, till about the middle of the 12th century that pilgrims, under the direction of Berthold of Calabria, established an association for the purpose of leading a secluded life, and this proceeding received its rules from Albert, the patriarch of Jerusalem, in 1209, and the papal confirmation from Honorius III., in 1224. Their rules coincided nearly with those of the ancient Basilians. This is the origin of the order of Our Lady of mount Carmel. The Carmelites enumerate among their members all the prophets and holy men mentioned in the Scriptures, from Elias to Jesus; also Pythagoras, the Galilean Bruen, emprius, and Luther, whose herdsmen. The carmelitas enumerate among their members all the prophets and holy men mentioned in the Scriptures, from Elias to Jesus; also Pythagoras, and Saint John the Baptist, whose preceptor he was, and among the hermits of Christian antiquity. Christ they consider as their particular protector, and his apostles as missionaries from mount Carmel. The Jesuit Papal broch has shown how unfounded their pretensions are, and how well-informed man believes their说 they they were allowed, as late as in the 18th century, by Benedict XIII., to erect the statue of the prophet Elias, as the founder of their order, in St Peter's church in Rome. Being driven by the Saracens to Europe, they adopted, in 1247, a milder rule, and the forms of monastic life. They also became divided into four independent bodies: 1. The observants, who wore shoes; 2. The congregation of Montuza; 3. The bare-footed friars, and bare-footed or Theressian nuns, in Spain; 4. The bare-footed friars in Italy. The two latter classes observe the elder and stricter rule. The Knights of St. John, who were ordered to wear the order, established by Henry IV., in France, is connected with the Carmelites only by the name. As their mode of life precludes all useful exertion, governments, in modern times, have taken measures to prevent the extension of their order, and the admission of novices has been forbidden except in Spain, Portugal, and America. In Paris, a munificence of this order was established in 1817, under the royal protection.

CARMER (John Henry Cadmus), count of; high chancellor and minister of justice in Prussia. He rendered the greatest service to Prussian jurisprudence by the economical manner in which he attended the preparation of the Prussian code, and still more by the improvements which he introduced into the civil process of that country. (See Prussian Code.) He was born in 1721, entered the Prussian service early, and was soon noticed by Frederic the Great. After fifty years' service, he retired from official life, and died in 1810, near Glogau, in Silesia.

CARMINE, the most splendid of all the red colours, is made from the cochineal insect, or coccus cacti. It is deposited from a decocction of powdered cochineal in water, to which alum, carbonate of soda, or other stain, is added. The quantity of this valuable colour is affected, not only by the mode of applying it, but also by the quantity of the ingredients mixed with it, we find various recipes for the preparation of it. The manufacturers which prepare the best carmine carefully catechize the method. The best natural cochineal is found in Mexico.

CARMONTELLE, a French poet, known by his Proverbes dramatiques (10. vols.), born in 1717, at Paris, died there 1806. These little pieces are without much connexion in themselves, being, in fact, only a series of dramatic scenes, but are well adapted for private theatres. The fertility of Carmontellle was so extraordinary as his ease in writing. He is said to have left, besides his printed works and his pieces for the theatre, more than a hundred volumes of manuscripts.

CARNATIC; a country in Hindostan, lying along the coast of Coromandel, from cape Comorin, in lat. 8°, to 10° N.; 500 miles in length, and from 40 to 100 in breadth. The Carnatic or Carnadv, anciently called Narasinha, in early periods, was subject to the king of Bisnagar. Since the year 1787, the whole country has been under the authority or absolute control of the East India Company. The soil is generally sandy, and the climate is one of the hottest in India. The country of Ongole, Muchura, and Tine-
velly is included in the Carnatic. The principal towns are Arcot, Madras, Ongole, Pondicherry, Cuddalore, Tanjore, Trichinopoly, Madura, and Tinevelly. The principal rivers are the Penumar, the Palli, and the Velliy.

CARNATION (from the Latin caro, carnis, flesh) signifies, in the fine arts, the colouring of the flesh of the human body. The use of carnation requires very attentive study, and great skill in the artist. It varies with the sex of the individual, with the classes and countries to which the subjects belong, with the passions, the state of the health, &c. The cheeks are, in a healthy subject, of a lively red; the breast, neck, and upper part of the arms of a soft white; the belly yellowish. At the extremities, the colour becomes colder, and, at the joints, assumes a violet tint, on account of the transparent appearance of the blood. All these shades require to be softly blended.

Two faults in carnation are chiefly to be avoided—hardness, the fault of the masters of the fifteenth century, and too great weakness. Guido Reni has not unfrequently painted his flesh so that it appeared almost like marble, rather than flesh; but there is a fault in this respect. The flesh of the followers of this school often looks like porcelain or wax. Titian is still unrivalled in carnation.

CARENADES, an eminent Greek philosopher, founded the third or new academy, was a native of Cynere, in Africa, and was born in the third year of the 141st Olympiad. He studied first under Diogenes the Stoic, but subsequently attended the lectures of Egesinus, who explained the doctrines of Aesculapius; and, succeeding his master in the chair of the academy, he restored its reputation by softening the prevailing pyrrhonism, and admitting practical probabilities. The doctrine of Carneades specifically was, that, "as the senses, the understanding, and the imagination frequently deceive us, they cannot be the infallible judges of truth, but that from the impression made by the senses we infer appearances of truth, which, with respect to the conduct of life, are a sufficient guide." He was a strenuous opponent of Chrysippus, and attacked, with great vigour, the system of theology of the Stoics. He was an advocate of free-will against the fate of the same sect, and urged just the same distinctions in the way of liberty and the freedom of human actions, as have divided some contending sects of Christianity. One of the most distinguished events of his life was his being joined in an embassy to Rome with Diogenes the Stoic and Critoitus the Peripatetic, in order to gain the mitigation of a fine levied by the Roman senate on the Athenians. This extraordinary embassy was successful, and Carneades so captivated the people by his eloquence, that Cato the censor, fearful of its effect on the Roman youth, persuaded the senate not to send the philosophers back to their schools without delay. Carneades died in the ninety-sixth year of his age, continually complaining of the shortness of life, and lamenting that the same nature which composed the human frame could dissolve it.

CARNELIAN. See Quartz.

CARNIOLA; a duchy in the Austrian dominions. See Austria.

CARNIVAL. The same views which led men to propitiate the highest invisible powers by gifts, sacrifices, and purifications, also introduced fasts, abstinence from pleasure, and penances. By fast is meant an abstinence from the usual means of nourishment in order to mortify the appetites, and thereby to propitiate the Deity. In every nation of importance, customs of this kind are found. Their historical origin is in the religious customs of the East, where the priests were originally the physicians of the people, and prescribed these fasts as a part of the regimen necessary in this warm region, as well as from religious views. Fast is observed to this day in the East. The religions of the Persians and the Hindoos, the Mohammedans, the Chinese, and the worshipers of the Lama, insist much on fasts. Few traces of them are found in the religion of the ancient people of the North. The earliest Christians fasted on the vigils (q. v.). The fasts on the feasts gave to the present day, and the Fast of the Ascension, which is observed at the end of the period of forty days (before Easter, or rather before Good Friday, Quadragesima), which was called, by way of excellence, the fast, and which commemorated the forty days' fast of Jesus in the wilderness. With regard to the origin of fasts, opinions differ. The most common is, that Telesphorus, bishop of Rome, in the middle of the second century, first instituted the forty days' fast as a rule of the church. By pope Gregory the Great, about 600, Ash-Wednesday was made the beginning of the fast, and the day before was called fast-eve, because in the night of the day, at twelve o'clock, the fast began. This fast was preceded by a feast of three days, very obnoxious to the strict zealots. "Christians," it is said, "on these days, deliver themselves up to voluntary madness, put on masks, exchange sexcs, clothe themselves like spectres, give themselves up to impiety, and to all sorts of pleasures that are impossible in these days." This origin is the present of the fast, or Fastings, as it is called in the south of Germany, and which continues, in that country, from Twelfth-day to Ash-Wednesday. The name carnival is derived from the Latin words carne and eate (according to Ducange, from the Latin denomination of the feast in the middle ages, carne leamen), because at that time people took leave of flesh. Previously to the commencement of their long abstinence, men devoted themselves to enjoyment, particularly during the three last days of the carnival. The carnival is nothing but the Saturnalia of the Christian Romans, who could not forget their pagan festivals. At least it greatly resembles the Saturnalia, which were celebrated, annually, in December, with all kinds of mirth, pleasure, and freedom, in honour of Saturn, and the golden age; when he governed the world. The idea is a remembrance of the liberty and equality of man in the youth of the world. In Rome, the carnival brought to view, in a lively manner, the old Saturnalia in a new form. During the last days of the carnival, and particularly during the day which preceded the long fast, mummeries, plays, tricks, and freedom of every kind, abounded. From Italy, the modern Saturnalia passed to the other Christian countries of Europe. In the amusements of this period the dramatic poetry of Germany had its origin, after the cities had attained a flourishing condition. Its first traces appeared in the thirteenth century. The mummeries of the carnival produced the idea of adopting some character, and carrying it through. To please the multitude, and make the laugh more certain, the manners of common life were caricatured. These exhibitions afterwards became more cultivated and developed. "On fast-eve," says Plegel, in his History of Comic Literature, vol. iv. p. 529, "persons in disguise sometimes went from one house to another, to make sport with their friends and acquaintances. A merry society of this kind formed a picturesque scene in the streets, and held and held a regular conversation at one of these mummeries. The unknown players received praises, entertainments, or presents. Encouraged by this success, the company grew stronger, their fables and speeches became longer by degrees, until they attained to regular re-
presentations of human life." It was in Nuremberg, renowned for its wares and its wit, that the first fast-
evée's play was produced, coarse and frolicsome, to
suit the taste of the citizens. These pieces have a
notoriety at the present day. The verse is in French and
the farces of the French, as have the spiritual fast-
evée's plays, religious burlesques, to the Mysteries
and Moralities. According to the ancient custom,
these plays were opened and closed by a crier or
 Herald. The carnival is celebrated in modern times
with the greatest show and spirit at Venice and
Rome. In the former place, it begins after Christ-
mas. The diversions of it are shows, masquerades,
the amusements of the place of St Mark, and some-
times, in case of the visits of great princes, a regatta,
or boat-race. After this, there was a second carnival
in Venice, the Venetian mask, called also the festival
of the Ascension, and the Bucentourg festival, because
it commonly began on Ascension-day, and because
the celebration of the marriage of the doge with
the Adriatic sea was connected with it. It continued
fourteen days. No character-masks were worn through
the Venetian carnival. At the cessa of carnival, he
arrived at Rome (see Goethe’s excellent description,
Das Romische Carneval, and that of lady Morgan)
continues but eight days, and is occupied mostly in
masquerades and races. Since the return of peace,
the carnival has been celebrated again in Cologne,
and other places. The direction of the committee
on fools, to the greatest satisfaction of all who were
present. In Spain, the carnival is called carnestolendas.
CARNOT, LAZARE NICHOLAS MARGUERITE; born
at Nolay, in Burgundy, 1733; the son of an advocate.
From his youth, he exhibited an uncommon talent for
the mathematical and military sciences, entered
the corps of engineers, and rose in office by the fa-
vour of the prince of Condé. He published, after-
wards, Mathematical Essays, which caused him to be
elected a member of several learned societies.
His eulogy on Vauban received the prize of the aca-
demy at Dijon. At the beginning of the revolution,
he was captain in the corps of engineers. In 1791,
he was appointed deputy to the constituent as-
sembly, but at first took part only in military affairs.
At his proposal, the officers of the nobility were removed
from the army, and others substituted from the citi-
zens; and about the middle of the revolution, the death
of Louis. In the following March he was sent to
the army of the north, where he deprived the
cowardly general Gratin of his command on the
field, put himself at the head of the army, and
reduced the enemy. On his return to the convention,
he was made a member of the committee of public
safety (q.v.). The influence of Carnot in the mili-
tary operations now began to be more deeply felt.
In possession of all the plans deposited in the
archives of Louis XIV., he organized and directed
the French armies; and his direction undoubtedly con-
tributed very much to their success. After the fall
of Robespierre, he was often accused, but always
acquitted, because his duty had been to take care of
the defence of the country, and he could not be made
answerable for the cruel decrees of Robespierre, in
which Carnot’s name, as he was a member of the com-
mittee, of course, was to be found. At the es-
 tablishment of the directory, in 1795, Carnot was
chosen a member, and for some time maintained an
important influence. Barns at length succeeded
him in the department of war, and was ever after his
enemy. His plan for the overthrow of Barns was
unsuccessful. He was made a member of some other
committees, and was voted for the fate of member to
transportation on the 18th Fructidor (Sept 4.),
1797. He fled to Germany, and published a defence,
which was eagerly read in Paris, and, by the expos-
ure of the conduct of his former colleagues, hastened
their overthrow on the 30th Prairial (June 18), 1799.
After the 18th Brumaire, Carnot was recalled, and
appointed inspecteur aux revues, and two months
later, in April, 1800, minister of war. He soon
moved to England, where his wife resided, but was
called to the tribunate, March 9, 1802. His
inflexible integrity and republican principle, which
had hitherto distinguished him, did not now desert
him. He often opposed the views of the govern-
ment, voted alone against the consulsip for life, and
resisted strenuously the proposal for the imperial
dignity. He remained, however, a member of the
tribunate till it was abolished, passed the next seven
years of his life in retirement, and published several
valuable military works. In 1814, Napoleon gave
him the chief command at Antwerp. He connected
a vigorous defence with a careful regard for the in-
terest of the city, which, by the command of Louis
XVIII. he afterwards surrendered to the British
general Graham. He still retained his titles and
his honours, but, as a firm republican, he could never
expect the favour of the court; particularly as, in
his ministry, he had openly and severely censured the
measures of government, in conse-
quence of which he was passed over in the new or-
ganization of the academy of sciences. When Na-
poleon was once more at the helm of state, in 1815,
he made Carnot count and peer of the empire, and
his victory at Quatre Bras, and his conduct at the
battle of Waterloo, had discharged the difficult duties of this office with
his usual integrity. After the emperor’s second fall,
he was made a member of the provisory government
of France, and was afterwards the only one of the
members of it comprehended in the ordinance of
July 24. He retired to Cornevy, where he employed
his pen on political subjects: then to Warsaw, in
1815, with his family; and, finally, to Magdeburg,
where he died Aug. 3, 1823. (See the Corresp. de
Nap. Bonap. av. le C. Carnot pend. les 100 Jours
(l’Paris, 1810), and Carnot’s Leben (Carnot’s Life), by
Korte.) The brothers Baudouin in Paris, who have
in their possession all Carnot’s manuscripts, publish-
ed, in 1824, Mem. hist. et militaires sur Carnot, re-
digés d’après ses Manuscrits, sa Corresp. inédite, et ses
Écrits, etc. par Tissot. Among Carnot’s writings,
the most valuable are his Essai sur les Ma-
chine a Ressort (cited under 1808), in which he voted for
the construction of the horologe
finitesimal; Sur la Géométrie du Position; De la Défense des Places fortés; Exposé de la Conduite po-
itique de Carnot, depuis le 1 Juillet, 1814. In Magde-
burg, Carnot published Mémoire sur la Fortification
primitive, and a volume of poems. He was rigid in
his love of virtue, a scholar, a general, and an in-
flexible republican. He was universally esteemed
both in France and in foreign lands, and was ho-
 noured by all parties. Carnot’s life is one of those
which ought to be familiar to every young repub-
lican, like that of Barneveld.
generally admired. His translation of the Æneid, in
blank verse, is excellent. After his death appeared a
translation by him of Longus, and of Aristotle's
Rhetorike; also Rime and Lettere, the former of which
are admired, but for which he called himself, and the
latter as models of beautiful Italian prose. He be-
longs to the most elegant writers of Italian litera-
ture.

CAROLINA. This name is generally given to a fami-
nian law of the German empire, of the year 1533;
under Clause I., for which he called himself, and
the latter, is a grammar of criminal procedure (Peinliche Gerichtsord-
nung). From him it was, at a later period, called
Constitutio criminalis Carolina, or, shortly, Carolina.
The arbitrary administration of justice, the disorder
and cruelty which had become customary in the
courts of Germany, where many a process was begun
and ended with the torture, and persons were sen-
tenced even to death without regular process, gave
cause to this law. From the beginning of the
peace of the land the necessity of such a law was felt
throughout the country; but it was difficult in this,
and partly because of the disagreeable character
of the empire to agree on one general measure. The
baron John von Schwarzenberg, a man of talent
and a patron of science (of the family of the present
princes of Schwarzenberg), was chiefly instrumental
in introducing this ordinance. He was born in 1483,
became archbishop of Munich, and was engaged in
procurings the process for his brother, Franz V.,
and succeeded in procuring an ordinance of
criminal procedure for Bamberg to be drawn up and
published in 1507. The same was also adopted, in
1610, by the margrave of Brandenburg and Franco-
nia; and, at last, a law of criminal procedure for the
empire at large was passed by the diet at Regens-
burg, in 1533, which, for that time, was a very great
step, and had a salutary influence. Several German
princes, as the elector of Saxony, the elector of
Brandenburg, and of the palatinate, protested against
it, in order to protect the laws of their states and
their own privileges against the legislative power of
the emperor; but at last the Carolina was established
in almost every part of the empire. See Malbink's
Geschichte der peinlichen Gerichtsordnung Kaiser
Karls V., 1583.

CAROLINA, MARIA, wife of Ferdinand I.,
king of Bohemia; Two Sisiles, daughter of the emperor
Francis I., and of Maria Theresa, born 13th August,
1752; an ambitious and intelligent woman, but,
unfortunately, without firmness of character. Ac-
cording to the terms of her marriage contract, the young
queen, after the birth of a male heir, was to have a
seat in the council of state; but her impatience to
participate in the government would not allow her
to wait for this event, previous to which she procured
the removal of the old minister, Tannek, who pos-
sessed the confidence of the King and of the nation,
and raised a Frenchman, named Acton, to the post
of prime minister, who ruined the finances of the state
by his profusion, and excited the hatred of all ranks
by the introduction of a political inquisition. The
queen, too, drew upon herself the dislike of the op-
pressed nation, by co-operating in the measures of
the minister; and banishments and executions were
found insufficient to repress the general excitement.
The declaration of war by Naples against France
(1798) was intended to give another turn to the popu-
lar feeling; but the sudden invasion of the French
drove the reigning family to Sicily. The revolution
of cardinal Ruffo in Calabria, and the republican party
in Rome, gave to the queen a fresh hope of success.
The famous lady Hamilton now exerted the greatest
influence on the unhappy queen, on her husband,
the English ambassador, and admiral Nelson, and sa-
cred more victims than Acton and Vaniul had for-
merly done. (See Speziale.) After the battle of
Marengo, 12,000 Russians could not prevent the
conquest of Naples by the French, and the formation
of a kingdom out of the Neapolitan dominions for
Joseph (Bermonti), who was afterwards crowned
in the same by Joachiim (Mum). The queen was
not satisfied with the efforts which the English made
for the restoration of the old dynasty, and thereupon
quarrelled with lord Bentinck, the British general in
Sicily, who wished to exclude her from all influence
in the government, who died in 1814, without hav-
ing seen the restoration of her family to the throne of
Naples.

CAROLINA, NORTH; one of the United States;
bounded N. by Virginia, E. by the Atlantic, S.
by South Carolina, and W. by Tennessee; lim. 75° 45
to 84° W.; Int. 39° 50' to 30° 30' N.; 430 miles
long, and 180 broad. Square miles, 50,000.
Population in 1790, 393,751: in 1800, 478,103; in 1810
555,500; 179,000 blacks. Population in 1820,
638,829; whites, 419,300; white males, 209,641;
white females, 205,526; slaves, 306,017; free col-
lors, 14,913; engaged in agriculture, 174,196;
in manufactures, 11,844; in commerce, 2,551.
Militia in 1817, 50,387.—This state is di-
vided into sixty-three counties. There are no large
hills in this state. Raleigh is the seat of govern-
ment. The other most considerable towns are New-
bern, Fayetteville, Edenton, Hillsborough, Hills-
borough, Hillsborough, Hillsborough, Hills-
borough, Hillsborough. The governor is chosen by joint ballot
of both houses, and is eligible three years in six.—The
principal denominations of Christians in North Caro-
olina are Methodists, Baptists, Presbyterians, Quak-
ers, Moravians, and Episcopallans. There is a re-
spectable institution, entitled the university of North
Carolina, at Chapel Hill. Academies are established
at various places, and an increasing attention has, of
late, been paid to education.—The principal rivers
are the Roanoke, Chowan, Neuse, Pamlico or Tar,
cape Fear, Neuse, and Neuse, and Catawba. Of these the cape
Fear affords the best navigation, and is ascended by
vessels of 300 tons to Wilmington, and by steam-
boats to Fayetteville. The two most considerable
sounds on the coast are those of Pamlico and Albe-
marle. — Dismal swamp lies partly in North Carolina
and partly in Virginia. Little Dismal, or Alliguer
swamp, is between Pamlico and Albermarle sounds.
— There are three noted capes on the coast, viz., Cape
Hatfers, Cape Lookout, and Cape Fear, which are
all dangerous to seamen.

North Carolina, in its whole width, for about sixty
miles from the sea, is commonly a dead level, varied
only by occasional openings in the immense forest
with which it is covered. After traversing this te-
dious plain, we are at length relieved by the appear-
ance of hills and mountains, from the summits of
which we behold a beautiful country, which stretch-
es west far beyond the range of vision, and is adorned
with forests of lofty trees. — In the level parts, the
soil, generally, is but indifferent. On the banks of
some of the rivers, however, and particularly the
Roanoke, it is remarkably fertile; and in other parts
of this champagne country, glades, groves of rich
underwood, and rides, in a luxuriant and fruitful
land, form an exception to its general sterility. The sea
coasts, the sounds, inlets, and lower parts of the rivers,
have, invariably, a soft, muddy bottom. That part of
the state which lies west of the mountains is, for
the most part, remarkably fertile, and abounds with oak-trees of various kinds, walnut, elm, linn, and cherry-trees; the last of which not unfrequently attends in drifts; the produce of the soil is large, and cotton in considerable quantities, in the hilly country, are nearly the same as in the Northern States. Wheat, rye, barley, oats, and flax are the crops most generally cultivated, and seem to suit well the nature of the soil. Throughout the whole state, Indian corn and pulse of all kinds are abundant. Cotton in distinct districts, or in places where the land has been long cultivated, is grown in considerable quantities. North Carolina abounds in iron ore; and it is the only one of the United States in which gold has been found in any considerable quantities. The gold mines, which have lately excited a good deal of interest, though they have not yet proved very productive, are found on the Yadkin and its branches, and extend over a district comprising about 1000 square miles. In almost any part of this territory, gold may be found in greater or less abundance, mixed with the soil. It exists in minute grains or particles, and is also found in lumps of one or two pounds' weight. Of the plains in the low country, the large natural growth is, almost universally, pitch pine, a tall and beautiful tree, which grows here to a size far superior to the pitch pine of the Northern States. This valuable tree affords, pitch, tar, and turpentine, and various kinds of lumber, which, together, constitute half of the export of the whole of North Carolina. It is of two kinds, the common and the long-leaved. The latter differs from other pines, not in shape, but in the length of its leaves, which are nearly half a yard long, and hang in large clusters. The trees in the low country, both of North and South Carolina, are loaded with quantities of a long, spongy moss, which, hanging in clusters from the limbs, gives the forests a singular appearance. The mistletoe frequently engrafs itself upon the trees in the back country. In this part, plums, grapes, blackberries, and strawberries, grow spontaneously; also several valuable medicinal plants, as ginseng, Virginia snakeroot, Seneca snakeroot, and some others. The rich bottom are overgrown with canes, the leaves of which continue green through the winter, and afford good pasture for cattle. —

North Carolina is far removed from that perfection of climate which is necessary to the people to take full advantage of the natural richness of its soil, and the value of its productions. One great cause of its backwardness, in agricultural improvement, is the want of inland navigation, and of good harbours. It has several large rivers, but their mouths are blocked up by sand bars. The mouths of the different harbours, in this state, are those of Wilmington, Newbern, and Edenton. The most of the produce of the upper country, consisting of tobacco, wheat, maize, &c., has hitherto been carried to Charleston South Carolina, and to Lynchburg, and Petersburg Virginia. Since 1813, the state has been zealously engaged in an extensive system of internal improvements. These improvements relate to the navigation of the sound, inlets, and the rivers Roanoke, Tar, Neuse, cape Fear, Yadkin, Catawba, &c.; the construction of canals and roads, and the draining of marshes and swamps. — Like all the Southern States, North Carolina has a considerable diversity of climate, occasioned by the physical peculiarities of its different parts. In the level part of the country, intermittent fevers are frequent during the summer months. Such being these slighty seasonings, the continuance of the inhabitants has an oblate-yellowish hue, occasioned by the prevalence of bilious affections. Many fall victims, during the winter, to pleurisy and peripneumonia. In the western and hilly parts, the air is as pure and salubrious as in any part of America, and the inhabitants live to a great age. The heat of the summer's day is succeeded in the evening by a grateful and refreshing coolness. Autumn is temperate and serene, and, in some years, the winter season is of as agreeable a duration as is calculated to continue till spring. The wheat harvest commences in the beginning of June, and that of Indian corn early in September. — In 1827, merchandise to the value of 276,791 dollars was imported into North Carolina, and 449,257 dollars' worth exported. (For similar accounts of preceding years, see Watkinson, and Zandi's Tabular Statistical Views, Washington, Jan. 1829.)

Historical Sketch of North Carolina. In 1586, the first attempt was made by the English to colonize North America, under a patent to Sir Francis Drake. A small colony was left on the Roanoke in 1587, but was never again to be found; all attempts to ascertain their fate were fruitless. Some emigrants from Virginia penetrated into the country about 1650, and made the first actual settlement of whites. On the early Spanish maps, what is now called Carolina had been marked as part of Florida. The French had given it the name of Carolina in honour of King Charles IX., when they made the disastrous attempt to colonize the North American coast, nor tied under the head of Florida. The name Carolina prevailed. In 1661, a second English colony from Massachusetts arrived, and established themselves at Cape Fear river. In 1667, after many vexatious struggles, the infant colony obtained a representative government. Two years later, the fanciful constitution, so famous under the name of Locke's scheme of government, was introduced. This will project was soon abandoned; and, like other English colonies, Carolina advanced but slowly, and experienced the horrors of Indian warfare as late as 1712. Previous to 1717, Carolina had been a proprietary government, but, in that year, became a royal one by purchase, and continued such until the revolution in 1775. In 1790, the two Carolinas were separated into North and South Carolina. The inaccessible coast of North Carolina gave it very great advantages in the revolutionary war. Those destructive inroads, from which other states along the Atlantic suffered so much, were here impracticable. Though, afterwards, however, Carolina, indeed, as other plantations, separated their full share of sympathy with the residue of the American people. A convention was assembled at Halifax, where, on Dec. 18, 1776, the existing constitution was adopted. Since that auspicious event, it may be doubted whether any other community ever passed fifty-two years with less revolutions. (See View of the United States. See Carey and Lea's American Atlas.)

CAROLINA, SOUTH; one of the United States; bounded N. by North Carolina, E. by the Atlantic, S. W. and W. by Georgia; lon. 79° 24' to 89° 30' W.; lat. 35° to 39° 30' N.; 200 miles long, 125 broad; containing 30,000 square miles. Population in 1790, 240,000: in 1800, 345,501; in 1810, 415,115; 200,919 blacks: in 1820, 502,741 whites, 237,440 white males, 128,584; white females, 116,506; negroes, 35,475; free, 72,442; slaves, 185,084. In 1821, 23,790. — South Carolina is divided into thirty districts. Columbia is the seat of government, but Charleston is the largest town. — The legislature consists of a senate and house of representatives. The senate consists of forty-three members, chosen every four years; and the house of representatives of eighty-three members, chosen every two years. The governor and lieutenant-governor are chosen biennially, by a joint ballot of both houses. — The principal denominations of Christians in South Carolina are Presbyterian, Episcopalians, Baptists, and Methodists. — Education is liberally patronized by the state government. The two
CAROLINA.

The staple commodities of this state are cotton and rice, of which great quantities are annually imported. These articles have so engrossed the attention of the planters, that the culture of wheat, barley, oats, and other crops equally useful, but less profitable, has been almost wholly neglected. So little wheat is raised throughout the state, that considerable quantities are annually imported. Cotton was not raised in any considerable quantities till as late as 1795. Before that period, indigo was, next to rice, the most important article of produce; but it is now neglected. Tobacco thrives well. The fruits which flourish best are pears, pomegranates, and water-melons: the latter, in particular, grow to an enormous size; and some are superior, perhaps, to any in the world. Other fruits are apricots, nectarines, apples, peaches, olives, almonds, and oranges.

The period of vegetation comprehends, in favourable years, from seven to eight months, commencing in January or February, and terminating in October or November. The frosts, generally, in the months of November, December, January, and February, are too severe for the delicate productions of more southern latitudes. The low country is seldom covered with snow, but the mountains near the western boundary often are. Frost sometimes begins in the early fall, but seldom extends deeper than two inches, or lasts longer than three or four days. At some seasons, and particularly in February, the weather is very variable. The temperature has been known to vary forty-six degrees in one day. In Charleston, for seven years, the thermometer was not known to rise above 89° or to fall below 17° above 0. The number of extremely hot days in Charleston is seldom more than thirty in a year; and there are about as many sultry nights, in which the heat and closeness of the air are such as to prevent the enjoyment of sound sleep.—The low country is infected with disease more frequently than any other part of the United States. Of these the most frequent are fevers, from which the inhabitants suffer more from than from any, or perhaps from all other diseases together. The districts of the upper country enjoy as salubrious a climate as any part of the United States. In 1827, merchandise to the value of $1,434,106 dollars was imported into South Carolina, and 9,322,561 dollars' worth exported. (For similar accounts of preceding years, see Wattrsson and Zandt's Tabular Statistical Views, Washington, Jan. 1829.)

Historical Sketch of South Carolina. The first settlement of South Carolina lay westward of the mountains, and have been made at Port Royal, about 1670; but, until 1680, no permanent establishment was formed, when the few settlers then in the country fixed on Oyster point, between Ashley and Cooper rivers, and laid the foundation of the city of Charleston. A grant had, however, been made, in 1662, previous to the founding of Charleston, by Charles II., to lord Clarendon and seven others, of all that zone of North America from N. lat. 31° to 36°; and, two years afterwards, the boundaries were extended to N. lat. 36° 30'. The proprietary government of Carolina was, if possible, more complex than any other similar government in the English colonies. This confusion was augmented by Locke's scheme, and by religious contention, and was terminated, in 1719, by a separation of the two Carolinas, and the establishment of a royal government. One of the events of most importance in this period was theimportation of rice, introduced by governor Smith, in 1695: that of cotton followed; and the colony flourished until its progress was checked by war with the Indians, and, subsequently, by the revolution. South Carolina suffered severely in the latter contest, and was the theatre of some of the most remarkable events which it produced. The

Literary institutions are the college of South Carolina at Charleston, and the college of Charleston in the city of Charleston.—The distinguishing virtues of the Carolinians are hospitality to strangers, and charity to the indigent and distressed. The planters in the low country, who, in general, have large incomes, live in a luxurious and splendid style, devoting much of their time to the pursuit of pleasure, and possessing much of that pride and dignity of spirit, which characterize an independent country gentleman. The virtues of the farmers of the upper country are less brilliant, but more substantial. They have fewer vices, are of more frugal and industrious habits, and enjoy more advancement in the scale of fortune, in the same as in the climate. In the low or alluvial country, labour in the field is performed almost wholly by slaves, who, in this part of the state, exceed the free inhabitants in the ratio of more than three to one. This division, comprising less than one-third of the territory of South Carolina, contains more than half of the slaves, and only about one-fifth of the whites. The principal rivers are the Waccamaw, Pee Dee, Black river, Santee, Cooper, Ashley, Stono, Edisto, Ashepoo, Combahee, Coosaw, Broad, and Savannah.

South Carolina is divided by nature into two parts, with regard to its natural situation, have been called the Upper and Lower Carolinas. The latter is supposed to have once been under the ocean. Towards the coast, the country is a level plain, extending more than a hundred miles westward from the sea. Here the eye finds no relief from the dull uniformity of boundless forests, swamps, and level fields. This fatigueing plain is succeeded by a curious range of little sand hills, resembling the waves of an agitated sea. This singular country occupies an extent of about sixty miles. It is extremely barren, enlivened here and there by spots of verdure, or by some struggling thicket; and, in its general features, it is a remembrance of a country subsistence by the cultivation of corn and sweet potatoes. After passing these sand hills, we come next to a remarkable tract of ground, called the Riaige, which, on its approach from the sea, is lofty and bold, but on the north-west is level from its summit. This is a flat belt of land, extending from the Savannah to Broad river, fertile, well cultivated, and watered by considerable streams. The country beyond the ridge resembles, in its scenery, the most interesting of the Northern States. The traveller is gratified by the pleasant alternation of hill and dale. The lively verdure of the oak and hickory is diversified by the tints of the extensive forests, which decorate their sides; and, in the valleys, broad rivers roll their streams through the varied beauties of luxuriant and cultivated fields. From these delightful regions, the ground still continues to rise, till we reach the western limit of the state. Here seven or eight mountains run in regular direction, the most distinguished of which is Table mountain. Other mountains are Oolenoy, Oconee, Paris's, Glassey, Hoback, and King's. These are all in the districts of Pendleton, Pickens, Spartanburg, and York. The soil of South Carolina is divided into six classes: 1. tile swamp; 2. inland swamp; 3. high river swamp, or low grounds, distinguished by the name of second love grounds; 4. salt marsh; 5. oak and hickory high land; 6. pine barren. The first two classes are peculiarly adapted to the culture of rice and hemp; the third is the most proper for the raising of corn, and the last to indigo. The salt marsh has been much neglected. The oak and hickory land is remarkably fertile, and well adapted to the culture of corn, as well as indigo and cotton. The pine barren, though the least productive, is so much more salubrious than the other soils in the low country, that proportion of pine barren is an appendage indispensable to every swamp plantation.
names of Marion, Sunter, and Lee conferred honour on the state. The existing government or constitution of South Carolina was adopted June 3, 1790, amended Dec. 17, 1808, and again Dec. 19, 1816. See Carey and Lee's Atlas.

CAROLINE AMELIA ELIZABETH; wife of George William, the Great Britian and Hanover, second daughter of duke Charles William Ferdinand of Brunswick (who was mortally wounded in the battle of Auerstadt), and of the princess Augusta of England, sister of George III. She was born, May 17, 1768. The young princess spent her youth in her father's residence, at Hanover, till 1786, when she was married to the prince of Wales, afterwards George IV. The next year, she rejoiced the royal family and the British nation by the birth of a daughter, Charlotte Augusta. (Charlotte died Nov. 4, 1817, wife of prince Leopold of Saxo-Coburg.) She had scarcely recovered from her confinement, when her husband abandoned her, declaring that no one could force his inclinations. This was the beginning of the disgraceful dispute between the two parties, which lasted till the death of Caroline, and exposed her honour to repeated accusations from her husband; and after the death of George III, and the firm and enthusiastic attachment, focoured the deserted bride. (See George IV.)

The princess of Wales lived retired from the court, at a country-seat at Blackheath, where she devoted herself to the arts and sciences, to benevolence and the gratification of her taste, till 1808. Meanwhile, many reports were circulated, accusing her of illicit connexions with captain Manly, Sir Sidney Smith, and others, and of being the mother of a boy; on account of which the King instituted an inquiry into her conduct, by a ministerial committee. They examined a great number of witnesses, and acquitted the princess of the charge. She defended herself so well, that she was guilty of some improprieties, which had given rise to unfounded suspicions. The king confirmed this declaration of her innocence, and paid her a visit of ceremony. She afterwards received equal marks of esteem from the princes, her brothers-in-law. The duke of Cumberland attended the princess to court and to the opera. The reports above mentioned were caused by the adherents of the prince of Wales and the court of the reigning queen, who was very unfavourably disposed toward the daughter-in-law. On this occasion, as on many others, the minister manifested his deference and attachment to the princess in 1813, the public contest was renewed between the two parties; the princess of Wales complaining, as a mother, of the difficulties offered to her seeing her daughter. The prince of Wales, then regent, disregarded these complaints. Upon this, in July 1814, the princess obtained permission to go to Brunswick, and, afterwards, to make the tour of Italy and Greece. She now began her celebrated journey through Germany, Italy, Greece, the Archipelago, and Syria, to Jerusalem, in which the Italian Bergami was her constant and attendant. Many infamous reports were afterwards circulated, relating to the connexion between the princess and Bergami. On her journey, she received grateful acknowledgments for her liberality, her kindness, and her generous efforts for the relief of the distressed. She afterwards lived in Italy a great part of the time, at a country-seat on lake Como. When the prince of Wales ascended the British throne, Jan. 29, 1820, lord Hutchinson offered her an income of £50,000 sterling, the name of queen of England, and every title appertaining to that dignity. This proposition was rejected, in consequence of her not wishing to return to England. She refused the proposal, and asserted her claims, more firmly than ever, to the rights of a British queen, complained of the ill-treat-
son, prince Frederic, procured (1772) the imprisonment of the queen, the counts Struensee and Brandt, and all their friends. Struensee and Brandt were tried and executed for high treason. Even this was at first in danger of being condemned to death. April 6, she was separated from her husband, and confined in Aalborg, but liberated by the interference of her brother, king George III. She died May 10, 1775, at Celle, in Hanover, scarcely twenty-four years old, of a lung fever, the consequence of her grief. The interesting letter in which she took leave of her brother, the king of England, is to be found in the small work Die letzten Stunden der Konigin von Danemark. She was of a mild temper, and beloved by all.

CARP (cyprinus, L.): a genus of soft-finned abdominal fish, which Cuvier makes the fourth family of the order. This is a very natural genus, containing very numerous species. It is easily distinguishable by the small mouth, toothless jaws, and gills of three flat rays. The tongue and palate are smooth, but the gullet is admirably constructed for mastication, having large teeth attached to the inferior pharyngeal bones, which press the food between themselves, and a gelatinous knob, connected with a bony plate that is united with the first vertebra, commonly called the tongue-gland. They have one dorsal fin, and the body is covered with scales, generally of large size. They frequent fresh and quiet waters, feeding on herbs, grains, and even mud, being, perhaps, the least carnivorous of the finny race. Some of the species have a beard of small, fleshy threads at the angles of the upper jaw. The most noted of the species are the common carp (C. carpio, L.), which, in many parts of the world, are bred in ponds for the use of the table, and the goldfish (C. auratus), believed to be originally from China, very commonly bred in ponds and vases as an ornament, on account of its beautiful colours. In his memoir on American Ichthyology, Dr Mitchell enumerates four species of carp, under the names of C. teres, fresh-water sucker; C. oblongus, club of New York; C. chrysobleucus, New York shiner; and C. atronanus, brook minnow. — The common carp of Europe is esteemed very highly for stockling ponds, being of quick growth, spawning thrice a-year. At the females do not commence breeding until eight or nine years old, it is necessary to keep up a supply of carp of that age by avoiding to destroy the females. The proportion of males to be preserved is four for every twelve females. Under common circumstances, the carp grows two or three inches a-year, but, in a year or two, the ponds are exceedingly well supplied with food, they have been known to grow from five to eighteen inches in the same time. They thrive best in ponds having clayey or marly sides, and well provided with aquatic vegetables. In order to furnish them with fresh vegetable food, it is usual to make the edges of the pond, left dry by evaporation, with an iron rake, and then to sow grass-seed, so that, when the pond is again filled up by the rains, there may be a growth of tender herbage for the fish. Grains of various sorts, and garbage, are frequently thrown into the pond, with a view to aid in fattening carp. A pond of one acre in extent is said to be sufficient to feed 300 carp of two or three years, or 400 of one year old. Carp, in their native condition, frequent the deepest places of ponds or rivers, where there is the least current of water, and inhabit situations of great penetration and address in the angler. They seldom bite in cool weather, but, during hot seasons, bite very freely. The bait commonly used in angling for carp is worms, and sometimes grasshoppers. Various sweet pastes are also used, formed of honey or sugar, mixed with flour and small quantities of veni, pounded together in a mortar, till sufficiently tough to adhere to a hook without being easily washed off. A little white wool, mixed with the other ingredients, is of great assistance in giving the mass the requisite tenacity. To increase the pleasure and profit of carp fishing, it is well, for a few days previous, to have some brewer's grains or other food thrown into the water, by which the fish will be induced to collect at any particular place in greater numbers.

CARPATHIAN MOUNTAINS; one of the most extensive ranges of mountains in Europe, which covers an area of about 39,432 square miles; running from the Black sea, between Wallachia and Moldavia, through Transylvania, Galicia, and Hungary, to Silesia, then winding itself with the River Elbe, at the pass of Jablunka (where are the sources of the Oder and Vistula), and sending out spurs, which reach as far as the Danube, and the spurs of the Alps. The highest points (covered with perpetual snow), called Tatra, rise in peaks, of which the most elevated, the Lommitz peak (Lomnitzer Spitze), is over 8162 feet high. The principal chain contains much salt. On the branches, the vine is cultivated, and various metals, precious and base, are found in them. The Carpathian mountains have lately been attentively investigated by geologists, and interesting facts have been ascertained by their means. They afford refuge to a great number of Gipsies.

CARPENTARIA; a large bay on the north coast of New Holland; lon. 130° 50' E.; lat. 10° 20' S. That part of the country which borders on the bay is also called Carpentaria.

CARPETS are thick, close textures, composed wholly or partly of wool, and wrought by several dissimilar methods. The simplest mode is that used in weaving Venetian carpets, the texture of which is plain, composed of a striped woolen warp on a thick wool of linen thread. Kilkerrinminster carpeting is composed of two woolen webs, which intersect each other in such a manner as to produce definite figures. — Brussels carpeting has a basis composed of a warp and woof of strong linen thread. But to every two threads in the warp, there is added a parcel of about ten threads of woolen of different colours. The linen thread never appears on the upper surface, but parts of the woolen threads are, from time to time, drawn up in loops, so as to constitute ornamental figures, the proper colour being each time selected from the parcel to which it belongs. A sufficient number of these loops is raised to produce a uniform surface. To render them equal, each row passes over the one next above, which is then withdrawn. In some cases, the loops are cut through with the end of the wire, which is sharpened for the purpose, so as to cut off the thread as it passes out. In forming the figure, the weaver is guided by a pattern, which is drawn in squares upon a paper. Turkey carpets appear to be fabricated upon the same general principles as the Brussels, except that the texture is all woolen, and the loops larger, and always cut. There are several carpet-manufactorys in New England, which make handsome goods. The English and Americans are the only nations among whom carpets are articles of general use.

CARPI, Ugo da, a painter and engraver, flourished in the beginning of the sixteenth century. He is generally considered as the inventor of that species of engraving denominated chiaroscuro, which was afterwards carried to such perfection by Balthasar Peruzzi.

CARPI, Girolamo da, a painter of the sixteenth century, a native of Ferrara, painted many pictures for the churches there and at Bologna. He was a great admirer of Coreggio and Parmegiano, whose works he copied with great success. He died in 1556.
CARRACCI—CARRERAS.

CARRACCI, LEWIS, AUGUSTINE, and HANNIBAL, the three founders of the Bologna, or, as it has been called, the Eclectic school of painting. 

Ludovico or Lewis Carracci, son of a butcher, born 1555, at Bologna, appeared, at first, to be more fit for grinding colours than for transferring them to canvas. However, his success did not arise from deficiency of talent, but from zeal for excellence. He detested all that was called ideal, and studied only nature, which he imitated with great care. At Florence, he studied under Andrea del Sarto, and enjoyed the instruction of Passiglione. He went to Parmo, and studied under Agostino Carracci, who was then imitated by almost all the Florentine painters. At Bologna, he endeavoured to obtain popularity for his new principles among the young artists, and united himself with his cousins, Agostino and Annibale Carracci, whom he met, in 1560, in Parma and Venice. On their return to Bologna, the three artists began to acquire reputation, but met with the most violent opposition. Annibale, the most resolute of them, was of opinion, that they should refuse the sanders in circulation by the excellence of their productions. Ludovico resolved to establish an academy for painters at Bologna, which he called the Accademia dei disegni e incamminati, or the artists' academy; but they gave up the enterprise, and returned to the exertion of their art. After having enjoyed his fame for a long time, at least as long as his cousins were alive, Ludovico died, in 1619, almost in poverty, seventeen years after the death of Agostino, and ten after that of Annibale. The chief reproach to which he is liable, is, that he did not unite the study of the antiques with that of nature. His colouring has also been blamed.

Paolo Carracci, a brother of Ludovico, is of no importance.

Agostino or Augustine Carracci, mentioned above, was born in 1535, at Bologna. He was one of the most accomplished disciples of Ludovico, and excelled particularly in invention. He engraved more pieces than he painted, in order to please his brother Annibale, who became envious of his fame, and, after a picture of Agostino had obtained a prize in preference to one of his own, and another excellent picture, the Communion of St Jerome, he gave his brother universal adoration. Subsequently, Agostino accompanied Annibale to Rome, and assisted him in painting the Farnesian gallery. As many persons said that the engraver worked better than the painter, Annibale removed his brother, under pretence that his style, though elegant, was not grand enough. Agostino went then to the court of the duke of Parma, and painted there a picture representing the heavenly, the earthly, and the vernal love. There was only one figure wanting, when, seduced by labour and mortification, he died, in 1601. He was buried with great pomp in the church of the Incarnation. Although not a profound student of architecture, as an engraver, he deserves great praise, and often corrected the imperfect outlines of his originals. Among his engravings are many obscure ones, which have become rare.

Annibale or Hannibal Carracci, his brother, born 1550, at Bologna, worked, at first, with his father, who was a tailor. By the advice of his cousin Ludovico, he learned drawing, and made the most astonishing progress, copying first the pieces of Correggio, Titian, and Paul Veronese, and painting, like them, small pictures, before he undertook large ones. In the academy founded by the Carracci, he taught the artists the true disposition of figures. He is one of the greatest imitators of Correggio. His St. Roque distributing Alms, now in Dresden, was the first painting which gave him reputation. His Genius of Glory is likewise celebrated. In the Farnesian gallery, which he painted, there breathes an heroic dignity and motion of spirit, and there are many figures more beautiful than the Attica. He also painted portraits, and had there imitations of Titaldi (who painted at Bologna, about 1550, with Nicolò del Abate), and Michael Angelo (the style, indeed, somewhat softened), and the excellencies of the Venetian and Lombard Schools. Out of Bologna, he is acknowledged as the greatest of the Carracci. In that city, however, Ludovico is more admired. Agostino, perhaps, had more invention, and Ludovico more talent for teaching; but Annibale had a loftier spirit, and his style is more eloquent and noble. He died of grief (1600), at the ingratitude of cardinal Fornese, who paid him for twenty years' labour with 1000 gold pieces, but never paid him, nor gave him proper respect. He was buried in the Pantheon of Rome. One of the finest pictures of Annibale Carracci is now in the possession of the earl of Carlisle at Castle-Howard. The subject is a dead Christ surrounded by the three Marys, of which there is a beautiful engraving by Russoelid.

Francesco Carracci, another brother, is unimportant. Antonio Carracci, a natural son of Agostino, born, 1583, at Venice, has more merit. Among the many well-known disciples of the Carracci, Domenichino deserves to be particularly named. Carracci distinguished in the revolution of Chili. José Miguel Carrera, Juan José Carrera, and Luis Carrera, were the sons of a rich landholder in Santiago, don Ignacio Carrera. One of them served in Europe until 1811, and attained the rank of lieutenant-colonel and commandant of a regiment of hussars. The three brothers took an active part in the revolution from its commencement, and, in November, 1811, obtained the effective control of the revolutionary government; don José Miguel, the eldest, being a member of the junta, and colonel in the army, and the two younger brothers being also members of the corporation. The military were strongly in their favour. They continued in the possession of power until 1813, when they were taken prisoners by the Spaniards, and confined at Talca. During their confinement, O'Higgins placed himself at the head of affairs. But they soon regained their liberty, and, by means of their popularity with the army, were enabled to displace O'Higgins, and resume their former influence, although not without a conflict with their antagonist. They became reconciled to him, however, and acted in concert with him at the battle of Rancagua, in October, 1814, in which the patriots were defeated, and in consequence of which the Carrera and their associates fled across the Andes. Don José Miguel left South America for the United States, seeking supplies of men and money. Meanwhile, don Juan José and don Luis remained in Buenos Ayres, where they were detained, on their parole, by the Spaniards, and ARRERAS; three brothers, sent for the liberation of Chili, commanded by their personal enemy, O'Higgins, and his bosom friend, general San Martin. Don José Miguel found them in this condition upon his return in 1817, and was himself arrested at Buenos Ayres, but made his escape. His brothers fled from Buenos Ayres, but were apprehended.
CARRICK.—CARRIER.

Aug. 17, 1817, near Mendoza, and thrown into prison. Upon learning this, General San Martin despatched his secretary, Montaegudo, to bring them to trial, and, if possible, invent some plausible cause for the escape of the men, so as to prevent their return to Chili. Accordingly, a fair generally-sufficient crowd murdered some obscure person in 1814 was brought against don Juan José; but, as this did not inculpate don Luis, a plot was contrived with the soldiers, and the brothers were induced to attempt their escape; after which the procuring of commission, and their trial, they were condemned, on 8th of March, 1818, to be shot on the same day. They heard their sentence at three o'clock in the afternoon, and were slaughtered at six. They walked arm in arm to the place of execution, gave the word to the soldiers to fire, and embraced each other in death. So causeless were these legal murders, that public opinion charges them upon San Martín, who, finding the friends of the Carreras numerous in Chili, employed his creature Montaegudo to procure their death. With brutal cruelty San Martín sent their aged father an account of the property of Robert Bruce, in justification of his immediate payment. He paid the bloody charge, and, two days afterwards, expired of a broken heart. Don José Miguel resolved to avenge their death. He raised a small body of troops, natives and foreigners, and marched across the pampas, having found means to correspond with his friends in Santiago. His progress was viewed with great uneasiness by O’Higgins, then supreme director of Chili; for the people cherished the fondest recollections of the Carreras, whose wisdom in government, and personal condescension, affability, and munificence, had won all hearts. A conspiracy in favour of the brothers, unfortunately, was detected by O’Higgins, and suppressed. Don José Miguel arrived near Mendoza in January, 1822, and was there unexpectedly met by a superior force, and surrounded and taken prisoner, after a brave resistance. Being conducted to Mendoza, he was hurried through a brief form of trial, and executed on the very spot where his brothers suffered. Thus, by a singularly adverse fortune, perished a family of brothers, who left not their equals in patriotism, talents, and purity of character in Chili. Their friend and adviser, Rodríguez, also perished, a victim of the same enemies. —In testimony of respect, and to perpetuate their memory, the government of Chili have recently ordered the removal of their remains from Mendoza to their native country. Stevenson's South America, vol. iii.; North American Review, vol. xxiv., p. 313; Miller's Mem., i. p. 363.

CARRICK; the southern district of the shire of Ayr, the surface of which is mountainous; but in the valleys, and along the shores of the Atlantic, the ground is level, with a fine clay or loamy soil. Its chief rivers are the Givan, the Stinch, and the Doon. It contains nine parishes. Carrick became the property of the barons of Carrick, the first of whose descendants was Montgomerie, who, on the death of the last member of the family, surrendered the town and castle of Carrick to the king; and the title is still royal, being assigned to the eldest sons of the kings of Great Britain.

CARRICKFERGUS; the assize town of Antrim, situated ten miles from Belfast. The bay of Carrickfergus is a safe station for shipping, being tolerably protected from the land breeze, which is the most dangerous in this place. It is memorable in history as the chosen landing port of Duke Schomberg, who disembarked at Groom's-port, near Bungor, on the 13th of August, 1689, with 10,000 troops. It contains a college, the Vicarage of King William III., which disembarked at a place now called White House, adjacent to the town of Carrickfergus, on the 14th of June, 1699. This bay was the scene of some of the adventures of the celebrated Paul Jones; and the French made a descent here in 1760, under the command of Thurtol, and, for a short time, laid the town under contributions. The castle stands upon a rock projecting into the bay, and is in perfect preservation.

CARRIER. Common carriers are persons whose employment is carrying goods for hire, at stated periods, between one place and another. Carriers are one species of bailies. The material question in such contracts relates to the nature of the goods, except in cases of superior force, or inevitable accident, or damage arising from the quality of the articles. Down to the time of Henry VIII. the English law seems not to have imposed on the common carrier a greater responsibility than the French code; since then, however, he has been held answerable for all losses and damage not arising from the perishable nature of the article, the act of God, as it is called, or of a public enemy. Thus he is answerable for loss by robbers, for which the French code would excuse him. The reason of this strictness is, that the decision in the case of Coggis v. Bernard (Raymond's Reports, vol. ii. p. 909), is to provide "for the safety of all persons, the necessity of whose affairs obliges them to resort to those sorts of persons, that they may be safe in their ways of dealing; for else these carriers might have an opportunity of undoing all persons that have any dealings with them, by compassing with them, and yet doing it in such a clandestine manner as would not be possible to be discovered." In regard to the continuance of the responsibility, in a case of the carriage of hops from Stourport to Manchester, and thence to Stockport, they were carried to Manchester by one set of carriers on the canal, where they were stored in their storehouse, until they should be taken by another set of carriers, to be forwarded to Stockport, and, being so stored, were burnt. The goods were considered as being in the defendants' hands, not in their character of carriers, but in that of warehousing goods, and hence responsible for the loss. Lord Kenyon said, "The case of a carrier stands by itself on peculiar grounds; he is held responsible as an insurer; but I do not see how we can couple the character of a carrier with that of a warehouseman." In another case against the same company by Hyile, reported in Term Reports, vol. v., p. 389, the goods were brought to Manchester, to which place they had been brought and stored in the duke of Bridgewater's storehouse, where they were consumed by fire. The company had charged for carriage from this storehouse to the consignees' store. The goods were, from this circumstance, considered to be in the hands of the defendants, as common carriers; and they were held liable for their value. These cases consider loss by fire as not among the inevitable accidents denounced acts of God." The distinction was made upon this point in another case (reported in the Term Reports, vol. i., p. 27), of some bags of hops, which were in the course of transportation from London to Slindesfield, deposited in a booth at Andover, and destroyed by a fire, which, at first, caught in a neighbouring booth, at a hundred yards' distance. It was said, in this case, if the fire had been occasioned by lightning, then the defendants would not have been answerable; but as it was occasioned by the agency or carelessness of man, they were answerable. This risk of fire does not seem to be one which the 2
ought to be imposed upon the carrier, upon the principle alleged in favour of his answering for a robbery, manslaughter, or other miscevices which might be committed by the robbers, for there appears to be no reason for collusion with incendiaries.

The above cases show that the law of England considers persons employed in transporting goods on a canal to be common carriers. The rule extends also to persons employed in inland navigation generally; and some of the old cases appear to extend it to the coasting trade; but there is no question that it is not, under a bill of lading in the usual form, applicable to foreign navigation, the risk from pirates being universally acknowledged to be a "danger of the sea." For the same reason, shipowners are answerable.

A waggoner or coachman, whose business is carrying for hire, is answerable as a common carrier; and the owners of the vehicle, who employ him, are also answerable in the same manner; but they are not answerable for any articles which it is known not to be their business to carry; as when the driver of a coach, intended by the proprietors, and ordinarily used, only for the transportation of passengers, took a box to carry, without the consent or authority of the owners, intending to keep the fire himself, they were held not to be answerable for the loss of the box. (Reeves, in 2 Ed, C.C. 55.)

A postmaster was held not to be under so strict a responsibility, nor answerable for money enclosed in a letter stolen from his office, for he is a public officer; but Chief Justice Hale thought he ought to be answerable upon the same principle and to the same extent as a common carrier. (Lord Raymond, vol. 1. p. 646; Modern Reports, vol. xii. p. 477.)

A person who undertakes to carry goods in a special instance, though it be for hire, is not answerable, under the English law, as a common carrier; that is, he is not an insurer; but is only bound to use due diligence. So one who carries goods without receiving any compensation is answerable only for the loss and damage occasioned by his negligence or misconduct, and the reason of his being thus far answerable is his undertaking to carry the goods, which are accordingly put into his hands upon the prescription that he will not be guilty of any gross negligence in so doing. Mr. Danre, in the first volume of his Digest, says that the law in respect to liability of carriers is the same in America (excepting Louisiana and Florida) as in England. That the carrier is liable for any loss by his own negligence or fault, or that of his servants, employed by him, there is no doubt; but it admits of at least some exceptions. Nevertheless, he is considered so far an insurer against losses not occasioned by his own fault, as in England. The original strictness of the English law, as far as it was grounded on the danger of collusion between carriers and robbers, seems hardly necessary to be kept up at present, either here or in America; for, in general, in both countries, there is little danger of such collusion between the owners of boats, stage-coaches, baggage-waggons or coaches, and gangs of robbers. Where there is no special stipulation as to the delivery of goods by the carrier, and where the contract is not modified by some very distinct and well-known usage, he must deliver the goods to the consignee, or to some person authorized by him to receive them, and the responsibility of the carrier continues till the goods are so delivered.

It is said that in some instances under which goods are taken to be transported, may modify and control the responsibility of the carrier; as, where in time of scarcity, some wheat was taken by a bontman on a canal, to be carried from Wolverhampton to Manchester, on a day of the week on which it was not usual for boats to go, and for the purpose of removing the wheat from a mob who showed a riotous disposition, he was held not to be answerable for damage to the wheat. This was, in fact, the case in G. vs. care, of the wheat, about four or five miles from Wolverhampton. (Edwards vs. Shinnat, East's Reports, vol. i. p. 604.) It was held, in this case, that the bontman did not take the wheat as a common carrier.

And if the owner of the goods contract with one of the partners in the business of transportation, with a knowledge that he alone is to be benefited, and receive the fare, his partners are held not to be liable. (Maule and Skeytan's Reports, vol. i. p. 255.) But carriers may limit their responsibility by giving notice of the conditions upon which, and the extent to which, they will be executed. Thus when the carriers gave notice that they would not be answerable for any package over the value of five pounds, unless entered and paid for as such, persons sending goods were bound by such notice. And so if they give notice that they will not be answerable for the faults of the master and mariners, provided the notice is so given as to afford ground of presumption of its reaching the party for whom the goods are carried, or in such way that it shall be his fault if he does not receive the notice.

CARRIER, John Baptist, born in 1756, at Volei, in Upper Austria. He was a lawyer, and became attorney at the beginning of the first French revolution, was chosen, in 1792, member of the national convention, aided in the establishment of the revolutionary tribunal, March 10, 1793, and exhibited the wildest rage for persecution. He voted for the death of Louis XVI., demanded the arrest of the duke of Orleans, April 6, 1793, and contributed greatly to the revolution of May 31.

Oct. 8, 1793, he was sent to Nantes with a commission to suppress the civil war by the exercise of greater severity than had yet been used. The prisons were already full, while the defeat of the Vendéans near Savernay increased the number of prisoners. Multitudes, informally and precipitately condemned, were executed daily; but Carrier found this process too slow. He resolved, therefore, to destroy the prisoners in a mass, and without a trial. He caused ninety-four priests to be conveyed to a boat with a perforated bottom, under pretense of transporting them, but, in reality, with a view of having them drowned by night. Every day this atrocity was repeated. In the evening, the destitute victims, of every age and of both sexes, were brought to the boats. Two were tied together, and plunged into the water, at the point of the bayonet and the edge of the scimitar, and they were afterwards, as they termed themselves, by tying together a young man and woman; and they called these noyades (republican marriages).

Besides this, more than 500 prisoners were daily shot in the quarries at Gigny. For more than a month, these deeds of madness were perpetrated. It has been estimated that 15,000 individuals perished in this way. The banks of the Loire were strewed with the dead, and the water was so polluted, that it was prohibited to drink it. Some months before the fall of Robespierre, Carrier was recalled. The 9th Thermidor (July 27), 1794, he was apprehended, and brought before the revolutionary tribunal, which condemned him to death, Dec. 16, 1794.

CARRIER PIGEON (pavo edaterra, columna tabellaria). This bird is a native of the East; and the practice of sending letters between the court and the provinces forefaores, primarily by the Eastern countries. The pigeons chosen for this service are called, in Arabic, hamaham. They have a ring of particularised feathers round the neck, red feet, covered with down, and build their nests in the neighbourhood of human habitations. In the province of Trak (that is, Chaldia, Babylonia, and
Assyria), white pigeons are trained with the least difficulty. The first pigeon used as a messenger, some consider to be that which Noah sent from the ark, and which returned with the classical inscription on it: "I have seen the earth." Actual post-system, in which pigeons were the messengers, was established by the sultan Noureddin Mahmood, who died in 1174. It was improved and extended by the caliph Ahmed Alraser-Lidiv-Alallah, of Bagdad, who died in 1229. The price of a well-trained pair of such pigeons was, at that time, 1000 dinars, that is, Arabic ducats. This flying post lasted till 1258, when Bagdad fell into the hands of the Mongols, and was destroyed by them. At present, only a few wealthy individuals in the east keep these pigeons. It requires much time and patience to train them. As soon as the young (a cock and a hen are preferred) are fledged, they are made as tame as possible, and accustomed to each other's society. They are then sent, in an uncovered cage, to the place whither they are usually to carry messages. If one of them is carried away, after having been well treated for some time, it will certainly return to its mate. A small letter is written on the finest silk-paper, sometimes on a particular kind called bird-paper. This is placed lengthwise under one wing, and fastened with a pin (the point being turned from the part which is not the king). This done, the bird, not knowing that no part of the letter must hang loose, lest the wind should be collected in it, the wing becomes tired, and the pigeon is compelled to alight.

A pigeon of this kind can go a distance of upwards of 1000 parasangs (more than 2700 English miles) in a day. There were similar posts in Egypt, in 1450, for which columbaries were prepared by physicians, erected at certain distances for the public security.—This custom is, however, not confined to the nations of the east. Decius Brutus, according to the elder Pliny's account, sent despatches from Modena by pigeons; and in many instances these were made use of during the Dutch war, by the inhabitants of Haerlem, when besieged in 1573, and in Leyden, in 1574. It is also well known, that some merchants in Paris and Amsterdam employ carrier-pigeons, in order that the course of exchange and the prices of stocks, in Paris, may be known as soon as possible in Amsterdam. CARRO, GIOVANNI DI; a physician of Milan, who settled in Vienna. He is celebrated for his efforts in spreading inoculation, as a protection from the small-pox, in Germany, Poland, Hungary, and Russia. He found means to overcome even the prejudices of the Turks, and sent to the colleges in Vienna, in 1800, a quantity of virus, together with a work of his, translated into Turkish, on inoculation. All the attempts of the British to introduce inoculation into India had been hitherto unsuccessful, because the virus laid always been spoiled on the way. Carro procured the matter from Lombard- dy cows, for doctor Harford, at Bagdad. It retained all its strength, and was the means of imparting the benefits of kine-pock inoculation to India, which the Indians consider as derived from a sacred cow, and to which they have given the name of amurtum (immortality).

Carro's Observations et Expériences sur la Vaccination, avec une Planche colorée (Vienna, 1801 and 1802), and his translation (Vienna, 1802, of an English work, by J. J. Loy, on the origin of the kine-pock virus, are very valuable works. In the Bibliothèque Britannique are some letters deserving of mention, relating to the subject. Among these is one, written from August 27, 1803, on the antipestilential nature of the kine-pock matter.

CARROLL, CHARLES, for many years the last survivor of the signers of the American Declaration of Independence, was born at Annapolis, in Maryland, on the 20th of September, 1737. His grand-father, an Irish Catholic of rank, educated for a barrister, emigrated from Ireland to Maryland in the year 1681. The "surviving signer" received his education at Annapolis and at the University of Pennsylvania. At an early age, he went to Europe, and was educated at the Collège de Fontainebleau, and at the University of Louvain, and completed his general education in Paris. Thence he repaired to London, where he took apartments in the temple for a course of British jurisprudence. In 1764, he came back to Maryland, to enter upon a parliamentary life. Engaging in politics, he exerted his talents and influence against the stamp act, with as much earnestness as if he had nothing to lose, and had never lived under monarchical rule abroad. In 1770, he distinguished himself, particularly by opposing a stretch of prerogative on the part of the royal governor of Maryland, in a series of essays, signed the First Citizen, that obtained a complete triumph for the popular party, and for the author, even before he was ascended, fervid compliments and thanks from all quarters. His decided and active participation, during the years 1773, 1774, and 1775, in all the measures of resistance to the ministerial policy, confirmed the confidence of the people in his dispositions and abilities. Testimony is furnished of his having, as early as 1772, foreseen and resolved to breast the occurring events with an energy of purpose, the performance of which he was to accomplish in 1776, and, previous to his election as a member of congress, in 1776, was deputed, by the latter body, to Canada, with Franklin and Chase. He returned from his mission during the discussion in congress of the subject of independence, with an avowal for the declaration which prompted him to every endeavour for the immediate conversion of the Maryland legislature to that measure. He served assiduously as a member of the board of war, and continued in congress until the year 1778, after which he confined himself to the internal state business. In the year 1781, he was re-elected to the Senate of Maryland, in which he had already served five years, and, in 1788, was chosen to represent Maryland in the senate of the United States, immediately after the adoption of the federal constitution. After 1801, he lived in retirement. In 1825, one of Mr Carroll's grand-daughters was married to the marquis of Wellesley, the then Viceroy of Ireland. Mr Carroll died Nov. 14th, 1832.

CARROLL, Josy, first Catholic bishop of the United States, was born in Maryland, in the year 1734. His parents were Catholics of distinguished respectability, and sent him, at the age of thirteen, to the college of St Omer's, in France; and he remained there six years, when he was transferred to the colleges of Liege and Bruges. In 1769, he was ordained a priest, and soon after became a Jesuit. In 1770, he accompanied Lord Stourton, the son of an English Catholic nobleman, on a tour through Europe, in the capacity of private tutor; and, on his return to Bruges, in 1773, accepted a professorship in the college. Shortly afterwards, he was on the point of going back to his native country; but his voyage was prevented by the intelligence of the entire suppression of the Jesuits by the pope; and he retired to England, where he resided until 1775, when he returned to America. His stay in Europe was prolonged in order that he might assist his brethren in procuring a mitigation of the severe sentence that had been passed upon them. He acted as secretary-general to the dispensary attached to the courts by which they had been persecuted. Upon his arrival in Maryland, he entered upon the duties of a parish priest. In 1776, at the solicitation of congress, he accompanied doctor Franklin, Charles Carroll of Carrollton, and Samuel Chase, on a mission to Canada, designed to induce the people of that province to preserve a
neutral attitude in the war between England and the colonies, but was unsuccessful. The Roman Catho-
lic clergy of the United States having requested from the pope the establishment of a spiritual hierarchy here, in preference to being under the superintend-
ence of one in Ireland, Mr CARRON was appointed vicar general in 1786, when he fixed his abode in Baltimore. In 1789, he was named first Catholic bishop of the United States, and went to England, in the summer of 1790, where he was consecrated. In the same year, he returned to Baltimore, and, as the sent of his episcopal see was established in that city, he assumed the title of bishop of Baltimore. He was universally esteemed and beloved for the exemplary manner in which he discharged his duties, the mildness and courtesy of his manners, and the sanctity of his life. He lived in friendly communion with persons of other sects, his character being entirely devoid of intolerance. A few years before his demise, he was elevated to the archiepiscopal dignity. He died Dec. 3d, 1815, in the eighty-first year of his age.

CARRON; a village of Scotland, on the banks of a stream of the same name, in Stirlingshire, and about three miles from the shore of the Firth of Forth. It is said to have been one of the most noted in Great Britain. This was established in 1760, and now employs from 2000 to 3000 individuals. There are about twenty furnaces, and many kinds of iron artic-
les are made in great quantities, as heavy pieces of ordnance, cylinders for steam-engines, pumps, boilers, wheels, and all kinds of ponderous apparatus used in the arts. That species of ordnance called a carronade, used in the navy, derived its name from being first made here. Immense numbers of shot and shells, of all sizes, are annually sent from Carron. Carron is about two miles northeast of Falkirk, and twenty-
six miles the same direction from Edinburgh. The twin mouths of the river Carron were the boundary of the Roman empire in Britain; for the wall of Antoninus stood within a short distance, and ran parallel to them for several miles. Two mounds, one of them fifty feet in height, called the hills of Dunipace, rise above the middle of its course. Tradition affirms that they were monuments of a peace between the Romans and Caledonians, and that they take their name from dun, a hill, and paz, peace. It is more probable that they are barrows.

At a place called Stonehouse, a little distance from the count, there is a small eminence, stood a cele-
brated piece of antiquity, supposed to have been a sacellum, or repository for the Roman insignia, or standard, which was pulled down by its owner, whom the antiquaries will never forgive, to make a mill-
dam. A ground-plan and elevation of it are given by general Roy, in the thirty-sixth plate of his Mili-
tary Antiquities.

CARRONADES (from the Carron works in Scot-
land, where they were first made); a sort of artillery, resembling howitzers. They are of very large cali-
bber, and carry balls, shells, or cartouches. They are much lighter than common cannon, and have a cham-
bber for the powder, like mortars. They are mostly used on board of ships, in close engagements, from the poop and forecastle. Sometimes they are em-
ployed in fortifications. They have been cast from twelve to sixty-eight pounders. They were first used in the North American revolutionary war.

CARRJORT (dacteus carota, Linneaus) is a biennial plant, a native of Britain. The leaves are pinnatifid, and much cut. The plant rises to the height of two feet, and produces white flowers, succeeded by rough, hispid seeds. The root of the plant, in its wild state, is small, dry, sticky, of a white colour, and strongly flavoured; but the root of the cultivated variety is large, succulent, and of a red-yellow or pale straw-
colour, and shows remarkably the improvement which may be effected by cultivation. Though long known as a garden plant, it is comparatively of recent intro-
duction in agriculture. It appears to have been culti-
vated from an early period in Germany and Flan-
ders, and was introduced into England and Suffolk early in the sixteenth century. The var-
ious uses of the carrot in cookery are well known. But, although it contains much nutriment, it is diffi-
cult of digestion, particularly if eaten raw or imper-
fectly boiled. Carrots are an excellent fodder for cattle and horses, either alone or mixed with hay; and, if given to cows in winter or the early part of spring, they are said to cause a great increase of milk, which will have a much less offensive taste and smell than when they are fed on turnips. Hogs thrive well upon carrots boiled with their wash. In some parts of England, this vegetable has been cul-
tivated as a winter food for deer; and the tops have even been made into hay. Carrots contain a large proportion of saccharine matter, and various but un-
successful experiments have been made to extract sugar from them. They have been more advantage-
ously employed as a substitute for the distillate of sugar; and the yield about half a pint of very strong ardent spirit; and the carrots produced by an acre of ground, amounting to twenty tons, have been known to yield 240 gallons of spirit. A syrup made of these roots, and clarified with the whites of eggs, has been found useful for several purposes. An infusion of the seeds, and the expressed juice of the roots, are said to afford relief in fits of the gravel. A marmalade of carrots has been used with success in se-
curvry, and a poultice prepared from them is some-
times employed in cancerous ulcers. Crickets are so fond of these roots, that they may easily be de-
stroyed by applying a paste of flour, powdered arsenic, and scraped carrots, and placing this near their habi-
tation. Parkinson informs us that, in his day, ladies wore carrot leaves in the place of feathers. In win-
ter, an elegant ornament is sometimes formed by cutting off a section from the head or thick end of a carrot, containing the bud, and placing it in a shal-
low vessel with water. Young and delicate leaves unfold themselves, forming a radiated tuft of a very handsome appearance, heightened by contrast with the season of the year.

CARRYING TRADE. See Commerce.

CARMEN, a Scottish divine of poli-
tical eminence, was born in 1649, at Cathcart, near Glasgow, where his father was minister. He pursued his studies at the university of Edinburgh, whence he was removed to that of Utrecht, was introduced to the prince of Orange, and intrusted with all his views in regard to Britain. He, however, returned to Scot-
land, with the view of entering the ministry, but, after receiving a license to preach, resolved to return to Holland. As he was to pass through London, he was employed by Argyle and his party to treat with the English exclusionists, and became privy to the royal house plot. On the discovery of that conspiracy, he was apprehended. After a rigorous confinement in irons, he was subjected to the torture, and endured this trial with great firmness: but, being afterwards deluded with the hopes of a full pardon, and assured that his answers should never be made evidence against any one, he submitted to make a judicial declaration. The privy council violated their en-
gagement, by producing his evidence in court against his friend, Mr Baillie, of Jerviswood. Being re-
leased, he returned to Holland, and was received by the prince of Orange as a sufferer in his cause. The prince of Orange and his adherents, as well as his friends, explained, and pro-
cured his election to the office of minister of the English congregation at Leyden. He accompanied
the prince in his expedition, and always remained abroad, and lived both at home and abroad. During this reign, he was the chief agent between the clergyman of Scotland and the court, and was very instrumental in the establishment of the presbytery, to which William was averse. On the death of William, he was no longer employed on public business; but Anne continued him to be his agent, at the time of the removal of the principal of the university of Edinburgh. When the union of the two kingdoms was agitated, he took a decided part in its favour. He did not long survive this event, dying in 1715, at the age of sixty-six. The memory of Carstairs is, for the most part, revered by the countryman and magnate, but a few men of active power and influence have steered between parties more beneficially and ably.

CARSTENS, Asmus Jacob, a distinguished painter, born at St Jurgen, near Sleswic, in 1754, died at Rome in 1798. He studied at Copenhagen, where he produced his first picture—the Death of Eschy-lus. In 1783, he set out for Rome; but, after having seen some works of Julio Romani and Leonardo da Vinci, was obliged to return to Germany, from want of means, and ignorance of the Italian language. In Loube, he lived almost five years by painting likenesses. A piece, containing more than 200 figures, the Full of the Ages at Ansbach, was the place of a professor in the academy at Berlin. In 1792, he went to Rome. His picture of Mega- ponte was compared to the productions of Raphael and Michael Angelo. His subjects were almost all taken from Homer, Pindar, Sophocles, Eschylus, Shakespeare, and Ossian. In Carstairs' works, we find that effort to attain correctness of form and outline, gracefulness of attitude, and loveliness and vigour of expression, by which the works of the ancients are distinguished; but they frequently exhibit a certain harshness, arising from too close imitation. He was often defective in anatomy and perspective, and, having begun late to paint in oil, was unacquainted with the secrets of colouring. See Fernow.

CARTE, Thomas, an English historian, was born at Dunmoo, Warwickshire, in 1686. He was admitted at University college, Oxford, in 1689, and was afterwards incorporated at Cambridge, where he took his degree of M. A. in 1706. His first publication was entitled the Irish Massacre set in a true Light, 8vo. Incurring suspicions during the rebellion of 1715, a warrant was issued for his apprehension, which he eluded by concealment in the house of a clergyman at Cambridgeshire during the winter. He acted as the secret agent of the secretary to bishop Atterbury; and, as it was supposed that he was concerned in the conspiracy impu- nated to that intriguing prelate, he was charged with high treason, and a reward of £1000 was offered for his apprehension. He was again successful in making his escape, and, reaching France, he resided there seven years under the name of Philipog. Having obtained various introductions to persons of influence and learning, he obtained free access to the principal libraries, and employed himself in collecting materials for an English edition of the History of Thucydus. At length, queen Caroline, the liberal patroness of literary merit of every party, procured leave for his return to England. His important work, the Life of James Duke of Ormond, was published in 3 vols. folio, 1736-6. This work gained him great reputation, especially with the Tory party, and led him to attempt, without the least hesitation, his historical history, as a counterbalance to the tendency of that of Rapin de Thoyras, which the Tories charged with error and partiality. In 1744, he was arrested, under a suspension of the habeas corpus act, and examined, on a suspicion of being employed by the Pretender. Nothing, however, appearing against him, he was dis- charged. The first volume of his history, in folio, concluded with the death of king John, and might have been very well received, had not the author materially injured the credit of his work, and his own reputation as a man of sense, by the unnecessary in- sertion of a note, containing the ridiculous story of the cure of one Christopher Lovel, who went from London to Paris to be touched for the evil by the Pretender. Still he proceeded with his work, and published two more volumes, in 1750 and 1752; the fourth, which brought down the history to 1684, not appearing until after his death. The char- acter of this work is deservedly very high for useful and elaborate research, principles; but it has risen greatly in value, since the obligations of Hume to it have been rendered apparent. In point of style, it is mean; and the prejudices of the author, who is utterly destitute of the philosophical impartiality re- quisite for an historian, are everywhere conspicuous; but its felicity and exactness, with regard to facts, and the intimate knowledge of original authors displayed by the writer, will always render it valuable.

Mr Carter died in April, 1754. He is the author of several works besides those already mentioned. He was a man of indefatigable industry, cheerful and en- tertaining in conversation, but very slovenly and un- neatly in his dress.

CARTEIL; an agreement for the delivery of prisoners or deserters: also, a written challenge to a duel. Cartel-Ship; a ship commissioned, in time of war, to exchange prisoners; also to carry any proposal between hostile powers. She must carry no cargo, ammunition, or implements of war, except a single gun for signals.

CARTER, Elizabeth, an English lady of great learning, was the daughter of doctor Nicholas Car- ter, a clergyman in Kent, and was born in 1717. She was educated by her father, and soon became mistress of Latin, Greek, French, and German; to which she afterwards added Italian, Spanish, Portu- guese, Hebrew, and even Arabic. Several of her poetical attempts appeared in the Gentleman's Ma- gazine, before she attained her 17th year, and these procured her much celebrity. In 1739, she trans- lated the critique of Crousaz on Pope's Essay on Man; and, in the same year, gave a translation of Algarotti's explanation of Newton's philosophy, for ladies. In 1749, she commenced her translation of Epictetus. In 1791, Miss Carter had an interview with queen Charlotte, by the queen's own desire, and, as a number of her years, received visits from different members of the royal family, who paid her particular attention. She died in 1806, in the 80th year of her age, and lies interred in the burying-ground of Grosvenor chapel. The year following her death, her Memoirs were pub- lished, and a new edition of her poems; and, subse- quently, her correspondence with Miss Talbot (in 2 vols., 4to), and letters to Mrs Montague and Mrs Vesey (4 vols. 8vo), all which are much esteemed.

CARTERET, John, earl of Granville, an eminent English statesman, born in 1690, was the eldest son of George lord Carteret, whose death put him in possession of that title before he was five years old. He was educated at Westminster school and Christ- church college, Oxford, where he highly distinguish- ed himself by his classical attainments. He was intro- duced into the house of peers in 1711, and imme- diately distinguished himself, as a true royalist or mon- archist; which acquired him the notice of George I., by whom he was raised successively to various posts of honour. In 1719 he was sent am- bassador to Sweden, and mediated the peace between that country and Denmark. In 1721 he succeeded Craggs as secretary of state, and proved a most able
support to the administration by his forcible and eloquent oratory in parliament. In 1723 he accompanied the king to Hanover, and on his return was appointed lord-lieutenant of Ireland, which kingdom was at that time in a state of great discontent, not a little increased by the famous Draper's letters of Swift. Thereafter Carteret, from his manners and learning, was expostulated with him for his prosecution of the printer of those letters. The lord-lieutenant ingeniously replied by a quotation from Virgil: *Regni novitas me talia cogit moli'r.* After an administration which, upon the whole, was not unmerited in the Greek, but of which the Pelhams, who was, again appointed to the vice-royalty of Ireland, where he conducted affairs, until 1730, with great success, conciliating parties, and producing much apparent harmony, by his abilities and social talents, in which he was much aided by the countenance and humour of Swift. On his return to England, however, he became a violent opponent to Sir Robert Walpole, and, in 1741, made the famous motion for an address to remove him from the king's presence and councils, exerting all his great eloquence on the occasion. In 1742, when that dismissal was effected, he became Lord-Lieutenant of state, and in that capacity supported measures very similar to those which he had censured in Walpole. In 1744, on the death of his mother, he succeeded to the titles of viscount Carteret and earl of Granville, and in a few weeks resigned his seals as secretary of state, unable to resist the patriotic party and the Pelhams, whom he had previously forsaken. It is unnecessary to follow him in the subsequent changes in a life of struggling and vacillating statesmanship. It is sufficient to remark, that, although obliged to yield the acumen to stronger interests, he never lost the favour of the house of Hanover; and at last died president of the council, in 1763, in the seventy-third year of his age. The natural talents and acquirements of this nobleman appear to have been eminently calculated for the sphere in which he moved. His genius was lofty and fertile, and his self-confidence equal to it; it having been said of him that he "never doubted." He was ambitious and fond of sway, but neither mercenary nor vindictive; and his own great literary attainments made him an encourager of learning in others. He was in particular the patron of doctor Taylor, so celebrated for his accomplishments in the Greek language, and also of the still more famous doctor Bentley. In social life he was pleasant, good-humoured, and frank. It will not add to this nobleman's character to state that he was a decided enemy to the diffusion of education, and that he deemed ignorance the best foundation of obedience.

**CARTES—CARTHAGE.**

**CARTES, Des. See Descartes.**

**CARTHAGE; the most famous city of Africa in antiquity, capital of a rich and powerful commercial republic. Dido (q. v.), fleeing from Tyre, came to this country, where the inhabitants, according to tradition, agreed to give her as much land as could be compassed by an ox-hide. Dido cut the hide into small thongs, with which she enclosed a large piece of land. Here she built the castle of Carthage, and gave the newly-founded state excellent institutions. The first period of the history of Carthage extends to the foundation of the city, now Carthage, by Dido, B. C. 878 to 480. Carthage extended its conquests in Africa and Sardinia, carried on a commercial war with the people of Marseilles and the Eturscans, and concluded a commercial treaty with Rome, B. C. 503, the original document of which, on stone, is still extant. The Romans, however, had been already occupied with the war with the Romans, B. C. 265. When Xerxes undertook his campaign into Greece, the Carthaginians made a league with him against Gelon, king of Syracuse, but were defeated at Himera, B. C. 480, and obliged to sue for peace, and abstain from the practice of offering human sacrifices. (See Gelon.) In the time of Dionysius, the king of Syracuse, the Carthaginians conquered the cities Selinus, Himera, and Agrigentum. Dionysius the elder obtained a temporary peace. But, after Timoleon had delivered Syracuse and Sicily from the yoke of tyranny, the Carthaginians were again engaged with the Syracusans, and frequent mutinies reduced the strength of the city. When Sicily suffered under the tyranny of Agathocles, Carthage engaged in a war with him, and was soon attacked and severely pressed by the usurper. After the death of Agathocles, Carthage once more took part in the commerce of Sicily, when difficulties broke out there with their auxiliaries, the Mamertines. The Romans took advantage of these troubles to expel the Carthaginians from Sicily, although they had previously received assistance from them (in 275) in a war against Pyrrhus of Epi- rus, in which the latter was defeated. This was the third period of Carthaginian history, embracing the thrice-repeated struggle for dominion between Rome and Carthage, in the interval between 264 and 146 B. C. The first Punic war (see Punic) continued twenty-three years. The fleets and armies of Carthage were vanquished. By the peace (B. C. 241), the Carthaginians lost all their possessions in Sicily. Upon this, the mercenary forces, whose wages could not be paid by the exhausted treasury of the city, took up arms. Hannibal Barcas conquered them, and restored the Carthaginian power in Africa. Notwithstanding the peace with Carthage, the Romans took possession of Sardinia in 229, where the mercenary troops of Carthage had revolted. Hammilcar Barcas was defeated, and restored the Carthaginian power in Africa. For the success of this enterprise, within seventeen years, Carthage was indebted to the family of Barcas, which could boast of the glorious names of Hamilcar, Asdrubal, and Hannibal. To secure the possession of this acquisition, Asdrubal founded New Carthage (now Carthage), the most powerful of all the Carthaginian colonies. They agreed, notwithstanding the abilities of the general, ended with the subjugation of Carthage. Hannibal, neglected by his countrymen, and weakened by a victory that cost him much blood, was obliged to leave Italy, in order to hasten to the assistance of Carthage, which was threatened by the Romans. The battle at Zama, in the neighbourhood of Carthage, resulted in favour of the Romans. Scipio granted the city peace under the severest conditions. Carthage ceded Spain, delivered up all her ships of war except ten, paid 10,000 talents (about £2,250,000), and promised to engage in no war without the consent of the Romans. Besides this, Masinissa, the ally of Rome, and implacable enemy of Carthage, was placed on the Numidian throne. This king, under the protection of Rome, deprived the Carthaginians of the best part of their possessions, and destroyed their trade in the interior of Africa. The Carthaginians, however, were a desperate contest. The disarmed Carthaginians were obliged to demolish their own walls. Then, taking up arms anew, they fought for death or life. After three years the younger Scipio ended this war by the destruction of the city, B. C. 146. About 16,000 people were slain, and their dignified seats of renown. From A. D. 459 to 534, it was the residence
of the Vandal kings. But the Arabsians destroyed it a second time, and few traces now remain of it, except an anecdote.

The government of Carthage, according to the common opinion, in its origin, was monarchical; after-ward, it is not known how or when, it became re-

publican. The Phoenician states, likewise, had kings, and their government, too, was republican. As no distinct period is mentioned when the government received its form, the constitution seems to have been gradually formed, mostly by and through domestic troubles.

The government was composed of the *suffetes*, the senate, the tribunal of the hundred, and the aldermen. They had no kind of aff airs, and were commonly called *kings*, by the Greek authors, and *consules* by the Romans. They were permanent officers, and not, like the Roman consuls, chosen for short periods. The Carthaginian senate seems to have been a permanent and numerous body, in which there was a smaller committee, composed, probably, of the elder members. As regards the power of the senate, and its relation to the people, we know that the former had the right of deliberating beforehand on all affairs that were to be referred to the people. If the *suffetes* agreed with the senate, the people were at liberty to approve, or not; as these magistrates saw fit; but if they disagreed, it was always referred to the people; and every citizen had the right of expressing his opinions freely. War and peace likewise depended on the decision of the senate. The tribunal of the hundred was chosen from the most respectable families, and was the highest political tribunal. It seems, also, to have been in possession of supreme civil jurisdiction. A highly remarkable peculiarity of the Carthaginian government was the separation of the civil and military power at so early a period. The *suffetes* were never their generals. The latter were chosen by the people, and, in time of war, had unlimited power in regard to military operations. Affairs of state, on the contrary, alliances, and the like, were administered by a committee of the senate, which was associated with the generals. In this respect the Carthaginian constitution was superior to the Roman, in which the union of the two powers cost the state its freedom.

The religion of Carthage was a branch of the worship of the stars and of fire, which prevailed in the East. Concerning Melch (Baal or the Sun), the supreme god of the Phoenicians, the human sacrifices, and the other religious observances, of which the bishop of Zeeland, doctor Fredric Munter, has published the result of his interesting inquiries, in his Religion of the Carthaginians (Copenhagen, 1821, 2d edition, 4to).

CARThAGENA; an ancient town on the coast of the kingdom of Murcia, with considerable trade, one of the three great naval harbours of Spain, and the best port of the Mediterranean. The basin is very deep, even quite close to the town. The hills that surround it, with steep ascents, and an island at the mouth of the harbour, protect the vessels from all winds. The town, with the citadel, is situated on a peninsula in the harbour. It contains 29,000 inhabitants, fane wharves, a naval arsenal, a naval school, a mathematical, nautical, and pilot academy, an observatory, a botanical garden, a sail-cloth manufactory, has some fisheries, and some trade in baril-

lin. The town, with the citadel, is situated on a peninsula in the harbour. It contains 29,000 inhabitants, fane wharves, a naval arsenal, a naval school, a mathematical, nautical, and pilot academy, an observatory, a botanical garden, a sail-cloth manufactory, has some fisheries, and some trade in barrel-lin. The town, with the citadel, is situated on a peninsula in the harbour. It contains 29,000 inhabitants, fane wharves, a naval arsenal, a naval school, a mathematical, nautical, and pilot academy, an observatory, a botanical garden, a sail-cloth manufactory, has some fisheries, and some trade in barrel-lin.

The Carthaginians possessed mines of silver of such richness, that Hannibal was enabled to carry on the war against the Romans out of their produce. There are hot springs and salt mines in the neighbourhood. The town was built by the Carthaginian general Ancus Marcius, on an island, which was afterwards joined to the continent. The harbour is one of the deepest in the world, and is used by the great galleys of the Greek and Roman navies. It is the scene of the battle between the Carthaginians and the Romans, in which the latter gained a signal victory.

CARThAGENA; a province of Colombia, form-
CARTILAGE—CARTOON.

CARTILAGE is a semi-pellucid substance, of a milk-white or pearly colour, entering into the composition of several parts of the body. It holds a middle rank, in point of firmness, between bones, or hard parts, and the softer constituents of the human frame. It appears, on a superficial examination, to be a soft, elastic, transparent, and rubbery tissue; when cut, the surface is uniform, and contains no visible cells, cavities, nor pores, but resembles the section of a piece of glue. It possesses a very high degree of elasticity, which property distinguishes it from all other parts of the body. Hence it enters into the composition of the framework by the vertebral column. The feature of firmness with pliancy and flexibility, the preservation of a certain external form, with the power of yielding to external force or pressure. Anatomists divide cartilages into two kinds, the temporary and the permanent. The former are confined to the earlier stages of existence; the latter commonly retain their cartilaginous structure throughout life. The temporary cartilages are those in which the bones are formed. All the bones except the teeth are formed in a matrix of cartilage. The permanent cartilages are of various kinds. They compose the external ear, and the auricles of the external aperture of the ear. They furnish the eyeballs and eyelids. The larynx is formed entirely of this substance, and the trachea or windpipe, with its branches, is furnished with cartilaginous hoops, by which these tubes are kept permanently open for the ready passage of air to and from the lungs. The bodies of the vertebrae are joined by large masses of a peculiar substance, partaking of the properties and appearance of cartilage and ligament, which allow of the motions of these parts on each other, without weakening the support that is afforded to the upper parts of the body in general, and to the head in particular. The cartilages of the spine, as they impart great elasticity to the spine, by which the effects of concussion from jumping, from falls, &c., are weakened and destroyed before they can be propagated to the head. When the body has been long in an erect position, the compression of these cartilages, by the superior parts, diminishes the height of the person. They recover their former length when freed from this pressure. Hence a person is taller when he rises in the morning, than after sustaining the fatigues of the day, and the difference has sometimes amounted to an inch. Cartilages are sometimes caused by disease to separate from the auricles of the ears and bones, where they fill up irregularities that might otherwise impede the motions of the part, and increase the security of the joint by adapting the articular surfaces to each other. These surfaces are, in every instance, covered by a thin crust of cartilage, having its surface most exquisitely polished, by which all friction in the motions of the joint is avoided.

CARTOON has many significations. In painting, it denotes a sketch on thick paper, pasteboard, or other material, which is used as a model for a large picture, especially in fresco, oil, tapestry, and, formerly, in glass and mosaic. In fresco painting, cartoons are particularly useful; because, in this, a quick process is necessary, and a fault cannot easily be corrected. In applying cartoons, the artist commonly traces them through, covering the back of the design with black lead or red chalk; then, laying the picture on the wall, or other matter, he passes lightly over each stroke of the design with a point, which leaves an impression of the colour on the plate or wall; or the outlines of the figures are pricked with a needle, and then, the cartoon being spread against the wall, a bag of coal-dust is drawn over the pricked points to transfer the outlines to the wall. In fresco painting, the figures were formerly cut out, and fixed firmly on the moist plaster. The painter then traced their contour with a pencil of wood or iron; so that the outlines of the figures appeared on the fresh plaster, with a slight but distinct impression, when the cartoon was taken away. In the manufacture of a certain kind of tapestry, the figures are still cut out, and laid behind or under the fresh soot of the wool, when the different cartilages are united. In this case, the cartoons must be coloured.

The most celebrated cartoons in existence, are those in the royal palace of Hampton Court, which are seven in number, and were executed by Raphael, at the command of pope Leo X., to serve as models for the frescoes peiced upon the great staircase of the Palace of Fontainebleau, and presented to king Charles I. They were originally nine in number, but have been lost. By a singular revolution of events, the tapestry hangings themselves, after having been sold to a Spanish nobleman, at the sale of the effects of the unfortunate King Charles, were purchased by a British consul in Spain, and sent back to this country.

The subjects of the cartoons are,—the miraculous Draught of Fishes,—the Sacrifice to Paul at Lystra,—Christ's Charge to Peter,—the Apostle's Healing the Cripple at the Beautiful Gate,—Temperance,—Paul Struck with Blindness,—Death of Ananias,—Paul preaching at Athens,—and of the two in the tapestries, one is the Conversion of St Paul, and the other, our Saviour teaching in the Temple. These drawings have all the usual excellencies which characterise the works of that divine painter. The cartoons have been engraved by several artists, particularly Dorginy, and Holloway, and Gribelin; and copies painted by Sir James Thornhill are suspended in the great room of the Royal Academy, Somerset House.

The artists of the school of Athens, carried to Paris by the French, and a fragment of the battle of Maxentius and Constantine, are preserved in the Ambrosian gallery at Milan. There are, likewise, cartoons by Giulio Romano in the Sala Borgia, by Domenichino and other Italian masters, who caused their pictures to be executed, in a great degree, by their scholars, after these cartoons. The value set upon cartoons by the old Italian masters may be seen by Giov. B. Armenia's Precci di Pintura (Venice, 1687, 4to). In later times, large paintings particularly in fresco, were not executed so frequently. The artists also laboured with less care, and the time required was measured from small sketches. In modern times, some German artists have prepared accurate cartoons. Among them is Cornelius, whose cartoons, for his fresco paintings in Munich, have acquired much celebrity. He prepared, too, a cartoon for the fresco representing Joseph interpreting the Dream. Overbeck, also, has made cartoons, from which he has painted the Seven Years of Famine, and the Selling of Joseph. The Seven Years of Plenty he executed, with the assistance of William Schadow and Philip Veit. The representations of Joseph's history, just mentioned, the late Prussian consol-general Bertholdy has caused to be executed in fresco, at his residence in Rome, by the above-named artists. For the villa Massimi, near Rome, Overbeck has prepared cartoons representing scenes from Tasso's Jerusalem Delivered; Julius Schnorr, illustrations of Ariosto, and Veit, scenes taken from Dante.

CARTOUCH, in architecture, sculpture, &c., denotes an ornament representing a scroll of paper, being usually in the form of a table, or flat member, with wavings, whereon is some inscription or device. In common practice it is used of given figures, shields, which used by the popes and secular princes in Italy, and others, both clergy and laity, for painting or engraving their arms on. In the military art;
a wooden case, about three inches thick at bottom, and girt round with marline, holding 2, 3, or 400 musket balls, with eight or ten iron balls, weighing one pound each, to be fired from a mortar, gun, or howitzer, for the defence of a pass, retenchetum, &c. It is also used for a cartridge-box, now employed by the cavalry. The charge of a car-
touche is also sometimes called by this name.—Cart-
touche is likewise the name given by the French literati to that oval ring, or border, which includes, in the Egyptian hieroglyphics, the names of persons of high distinction, as M. Champollion has proved. The French army took the first, at first, by Zoenge, to include every proper name.

CARTOUCE, Louis Dominique. The pillering propensities of this man, who was born at Paris, near the end of the seventeenth century, early showed themselves. Being expelled from school, and afterwards from his father's house, for theft, he joined a band of rogues in Normandy, and then put himself at the head of a numerous company of banditti in Paris, over which he exercised the power of life and death. He was first apprehended in a tavern, in 1724, and brought to the Châtelet. On the meek, he managed, together with his accomplices. But when he ar-
ived at the place of execution, where he was to be broken alive on the wheel, and found that his companions had not assembled to his rescue, he retract-
ed, and named his accomplices, to gain a reprieve. His execution soon followed. Various authors have described his adventurous, and, in some respects, inter-
esting life.

CARTRIDGE; a case of paper, parchment, or flannel, fitted to the bore of fire-arms, and filled with gun-powder, to expedite the discharge of the piece. Cartridges are of two sorts, viz., ball-cartridges, used in firing balls, and match-cartridges, used without ball. Riflemen avoid the use of cartridges, because the cartridge injures the shot of a rifle. In most armies, a soldier carries sixty cartridges into battle.

CARWRIGHT, Emden, was born in 1743, in Nottinghamshire (brother of major John Cartwright, the well known advocate of parliamentary reform), and studied at Oxford. His poems were very pop-
ular, especially a ballad entitled Armynge and Ethea, 1771. He was one of the principal contributors to the Monthly Review. He is also distinguished for his letters in the Lint. In 1775 he took out a patent for a weaving machine; for which he obtained
from parliament a grant of £10,000, and was of-
ten rewarded with prizes for his inventions. For the last thirty years of his life, he was employed in plans for propelling carriages and boats by steam. He died in 1824.

CARWRIGHT, John, an English gentleman, celebrated for his exertions in the cause of political reform, was born in 1740, at Marnham, Nottingham-
shire, of an ancient family. His early education was rather deficient; but he made some progress in mechanics and practical mathematics. He entered the navy, and became a first lieutenant in 1766. In 1774, his attention was turned to politics. In his Letters on American Independence, written in this year, he advocated a union between the colonies and the mother state, under separate legislatures, and argued this great question on the foundation of na-
tural, inherent right; maintaining "that the liberty of man is not derived from charters, but from God, and that it is original in every one." In 1775, he was appointed major of the Nottinghamshire militia, and, after several ineffectual attempts, on the part of go-

governments to remove them from the service, his dismis-
sion was finally accomplished, in 1792, in conse-
vquence of an act of parliament. In the American

war, lord Howe was desirous of having him with him in America; but major Cartwright, although always eager for promotion in the navy, refused the pro-
posal, alleging that he could not fight in a cause which he disapproved.—From this time, he devoted himself to the two great objects of annual parlia-
mentary meetings and internal suffrage. In 1779, he succeeded in the establishment of a Society for Constitutional Information, and was the author of a declaration of Rights, distributed by the society, which, Sir Wil-
liam Jones said, "ought to be written in letters of gold."—The French revolution was welcomed by the people of America, as by other friends of liberty. The alliance of the sovereigns, which soon followed, he considered equally irreconcilable with policy and with national justice. The subsequent prosecutions against the friends of reform, the fate of Muir and of Holt, occasioned no small dismay among the peo-
ple. In the trials of Tooke, Hardy, Thelwall and others, Cartwright took a great interest, was present as a witness, and displayed so much openness, fear-
lessness, and firmness. By his writings, public addresses, &c., he continued to promote the work of reform and constitutional liberty; and, as late as 1819, he was invited by the London and Edinburgh Times, to appeal to the habitants of Birmingham to send what he called their "legislatorial attorney" to the house; but he escaped with a fine of £100.—Major Cartwright was not a political reformer only. The plan of making the slave trade piracy, is said to have been first developed in his Letters on the Slave Trade. The information which he furnished to Daines Barrington respecting the possibility of approaching the north pole; his plan for a perpetual supply of English oak for the navy, which has since been partially adopted, and several other useful projects and inventions, are suf-
ficient evidences of his enterprising spirit and diver-
sified knowledge. He died in 1824, in the eighty-fourth year of his age. He has been describ-
ed as alike just in all the relations of life, as a citi-
zen, a politician, a husband, and a friend; disinter-
ested, firm, and fearless; and Fox, upon presenting one of his petitions to the house, remarked, "He is one, whose enlightened mind and profound constitu-
tional knowledge place him in the highest rank of public characters, and whose purity of principle, and consistency of conduct through life, command the most respectful attention to his opinions." The most prominent feature of his life was his self-sacrifice, firmness, and perseverance. He was a fruitful writer; quick, ingenious, powerful in argument, and sometimes eloquent. His language is plain, pure, and strong.

CARVER, Jonathan, was born in Connecticut, in 1732. He embraced a military career, and, in the French war of 1756, commanded with reputation a company of provincials, in the expedition across the lakes, against Canada. When peace was concluded, in 1763, captain Carver undertook to explore the vast territory which Great Britain had gained. His object was, to acquire a knowledge of the manners, customs, languages, soil, and natural productions of the nations and region beyond the Mississippi, and to ascertain the breadth of the continent by penetrating to the Pacific over its widest part, between N. lat. 42° and 40°. He accordingly set out from Boston in 1766, and, having reached Michillimackinac, the remotest English post, applied to Mr Rogers, the governor, for an assortment of goods, as presents for the Indians dwelling in the parts through which his course was to be directed. Receiving a portion of the supply which he desired, and a promise that the residue would be sent out the next season, he continued his journey. But, not obtain-
ing the goods at the appointed place, in consequence
CARVING-CARY.

of their having been disposed of elsewhere by those to whom the governor had intrusted them, he found it necessary to return to la Prairie du Chien. He then, in the beginning of the year 1767, directed his steps northward, with a view of finding a communication from the heads of the Mississippi into lake Superior. He afterwards proceeded in an easterly direction, down the northwest side of that lake, the traders that usually come about this season, from Michilimackinac, from whom he intended to purchase goods, and then to pursue his journey. He reached Lake Superior in good time; but, unfortunately, the traders whom he met there could not procure him the goods he required. They were barely enough for their own purposes, and, in consequence, he was obliged to return to the place whence he first departed, which he did in October, 1768, after remaining some months on the north and east borders of Lake Superior, and exploring the bays and rivers that emptied themselves into that body of water. He soon after repaired to England, with the view of publishing his journal and charts, and of obtaining a reimbursement for the expenses which he had incurred. Having undergone a long examination before the lords commissioners of trade and plantations, he was enabled to dispose of them—a loss for which he received no indemnification, but was forced to be satisfied with that obtained for his other expenses. He had fortunately kept copies of his papers, and he published them ten years afterwards, in 1778, while in the situation of clerk of a lottery. Having sold his journal, he returned to London, where he was engaged in the preparation of a topographical compilation, which was published in 1779, in folio, entitled The New Universal Traveller, containing an account of all the empires, kingdoms, and states in the known world, he was abandoned by those whose duty it was to support him, and died in want of the common necessities of life, in 1780, aged forty-eight years.—Besides his travels above noticed, captain Carver published a tract on the culture of tobacco.

CARVING, or the art of cutting a hard body by means of a sharp instrument, and is a term generally employed in speaking of figures cut out in wood, in contradistinction to engravings made in copper, silver, or metal or stone. One of the most ingenious and useful purposes to which carving has been converted is that of fashioning wood prints or blocks for printing. The wood employed for this purpose is generally the beech, pear-tree, or boxwood; but any kind of hard wood will answer, although that of the box is preferred, as being of a close grain, and not subject to be preyed upon by the worm. White lead, well ground up, and mixed with water and size, is then to be spread over the smooth surface of the block, and well polished when dry, by rubbing it strongly. The subject to be carved is to be drawn on paper, which is to be pasted on, with strong flour paste, with the face of the drawing towards the block. When it has dried, the paper is to be gently dampened with a moist sponge, and the paper rubbed off, leaving the black lines of the design upon the white surface of the wood. The wood is then to be cut away, leaving only the black lines standing out in relief. Hugo da Carpi was in the habit of using three blocks, one of which contained the outline, and the other two the shadows and half tints, and in this manner he produced his engravings, in which the lines were engraved on tinted paper, with the lights heightened with white. Rubens, Titian, Lucas van Leyden, and Albert Durer, and Farmijana, executed engravings on wooden blocks; and, in our own times, Mr Bewick of Newcastle brought the art to great perfection, and rediscovered some parts of the process which had been lost. It has the advantage of combining great freedom and precision of outline, and can be introduced into type frames, and printed at the same time, so that, at the same time as the letter is laid down, the blocks are printed, at a much cheaper than copperplate engraving, to which, however, it yields both in delicacy and clearness.

CARY, Lucas (vicecount Falkland), one of those rare characters who serve as proverbial instances of social excellence, was born about the year 1610. Being carried on by his grandfather, who was a member of his education at Trinity college, Dublin, and at St John's college, Cambridge. His youth did not pass without irregularities, but they were suddenly closed by his marriage with a young lady of small fortune, whom he passionately loved. After passing some time abroad, he returned home, and devoted himself to a life of retirement, and the cultivation of polite literature. In 1633, he was appointed one of the gentlemen of the bedchamber to Charles I., but still chiefly resided at his seat at Burford, near Oxford, which he made a kind of academy of learned men, being frequently visited by the distinguished men of the neighbourhood.

Here was it that Chillingworth composed his famous work against popery: and questions of morals, theology, and literature, were discussed, in a congenial circle; with the utmost freedom. Lord Falkland was deeply read in works of controversy; but in him they produced only strictness of principle, and an aspiration after perfection, without defacing the man in the exaltation of the scholar. In 1639, he joined the expedition against Scotland; and, in 1640, his peerage being Scottish, he was chosen member of the House of Commons for Newpier, Isle of Wight. In the first instance, like many of the most honourable characters of the day, he warmly supported Parliament. He spoke with severity against Finch and Strafford, and was so disgusted with the proceedings of Laud, that he concurred in the first bill for depriving the bishops of a vote in the house of lords. A strong attachment, however, to established forms, and some doubts of the ultimate objects of the parliamentary leaders, caused him to retract; and he afterwards strongly opposed the same measure. He still, however, kept at a distance from the court; but his high character of an unseemly platform, in order to gain him over to the king's service, that at length he was induced to accept a seat in the council, and the office of secretary of state. While in office, he refused to employ spies or open suspected letters. He very conscientiously embraced the party of the king; when hostilities commenced, and attended him at the battle of Edge-hill, and the siege of Gloucester. A view, however, of the evils impending over the country, and, very probably, a conviction of sinister objects on both sides, broke his spirits. He would frequently sit abstracted among his friends, and, sighing deeply, exclaim, "Peace, peace!" and exhibit every sign of grief and anxiety. His closing scene almost proves a determination to die in battle, as he volunteered his services at the battle of Newport, without a command, and, putting himself in the front rank of lord Byron's regiment, was struck from his horse by a musket-shot, which was found, the next day, dead up on the field.—Such was the fate of lord Falkland, at the age of thirty-four; and while the universal praises which he has received are, doubtless, very much owing to the elaborate character drawn of him by his friend Clarendon, the truth of the facts of that strict intimacy of his character and intentions. As a man of active talent, he claims little admiration, and was evidently framed for that life of studious retire-
ment and mental culture in which he so much de-
lights. One of his sayings marks his taste and char-
acter—"I pity unlearned gentlemen." Lord Falkland left behind him several published
speeches and pamphlets on political and theological
subjects, as also a few poems.

**CARYATIDES**; a kind of pillars, which represen-
t the upper part of female bodies. The name is of
Greek origin. The goddess Diana, who had a
temple in Karyatis, a Peloponnesian city, was, for
this reason, called Karyatis. In honour of her, vir-
gins danced in a festive procession, on the feast of
Karyatis, which suggested to architects the idea of
adapting some images of women in a kind of columns,
in which the parts which ornamented the Pantheon.
Thus Lessing explains the name and form of the Caryatides.

Another explanation of the origin of Caryatides is the fol-
lowing: The inhabitants of Carya, a city of Pelo-
ponnesus, allied themselves with the barbarians in
the Persian war. The Greeks, on the successful ter-
mination of that struggle, exterminated the males of
Carya, and reduced all the women to slavery. The
captives, as a farther mark of infamy, were forbidden
to lay aside the robes in which they had decorated
the conquerors' triumph; and the architects of the
three great temples of Athens, as a mark of disdai-
ness, made statues representing these women in the ser-
vile office of supporting entablatures.—For represen-
tations of Caryatides, see plate VI. fig. 7.

**CASA, Giovanni della**, an Italian poet and orator,
of an ancient and noble family of Mugello, near Flo-
rence, was born 1538, studied at Bologna, Padua,
Rome, and entered as an ecclesiastic, into the service
of the two cardinals Alessandro Farnese, the first of
whom, in 1534, ascended the papal chair, under the
name of Paul III. He rose through various offices
in the church, till Paul IV. made him his private se-
cretary. He died probably in 1550. His most cele-
brated work is *Gaiateo, ovvero de' Castumi*, to which
one, Degli usfizji, Comuni tra gli Amici Superiori e
Inferiori, forms a supplement. This last is a trans-
lation of his Latin treatise, De Officiis inter Potentio-
res et Tensiones Amicos. The best and most com-
plete edition of his works appeared at Venice, 1752,
in 3 vols. 4to.

**CASANOVA, Francesco**, a painter famous for his
battle-pieces, born at London, 1730, went, while a
boy, to Venice, where he applied himself to the art of
painting. He afterwards obtained admission into
the military and naval academies of that city, and
painted a number of pieces for the prince of Condé.
The spirit and liveliness of his colouring and execution cannot be surpassed. At the
request of Catharine of Russia, he painted, in Vi-
egni, a piece representing the victory of this princess
over the Turks, which she afterwards put up in her
palace. He was constantly occupied with his art,
and died at Brulh, near Vienn, 1805.—His brother,
John, likewise a painter, was born, 1720, at London;
died, 1795, at Dresden, where he was professor and
superintendent in the academy of painting, and had
instructed many able pupils in his art. His work on
the Ancient Monuments of Art, published in Italian,
and also in German (Leipsic, 1771), is still in esteem.

**CASANOVA, John James de Steinolt; eldest
brother of the preceding; born at Venice, 1725;
known by his Memoirs as an original and gay tem-
pered man, who acted an interesting part in all situ-
atations of which the Spanish nature of his mind,
falling on large cities of Europe. His various adventures are
related by himself in a most entertaining manner.
They were first published, in part, at Leipsic, 1826,
in a German translation. The French original has
since appeared. His father, Caietan John James, a
described in the Spanish fashion of life, and in
love with a dancer, turned actor, but afterwards
united himself with the daughter of a shoemaker, Fa-
nesi, who followed the profession of her husband.
James Casanova died 1762, and was a humble
ment of his education in Padua, and made rapid pro-
gress in the Latin language, as well as in the other
branches of learning. His ardent temperament, ear-
dly developed, soon, however, involved him in many
adventures that served to sharpen his observation and
enlarge his knowledge of human nature. He studied
law, and, in his sixteenth year, wrote two disserta-
tions; one, De Testamentis, the other on the ques-
tion, *Ursum Hebraei possint constructre novas Synaggo-
gas*. His talent for shining in society introduced him
at, and after, the court of France, in which he was
favored, but frivolous tone of manners prevailed.
The patriarch of Venice gave him the inferior ordina-
ration, and his first sermon was received with general ap-
plause; but he failed in his second; and from this
period commences his restless career, in which he be-
came entangled in a series of love adventures, that
may be understood only from his memoirs. He is ar-
rested in Venice, comes into personal contact with
pope Benedict XIV. at Rome, goes to Constantin-
ople, is in the military service at Corfu, and, in short,
visits all the principal cities of Europe, being con-
tinually commissioned with the business of the
Court, was followed and caressed, till at last he accompanies the
count of Waldstein to Dux, in Bohemia, where he be-
comes his librarian. He died at Vienna in 1803.
The escape of Casanova from the lead prisons of Ve-
nice was managed with admirable address and inge-
nuity. He has left several works in Italian and
French, which give proof of the great powers of this
Proteus, though he was more at home in the bustling
world than in the pursuits of learning. Of these may
be mentioned, *Confutazione della Storia del Goberno
veneto d'Amato de la Housaye, distrut in tre Parti
(Amsterdam, 1789) ; Istoria della Polonese della
Polonia della Morte di Elisabet Petrovena fina alla
pace fra la Russia e la Porta Ottomana, in cui si tro-
varo tutti gli Accennamenti Cogniti della Rivoluzione di
del Regno (Gratz, 1774, 3 vols.); Histoire de ma Fu-
ite des Prisons de la Repubblica de Venise, qu'on ap-
pele les Plombs (Prauge, 1759).* His memoirs are a
mirror of the manners of his time.

**CASAS, Bartolomew de las**, a Spanish pre-
late, was born at Seville in 1474, and in his nine-
teenth year, accompanied his father, who sailed with
Columbus, to the West Indies. Five years after-
wards, he returned to Spain, and, pursuing his stu-
dies, he became a distinguished member of the Royal
Order of the Cross, and accompanied Columbus in his second voyage to His-
paniola, and, on the conquest of Cuba, settled there,
and distinguished himself by his humane conduct to-
wards the oppressed natives, of whom he became, in
a manner, the patron. He set at liberty the Indians
who had fallen to his share in the division; and,
who much he was interested for them, that, in 1516, he
went to Spain to lay a statement of their case before
king Ferdinand, whose death, at that time, prevented
any measures for their redress. The regent, cardinal
Ximenes, however, appointed a commission to exa-
nine circumstances upon the spot, and to determine
accordingly. Las Casas was to accompany them, with
the title of protector of the Indians. The commis-
sioners found that it was impossible to liberate the
Indians, and therefore endeavoured to secure them
in their own homes, but to no purpose. On his return
he again returned to Europe, and, on the accession of
Charles V., in consequence of his representations, the council appointed a chief
judge to consider the state of affairs, and the cor-
respondence betwixt the partisans of Indian liberty and the colo-
nist's Las Casas, by a singular inconsistency, in his zeal for the Indians, became the author of the slave trade, by proposing to purchase Negroes from the Portuguese in Africa, to supply the planters with labourers, of the want of whom they complained; and this was unfortunately put into execution. He next applied for a grant of an unoccupied tract, in order to try his own plan with a new colony. This he at length obtained, and, with 200 persons, whom he persuaded to accompany him, landed at Porto Rico in 1521, but found that an expedition was advancing to ravage this very tract, and convey its inhabitants to Hispaniola as slaves. He endeavoured in vain to purchase the negroes from the few, who still adhered to him, to Hispaniola to solicit succour. During his absence, the natives attacked the colonists with such success, that, in a short time, not a Spaniard remained in that part of South America. Las Casas, in despair at the failure of his project, retired to the Dominican convent at St Domingo, and assumed the habit of the order. Notwithstanding his retirement, his zeal, in the cause of the Indians did not abate; and, being sent on a mission to Spain, by a chapter of his order at Chiapa, in 1542, he pleaded their cause with his pristine warm humanity, and contrived there until 1551, when he resigned his bishopric, and again returned to Spain. He died at Madrid 1556, in the nineteenth year of his age. Besides the treatise above-named, he was also the author of a treatise in Latin, on the inequity of profession; other sovereigns may in conscience, by virtue of any right, alienate their subjects from their crown, and transfer them to the dominion of any other lord?" which difficult question he treats with great freedom, spirit, and delicacy. He also composed several works which have never been published, among which is a General History of the Indies, which was a great assistance to Antonio de Herrera in his history. All his works evince profound learning, and solid judgment and piety; and, notwithstanding his great inconsistency in regard to the Negroes, he must be regarded as a very benevolent man, and a lover of mankind.

CASUAUBON, Isaac (commonly called Casaubon), born Feb. 18, 1559, at Geneva, of a family from Dauphiny, was educated by his father, a clergyman. In his ninth year, he spoke Latin fluently. In his nineteenth year, he entered the university at Geneva, where he studied jurisprudence, theology, and the oriental languages, and in 1582, succeeded Portus as professor of the Greek language. He here married the daughter of Henry Stephens, and published, every year, editions of Greek and Latin authors, with critical notes and translations. In 1599, he accepted his father's chair of Greek and Hebrew letters at Montpellier, but held it only two years. Henry IV. invited him to Paris. His religious principles (the same as those for which his father had left his country), the jealousy of the other professors, and perhaps his rather unyielding character, were the causes of considerable collisions, for which, however, he was indemnified by the title of royal librarian. After the death of Henry IV., he followed Sir Henry Wotton, envoy extraordinary from James I., to England, where he was received with distinction, had two benefices and a pension conferred on him, and died July 30, 1630. He was buried in Westminster abbey. Casaubon was a liberal theologian, a man of extensive learning, a good translator, and an excellent critic. As a critic, he has commented on Dionysius Laertius, Aristotle, Theophrastus, Suetonius, Persius, Polybius, Theocritus, Strabo, Dionsyiis of Halicarnassus, Athenaeus, Pliny the Younger, &c. Nearly all the ancient classics are indebted to his valuable researches. His profound dissertation on the satirical poetry of the Greeks and the satire of the Romans (De Satyra) deserves particular praise. His theological writings are of less value.

CASUAUBON, Maxic, son of the preceding, born at Geneva, 1599. He followed the same path of study by his learning and piety. He followed his father to England and was made doctor of divinity at Oxford. He filled successively several offices in the church, when the revolution, which brought Charles I. to the scaffold, deprived him of his income. Still he rejected the proposal of Cromwell to write the history of his time, as also the invitation of queen Christina to live in Sweden. On the return of the Stuarts, he was rewarded for his loyalty by restoration to his office in the church, which he held till his death, 1671. His learning was various and extensive, but not so profound as his father's. He published, besides his theological works, observations on several classical authors; e.g., Terence, Epictetus, Florus, Polybius, &c.

CASCO BAY; a bay in Maine, between cape Elizabeth on W. S. W. and cape Small Point on E. N. E. Within these capes, which are about 20 miles apart, there are about 300 small islands; most of which are cultivated, and are much more productive than the main land on the coast of Maine. Portland harbour is on the W. side of the bay.

CASE, ACTION UPON THE: Actio super causam is a general action, given for the recovery of a wrong done any man without force, and not especially provided for by law, in order to have satisfaction for damage. This is called an action on the case, because the whole cause or case is set down in the writ; and there is no other action given in the case, except where the plaintiff has his choice to bring this or another action. This action lies in a variety of instances; as for words spoken or written, which affect a person's life, reputation, office, or trade, or tend to his loss of preferment in marriage or service, or to his disinheritance, or which occasion him any particular damage. Action on the case, likewise lies upon an assumption (q. v.). It lies also, in all instances wherein no general action could be framed; e.g., against carriers; against a common innkeeper, for goods stolen in his house; for deceit in contracts, bargains, and sales; for neglect or malfeasance; for injuries done in commons; for malicious prosecution and false arrests; against sheriffs, for default in executing writs, permitting escapes, &c.; for conspiracy, nuisances, &c. &c.

CASE, in grammar. See Language.

CASE-HARDENING is a process by which iron is superficially converted into steel, in such articles as require the toughness of the former, combined with the hardness of the latter substance. The articles intended for case-hardening are first manufactured in iron, and are then placed in an iron box, with vegetable or animal oils in powder, to undergo cementation. Immersion of the expiring unfinished steel in oil which is afterwards polished. Coarse files and gun-barrels are among the articles most commonly case-hardened.

CASEMATES (from the Spanish casa, a house and water, to kill), in fortification; vaults which are proof against shot. In July, the main wall was particularly in bastions, for the purpose of defending the most of a fortification, also for making countermines.
CASE-SHOT—CASHMERE.

They serve, at the same time, as a place for keeping the heavy ordnance, and, in case of necessity, as ball ammunition.

CASE-SHOT, in artillery, is formed by putting a quantity of small iron balls into a cylindrical tin box, called a canister, that just fits the bore of the gun. In case of necessity, the canister is filled with broken pieces of iron, nails, stones, &c. The case is closed by a cover of strong wood, and this work of wood is drawn from canoons and howitzers. In sieges, sometimes, instead of cases, bags are used. This kind of shot is very injurious to the enemy, because the balls contained in the canister spread, diverging in proportion to the distance. The amount of divergence is, to the distance which the shot reaches, generally in the proportion of 1 to 10; thus, at the distance of 500 paces, they make a circle of 60 paces diameter. The canisters used in the Prussian army contain balls of 1, 1.2, 1.3, 1.4, 1.5, 1.6, and 1.8 inches of 1 pound. The distance which the shot will reach varies according to the weight and number of the balls. A six-pounder shot contains balls of 1 ounce from 200 to 500 paces; twelve and twenty-four-pounders shoot balls of 1 pound 300 to 1000 paces. The number of the balls varies according to their weight.

In another colour, now a province of the Afghan state of Cabul, in Asia, is a very celebrated valley, surrounded by the gigantic mountains of Asia, the Himalaya and Hindoo Koh, and traversed by the river Belat or Chelum (formerly Hydaspes). It embraces about 17,291 square miles, and contains about 9,000,000 inhabitants. From three sides, seven passes only lead to this region; to the east, the Himalaya presents an insurmountable barrier of snow. The splendour and sublimity of the daydreams of snow-capped mountains, the beauty and richness of the hills, which form the ascent to the higher peaks, if it is impossible to reach, generally in itself the situation of the valley, and the mountains of snow which surround it, render the climate rather cold; but it is, on the whole, moderate and mild. This region, so rich in romantic scenery, is watered by numerous streams, and is blessed with an abundance of the most productive return. The hills, therefore, call it the paradise of India, the flower-garden, and the garden of eternal spring. The hills are covered with forests and Alpine pastures; at the foot of these are fields of corn; along the sides of the rivers, rice is planted; rich orchards extend over the forested ranges of hills; mulberry trees are cultivated in abundance, for the support of silk-worms. The trees are entwined with vines, from whose grapes wine, very similar to Madeira, is prepared. The fruits of warm climates do not ripen here. The valley is famous for its flowers, with which all the gardens and meadows abound. Violets, roses, narcissuses, and innumerable European flowers, besides many that are not known in Europe, grow wild. The inhabitants are Hindoos, of the religion of Brahma, although they are under the dominion of the Afghans, who profess the Mohammedan religion. Their language is a dialect of the Sanscrit. They manufacture their celebrated shawls in great perfection. The wool which they use for this purpose comes from Thibet and Tartary, in which countries, only, the goat, from which it is taken, is said to thrive. About 80,000 shawls are made yearly, in 16,000 looms, each of which employs three or four persons. The length of these shawls is 9 feet, 10 inches, and the width of the wool is 1 foot, 6 inches. Thibet, or Tcheu, the name of the largest town in the whole empire of Afghanistan, is situated on the Belat, and contains 200,000 inhabitants.

Cashmere Goat, a nobler species of the common goat, is descended from the goat of Thibet, which pastures on the heights of the Pyrenees. The Thibetan goat is subject to sudden changes. There is little rain, but much snow, as the cold in winter is below the freezing point. Thibet is situated at the northern descent of the Himalaya mountains, at the southern; hence the latter is a little warmer than Thibet. In Thibet, this goat is a domestic animal. It is not allowed a very luxuriant pasture. The favourite food of these animals is buds, aromatic plants, rue, and heath. The people of Thibet give their goats a kind of corn called the case-shot, which has always proved a useful accompaniment to the customary food of these animals. If they are transferred from their cold, mountainous abode into a warmer country, the natural consequence follows, that the wool becomes inferior in quantity and fineness. It grows also, very slowly in the warm part of the year, and more vigorously as the cold season approaches. The head of the Asiatic goat is large, the horns situate backwards, and somewhat curved, the legs slender. The colder the region where the animal pastures, the heavier is its fleece. Proper food and careful tending increase the fineness of the wool. Yearlings, as in the case with the Merino sheep, afford the finest wool. A full-grown goat yields not more than eight ounces. The goats which pasture in the highest vales of Thibet have a bright yellow wool. In lower grounds, the wool becomes of a yellowish white, and, still farther downwards, entirely white. The highest mountains of the Himalaya, inhabited by man, contain also a kind of goats with black wool, which, in India, and in the mountainous country of the goats, obtains the highest price, as a material for shawls. The goats of Thibet and Cashmere have the fine curled wool close to the skin, just as the under-hair of our common goat lies below the coarse upper-hair. The wool is shorn in the spring, shortly before the warm season—the time when the animal, in its natural state, seeks thorns; they grow and hedges, and are gathered as a tallow by the Vole, and shorn. The wool is three times dyed—before carding, after carding, and in the shawl. The Asiatics avoid spinning the wool hard, in order that the shawl may be soft. They use a spindle, which consists of a ball of clay, with an iron wire attached. The finger and the upper part of the thumb of the lover were bent by machine powder. A large shawl, of the finest quality, requires 5 pounds of the wool; one of inferior quality, from 3 to 4 pounds. Main, in London, has invented a machine, which spins this wool, in a very simple way, finer than can be done by the best spindles of Thibet, and, at the same time, of a firmer thread. The fleece of the Cashmere goat tastes as well as that of the common one; and its milk is as rich, if it is well tended. Since 1820, this species has been introduced into France, and succeeds very well. The enterprising baron Tenaux (q. v.) ordered 1829 of these goats to be brought to France (1850), under the care of the celebrated professor of Oriental languages in Paris, Amadée Joubert. Joubert found these goats already spread from Cashmere to the Ural, over Bucharia, in Independent Tartary, purchased them in the deserts there, and transported them over the Carpathians to Thibet, via Kars, in the Crimea, where they were put on board vessels to be carried to France. On the voyage, which lasted a long time, a great number died: there remained, however, more than 400 healthy animals, which were sent from Toulon and Marseilles, partly to the markets of Thibet, partly to those of the northern part of France, and to the pastures of Alsace and Rambouillet.
CASHNA, or CASSINA, or KASSINA; a city in Africa, capital of a kingdom, between Bornou and Timbuctoo; 220 miles W.N.W. Bornou, 600 E.S.E. Timbuctoo; lon. 11° 34' E.; lat. 16° 30' N. A large proportion of the country of Cashna consists of land of great fertility, interspersed with arid wastes. Cashna is subject to 60 towns and villages. The monarch is called sultan of all Soulian, i.e. Negroland. The principal articles of traffic are senna, gold dust, slaves, cotton clothes, goat skins, ox and buffalo hides, and rice. Cashna has no salt lakes or mines, but is supplied with salt from Bornou.

CASSIOPE, in ancient mythology, was a beautiful and valiant girl, the daughter of Oceanus and Gorgone. She had a son, Perseus, by Jupiter, who was afterwards taught the arts of navigation and valiant sports. The coast of Cassiope is washed by an ocean of a beautiful green, the waters of which are very valuable, occupy and train many seamen. The coasts are divided among the Russians, Persians, and Tartars. The Cassian sea is 375 feet lower than that of the ocean. The Truchmenes, on the shores of the Cassian sea, assert, that the lake Kuli-Daria, which is connected with the gulf of Karabogaskoi, a part of the Cassian sea, contains a whirlpool, which takes in the water of the gulf of Cassian and plunges it into the Caspian sea; and the Cassian sea is very great. The most recent information respecting the shores of the Cassian sea is that given by Muraview in his Journey to Khiva, in the year 1819, in Russian.

CASSIAN, in Germany, is used to signify a church-town. There are now to be found in almost every place of mingling population.

CASSIRI, Michael, a learned Orientalist and Syro-Maronite clergyman, was born at Tripoli, in Syria, 1710, came to Rome, where he studied in the college of St Peter and St Marcellino, and, in 1734, entered the clerical profession. The following year, he accompanied the learned Assemanni to Syria, where he was going, at the command of the pope, to attend the synod of the Maronites, and, in 1738, gave, at Rome, an exact account of the religious tenets of the Maronites. He afterwards taught, in his monastery, the Arabic, Syrian, and Chaldean languages, theology and philosophy; and, in the year 1748, was invited to Madrid, where he was appointed to an office in the royal library. In 1749, he devoted his attention, by the king's orders, to the library of the Escorial, of which he subsequently became the superintendent. Here he collected the materials for his celebrated work, Bibliotheca Arabeo-Hispana (Madrid, 1769—70, 2 vol., folio), which enumerates, in 1851 articles, the manuscripts of the Escorial library, perhaps the richest in Europe in Arabic manuscripts. This work, though not entirely free from some mistakes, contains very correct and valuable extracts, and is indispensable to every Orientalist. Casiri died at Madrid in 1791.

CASPINIAN SEA; a large lake or inland sea, in Asia; bounded N. by Russia, E. by Tartary and Persia, S. by Persia, and W. by Persia, Circassia, and Russia; 646 miles in length from N. to S., and from 100 to 205 in breadth; supposed to be the largest lake in the eastern part of the globe. The water is less deep than the Mediterranean, but the shores are less fertile and the banks less elevated than in the latter sea, one of an other colour, without ebb or flow. In some places it is exceedingly deep, yet it abounds in shallows, so as to prevent the navigation of ships that draw more than nine or ten feet of water. Among the rivers which flow into it are the Volga, Ural, and Kur. It is calculated that the account of the fish, which is very valuable, occupy and train many seamen. The coasts are divided among the Russians, Persians, and Tartars. The Caspian sea was, by the ancients, called the Hyrcanian sea; the Tartars call it Akdingis, i.e. the White sea; the Georgians call it the Kartlishtsnian sea; and by the Persians it is styled Gerson. The level of the Caspian sea is 375 feet lower than that of the ocean. The Truchmenes, on the shores of the Caspian sea, assert, that the lake Kuli-Daria, which is connected with the gulf of Karabogaskoi, a part of the Caspian sea, contains a whirlpool, which takes in the water of the gulf of Caspian and plunges it into the Caspian sea; and the Caspian sea is very great. The most recent information respecting the shores of the Caspian sea is that given by Muraview in his Journey to Khiva, in the year 1819, in Russian.

CASSANDER, George, born in 1515, in the island of Candia, or Cassand, near Bruges, in the Netherlands, from which he received his name, is celebrated for his endeavours to settle the differences between religious parties. At Bruges, Ghent, and Cologne, he studied, and, afterwards taught philosophy, the canon law, and Catholic theology, but accepted no office, on account of his ill health. In 1561 he published a work designed to alloy religious disputes, in which his censure of Calvin for violence and intolerance, drew upon him the attacks both of Calvin and Beza. In 1564, he was employed by the duke of Cleves to convert the Anabaptists. The emperor Ferdinand I, invited him to Vienna, to compose articles of union between the Catholics and Protestants. These he published, under Maximilian II., the successor of Ferdinand—De Articulis Religiosis inter Catholicos et Protestantas Controversiae ad Imp. Ferd. I., et Max. II., Consul- tationes (1567). After the death of Emperor Charles V., he became a Catholic, and founded his opinions on the doctrines of the old Christian fathers, and showed his concurrence with the Protestants, in regard to fundamental doctrines, by proposing communion under both forms, the marriage of priests, the abolition of image-worship, the reform of many abuses, and a modification of the Catholic system. But he asserted the supremacy of the pope, supported the doctrine of transubstantiation, and the importance of the sacrament, opere operato. His proposals were not relished by the zealots of either party. He died at Cologne, in 1566, with the reputation of a learned and liberal theologian.

CASSANDRA, also ALEXANDRA; daughter of Pram and Hecuba, and twin-sister of Helenus. Both children, according to tradition, were playing in the vestibule of the temple of the Thymbraean Apollo, not far from Ilium, and, having strayed too late to be carried home, a couch of laurel twigs was prepared for them, for the night, in the temple. When the nurses went to them the next morning, they found two serpents at the side of the children, which, instead of injuring them, harmless licked their hands; one of the great information; the other one; the hearing of the children was rendered so acute, that they could distinguish the voices of the
CASSATION. 81
gals. Cassandra subsequently spent much of her
time in the temple of Apollo, who, having un-
mouled of her charms, disclosed to her all the secrets
of the prophetic art, and, in return, demanded her
love. But Cassandra, when her curiosity was satis-
fied, refused the dishonourable reward. Apollo, in-
cenced at this, put a curse on her prophecies, that
they should never bring good, and continually foretold
the destruction of Troy, and warned her countrymen in
vain against the deceitful horse. When Troy was conquered, and Cassandra,
with the other maidens, fled to the temple of Minerva,
Ajax tore her from the altar, deflowered the virgin in the
sacred place; and in revenge, she committed suicide, and
murdered her female slaves, with her hands tied. On the division
of the booty, she fell to Agamemnon, who carried her,
as his slave and mistress, to Mycenae. Clytem-
nestra murdered them both. Agamemnon had twins
by her—Telephus and Pylades. The ancients re-
garded this rape of Cassandra as a most infamous atrocity.
It has often afforded a subject to poets and
sculptors. The Locrians, the countrymen of Ajax,
were afflicted, on this account, for many years, with
storms, and their country was desolated with the
plague.
CASSATION; a term used in the courts on the
continent of Europe. It is derived from the middle
ages, and signifies the annulling of any act or
decision, if the forms prescribed by law have been neg-
l ected, or if any thing is contained in it contrary to
law.
Cassation, Court of (Cour de Cassation); one of the
most important institutions of modern France, which
gives to the whole jurisdiction of that country cohe-
rence and uniformity, without endangering the neces-
sary independence of the courts. It was established
by the first national assembly, and has been preserved,
in every essential respect, under all the changes of
the revolution and restoration. It has been main-
tained even in those districts which, by their union
with France, became subjected to French laws, but,
by the peace of Paris, have become part of the Prus-
sian monarchy. In France, as early as the reign of
Louis IX. (1226—1270), petitions were presented to
the king by appellants from the decisions of the courts.
In later times, appeals to the parliaments, as the
highest courts of the kingdom, came into use, and
their decisions were not liable to be set aside by
the ordinary forms of law. Yet the parties were al-
lowed to dispute even these decisions, if they were
found to be contrary to the principles of law; and, by
an ordinance of 1302, it was provided, that the parties should be allowed royal
letters for the defence of their rights against the de-
cisions of the supreme courts (lettres de grâce de dire
coutre les arrêts), which should be issued from the
chambers (by the chancellor of France). The case
was then sent back to the parliament for further in-
vestigation, but was examined and decided in the
presence of the king himself, or of a special commis-
sioner. An abuse, however, crept in, of transferring
des cases to the royal council, where they were de-
cided by officers called maîtres des requêtes. These
letters received the name of lettres de proposition
d’erreur, and, during the civil commotions at the end
of the fourteenth century, began to be more fre-
quently presented to the council, which, as soon as
one party complained of the partiality of the parlia-
mentary judges, and desired to have the de-

structed the course of justice by lettres d’évit (sus-
pesions of the process, on the pretext of the ab-
sence of one of the parties in the service of the king).
Under the chancellor Payet (1358—1412), this abuse
reached its highest pitch; but the chancellors Olivier
(1543—1591) and Hospital (1560—1568) the two
greater reformers of French jurisprudence, limited the
use of these officiels, till, by the decree of Charles IX.
(1576), all the provisions against the decisions of the
parliaments were reduced to these three:—the pro-
duction d’erreur, for an error of fact; requête civile, to
restore the parties to their former condition, on
account of the fraud of one of the parties, or the mis-
facts of the parliament; and subjuration (petition for
abrogation), for violation of forms or settled princi-
plcs of law. By the famous order of procedure of
1667, the first of these provisions was abolished, but
the province of the requête civile and cassation was
enlarged, and more precisely defined. The former
was always brought before the council; the latter was
decided there, the latter before the council. For this
purpose in the conseil privé, or cons. des parties, a
particular committee was formed, consisting of the
chancellor, the four secretaries of state (ministers of
the departments), the council of state, and all the
maîtres des requêtes (1729, seventy-eight in num-
ber). The decisions of this committee were too
much influenced by the will of the king and the min-
isters, and by various other circumstances, so that
they did not enjoy great respect, though they often
exposed acts of great injustice on the part of the
party of the state. The higher courts of cassation
were abolished in the first national assembly, and its place
supplied by an independent court—*the tribunal of
 cassation (law of Nov. 27, 1790), which was retained
in all the constitutions, and received, under the
imperial government, (1804), the name court of cis-
sation, which it still retains. It consisted, according to
the organization of 1800, of forty-eight members,
chosen from the senate, on the nomination of the
consuls, who elected their own president from among
themselves. The appointment of president was after-
wards vested in the emperor. In the Chartie Consti-
tutionelle of 1814, the right of appointing the coun-
sellores was vested in the king; but they are not re-
moveable. The minister of justice, or keeper of the
seals (garde des sceaux) has the right of presiding
when the tribunal exercises its right of censorship
over the cours royales; it has, besides, a first presi-
dent and three presidents of sections. This court
never decides on the main question at issue, but on
the competency of the other courts, and on the peti-
tions to have their decisions reviewed or annulled,
and assigns the question to another court, if a deci-
sion is to be set aside for an evident violation of the
forms or the principles of the law. For this purpose
it is divided into sections of appeal (ministeriques
ou requêtes, which decides on the admissibility of the
petitions in civil cases; the section de cassation civile;
and the section de cassation criminelle. After a de-
cision has been reversed, if a second court decides
the same case in the same way, and an appeal is en-
tered again, the court of cassation must either request
an authentic explanation of the law from the govern-
ment, or, at least, all the three sections must unite
to pronounce a second reversal, or cassation; and if
a third decision is the same as the preceding, a re-
peated petition for a reversal makes the authentic
explanation indispensably necessary. The sentences
of the court of cassation are not only recorded in the
journals of the courts, the decisions of which are re-
versed, but published likewise in an official bulletin,
by which consistency and uniformity are preserved.
The tribunal of cassation has enjoyed, from its com-
 mencement, considerable respect and influence, and
numbers among its members several of the most
distinguished lawyers; as the president Henion de
Pansey, the counsellors Chabot, Merlin, and Carnot.
For the Prussian province on the Rhine (the dis-
 tricts of Cleves, Dusseldorf, Coblenza, Aix-la-Cha-
pelle, Trevos, and Cologne), by the ordinance of
To the French courts, the latter the French tribunals of original jurisdiction). See Appeal; Writ of Error, and Courts.

CASSAVA, or CASSADA. The cassava or cassada (jatropha manihot) is a South American shrub, about three feet in height, with a whitish, slightly fleshy, and somewhat hand-shaped leaves, and beautiful white and rose-coloured flowers. It is a very remarkable circumstance, that the roots of the cassava, if eaten raw, are a fatal poison, both to man and beast, and that, when prepared by heat, they yield a safe and valuable food; on which, indeed, many both of the Indian and European inhabitants of South America, almost wholly subsist. The roots are the only edible parts of the plant. These are white, soft, and farinaceous, from one to two feet in length, and five or six inches in circumference. They are dug out of the earth, washed, stripped of their rind, and ground to a pulp, which is poisonous, or, if carefully pressed out, and thrown away; since cattle and other animals, which have accidentally drank of it, have almost instantly died. The flour that remains after pressure, is formed into thin, round cakes, and baked. To a European, accustomed to eat bread, these, though sweetish and not unpalatable, have an insipid taste. If placed in close vessels, and preserved from the attacks of insects, cassava bread may be kept for several months without injury. With the natives of South America, it is not unusual to throw a great number of cakes of cassava together to heat; after which they soak them in water, which causes a rapid fermentation to take place; and, from the liquor thus obtained, they make a very sharp and disagreeable, but intoxicating beverage, which will not keep longer than twenty-four hours without spoiling. From the pure flour of cassava is formed the substance called tapioca, which is frequently used for jelly, puddings, and other culinary purposes. This is separated from the fibrous part of the roots by taking a small quantity of the pulp, after the juice is extracted, and working it in the hand till a thick, white cream appears on the surface. This, being scraped off and washed in water, gradually coalesces to the bottom. After the water is poured off, the remaining moisture is dissipated by a slow fire, the substance being constantly stirred, until, at length, it forms into grains about the size of sago. These become hard by keeping, and are the purest and most wholesome part of the cassava. The roots of another species of this shrub, called sweet cassava, are usually eaten with butter, after being roasted in hot ashes. They have much the flavour of chestnuts, and are an agreeable and nutritious food.

Cassel, the residence of the elector of Hesse-Cassel, lies on the Fulda; lat. 51° 19′ 29″ N.; lon. 9° 33′ 18″ E.; and has 15,590 houses and 23,200 inhabitants, among whom are 600 Jews. One part of the city is quite regular. The river Fulda is navigable at this place. The situation renders the climate pure and healthy. It has nineteen squares, nine churches, and many public buildings, containing highly valuable libraries; the collection of which is of are... &c. The gallery of paintings contains some famous masterpieces. An observatory is likewise situated here. The city was much embellished under the government of Jerome, king of Westphalia, whose commandant, General Goeben, took possession of it, Nov. 21, 1813. About a league distant is the summer palace, called Wilhelmsnake. Cassel has considerable manufactories.

Cassel (Hesse-Cassel). See Hesse. Cassia. Wild cinnamon, or cassia, is the bark of a tree of the bay tribe (larrea cassia), which grows wild in the desert portion of the district country, and distinguished by having spear-shaped leaves, each with three nerves. This bark was well known to the ancients, and highly esteemed by them. But since the use of cinnamon has been generally adopted, the cassia bark has fallen into disrepute, on account of its inferiority. It is thicker, more coarse, and inferior in quality, and abounds more with a viscid, mucilaginous matter. For many purposes, cassia, as being much less expensive, is substituted for cinnamon, but more particularly for the preparation of what is called oil of cinnamon; and nearly the whole of what is at present sold under the name either of simple or spirituous cinnamon waters, is prepared from cassia. The buds as well as the bark of this tree are used in cooking, &c. Cassia is imported mostly from China.

Cassina. See Cashna.

Cassini; a name famous in the history of astronomy and geography for three generations.

1. Giovanni Domenico Cassini, born 1625, at Perinaldo, near Nice, studied at Genoa with the Jesuits. Chance turned his attention to astronomy, in which he made such rapid progress, that, in 1650, the senate of Bologna bestowed on him the first professorship of astronomy at the university. A meridian had been drawn by Ignazio Dante (1573), in the church of St Petronia, in that city. In 1653, Cassini conceived the idea of extending and correcting it. In two years he completed this difficult task, the first fruits of which were more correct tables of the sun, a more precise determination of its parallax, and an improved scale of refractions. By an observation at Citta della Pieve, he discovered the shadows cast by the satellites of Jupiter on the disk of that planet, when they are between it and the sun. By means of these, he corrected his theory of the motion of the satellites, and determined the period of Jupiter's revolution. At the same time, he made a number of observations on the orbits, which were published by Aldrovandi. In 1658, he published his Ephemerides of the Satellites of Jupiter. In 1673, Colbert prevailed on him to settle in France. He discovered four new satellites of Saturn, and the zodiacal light proved that the axis of the moon is not perpendicular to the ecliptic, but inclined by the amount of her libration. The laws of this motion, which he determined with much accuracy, are one of his finest discoveries. He also wrote observations on the Indian calendar. The meridian commenced by Picard and Lahire was continued by Cassini, in 1700, to the extreme limits of Russia, and, when measured 100 years later, showed a difference of only twenty-one toises. He died Sept. 14, 1712, laving lost his sight some years before. Lalande gives a catalogue of his writings in the Bibl. Astronom. His first work was Obser. Comet., Anni 1652-53 (Modena, 1653, fol.). His Op. Astronom. (Rome, 1669) contains a collection of his earlier works. His nephew, Cassini de Thury, has published his biography, written by Cassini himself, under the title Mémoires pour servir à l'Hist. des Sciences (4to).

2. James, son of the preceding, born at Paris, Feb. 18, 1646. At nineteen, he joined the academy of sciences in 1664. After several essays on subjects in natural philosophy, &c., he completed his great work on the inclinations of the orbits of Saturn's satellites and ring. His labours to determine the figure of the earth (q.v.) are well known. The mathematical work of 1693 made the degree of the meridian shorter towards the north than towards the south; whence it
was concluded that the earth was an oblong sphe-
roid. Cassini continued the measurement, and main-
tained this opinion in his work De la Grandeur et de
la Figure de la Terre (Paris, 1720). In order to settle
the question, the academy was commissioned, in
1733, to measure the whole length of France from
Brest to Strasburg. Cassini directed this undertak-
ing, but was led into some errors by the defective
instruments of former observers. He died in 1756,
at Thury. Besides the above mentioned works, he
wrote Elements d’Astronomie (Paris, 1740, 4to), and
Tables Astr. His eloge in the Mem. de l’Acad.
contains a biographical notice of him.

4. Jacques Dominique, count, son of the pre-
ceding, born June 14, 1714, member of the academy
of his twenty-second year. He undertook a geo-
metrical survey of the whole of France, embracing
the determination of the distance of every place from
the meridian of Paris, and from the perpendicular of
that meridian. When the support of the government
was withdrawn, in 1756, Cassini formed a society for
advancing the requisite sums, which were to be re-
paid by the sale of the maps constructed from the
survey. The work was almost entirely finished,
when he died (1784), leaving many writings relating to
his former undertaking.

5. François, son of the pre-
ceding, born June 14, 1714, member of the academy
of his twenty-second year. He undertook a geo-
metrical survey of the whole of France, embracing
the determination of the distance of every place from
the meridian of Paris, and from the perpendicular of
that meridian. When the support of the government
was withdrawn, in 1756, Cassini formed a society for
advancing the requisite sums, which were to be re-
paid by the sale of the maps constructed from the
survey. The work was almost entirely finished,
when he died (1784), leaving many writings relating to
his former undertaking.

6. Jacques Dominique, count, son of the pre-
ceding, born at Paris, 1740, was director of the observatory,
and member of the academy, and was a statesman of
ability, as well as a mathematician. In 1789, he
presented to the national assembly the Carte Topo-
graphique de France, in 180 sheets, now increased to
182, by the addition of the Carte des Assemblages
des Triangles. The Atlas Nationale is a reduction of
it on a scale of one-third, prepared by Dumey,
and other engineers. Cassini was arrested by order
of the revolutionary tribunal. He escaped with life,
but lost the correspondence of the Carte de France,
which had cost half a million francs. There is a
second reduction of the large map, being only a
fourth of the size of the original, in twenty-four plates.

CASSINO; a game at cards, in which four are
dealt to each player, four being also placed on the
board. The object is to make as many cards as pos-
sible, by making combinations. Thus a ten in the
player’s hand will take a ten from the board, or any
number of cards which can be made to combine into
tens. The greatest number of cards reckons three
points, and of spades, one; the ten of diamonds,
two; the two of spades, one; and each of the aces,
one.

CASSIDORUS, Marcus Aurelius, a learned
Roman, lived at the time of the dominion of the
Ostrogoths, and contributed to the promotion and
preservation of learning. He was born at Squillace
(Seglancum), 480 A.D., or, as some say, 470, filled
several public offices in Rome, and became secretary of
the Ostrogoth king Theodoric, but, in 537, volun-
tarily retired to a monastery in Calabria, where he
died, 577. He made the monks of his convent copy
the manuscripts of the ancient authors, and his book
De Septem Disciplinis Liberalibus, in which he treated of
the trivium and quadrivium, and inserted extracts
from the ancient classic literature, was of much
value in the middle ages. For Theodoric he also
wrote his compilation of letters, Variorum Epistolae-
rum Libri XII. He likewise composed Historia Gno-
obrasica, in which, among other things, he
wrote an epitome by Jornandes, and several theological
works of little importance. His works have been
collected by J. Caret (Venice, 1670, fol.; new edit.
1721).

CASSIOPEIA, in mythology: daughter of Amb-
bus, and wife of Cepheus; to whom she bore Ard-
med. She dared to compare her beauty to that of
the Nereids, who, enraged thereat, besought Nept-
une for vengeance, and he sent a sea-monster, in
form of Cepheus by means of a deluge and a
dreadful sea-monster. Thus it appears that in
ancient times, as well as in modern, nations have
to suffer for the faults of their masters. Cassiopeia
was the mother of Atysimus by an intrigue with
Jupiter. In astronomy, Cassiopeia is a conspicuous
constellation in the northern hemisphere, situated
two places away from Cepheus. In 1572, a new and brilliant star
appeared in it, which, however, after a short time,
gradually diminished, and at last disappeared entirely.

It was thought that this time, by the power of
Cassiopeus, this was the star which appeared to the wise men
in the East. The constellation Cassiopeia contains fifty-two stars of the first six magnitudes.

CASSIQUARI; a river of Colombia, being a
large branch of the Rio Negro, and remarkable as
forming a communication between the two great
gners, the Amazon and Orinoco. The Cassiquari
flows from the Orinoco, and joins the Rio Negro,
which last is a large tributary of the Amazon. The
reality of this communication, which had been pre-
viously asserted by the Jesuit missionaries, was con-
firmcd by the expeditions of the French navigators.

CASSITERIDES, in ancient geography: a name
given by Strabo to ten islands, N. W. of Spain, in the
open ocean, abounding in tin and lead. Strabo
says the Phoenicians only visited them. There
are no islands where he describes them to have been.
They are, perhaps, the modern Scilly islands.

It is probable that the ancient merchants kept their true
situation secret from interested views, which, in those
times, could easily be done.

CASSIUS, Longinus Caes., the friend of Brutus,
was the questor of Crassus, and preserved the few
troops of that general which escaped from the bloody
battle with the Parthians. With these he defend-
Syria against the Parthians till the arrival of Bibus.

In the famous civil war that broke out between
Pompey and Caesar, he espoused the cause of
the former, and, as commander of his naval forces,
rendered him important services. When Caesar, after
the victory at Pharsalia, was in pursuit of Pompey,
he advanced with a few vessels, while crossing the
Hellespont, against a fleet of seventy sail commanded
by Cassius, and called upon him to surrender.
The latter, astonished by his daring courage, surrendered
his vessels, but his summits were consumed. But, when it
was found that Caesar was aiming at sole sovereignty, Cassius, who
was a zealous republican, resolved to destroy the
usurper, and executed his plan, with the aid of seve-
rall fellow conspirators, B. C. 44. He then, together
with Brutus, raised an army to maintain his country’s
freedom. They were met by Octavius and Antony,
who professed themselves the avengers of Caesar, at
Philippi. The wing which Cassius commanded be-
ing defeated, he imagined that all was lost, and
killed himself, B. C. 42. Brutus called him the last
of the Romans. See Brutus and Caesar.

CASSOWARY (Casuarius, Bris.): a genus of
birds, arranged by Cuvier in his family Alcphenius,
the first of the order Grallata, waders, to which they
are related solely by their long, naked, still-like
legs, and long neck.

In the form of the bill and their mode of living, they more closely resemble the
gallinaceous birds, the shoulder-blades having
the shape of wings, and the wing-muscles entirely	unites them for flying, and it would seem
impossible for nature to have furnished muscular
power sufficient to move wings large enough to
sustain their great weight in the air. Unlike other
toes, their pectoral or wing-mussels are powerful,
while those of their pos-
terior limbs are very robust and powerful. The
wings of the ostrich are of some assistance to it in running, but those of the cassowary are too short even to be of service in this way. Indeed, its whole plumage is so poorly supplied with feathers as to resemble, at a little distance, a coat of coarse or hanging hair. The cassowaries have three toes, all provided with powerful claws, and one hind toe, incised by an osseous prominence, covered with a sort of horny helmet; the skin of the head and superior part of the neck is naked, of a deep-blue and fiery-red tinct, with pendent caruncles, similar to those of the turkey-cock. There are some naked, rigid quills on the wings, which are used as weapons of defence.

The inner toe-nail is the largest of all. The ostrich is the only bird which surpasses the cassowary in size and strength. From the form of its head, and bright eyes, the cassowary is of a fierce and threatening aspect. This, however, is not a true indication of his character, for he is, in future, a timid and peaceful bird. It has a neck about five and a half feet long, from the tip of the bill to the extremity of the longest claw. The head and neck together measure eighteen inches, and the largest toe, including the claw, is five inches long. The claw of the inner toe is three and a half inches long. All the feathers of the cassowary are of the same kind, being entirely designed for covering, and externally are all of one colour. They generally grow double, having two long shafts growing out of a short one attached to the skin. The double feathers are all of unequal length, some on the rump being twelve inches long, and others only three. The stem or shaft is flat, shining, black, and knotted below, having a beard arising from each knot. The beards at the ends of the large feathers are perfectly black, and towards the root of a tawny grey. The feathers on the head and neck are so short and scattered, that the skin appears naked, except towards the hind part of the head, where they are somewhat longer. The wings, without the feathers, are not more than three inches long. The rigid quills or prickles already mentioned are five; the longest is eleven inches in length, and a quarter of an inch thick at the base. The helmet is black in front, and yellow behind. The eye is of a bright yellow, and more than an inch in diameter.

The anatomy of the cassowary differs very materially from that of the ostrich, which it resembles so much in general appearance and habits. The intestines are short, and the cæcum small; there is no stomach intermediate to the crop and gizzard, and the cloaca is not larger, in proportion, than that of other birds. It feeds on fruits, eggs of birds, &c., but never on grain. It swallows its food with great voracity, and, like the ostrich, bolts down bits of iron, broken brick, glass, &c., without injury. In fact, such substances perform the service, in the digestion of these great birds, that gravel does in that of ordinary fowls.

As might be inferred from its structure, the cassowary is a swift runner, and its mode of progression, being unaided by wings, is as peculiar as it is efficient. In running, the cassowary appears to strike out powerfully with one leg, so as to project its body violently forward with a bounding motion, far surpassing the speed of a horse. It also kicks violently when in a state of captivity, it is provoked to anger, and can inflict a very severe wound. The eggs of the galedated cassowary are of a greyish-sal colour, verging to green, and are neither as round nor as large as those of the ostrich. The shell is not very thick, and is marked by numerous little deep-green tubercles. The largest of their eggs measure about fifteen inches in length, and twelve round.

The emu, or New Holland cassowary, differs from that of the old world by being much larger, and standing on its hind feet. The legs are stout, similar to those of the galledated species, but jagged or denticulated along the whole of their back part. The emu is swifter in running than the fleetest grey-hound. It has not yet been found anywhere but in New Holland. The flesh has a considerable resemblance to beef. The young of the New Holland cassowary are striped with white and brown.

CAST, in the fine arts, is an impression taken by means of wax, or plaster of Paris, from a statue, bust, baso-relievo, or any other model, animate or inanimate. In taking a cast from a living person's face, the plaster of Paris is poured over the head, and eye-lashes and any hairs about the cheeks and temples, with a little sweet oil; then to insert two tubes (oiled also) of pasteboard into the nostrils, so that breathing may be performed through them; a hardkerchief is then to be tied loosely over the face, and the head sloped backwards in an elbow chair or sofa. Powdered and calcined plaster of Paris is then to be mixed with spring water to the consistence of cream, and poured in between the face and hardkerchief to the depth of half an inch. On becoming fixed or hard, it is to be removed and left to dry. When dry, it is to be well soaked with linseed oil, and an impression may then be taken from it, in plaster of Paris or soft clay; the hollow cast being first split longitudinally down the nose, so that the object cast may be more easily removed. See Modelling and Sculpture.

It ought to be observed, that all models should be divided into several pieces or joints; thus, in that covering any round body, one side must be covered, first, with the plaster, and the sides pared with a knife, and smeared with clay and water, then the remaining part of the object covered with plaster, and a joint thus be formed between the two parts; for, wherever the mixture of clay and water has been applied with a hair brush, the cast will not adhere, and, therefore, will be easily separated with the blunt edge of a knife. It is usual also to make small pits or depressions on the edges, of the size of small buttons, on the edges of the joints of moulds, so that they may lock together well when added, and thus fit closely.

Plaster casts are varnished by a mixture of soap and white wax in boiling water. A quarter of an ounce of soap is dissolved in a pint of water, and an equal quantity of wax afterwards incorporated. The cast is dipped in this liquid, and, after drying a week, is polished by rubbing with soft linen. The surface produced in this manner approaches to the polish of marble. When plaster casts are to be exposed to the weather, their durability is greatly increased by saturating them with linseed oil, with which wax or resin may be combined. When intended to resemble bronze, a soup is used, made of linseed oil and soda, coloured by the sulphates of copper and iron. Walls and ceilings are rendered water-proof in the same way. See an abstract of a memoir of D'Arpent and Tirant, in The Journal, vol. xiii, p. 184, and Franklin's Journal, ii, 276.

CAST ENGRAVINGS. An important discovery
has lately been made, which consists in taking moulds from every kind of engravings, whether line, mezzotinto, or aquatinta, and in pouring on this mould an alloy in a state of fusion, capable of taking, as it is stated, the finest impression. No sooner is one cast worn out, than another may immediately be procured from the original plate, so that every impression may be a proof.

CASTAGNO, ANDREA DEL, his eminent painter, was born at the village of Castagno, in Tuscany, in 1409. Being early deprived of his parents, who were extremely poor, he was employed by his uncle to attend cattle in the fields, and, in that situation, acquired a remarkable proficiency in the art, attracted the notice of Bernadetto de' Medici, who placed him under the tuition of one of the best masters Florence then afforded. At first, he painted only in distemper and fresco, and was in high repute when Domenico Venetiano visited Florence, who had learned, from Antonello da Messina, the new method of painting in oil and varnish, till then unknown in Tuscany. The splendour of this mode of colouring was much admired, and by a pretended friendship for Domenico, Castagno obtained his secret; but, not satisfied with this, he desired to be the sole possessor, and determined to murder his friend and benefactor. This he effected without any suspicion, and continued to practise his ill-acquired art with great success. The real author of this atrocious act was never discovered until Andrea made a full confession of his guilt, shortly before his death, which happened in 1450. The best of his remaining works are at Florence, in the church of St Lucia de Magmoli, and in the monastery degli Angeli. The latter contains a crucifixion by him, painted on a wall.

CASTANEA: small woody rattles, made in the shape of two bows or cups, fitted together, and the fingers being rapidly struck upon them, a tremulous sound is produced, which marks exactly the measure of the dance. Something similar to this was the crotalum of the ancients, who also made use of small symbols in their dances and festivals in honour of Bacchus. It is probable, however, that they had their origin in the East, and were brought by the Moors into Spain. Here, too, they received their name castanellas, from being commonly made of the wood of the chestnut (castane), or from their colour. They are still in use in Spain, and here and there in the south of France. The variety of design has also received for them a place in ballets and operas, as, for example, in John of Paris.

CASTE: certain classes whose burdens and privileges are hereditary. The word is derived from the Portuguese casta, and was originally applied, by the conquerors of the East Indies, to the Indian families, whose occupations, customs, privileges, and duties are hereditary. This term has been sometimes applied to the hereditary classes in Europe; and we speak of the spirit or the prerogatives of a desolation or a caste, to express particularly that natural constitution of society which makes distinction dependent on the accidents of birth or fortune. The division into castes, among the people of the old world, comes to us from a period to which the light of history does not extend; hence its origin cannot be clearly traced; but it is highly probable that the use of the word caste was originally made on a difference of descent, and in the modes of living, and that the separate castes were originally separate races of people. This institution is found among many nations. According to the accounts collected by Clavigero, some traces of it are apparent among the Peruvians and Mexicans; but it prevails particularly in the East, where it has existed from the earliest times, and has become blended with the political condition of the people, because it favours despotism, which is the prevailing form of government. Thus, in Persia, even before Zoroaster, there was a division into four classes or castes: priests (magi), soldiers, husbandmen, tradesmen. But the division into castes was nowhere so perfectly formed, and so entirely interwoven in the whole fabric of society, as in Egypt and Ceylon. In Egypt (q. v.), this division was perfected, as a political institution, in the flourishing period of the Pharaohs; and the lines of separation which had been drawn, in earlier times, by a difference of descent, and different modes of living, were then rendered still more distinct, and castes in that country was originally seven. The class of priests, who formed, in some respects, a highly privileged order of nobility, and maintained possession of the offices of state, was the highest. Next followed the soldiers, who were divided into two classes, and whose occupation was hereditary. Of the remaining castes, the husbandmen, the watermen, who navigated the Nile, the interpreters, who arose successively to the rest, and sprung from the Greeks who were invited into the country, and the two castes of herdsmen, formed a gradation of ranks, the order of which is not known either that that the herdsmen were the lowest. Among these the swineherd was considered impure, and despised, and was excluded from the temples. In India, there were originally four castes. (See Hindoos.) Probably the deep researches into Egyptian antiquities recently made, or in a state of progress, particularly those of Champollion, will throw much light upon this interesting subject.

CASTELCICALA, DON FABRIZIO RUFO, prince of, descended from a very ancient Neapolitan family, obtained great influence under the minister Acton (1796), in the various political negociations of the time. When Acton resigned his ministry, prince Castelcicala became minister, and Vanlui committed suicide. After the battle of Aboukir, Castelcicala persuaded his court to declare war against France. In 1799, he fled with his monarch to Sicily. Two years after, he was Sicilian ambassador in London, and still later at the French court. In 1816, he signed the important treaty admitting all British productions and manufactures in Sicily on paying 10 per cent, duty. After the revolution (1820), he was appointed ambassador to Madrid, and remained in Paris. He died of cholera in 1832.

CASTELLO, GABRIEL LANCLOET, an eminent antiquary, was born at Palermo, in 1727, of a noble family, and was placed under a private tutor, with a view to study botany, chemistry, &c.; but, accidentally meeting with some old coins, which had been dug up by a ploughman, he was seized with a great desire to decipher them, and from that time devoted himself to antiquarian pursuits. He formed a splendid collection of the remains of antiquity found in Sicily, and his museum was always open to foreigners as well as to natives. On his death-bed, he bequeathed a large quantity of books, &c. to the public library of Palermo. He died in 1794, being at that time an honorary member of the royal society, and of the academy at Paris. He published several works. There was another Castello (Ignatius Paterno), who published an account of the earthquake in Sicily in 1835, and in the fabulous characters.

CASTI, GIAMBATISTA, a poet, born in 1721, at Prato, in the vicinity of Florence, studied at Montefascone, became professor there, was appointed a canon, and made a journey to France. Receiving an invitation from the prince of Rosenberg, who became acquainted with him in Florence, he went to Vienna, and was presented to Joseph H., who knew
how to appreciate the genius of the poet, and delighted in his conversation. Casti took advantage of every opportunity of visiting other courts, and joined several embassies, without office or title. Cathrine II. received him in the most flattering manner. He visited also the court of Berlin, and several courts in Germany, both by invitation and accident. The result was, that Vienna, prince Rosenberg, the director of the imperial theatre, caused him to be appointed poeta Cesareo on the death of Metastasio. After the death of Joseph II., Casti requested his dismissal, and retired to Florence, where he wrote many of his works. In 1783 he became a member of the Accademia della Crusca. Notwithstanding his advanced age, the vigour and activity of his mind were still unimpaired. His vivacity, his naiveeté, seasoned by a delicate irony, and his knowledge of the world, made his conversation very attractive. At the same time, he was remarkable for the firmness of his character and the regularity of his habits. He died suddenly, Feb. 7, 1803, at the age of eighty-two. His Novelle galanté were re-published at Paris, 1804, under the title Novelle di Giamb. Casti, in 3 vols. They are forty-eight in number. Almost all are of a licentious character, but written in a lively, original, and graceful style. They may be said to form a didactic-satirical poem, Gli Animali parlanti. Poema epico, divino in 26 Canti, di Giamb. Casti (Milan, 1802, 5 vols.), which he wrote between 1792 and 1799, and which did not receive the attention it deserves until the present day, probably because people formerly feared to speak openly on the bitter truths which it contains. There are two translations of it in French, and one in German. It has been also translated into English by Rose. Casti's Rime Anacreontiche are pleasing, and his comic operas, La Grotta di Trofino, and Il Re Teodoro in Venezia, &c., are full of wit and originality.

CASTIGLIONE, Baldassare; one of the most elegant of the elder Italian writers, born 1478, at Castiglione, in the territory of Mantua; studied at Milan, and entered into the service of the duke Ludovico Sforza, and afterwards of the duke of Urbino, of whose elegant and splendid court he soon became an ornament. In 1563, he was sent as an ambassador to Henry VIII. of England, and, in 1507, in the same capacity, to Louis XII., at Milan. In 1513, Castiglione appeared as ambassador at the court of Leo X., where he became intimate with the most distinguished literati and artists. In 1521, he obtained for the new duke of Urbino, the command of the papal troops, and, in 1524, was employed by pope Clement VII., to conduct his negotiations with Charles V. When Rome was plundered by the constable of Bourbon, in 1527, he was accused of negligence, and his health was undermined by chagrin. He refused to accept the rich bishopric of Avila, which was offered to him by the emperor, until the pope should be reconciled with Charles. He died Feb. 8, 1529, at Toledo. Among his works the Libro del Cortigiano is the most celebrated. It teaches the art of succeeding at court. His few Italian and Latin poems are elegant. His letters (Vallis, 1709) are valuable contributions to political and literary history.

CASTILE, New; a province of Spain, bounded N. by Old Castile, E. by Aragon and Valencia, S. by Murcia, Jaen, and Cordova, and W. by Estremadura, 1,220 miles long, and 160 broad. It contains the following subdivisions or provinces:

<table>
<thead>
<tr>
<th>Province</th>
<th>Sq.m.</th>
<th>Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Castile</td>
<td>2,900</td>
<td>118,100</td>
</tr>
<tr>
<td>Segovia</td>
<td>3,502</td>
<td>104,000</td>
</tr>
<tr>
<td>Burgos</td>
<td>4,118</td>
<td>100,000</td>
</tr>
<tr>
<td>Palencia</td>
<td>7,792</td>
<td>194,000</td>
</tr>
</tbody>
</table>

The province is diversified with mountains, plains, and valleys. The soil is generally fertile, but in some parts, stony and unfruitful. The productions are rice, barley, wheat, maïs, in some parts, wine; but its chief wealth consists in its hundreds of thousands of sheep and cattle. Its butter is excellent, and its wool, particularly that of Segovia, is much celebrated for its fineness. The country is remarkably bare of trees, as is also much of New Castile. The rivers are the Ebro, Duero, Xalon, Carrian, and Tormes. For further information, see Spain.

CASTING, in the fine arts. See Cast.

CASTING, in iron founding, is the running of melted iron into a mould prepared for that purpose. There are three sorts of casting: the first called open sand-casting, the second, sand-casting between flasks, and the third, mould-casting. In most of these an exact pattern, usually of wood, is employed by the founder. The floor of every foundry is composed, for several feet deep, of a loamy sand found near Wollwich, in which deep pits may be sunk to bury large moulds. This mould must be kept exceedingly dry, and free from any wet or moisture, otherwise, the melted metal entire way, would blow up the building and destroy the works of the place where the mould is to be made, a layer of sand is lightly sprinkled through a sieve on the floor, and the wooden pattern pressed firmly down into it, level with the surface. The sand is then to be shovelled up all around, level with the top of the pattern, and rammed down with a tool. A moist sponge is then used for slightly wetting the sand all round the edges of the pattern, to make its particles adhere together. The next operation is lifting the pattern out of the sand, by one or more screws, screwed into the wood. If the pattern is small, this can be easily done by one or more men; but in very large works it is effected by a crane. The cores for the bolt holes through the flanges, are made by sticking pieces of dry clay in the sand in the proper places, and the core for the hole made of clay, is also set into its place: the workman then uses a pair of bellows for blowing away any small pieces of sand which may have fallen into the mould, and then sifts some finely powdered charcoal over its surface. It is now ready for filling with metal. In small works this is done by ladles, and in large, by small channels made in the sand, leading from the mould to the mouth of the furnace. When the mould is filled, the hot metal is covered with sand to keep the air from it while it is cooling.
CASTING—CASTOR-OIL.

Sand-casting between flasks is used for more complex articles than the former; such, for instance, as if they were cut into two or more pieces, (provided the cutting planes were parallel to each other,) each separate piece might be cast in open sand. The flask, in this case, is furnished with four handles, by which they may be held, removed from the mould, and then fitting into holes prepared in the other flask, for joining them accurately together. The under flask being placed upon a board filled with sand, and the sand remoulded tight into it, the workman then takes the upper part of the mould from the sand, and smooths the sand up to the sides of it with a trowel; he then sets the empty flask over the other, adjusting its points to the holes, and after sprinkling some sand which has been burnt (to free it from moisture) over the sand in the under flask, he fills the upper one with sand, and runs it down; he next, with a piece of wood, put through the sand in the upper flask, makes a hole to pour the metal through. The upper flask, with the sand in it, is then raised off by men by the handles, or in large works by a crane, and the pattern lifted out. The flask is then put on again, and heavy weights laid upon it to keep it down firmly for the metal to fill. This is done so precisely at every uppermost point of large moulds, a small hole must be bored through the sand in the upper flask, to allow the rafied air to escape out of the mould when melted metal is poured in.

Loam-casting is used for bulky, hollow articles, such as cylinders, large pipes, cauldrons, boilers, &c., and is conducted in this manner: if, for instance, a large cylinder is to be cast, a mould has first to be made as follows: To a beam in the roof of the foundry is affixed a perpendicular spindle, with three or four holes through it, to fix an iron arm in, at different heights, by means of a nut. This arm is two bars placed at such a distance as to be capable of receiving a wooden plank, which can be firmly secured to them by means of two clamps. The operation is then begun by laying an iron ring upon the ground, and adjusting it so as to be concentric to the spindle.

A cylinder of brick-lats, or clay and wet loam (instead of mortar), is then to be built upon it, some inches less in diameter than the intended cylinder, for which this is to form a core: the brick-lats are then to be firmly bound together with iron hoops, annealed wire, &c., and a fire is then to be lighted within it to dry the arm or frame. While the beam is dry, a coating of loam is spread over it, and is perfectly smoothed, by causing the edge of the perpendicular board to revolve round it. This coat makes it of the proper size for the inside of the cylinder to be cast, and is called the core of the mould. Another cylinder is built, plastered, and smoothed in the same way, except that no hoops are used, whose diameter is the same as the outside of the cylinder to be cast. This is finished, it is covered with a coating of charcoal, ground up with water, like paint, laid on with a brush, and a thin coating of loam is laid on; this is to receive with hoops, and to these four hooks are fixed to lift it by; a thick coat of loam and hair is then laid over it. When all these are dry, a man then gets down into the cylinder, and with a small pick pulls down all the bricks in the inside cylinder, and then with a trowel cuts away all the loam, leaving the inside of the external cylinder (which is the mould) quite smooth. This is effected by the coating of powdered charcoal, which prevents the two coats of loam from adhering together. A deep pit is now dug, in some convenient part of the foundry, into which the core is let down by a crane. The core being placed in the pit, the mould is let down by the same means, and, when they are adjusted, the sand is thrown and rammed round about half the height; a flat cover of dried loam is then put on the top of the mould and core, and round pieces of wood are put in the holes which had before been made in the cover for pouring the metal in at. The burying of the mould is then completed. When it is now full, the sticks which keep open the doors of the mould are carefully withdrawn, and small channels made from the furnace to allow the melted iron to find its way to the mould. When the form is more complicated, as in pear-like shapes, &c., where a man cannot be introduced to pick out the bricks, the mould must be sewed in half, perpendicular to the mould, and they say to get it off, it is then put together again round the core, and the cast plastered up with loam.

CASTLERAUGH, a barony in the county of Down, Ireland. The castle stands on the summit of a Danish rath, and was once the seat of an O'Neill. It is now the property of the marquis of Downshire. The barony gives the title of viscount to the marquis of Londonderry.

CASTLERAUGH, LORD. See Londonderry.

CASTOR and POLLUX; the sons of Tyndarus, king of Lacedemon and Lydia, or, according to some, of Jupiter and Leda. They were begotten by Jupiter and Leda, the queen, who, when she was pregnant, laid before her two eggs, one of which contained Pollux and Helen, the other Castor and Clytemnestra. Pollux and Helen being the offspring of Jupiter, were immortal; but Castor and Clytemnestra were begotten by Tyndarus, and mortal. The two brothers were inseparable companions, equally brave and spirited, and attached to each other with the fondest affection. Castor was particularly skilled in the art of breaking horses, and Pollux in boxing and wrestling. They were among the heroes of the Argonautic expedition, in which they acquired divine honours; for, after a terrible storm which had arisen on the voyage, and all, with loud voices, calling on the gods to save them, there suddenly appeared over the heads of Castor and Pollux two star-like meteors, and the tempest subsided. From this time, they were the patron deities of mariners, and received the name of Dioscuri; and from them the name of Castor and Pollux was given to the fires that are often seen on vessels' masts in storms, and which are electrical phenomena. After their return, they released their sister Helen from the confinement in which Theseus had for some time held her. They were also among the heroes of the Trojan War. They were of Eleusinian birth, sons of Leda, the daughter of Tyndarus, and Clytemnestra. They were known to the Greeks as the Dioscuri, Phoebe and Leda, and were each obliged to contend for their mistresses with their rivals, Idas and Lynceus, the sons of Aphaearus. Castor killed Lynceus, and was slain by Idas. Pollux avenged his brother's death by killing Idas; but, full of grief for the loss of Castor, he besought Jupiter either to take away his life, or grant that his brother might share his immortality. Jupiter listened to his request, and Pollux and his brother alternately descended to Orcus and returned to life. It is doubtful whether the ancients understood them as being together on separate in their alternate passage between the upper and the lower worlds. The former opinion seems to be the oldest; the latter, to have gained ground subsequently. Temples and altars were consecrated to them. In great perils, especially in battles, the ancients believed that they frequently appeared to mortals as two youths on white steeds, in shining garments, with meteors over their heads; and then they were chiefly called Dioscuri. They were also represented side by side, either riding or standing, each holding a horse by the rein, with spears in their hands and spears on their heads. In the heavens, the Dioscuri were one of the twelve constellations of the zodiac (the Twins).

CASTOR-OIL. The castor-oil plant (ricinus pal-
Castrametation.—Castrity.

Castrita (Christi) is a native both of the East and West Indies, and has a stem from five to sixteen feet in height, and large, bluish-green leaves, divided into seven lobes, serrated and pointed, the foot-stalks long, and inserted into the disk. The flowers are profusely produced, and chiefly oblong, are covered with spines, and contain three flatish, oblong seeds,—it is to the seeds of this plant that we are indebted for the drug called castor-oil. It is now often prepared by pressing the seeds in the same way as is practised with oil of almonds. The oil thus obtained is called cold expressed. But the method chiefly adopted in the West Indies is first to strip the seeds of their husks or pods, and then to bruise them in mortars. Afterwards they are tied in linen bags, and boiled in water until the oil which they contain rises to the surface. This is carefully skimmed off, strained, to free it from any accidental impurities, and bottled for use. The oil which is obtained by boiling is considered more mild than that procured by pressure, but it sooner becomes rancid. The mildest and finest Jamaican castor-oil is very limpid, nearly colourless, and has scarcely more smell or taste than olive oil. Many people, however, have some great aversion to castor-oil, even in its purest state, that they do not take it without great reluctance. The uses of castor-oil in medicine are well known.

Castrametation; strictly, the art of tracing out and disposing to advantage the several parts of a camp on the ground. It is sometimes used more extensively to include all the ordinary operations of a campaign. A camp, whether composed of tents or barracks, or merely of places assigned for bivouacking, must be divided in such a way that the several divisions shall be disposed as they are intended to be when drawn up in order of battle; so that, in a sudden alarm, the troops may rise in their proper posts. At the same time, the places for cooking, for the baggage, and for ammunition, must be conveniently arranged.

Castrates. The change produced in men by emasculation is highly remarkable, and assimilates their constitution, in some respects, to that of females. The elasticity of the fibres and muscles is weakened, and the cellular membrane becomes charged with a much larger quantity of fat; the growth of the beard is prevented; the upper part of the windpipe contracts, and the castrate acquires the physiognomy and voice of a female. On the moral character it likewise appears to have some influence, by weakening the intellectual faculties, and rendering the subject unfreeing, morose, fainthearted, and, on the whole, incapable of performing those deeds which require a high, magnanimous disposition. The most numerous class of castrates are those who are made such by the removal of the testicles. Another class are not deprived of the parts of generation, but have them ingeniously injured in such a manner as to leave them the faculty of copulating, but deprive them of power of begoting. Under this head mention some of these as the particular favourites of the licentious Roman ladies. To the third class belong those who are entirely deprived of their genital members. They are used in preference, by the Turks, as keepers of their women. The castrates of all three classes are called enunuchi. Those of the third class, to distinguish them from the two others, are frequently termed entire enunuchi. The word enunuch is Greek, and signifies guard or keeper of the bed. The castration of adults produces some change in the disposition, but little in the bodily constitution. Even the power of fighting continues unchanged; but some, from the account to the accounts of ancient historians, the Greeks, particularly the Lydians, castrated women. The latter are said to have used these beings as guards of their wives and daughters. With females, the operation produces a completely opposite effect to that which it has on men. The sexual appetite ceases, a beard appears on the chin and upper lip, the bosom vanishes, the voice becomes harsh, &c. Doehl'snae and others have used their utmost power to oppose this religious frenzy, and could put a stop to it only by punishing it like murder. The Valerians, a religious sect, whose minds had been disturbed by the example of Origen (q. v.), not only considered this mutilation of themselves as a duty which religion imposed on them, but believed themselves bound to perform the same, by fair means or foul, on all those who came into their power. In Italy, the castration of boys, in order to form them for soprano singers, has been in use for a long time, eunoti having been employed in the pontifical chapel, ever since Clement XII. prohibited this abuse, which, notwithstanding, continued for a long time, and, in some Italian towns, was not only suffered, but exercised with such shameless openness, that the practitioners gave public notice of their profession. In modern times, severe laws have been enacted against castration, and the custom is going out of use. Beings thus mutilated, however, are sometimes to be found on European stages and in Catholic churches. Among the papal singers, we find castrates as late as 1823. It is remarkable that so odious and unnatural an operation should have produced the fine effect on the tones of the singer, which all must acknowledge who can rid themselves of the disagreeable effect of the association. In the Catholic church, no castrate, however he became such, is permitted to be an officiating priest. The part which enunuchi have always played, wherever they have belonged to the household of princes, is well known; and some authors have compared them to Catholic priests, who, like them, have often been the intriguing advisers of sovereigns, and, like them, are not connected with society by the gentle bonds of married life, and require a castrit.

Castriot. See Scanderbeg.

Castrum doloris, a Latin term, signifying castle of grief, has a different meaning from cutafalo. The latter is used to denote an elevated tomb, containing the coffin of a distinguished person, together with the tapers around, ornaments, armorial bearings, inscriptions, &c., placed in the midst of a church or hall. The castrum doloris is the whole room in which the cutafalo is elevated, with all the decorations. The sarcophagus, usually empty, is exposed for show upon an elevation covered with black cloth, under a canopy, either with the clock marked, or laid some mark of the rank of the deceased, as his epaulette or sword, and, when the deceased was a sovereign or a member of a ruling family, princely insignia are placed on surrounding seats. The French call the cutastra doloris, chapelle ardente, which is to be distinguished from chapelle ardente (q. v.).

Castrity: that part of the old theology and morals, which relates to the principles by which difficult cases of conscience (especially where there is a collision of different duties) are to be settled. Kant calls it the dialectics of conscience. It is a part of the Absolute, which it is impossible to answer such difficult questions. There have been many celebrated castrists among the Jesuits (e.g., Escohar, Sanchez, Busenhum, &c.), famous for their ingenuity in the
invention of such cases, and for the ambiguity and singularity of their solutions. It is impossible, without reading the works of some of the casuistical writers, to form an idea of the ingenious and face-spun sophistry which they contain.

Of the well-known domesticated, carnivorous quadruped, whose attachment appears to be rather to the dwellings than the persons of her protectors; in which respect her conduct is very opposite to that of the dog, whose alliance with man is founded upon disinterested, personal attachment, not to be affected by changes of opinion or fortune. Her youthful sportiveness, beautiful fur, and gentle dexterity of manner in after life, dispose mankind to regard the animal with kindness; but the most persevering attempts to cultivate her good dispositions are followed with such slight success, and met with so much of deceit and ingratitude, as to weary the patience of the most benevolent. The cat is capable of showing considerable fondness for an individual, but never appears to confide fully, even in the warmest demonstrations of kindness. Her treacherous calumnies of disposition needs but slight provocation to be believed; and even her most acceptable and subtle, than original and sensitive, but so much alarmed, is ready to attack her best benefactor with as much fury as a stranger. Being highly sensitive, and fond of ease, the cat evinces little anxiety, except for the continuance of her enjoyment, and is ever prepared to seek more comfortable quarters. In this respect she differs from the dog and cat, in which domestication has rendered a movement politic. At what period cats became inmates of human habitations, it is scarcely possible, at this period, to determine. Beyond doubt, their usefulness in destroying rats, mice, and other small animals, first introduced them to notice. The first mention we find made of them, in profane history, is by Herodotus, the father of historiography, in his account of Egypt. (Euterepe, eti, lib. ii.) He speaks of them as diminishing the vermin infesting human dwellings; states some of the Egyptian superstitions relative to them, as well as some observations upon their breeding, dispositions, &c. The celebrated naturalist Tennick, in his excellent monograph of the genus Felis, addsuce strong reasons for believing that the cat was originally domesticated in Egypt, and that the gloved cat, F. maniculata (chat genté of Southern Africa) is, in all probability, the original stock of the domestic cat. Its strong resemblance in size, proportions, &c., renders these considerations more acceptable than that which attributes the origin to the common European wild cat, which is smaller, a shorter, thicker tail, and, indeed, would seem rather to be the domestic cat returned to the savage state, than its original stock. The sanctity and circumscript of the common cat are evinced by all its habits and movements; and the observation of this disposition has obtained for it the name it bears in most of the living languages of Europe. In Greek it is called aelaios, for which we have found no derivation. In Latin, it was called catus, from the adjective signifying cunning, wary, subtle, &c. According to Varro, this adjective is a Sabine, and not a Roman word; but, as we find it used by Horace, in his ode Ad Mercurium, its admission into the classic vocabulary can scarcely be denied. From this name, catus, we have the English cat, the German Katz, the French chat, &c. The domestic cat belongs to a genus (Felis) better armed for the destruction of animal life than all other quadrupeds. The short and powerful jaws, moved by vigorous muscles, are supplied with most formidable trenchant teeth; a cunning dispositions, combined with nocturnal habits and much patience in pursuit, gives them great advantages over their prey; and their keen, lacernating claws, which are always preserved in the most acute state by the peculiar arrangement that keeps them concealed when not in use, enable them to inflict a death-blow on their victims with as much certainty as ease. The cat, in a degree, partakes of all the attributes of her niece—lies in ambush for her prey, and seizes it by a sudden leap; plays with her captives before putting them to death; and does not limit her destruction to the mere gratification of appetite. Cold and wet are disagreeable to the cat, and electricity is especially feared by her; advantage may be taken of the latter circumstance to avert the troublesome visits of the animal. After having once received a shock from a Leyden vial, but little apprehension need be entertained of the cat's return to the same place. Of various aromatic substances, as catnip or catmint, &c., puss is remarkably fond; and the odour of valerian appears to throw her into an ecstasy of pleasure. The food of the cat, in a domestication, is very various, but always of flesh or fish, if it can be obtained. A desire to possess herself of the latter article of diet, proves one of the strongest temptations to theft that the cat is exposed to; in fact, it takes a very severe education to make her any better than a thief under certain circumstances. The cat is remarkable for the feter of its excretions, as well as the powerfully offensive and phosphorus-like odour of its urine, &c. But, personally, it is a very clean animal, avoiding to step in any sort of filth, and preserving its fur in a very neat condition. Of its habits, whatever well laid out of and much regard, it cannot be necessary to speak here, as they are universally known. Equally notorious is their clamorous mode of making love, which is designated by the term cateraunting, and, once heard, can never be forgotten. The cat goes with young for sixty-three days, and brings forth from three to six at a litter, which remain blind for nine days.

CAT-BIRD (turduc felixor, Viel; T. lievis, Wils.); a numerous and well-known species of American thrush, which annually advances from the south with the progress of agriculture, and, during the winter, is found throughout the Middle and New England States. Frequently thickly covered with various and numerous thistles, or the shrubberies of gardens. The note from which the bird obtains its name is strikingly similar to the plaint of a kitten in distress, and would almost certainly deceive the ear of any one unaccustomed with the cry of this species. The cat-bird is exceedingly familiar and unsuspicuous, allowing itself to be closely approached, and saluting every one passing near its abode by its cat-like note. It is lively and active in its movements, and, but for the unfortunate resemblance of its ordinary cry to the voice of an animal by no means a cat-like, would be considered an agreeable bird, notwithstanding its plain, lead-coloured plumage. Wilson informs us, that the cat-bird arrives in the lower parts of Georgia about the end of February, whence he infers that its winter residence is not far distant from Florida. It reaches Pennsylvania by the second week in April, and has its nest built by the beginning of May. For this purpose, a brier or thorny thicket, a thornbush, thick vine, or fork of a sapling, is selected. Little attention is paid to concealment, though few birds are more solicitous for the safety of their young. The nest is constructed of dry leaves, weeds, small twigs, and fine, dry grass, the inside being lined with fine, black, fibrous roots. The female lays four or five eggs, of a uniform greenish-blue colour, free
CAT ISLAND—CATACOMBS

from spots. They generally raise two, and sometimes three, broods in a season.

The admirable naturalist above mentioned relates, that he sometimes, when in the woods, amused himself with imitating the violent chirping or squeaking of these snakes, which, on hearing it, would dart suddenly to distance. They were in his vicinity; and these sounds, to birds in the breeding seasons, he compares to the alarm of fire in a large and populous city. On such occasions of alarm and consternation, the cat-bird is the first to make his appearance, not singly, but sometimes half a dozen at a time, flying from thence to the spot. Other birds are variously affected, but none show symptoms of such extreme suffering. He hurries backward and forward with hanging wings and open mouth, calling out louder and faster, and actually screaming with distress, till he appears hoarse with his exertions. He attempts no offensive measures, but he bewails, he implores, in the most pathetic terms with which nature has supplied him, and with an agony of feeling which is truly affecting. This species does not readily desert its nest; and, when the eggs or young of other birds are placed in its nest, it will throw out the superiors, and continue their attentions to their own family. When the nest and eggs are carefully removed to another place by man, the parents follow, and do not remit their cares. Before the dawn, when there is scarcely light enough to render it visible, the cat-bird generally begins its song, while fluttering with great sprightliness from bush to bush. His notes are more singular than melodious, consisting of short imitations of other birds, but failing where strength and clearness of tone are requisite. He appears to study certain passages with great perseverance, commencing in a low key, and, as he succeeds, ascending to a higher and freer note, under the influence of the presence of a spectator, even within a few yards. An attentive listener discovers considerable variety in his performance, apparently made up of a collection of odd sounds and quaint passages. The cat-bird is a great enemy to the common black snake or horse-rusher (coluber constrictor), which rides its nest whenever an opportunity offers. As the cat-bird uniformly attacks or pursues this snake, and is frequently seen in the act of hopping eagerly after it, numerous ridiculous stories are related of its being fascinated or charmed by the snake. The testimony of Wilson and Bartram shew that the black snake uniformly the aggressor and victor, driving the snake to its hiding-place. In one instance, the writer witnessed an attack of a cat-bird on the black snake, almost precisely similar to that related in Wilson's Ornithology, by his venerable friend, the naturalist Bartram. The cat-bird is nine inches long, and, at a short distance, appears nearly black, but, on a closer inspection, is seen to be of a deep slate-colour above, lightest on the edges of the primaries, and of a considerably lighter slate-colour below, except under the tail coverts, which are of a very dark red; the tail, which is rounded, and the superior part of the head, as well as the bill and legs, are black.

CAT ISLAND, or ST SALVADOR, or GUANAHANI, or GUAÑIMINA; one of the Bahama islands, about sixty miles in length from N. to S., and twelve in its mean breadth. Population, in 1797, 357. This island is remarkable for being the first land of America discovered by Columbus, who landed here Oct. 12, 1492, and named it St. Salvador. Lon. 75° W.; lat. 24° 30' N.

CATACOMBS (caverns, grottoes, subterraneous caves, destined for the sepulture of the dead). The representations of this country, in different parts of the ancient world, have led them to some outward manifestation of regard such as the pomp of funeral solemnities, or the con-secration of a particular spot for sepulture, or the erection of monuments, to transmit to posterity the remembrance of the services or virtues of the deceased. Some nations, as the Egyptians, constructed pyramids and labyrinths to contain their mortal reli-gious and mythological conceptions. The early Greeks, hollowed out the rocks for tombs, surrounding their towns with vast magazines, containing the bones of their fathers. Asia Minor, the coast of Africa, and Cyrene, afford instances of these singular and gigantic works. The Romans, not so bold, but still more numerous, established that the walls or sepulchral apartments were well adorned with superb mausoleums and sarcophagi of marble, consecrated to their distinguished families. At a later period, when the change of their religion made it necessary to conceal these last marks of regard, they consecrated vast subterraneous caverns to the purpose of tombs. The discovery of these monuments has always excited the curiosity of travellers and the attention of artists. The latter have applied themselves to learn from them the character of architecture and painting at different epochs; and, though they have often found only coarse representations, they have endeavoured, in the same direction, to restore, at least, the forms of sepulchres, and the changes which they have occasioned, have deprived us of the documents which would have given us exact information regarding them. The description of the catacombs in Upper Egypt gives us an idea of those whose existence is still unknown to us. Other countries, besides Egypt, have been equally rich in such subterraneous buildings. The streets of the city of Rome, and the customs and manners of the people, painted or sculptured in many monuments of the most admirable preservation. The subterraneous caves of these countries, like almost all of the kind, have their origin in quarries. From the depths of the mountains which contain them, stone was taken, which served for the building of the neighbouring towns, and also of the great edifices and pyramids which ornament the land. They are dug in a mountain situated in the neighbourhood of the Nile, and furnished the Romans with materials for the construction of their buildings. There is almost certainty that the excavations in these mountains are found throughout a space of fifteen to twenty leagues, and form subterraneous caverns, which appear to be the work of art; but there is neither order nor symmetry in them. They contain vast and obscure apartments, low and irregular vaults, supported, in different parts, with piles, left purposely by the workmen. Some holes, of about six feet in length and two feet in width, give rise to the conjecture, that they were destined for sepulchres. Cells of very small dimensions, formed in the hollows of these obscure caverns, prove them to have been the abode of recluse.
Veils are abodes for the living and sepulchres for the dead, cut in the rocks; at Agrigentum, subterranean caves, labyrinths, and tombs, arranged with great order and symmetry. There are also caverns in the environs of Syracuse, which may be ranked with the principal monuments of this description, from the singular position and arrangement of their remains, and from some historical recollections attached to them. In the catacombs of Rome, coffins are sometimes found, and it is supposed that the bones in them belonged to Christians. Inscriptions are also seen on the walls of the apartments. But, though the Christian origin is not to be doubted, the galleries, halls, rooms, basilicas, and rotundos, which extend to the distance of two Italian miles. Through-out there are seen niches for coffins (loculi) and bones. A description of them was given by Celano, in 1643. They probably owe their origin to the quarries which afforded the material for the walls of the cities Palaeopolis and Neapolis, and afterwards served as sepulchres for the Christian congregations.

The catacombs of Paris are extensive subterraneous galleries, to which you descend from the buildings on the western side of the barrière d’enfer. The name itself, which has been given to this labyrinth of caverns and galleries, from its resemblance to the asylums and places of refuge of the persecuted Christians under Naples and Rome, informs us of the purpose to which it has been applied since 1786. These galleries were originally the quarries from which their materials were excavated for the edifices of the capital. The weight of the super-cumbent houses rendered it necessary to prop them; and when the cemeteries of the demolished churches and the burying-grounds were cleared in 1786, the government resolved to deposit the bones in these quarries, which were consecrated for that purpose. The relics of ten generations were here united in the repos of the grave. Eight times as great as the living tide that rolls over this spot is its subterraneous population. By the light of wax tapers you descend ninety feet to a world of silence, over which the Parisian police keeps watch as strictly as over the world of the living. You are carried, by a succession of tunnels, where you can just go abreast. A black streak on the stones, of which the walls consist, points out the way, which, from the great number of intersecting bye-passages, it would be difficult to retrace without this aid, or without guides. The plain of Montrouge and the great suburb St Jacques, as well as St Germain, and, according to some, the channel of the Seine, are thus undermined. Among the curiosities of this part of that lower world is a plan of the harbour of Milhon, which, in his hours of leisure, an ingenious soldier faithfully copied, from memory, in the walls of the quarries. You finally enter the hall, whence you are ushered into the realms of death by the inscription which once stood over the entrance to the churchyard of St Sul-pice: — Hæs ultra metas requiesciant bentam spem expe-rantæs. Narrow passages between walls of skeleton tufa for the walls of the cities Palaeopolis and Neapolis, constructed of human bones, with festoons of skulls and thigh-bones, interspersed, occasionally, with inscriptions, not always the most happily selected, from ancient and modern authors, excite the gloomy impression which is always produced, even in the most light-minded, by the sight of the decomposition of the human frame. Fatigued with these horrible embellishments, you enter a simple chapel, without bones, and containing an altar of granite. The inscription D. M. III et IIIl Septemb. MDCCCXII. recalls to memory the victims of those mournful days, whose remains are here united. It is the only spot in the whole labyrinth, that speaks immediately to the heart of every body. On the walls of thetransitional rooms, consecrated to death, where, however, the air is always preserved pure by means of secret passages, you may visit a geological cabinet, formed by Mr Hericourt de Thury, the director of the carrières sous Paris, who has also published a description of them (Paris, 1815). Specimens of the terraces, separated by the regions you have traversed, and a collection of diseased bones, in a contiguous hall, scientifically arranged, are the last curiosities which these excavations offer. Three hundred toises east of the road to Orleans you finally turn to the light of day. We understand that it has lately been prohibited to visit this remarkable spot, because a person had lost himself in this labyrinth, and had never been heard of again.

In Rome, there is a Franciscan church, under which, for centuries, the bones of the monks of the convent, and of any person, who, from any cause, have in any way been connected with the church, have been interred. Here are buried the remains of those who have, in their mortal happiness will be promoted by their burial there, have been preserved, ingeniously arranged in columns, altars, arches, garlands, festoons, and architectural ornaments. Every year, mass is read there.

CATACOUSTICS (from κατακόους, and κοινή, I hear), called, also, cataphonics; the science of reflected sounds, or that part of acoustics which considers the properties of echoes. See Acoustics.

See Castrum Doloris.

CATALEPSY. This is a spasmodic disease, and, by some regarded as a species of tetanus. It affects the whole body, the muscles of the face, and the muscles of the trunk, in the same manner as tetanus does. But, in this, as well as on account of the contraction of the muscles of the limbs, it is called catalepsy.

Catalepsy is a universal spasmodic disease of the organs of locomotion. The body remains in the position in which it may have been when attacked with the fit, and the limbs preserve any situation in which they may be placed. The senses are obliterated, and the mind totally inactive, nothing being able to rouse the patient. The pulse and temperature remain natural. The fit is of uncertain length; according to some writers, not lasting more than a quarter of an hour, though known by others to be much longer. This disease is an obstinate one, and is very liable to recur, even when the patient seems in the least respect liable to a recurrence. It is, for the most part, a consequence of some obscure disorder. This may be a local affection; but it more frequently occurs in a generally enfeebled constitution, induced by some grave malady, or one which has been caused by the gradual operation of unobserved morbid causes.

C.A.TALOGUES OF BOOKS. See Books, Catalogues of, and Bibliography.

CATALONIA (anciently Tarraconensis); a pro-
ANCE OF SPAIN, bounded N. by France, E. and S. E. by the Mediterranean, S. W. by Valencia, and W. by Arragon. Its form is nearly that of a triangle, the base towards the Mediterranean being about 140 miles in length, the side towards France 120, and that towards Arragon 140. The country in general is mountainous, but intersected with fertile valleys, while the mountains themselves are covered with valuable woods and fruit-trees. Corn, wine, oil, flax, hemp, legumes, and almost every kind of fruit, are abundant. Here are quarries of marble of all colours, of crystal, and alabaster; also topazes, rubies, jaspers, and other precious stones; mines of lead, tin, iron, alum, cinabrum, and salt, and, formerly, of gold and silver. On the coast is a coal-fishery.

Catalonia is naturally much less fertile than either of the Castiles; but it far surpasses both, and, indeed, every other province in Spain, in the industry of its inhabitants, as well as the improvements which they have effected in manufactures, agriculture, and commerce. Population, 868,818; square miles, 12,111. It has usually been divided into fifteen viguerías or jurisdictions. The principal towns are Barcelona, Tortosa, Tarragona, Gerona, and Villa Franca de Paules. See Spain.

CATAMENIA (derived from these two Greek words, <xref>cata</xref> and <xref>men</xref>, according to, and <xref>men</xref>, the month); menses, the monthly discharge from the uterus of females, between the ages of fourteen and forty-five. Many have questioned whether this discharge arose from a mere rupture of vessels, or whether it was owing to a secretory action. There can be little doubt of the truth of the latter. The secretory organ is composed of the arterial vessels situated in the fundus of the uterus. The discharge of women who have died during the time of their menstruating proves this. Sometimes, though very rarely, women, during pregnancy, menstruate; and, when this happens, the discharge takes place from the arterial vessels of the vagina. During pregnancy and lactation, when the person is in good health, the catamenia, for the most part, cease to flow. The quantity a female menstruates at each time is very various, depending on climate and a variety of other circumstances. It is commonly, in England, from five to six ounces; it rarely exceeds eight. Its duration is from three to four, and sometimes, though rarely, five days. With respect to the nature of the discharge, it differs very much from pure blood. It never coagulates, but is sometimes gross and membranes like the desquamated are formed in difficult menstruations. In some women, it almost smells rank and peculiar; in others, it is inodorous. The use of this monthly secretion is said to be, to render the uterus fit for the conception and nutrition of the fetus; therefore girls rarely conceive before the catamenia appear, and women rarely after their entire cessation, but very easily soon after menstruation.

CATANIA (anciently <xref>Carthago</xref>); a city of Sicily, in the valley of Demona, on the borders of the valley of Noto, the see of a bishop, the suffragan of Monreale; 47 miles S.W. Messina, 85 E.S.E. Palermo; lat. 37° 50' N.; long. 15° 7' E. The population is variously estimated at from 40 to 80,000. It is situated on a gulf of the Mediterranean, at the foot of mount Etna. This city has been repeatedly visited by tremendous earthquakes, and was laid in ruins by one in 1693, when 18,000 people were destroyed; and upon the situation which it occupied, the present city is built; the lava serving, at the same time, for a foundation, as well as a quarry, from which stone was dug for its construction. Catania is reviving with great, splendid, and has much more the features of a metropolis and royal residence than Palermo. The principal streets are wide, and well paved with lava. Most of the edifices have an air of magnificence unknown in other parts of the island, and the town has a title to rank among the elegant cities of Europe. Here is a university with three faculties, much celebrated in Sicily. The inhabitants have always been noted for their superiority over the other Sicilians in politeness. The Benedictine convent of St Nicholas is very large. Every part has been rebuilt since the earthquake of 1693. An obelisk of red granite, placed on the back of an antique elephant of touchstone, stands in the centre of the great square, which is formed by the town-hall, seminary, and cathedral. The cathedral, dedicated to St Agnus, the patroness of the city, has suffered so much by earthquakes, that little of the original structure remains. The other religious edifices are profusely ornamented, but in a bad taste. The harbour, though one of the largest in the island, is not much frequented; but the trade is considerable. The exports are wheat, barley, wine, oil, &c.

CATAPLASTS, or POUltICES, are soft compounds, intended to be applied to the surface of the body. They are commonly made of meals, powders, boiled pulps, &c., mixed with water, milk, or some other liquid. They are called <xref>sinapisms</xref> when mustard forms their base.

CATAPULTS (Latin, <xref>catapulta</xref>; Greek, <xref>kata-pulct</xref>); certain machines of the ancients, for projecting missiles, chiefly large beams of wood and heavy stones. <xref>Balista</xref> were engines somewhat similarly constructed, but were chiefly confined to the shocking of arrows.

---

Catapult.

Balista.

The <xref>catapult</xref> may be described as gigantic cross-bows, the most powerful of which consisted not of a single beam or spring, but of two, inserted each into an upright coil of ropes, so twisted, that the ends of the arms could not be drawn towards each other, without producing a most violent recoil.

Pliny ascribes the invention of catapults to the Syracusans Plutarch and Diodorus, to other nations.  At
CATARACT.

The siege of Jerusalem, the Romans had 300 catapults and 40 balistae. The Romans did not carry all the parts of these machines with them, but only the ropes and fastenings, with the necessary tools; and the soldiers built the catapults when they wanted them. The terms catapult and balista were often used indiscriminately by historians, and true catapults as well as the word balista. The first of these terms, in its most common signification, is understood opacity of the crystalline lens, or its capsule, or both. By the second is meant a disease of the retina, by which it is rendered unsusceptible of the action of light. In cataract, the lens becomes opaque, loses its transparency, and is no longer capable of transmitting the light. The causes of cataract are numerous. Inflammation may produce it. Sometimes it is ascribed to a state of the vessels of the part which prevents a proper nourishment of the lens and transparent membranes; in other cases, such as gout, rheumatism, scorbutus, and accompanied with old age. Its earliest approach is marked by a loss of the natural colour of the pupil; this becoming turbid, or slightly grey. Musca volitantes accompany this period. The opacity is not, at first, over the whole crystalline, and, most frequently, first attacks the centre portion; this being turbid, and of a greyish colour, while the surrounding portions remain transparent, and of the usual black colour. While it exists in this degree only, the person can see in an oblique direction. The colour of the pupil is various: most frequently it is a greyish-brown, or pearl-colour; sometimes milk-white, or of a yellowish-grey; now and then of a greyish-brown, and even of a dark-brown or dark-grey. The consistence of the lens differs in different cases, being either hard, and even horny, or very soft, as if dissolved.

The treatment of cataract is by a surgical operation on the eye, and different operations have been tried and recommended. They all consist in removing the diseased lens from its situation opposite the transparent cornea. By one of these operations, the cataract is depressed, removed downwards, and kept from rising by the vitreous humour. This is called cataracta depressa. In another method, a conjunctiva is made in making an incision of the cornea, and of the capsule of the lens, by which the lens may be brought forward, and through the cut in the cornea. The third operation is by absorption. This consists in wounding the capsule, breaking down the crystalline, and bringing the fragments into the interior chamber of the eye, where they are exposed to the action of the aqueous humour, and are, at length, absorbed. This last operation has the name keratonysis applied to it. The choice of the operation is determined by the character of the cataract. After the operation, the patient is to be kept from the light, and from all means of irritation. Such medicines and such articles of food are to be prescribed as will most effectually prevent inflammation; and should this occur, it must be treated by such means, as are the most sure to restrain or overcome it. In a disease of the optic nerve, and its continuation, the retina. Its causes are numerous. It may be occasioned by organic disease of the parts referred to, by mechanical pressure upon the nerve, by too powerful light, by long-continued use of the eyes in too weak light, by rapid transition from darkness to light, and, finally, by old age. Various other, and some more general causes may produce unauro-
CATARACT—CATECHISM.

Another, of immense size, has been discovered by Mr Esmark, in the river Munneleten, in Norway, consisting of three separate falls, the whole height being 800 feet.

The Alpine highlands in Europe, abound in beautiful cataracts. The cataract near Schaffhausen is 400 feet broad and 70 high.

The river Orco, descending from mount Rosa into Italy, forms a cascade; the height of which is estimated to be 2400 feet.

The fall of the Eonazan, flowing from the same mountain above to be 1300 feet high. At Staubach, in the canton of Bern, in Switzerland, a small stream descends a height of 1400 feet.

In Italy, the falls of Terri and Tivoli are beautiful, and were celebrated even among the ancients.

At Tivoli, about forty-five miles north of Rome, the Eveline plunges over a precipice of marble rocks, 300 feet high. The waters contain lime, which produces many petrifications.

At Tivoli, eighteen miles north-east of Rome, are the falls of the Anio or Teverno, a branch of the Tiber. It falls nearly 750 feet deep.

A comparative view of the principal cataracts in the world, and a specification of their heights, will be found in Plate XVI.

CATARRH (from καταρρήσις, I flow down); an increased secretion of mucus from the membranes of the body, accompanied by an unhealthy sensation of coryza, or catarrh, sometimes attacks a whole city. Catarrh is also symptomatic of several other diseases. It is seldom fatal, except in scrofulous habits, by laying the foundation of phthisis; or where it is aggravated, by improper treatment, or repeated exposure to cold, into some degree of peripneumony; when there is hamred of the patient, particularly if advanced in life, being scupituated by the copious effusion of viscid matter into the air-passages. The epidemic is generally, but not invariably, more severe than the common form of the disease. The latter is usually left to subside spontaneously, which will commonly happen in a few days, by following the cold pill, or trip beef.

The cataracts of the Nile (one at Syene, and the other some distance above) have been described by Mr Bruce, as grand, principally from the wildness and desolation of the scene; but the highest of them does not exceed forty feet in height.

The primary regions of epidemic catarrh abound in cataracts. The highest cataracts of great size, but the rocky beds over which they roar and dash in foam and spray, the dark glens into which they rush, and the wildness of the whole scenery, often produce awful emotions.

The most remarkable cataract in Scotland is the Falls of the Clyde are also very impressive and beautiful. See the articles Falls and Clyde for more particular notices of them.

The river Gota has a fall of celebrity at Trotzahatza, in Sweden. It descends 100 feet.

The highest cataracts in Europe has lately been discovered in the river Loddin, in Swedish Lapland. It is described as half a mile in width, and 400 feet in height.

The great body of the water passes the precipice with such force, that it forms a curved sheet, which strikes the water below fifty feet from the base of the precipice, and visitors can pass behind the sheet of water. The base view of the cataract is from Table rock. It is frequently adorned with a rainbow. Sometimes three are seen in the clouds of spray, which rise 100 feet above the precipice.

The river Montmorency forms a cataract 250 feet in height and fifty feet in breadth; nine miles below Quebec.

The falls of the river Chaudiere, not far from the cataract just mentioned, are about 100 feet in height.

The Mississippi forms a cataract of forty feet in height, above its junction with the Ohio. The stream is 700 feet in width, and the surrounding country level.

The Missouri, at a distance of 500 miles from its sources, descends 360 feet in eighteen miles. There are three principal cataracts; one of eighty-seven, one of forty-seven, and one of twenty-six feet in height. The river is 1000 feet broad, and the whole source is the most beautiful.

The falls of Passaic, in New Jersey, at Patterson, about fifteen miles from Newark, are among the most celebrated of the United States. The river is 150 feet broad, and falls, in one entire sheet, into a cleft seventy feet in depth, and twelve wide. Its waters are formed in ponds, near one of the most manufacturing districts of the United States.

The Mohawk river, near its junction with the Hudson, forms the falls termed the Cohoes, about sixty feet high.

The Hudson river, in the north-west of Connecticut, forms the fairest cataract in New England.

In Georgia, the cataract in the Toccoa creek is interesting. It passes through a channel twenty feet wide, over a precipice of 187 feet, in one sheet, when the season is wet.

A similar cataract occurs in the river Ache, in Bavaria; falling 200 feet, by five steps, and being entirely scattered in spray. Its noise is heard at a distance of several miles.

Bellows falls, on the Connecticut river, near Walpole, are grand and striking.—Glenc's falls, in the Hudson river, are similar.

The highest cataract in America is that of Teguadulipen, near Bogota, or Fuman, a branch of the Magdalena. The river rises in the lofty plain, in which Bogota is situated, 9000 feet above the sea, and is precipitated into the lower country, through deep ravines and over steep precipices, and finally plunges 600 feet into a deep cleft.

The cataracts of the Nile (one at Syene, and the other some distance above) have been described by Mr Bruce, as grand, principally from the wildness and desolation of the scene; but the highest of them does not exceed forty feet in height.

The primary regions of epidemic catarrh abound in cataracts. The highest cataracts of great size, but the rocky beds over which they roar and dash in foam and spray, the dark glens into which they rush, and the wildness of the whole scenery, often produce awful emotions.

The most remarkable cataract in Scotland is the Falls of the Clyde are also very impressive and beautiful. See the articles Falls and Clyde for more particular notices of them.

The river Gota has a fall of celebrity at Trotzahatza, in Sweden. It descends 100 feet.

The highest cataracts in Europe has lately been discovered in the river Loddin, in Swedish Lapland. It is described as half a mile in width, and 400 feet in height.

Another, of immense size, has been discovered by Mr Esmark, in the river Munneleten, in Norway, consisting of three separate falls, the whole height being 800 feet.
... and Rosemann, Dintor, Schmidt, Wal-... and others, have particularly distinguished themselves by their writings upon it.

CATECHETICAL SCHOOLS: institutions for the elementary education of Christian teachers, of which there were many in the Eastern church from the second to the fifth century. They were different from catechumenical schools, which were attached to almost every church, and which were intended only for the popular instruction of proselytes, and of the children of Christians; whereas the catechetical schools were intended to communicate a scientific knowledge of the Bible, and the doctrine of Christianity, to distinguished Christian teachers as a science, and finally attacked the dreams of the Chiliasmists (believers in a millennium); but, by blending Greek speculations and Gnostic phantasies with the doctrines of the church, by an allegorical interpretation of the Bible, and the assumption of a secret sense in the Scriptures, different from the literal, contributed to the corruption of Christianity. The distinction of the Alexandrian church by the Arius controversies proved the destruction of the catechetical schools in that place, about the middle of the fourth century. The catechetical school at Antioch appears not to have been a permanent institution, like the Alexandrian, but only to have been formed around distinguished teachers, when there happened to be any in the place. There were some distinguished teachers in Antioch, about the year 220. We have no certain information, however, of the theological teachers in that place, such as Lucian, Diodorus of Tarsus, and Theodore of Mopsuestia, until the latter part of the fourth century. These teachers were distinguished from the Alexandrian by more sober views of Christianit...y, by confining themselves to the literal interpretation of the Bible and of the Old Testament, and by a bolder discussion of doctrines. The Nestorian and Eutychian controversies, in the fifth century, drew after them the ruin of the schools at Antioch. Of a similar character were the catechetical school instituted at Edessa, in the third century, and destroyed in 480, and the school afterwards established at Nisibis, by the Nestorians, in its stead; both of which were in Mesopotamia. To these catechetical schools succeeded, at a later date, the cathedral and monastic schools, especially among the Western Christians, who, as late as the sixth century, made use of the bentical schools, and had never established catechetical schools even at Rome. See Schools.

CATECHISM; a book which contains the principles and first instructions to be communicated in any branch of knowledge, particularly in religion. In its meaning, it is a book that contains the religious instruction which any sect deems most important to be taught to the children and the people, in a popular and easy form, generally in the form of question and answer. In the Catholic church, each bishop has the right to make a catechism for his diocese. But, in modern times, their catechisms are generally a pretty close copy of the one drawn up by the council of Trent, of which an English translation was published in London (1687), "permissa superiorum," under the patronage of James II. Among Protestants, the catechism of Luther acquired great celebrity, and still continues to be used by many clergymen in Germany, where regular instruction in religion, during the Reformation, was established by the confirmation, which takes place between the thirteenth year of age and the seventeenth. Clergymen, however, in some parts of that country, have been allowed to publish and use their own catechisms; and it is a matter of no little interest, to observe how the many different philosophical schools of Germany have influenced the tone of the catechisms by their various systems of morals, &c. Some, which we have seen, were books of 300 pages, and rather philosophical systems, supported by numerous quotations from the Bible, than simple catechisms. Such catechisms, however, are not of use.

The catechetical mode of giving instructions in Christianity had much declined previous to the reformation, when it was revived, and numerous catechisms sprung up. The proper preparation of such manuals, the communication of religious and moral instruction in a short compass and a simple form, is a thing of no small difficulty. In England, soon after the reformed religion was established there, a short catechism was introduced, consisting of the creed, the Lord's prayer, and the decalogue, to which a few cautious, explanatory passages were added. (About 1549, it is supposed by archbishop Cranmer.) A Shorter Catechism or Playne Instruction, conteynynge the Summe of Christian Learninge, sett fourth by the King's Maiesties Authoritie for all Scholasten to teach, was the work which closed the labours of the reformers in the reign of Edward VI., whose name it commonly bears. It was printed both in Latin and in English, in 1553, and may fairly be considered as containing the sense of the church of England then established. The catechism of the English church now in use is drawn up, after the primitive manner, by way of question and answer. The questions and answers are of the shortest possible, and the sentiments are subjoined to it, at the revision of the liturgy, in the first year of James I. As now extant, it consists of five parts, viz. : 1. the doctrine of the Christian covenant; 2. the articles of belief; 3. the commandments; 4. the duty and efficacy of prayer; and 5. the nature and end of the holy sacraments.

The catechism of the church of Scotland is that agreed upon by the Assembly of Divines at Westminster, with the assistance of commissioners from the church of Scotland, and approved of by the General Assembly in the year 1648. What is called the Shorter Catechism, is merely an abridgment of the Larger, and is the one in most common use. Calvin wrote a catechism, as Luther did; but that of the former has not enjoyed so much popularity, nor been translated into so many languages, as that of the latter.

In France, the catechisms of later times exhibit plain marks of political influence. The catechism of Napoleon, in its tenth chapter, explicitly states in what light he and his family were to be regarded. This celebrated chapter has generally been thought scandalous, though it was approved, after a fashion, by the papal authority. The catechisms published since 1814 are equally scandalous, because
they contain illegal, nay, anti-constitutional, precepts. When the complaints on this score became too loud to be disregarded, the pitiul excurse was made, that the offensive turn of the passages was owing to error of the press.

CATECHU (terra Japonica) ; an extract prepared from the wood and the green fruit of the micwua catechu (Lin.), and of several other trees of the same family, which grow in the East Indies, principally in Bengal. There are three sorts of catechu. The first, Bombay catechu, is in square pieces, of a reddish-brown colour, friable, of uniform texture, and of a specific gravity of about 1.39. The second, Bengal catechu, is in round pieces, of the weight of three or four ounces, of a deep chocolate colour internally, and resembling iron rust externally, more friable, of the specific gravity of 1.28. The third kind, catechu in masses, is in irregular pieces of two or three ounces, of a reddish-brown colour, shining, homogeneous, and wrapped up in large-nerved leaves. These three kinds of catechu are inodorous, of an astringent taste at first, but, soon after, sweet and agreeable; at least this is the case with the first and second; the third kind is one of the class of astringent substances, and is to be found in the materia medica, and likewise one of the most in use.

CATECHUMENS is a name which was applied to those converted Jews and heathens, in the first ages of the church, who were to receive baptism, and a particular place in the church, but were not permitted to be present at the celebration of the sacrament. Afterwards, it was applied to those young Christians who, for the first time, wished to partake of this ordinance, and, for this purpose, went through a preparatory course of instruction.

CATEGORY, in logic, is an assemblage of all the beings contained under any genus or kind, ranged in order. The school philosophers distribute all beings, all the objects of our thoughts or ideas, into certain genera or classes, which classes the Greeks call categories, and the Latins, predicaments, and which Mr Harris has styled philosophical arrangements. The ancients, following Aristotle, generally make ten categories. Under the first all substances are comprised, and all accidents or attributes under the nine last, viz., quantity, quality, relation, action, passion, time, place, situation, and habit. This arrangement of the fifteen, as we have seen, is arbitrary, and now almost excluded. Accordingly, some philosophers think that all nature may be better considered under these seven divisions—spirit, matter, quantity, substance, figure, motion, and rest. Others make but two categories, substance and attribute, or subject and accident; or three, accident being divided into the inherent and circumstantial. The arrangement of the ten categories was borrowed from the Pythagorean school. It is said to have been invented by Archytus of Tarentum. From him it passed to Plato (who, however, admitted only five categories—substance, identity, quantity, place, and motion), and from Plato to Aristotle. The Stoics held four—subject, qualities, independent circumstances, relative circumstances. For the categories of Kant, see Kant.

CATEGONY; that curve in the higher geometry which is formed by a chain or cord when allowed to hang freely between two points. A knowledge of the properties of this curve is of essential service to the civil engineer, since it has been found the best suited for domes, and is also the curve assumed by the chain of a suspension-bridge. This curve is, besides, remarkable in being the line of swiftest descent; for, if a body fall to the earth through this curve, will descend in a shorter time than it would have done in any other line whatever from the same height. This fact was taken advantage of by Lord Brougham, who constructed a slide on the face of a high rock, and made use of the curve in conveying persons to a higher place. The individual above mentioned constructed a slide or trough of wood in the form of the catenary curve, extending from the forest to the lake, a distance of nearly eight miles, down which slide, the trees, when cut and squared, are launched; and such is the nature of the slide by which the logs move, that they descend from the top to the bottom of the slide in six minutes, the workmen being warned by telegraphic signals. The trees are thence conveyed with facility to the German ocean. An interesting description of this slide is given by Professor Playfair.

CATHEDRALS. See Populous.

CATHOLIC. The strings of certain musical instruments, the cords of clock-weights, and those of some other machines and implements, are made of a dense, strong, animal substance, denominated catgut. It is made from the intestines of different quadrupeds, particularly those of the horse, and is used in making the astrigent dress of the skin to be found in the materia medica, and likewise one of the most in use.

CATHARIS; a denomination which was applied, from the fourteenth to the sixteenth century, to several parties and sects, that appeared first in Lombardy, and afterwards in other countries of the West, and which were violently persecuted, on account of their Manichaean tenets and usages. As they originated in Bulgaria, they were sometimes termed Bulgarians, whence arose the French term of abuse, Bougres. Sometimes, in token of their contemptibleness, as men of the lowest class, they were called Patarines, or Patarines, from Pataria, a region of bad reputation near Milan; sometimes Publicans, or Papioles, and, in the Low Countries, Pipole. In the Middle Ages, the sect to which they were denoted, in the middle ages, was Catheri (either from xαθαρος, the pure, which they claimed to be, or from the rasal appellation Chasare, because they were said to have proceeded from Chasary, the present Crema; whence Ketzer, the German word for heretiqu."

The religious views and practice of the sects comprehend under this name differed much, according to the age and country in which they appeared, and according to the spirit of their leaders; but they all agreed in an obstinate resistance to the orthodox Catholicism, and in the Alexandrian and Manichean mode of doctrine and religious life:—In common with the old Manicheans, but without esteeming Manes a prophet, they entertained an aversion to the mixture of Judaism in Christianity.
professed the dualism couched in scriptural language, which places the devil nearly on a level with God, and entertained the conceit of a high moral perfection. The influence of Arius and Platonic notions was conspicuous in their explanations of the doctrine of the Trinity, which defined the Father to be the unity of the divine will, the Son, or Logos, to be his first thought, and the Spirit to be their common operation. In every good man they saw a Christ, and, therefore, in their congregations, separated the elect from the novices. The merit of the Redeemer they believed to consist more in his example than in his expiatory death, and, built their hopes upon a resurrection of the body in which neither soul nor spirit was exalted. They regarded the exaltation of the soul over the mortal nature, so as to become wholly absorbed in mystical contemplation, as the highest stage in the religious life of man. They despised the mass, the service of the altar, and similar ceremonies, as mere vanity. The adoration of the cross, of saints, and relics, together with all arbitrary penances and good works, so called, they deemed idle superstition. The daily blessing of their morning meals, the ascent to mount Zion, the celebration of the eucharist. The imposition of the hands of spotless teachers served for the communication of the Spirit, for baptism, and as a pledge of the forgiveness of sins. Deep devotion of the heart in prayer, and a life of purity, connected with abstinence from material pleasure, and from the use of stimulating food, were their exercises of piety. The tenets of popery, and the whole establishment of the Catholic priesthood, as it then existed, they looked upon as unchristian and pernicious. They insisted on the restoration of the apostolic simplicity, and the literal fulfilment of the precepts of the New Testament, which they read, internal, with assiduity, but frequently misunderstood. In an age when the heartless subtleties of dialectics, the mechanical administration of divine worship, and the scandalous morals of the clergy, widened more and more the breach between religion and the established church, such doctrines and maxims necessarily met with an opposition, on account of their opposition to the prevalent practices. The piety and morality at which most of the separatists diligently aimed, the charm of their secret connexion, and the high intelligence of things sacred to the majority, would have made them the object of the persecutions of their contemporaries, and the moving power of their simple worship, procured them many adherents, and those not from the common people merely. They were joined by the discontented of all classes, even by the clergy and nobles; whence they were called, in France, bons hommes, good, i. e. noble, people; and, in the rude state of the existing political constitutions, amid the confusion of civil wars and ecclesiastical controversy, their congregations, with little mutual connection, and not meaning the state with danger, were able to pursue with impunity, for years, their quiet course. But these sects were not free from corruptions. The nocturnal assemblies, the community of goods, the homeless, roving life (on account of which several of them were called Passageri, Passagini), and the contempt of the marriage state, which originated in ascetic views, gave rise, in many cases, to a sort of maniacal excess, and they lived together, to gross immorality; and the mystery, in which they enveloped their religious exercises, sometimes served to conceal the errors of an unbridled fanaticism. But, when the old denominations became disgraced by such errors, new leaders, and redemptors of the establishment, appeared, and imparted a fresh impulse to the once excited spirit of separation. From this originated the excitements occasioned among the people of France, Switzerland, and Italy, by Peter Bruys, and Henry and Arnold of Brescia, in the twelfth century, which introduced the names Petrarchiani, Henriciani, and Arnoldi. See Arnold of Brescia.

The ecclesiastical authority now became zealous in searching out and punishing heretics; so that these new, but unconnected, classes of Cathari soon became extinct. The older Cathari, Publicians, Paterenes, &c., had the prudence, wherever they were settled, to adhere publicly to the Catholic church, and to hold their private meetings in the night. They everything which the persecutors endured with recourse, before the spiritual courts, to an apparent recantation; but, the attention of these authorities being once excited, and the popes carrying on the persecution of the heretics by their own legates, and establishing the horrible inquisition in the thirteenth century, the most blameless life, and the utmost secrecy in the performance of religious exercises, no longer afforded security to these heterodox believers. The fate of the Albigenses (q. v.), who were mainly Cathari, finally produced the overthrow of all this fanatical sects in the thirteenth century. The Albigenses (q. v.), who were unrighteously confounded with the Cathari, escaped. No sects, of a later origin, have borne this general appellation.

CATHARINE, ST.; a virgin of Alexandria, who, according to Catholic tradition, suffered martyrdom under Maximian, about A.D. 236. She is represented with a piece of a wheel, and the legend of her marriage with Christ has been painted by several of the first masters. Correggio’s Catharine, in Dresden, is beautiful.—There are two other St. Catharines mentioned.—The knights of St. Catharine on mount Sinai are an ancient military order, instituted for the protection of the pilgrims who came to visit the tomb of St. Catharine, on this mountain. In Russia, the order of St. Catharine is a distinction for ladies, instituted by Catharine, wife of Peter the Great, in memory of his signal escape from the Turks in 1711.

CATHARINE OF FRANCE, queen of England, youngest child of Charles VI. and Isabella of Bavaria, was born in 1401, and, in 1420, was married to Henry V. of England, who was then declared successor to the crown of France. To this prince she bore Henry VI., crowned in his cradle king of both countries. After the death of Henry, Catharine married Owen Tudor, a Welsh gentleman of small fortune, but descended from the ancient British princes. By this marriage she had two sons, the eldest of whom, Edmund, earl of Richmond, by a marriage with Margaret Beaufort, of the legitimate branch of Lancaster, became father of Henry VII., and founder of the house of Tudor. Catharine was treated with some rigour, on the discovery of her second marriage, and died in the prime of life, in 1438.

CATHARINE OF ARRAGON, queen of England, the youngest daughter of Ferdinand and Isabella of Castile, was born in 1483. In 1501, she was married to Arthur prince of Wales, son of Henry VII. Her husband dying about five months after, the king, unwilling to return her dowry, caused her to be contracted to his remaining son Henry, and a dispensation was procured from the pope for that purpose, the fifteenth year of his reign. He made a public protest against the marriage; but, at length, yielding to the representations of his council, he consented to ratify the contract, and, on his accession to the throne, in 1509, was crowned with her. The inequality of their ages, and the capricious disposition of Henry, soon caused unwisdoms in the council of their marriage, and the durabilitu of their union, and it seems surprising that
CATHARINE. 

Catharine should have acquired and retained an ascendency over the affections of the king for nearly twenty years. The want of male issue, however, proved a source of discontent to him, and scruples, real or pretended, at length arose in his mind concerning the legality of their union, which were greatly en-
forced by the death of the Pope. Thereafter, he was disposed to make application to Rome for a divorce from Catharine. An encouraging answer was returned, and a dispensation promised, it being the interest of the pope to favour the English king. Overawe, however, but the power of the emperor Charles V., Catharine's nephew, the conduct of the pontiff, who depended upon the empire, became embarrased and hesitating. Catharine, meanwhile, conducted herself with gentleness and firmness, and could not in any way be in-
duced to consent to an act, which would render her daughter illegitimate, and stain her with the imputa-
tion of incest. Being cited before the papal legates, cardinals Wolsey and Campeggio, in 1529, she de-
clared that she would not submit her cause to their judgment, but appealed to the court of Rome; which declared in her favour, and reversed, but in a sort of con-
terfeits of the pope at length induced the king to decide the affair for himself; and the resentment ex-
pressed on this occasion, by the court of Rome, pro-
voked him to throw off his submission to it, and declare himself head of the English church—a result of royal caprice more curious and important than most in his-
tory. In 1532, he married Anne Boleyn; upon which Catharine, no longer considered queen of Eng-
land, retired to Amphill in Bedfordshire. Cranmer, now raised to the primacy, pronounced the sentence of divorce, notwithstanding which, Catharine still persisted in maintaining that Anne Boleyn was dead. But she died in January, 1536. Shortly before her death, she wrote a letter to the king, recommending their daughter (afterwards queen Mary) to his protection, praying for the salvation of his soul, and assuring him of her forgiveness and unabated affection. The paucity of this epistle is said to have drawn tears from Henry, who was never backward in acknowledging the vir-
tues of his injured wife, who certainly acted with eminent dignity and consistency. Several devotional treatises have been attributed to Catharine, which belong to queen Catharine Parr.

ERNESTINE, wife of Henry II., king of France; born in Florence in 1510; the only daughter of Lorenzo de Medici, duke of Urbino, and the niece of pope Clement VII. Francis I. consented that his son Henry should marry her, only be-
cause he did not believe she ever would ascend the throne, and because he was in great want of money, which Lorenzo could furnish him. The marriage was celebrated at Marseilles in 1533. Catharine was equally gifted with beauty and talents, and had cultivated her taste for the fine arts in Florence; but, at the same time, imbued the perversity of principles of her: parents, and was a constant resort to calat, intrigues, and treachery, and are particularly unsuited to the government of large empires. Catharine's ambition was unbounded. She sacrificed France and her children to the passion for ruling, but she never aimed steadily at one great end, and had no profound views of policy. The sit-
uation in which she was placed, on her arrival at the French court, gave her great opportunity to per-
fet herself in the art of dissimulation. She flattered alike the duchess d'Elamps, the mistress of the king, and the cardinal of Nantes, the mistress of her own hus-
band, though these two ladies hated each other. Furt-
her, her apparent indiffrence, she might have been sup-
poused inclined to shun the tumult of public affairs; but, when the death of Henry II., in 1559, made her mis-
tress of herself, she plunged her children in a whirl of pleasures, partly to enervate them by dissipating, partly from a natural inclination towards prodigality; and, in the midst of these extravagancies, cruel and bloody measures were executed, the memory of which still remains a perpetual blemish. Her authority was limited under the reign of King Francis. Afterwards, this prince, by his marriage with the unfortunate Mary Stuart, was entirely devoted to the party of the Guises. Jealous of a power she did not exercise, Catharine then decided to favour the Protestants. If it was not for her presence, by which the ambition of the chieft of the Huguenots was sti-
mulated, the conflicting religious opinions in France
never would have caused such lasting civil wars. Catharine felt herself embarrassed, by this indu-
gence towards the innovators, when the death of Francis II. placed the reins of government, during the minority of Charles IX., in her hands. Waver-
ing between the Guises on one side, who had put themselves at the head of the Catholics, and Condé and Coligny on the other, who had become very power-
ful by the aid of the Protestants, she was con-
vinced that she must choose between the two parties, which failed to procure her as much power as she had previously gained by openness of conduct. Despised by all,
parties, but conspired if she could deceive them; taking arms only to treat, and never treating with-
out preparing the materials for a new civil war, she
ruined Charles IX., when he became of age, into a situa-
tion in which he must either make the royal
authority subordinate to a powerful party, or cause part of his subjects to be massacred, in the hope, at
best a doubtful one, of subduing faction. The mas-
sacre of St. Bartholomew (see Bartholomew, massacre of) was her work. Since she had intimated to the king to prac-
tise a dissimulation foreign to his character; and, as
often as he evinced a disposition to free himself from a dependence of which he was ashamed, she knew how to prevent him, by the fear and jealousy which she excited in him by favouring his brother Henry. After the death of Charles IX., Catharine became again regent of the kingdom, till the return of Henry III., then king of Poland. She contributed to the many misfortunes of his reign, by the measures which she had adopted previously to its commence-
ment, and by the intrigues in which she was uninter-
ruptedly engaged. At the death of Francis II., in 1559, France was in a state of complete dismemberment. The religiours contests were, in reality, very indifferent to her. The consequences she was not able to con-
ceive. She was ready to risk life for the gratifica-
tion of her ambition. She was equally artful in unit-
ing her adherents, and in promoting dissension among their adversaries. She was extravagant to folly, and
was unable to limit her expenses. To those who di-
rected her attention to the prodigal expenditure of the public treasure, she used to say, “ One must live." Her example contributed greatly to promote the character of Francis II., he had a very great taste for the arts and sciences. She also contributed to the petitions of the Huguenots to be brought from Greece and Italy, and the Thilleries, and the Hotel de Soissons to be built. In the provinces, also, se-
veral castles were erected by her order, distinguished for the beauty of their architecture, in an age when the principles of them were still unknown in France. She had two daughters, Elizabeth, married to Philip II. of Spain in 1559, and Margueretta (q.v.) of Valois, married to Louis of Navarre, afterwards Henry IV.

CATHARINE OF BRAGANZA, wife of Charles II., king of England, and daughter of John IV. king of Portugal, was born in 1638. In 1661, she married Charles II., in whose court she long endured all the
neglect and mortification his disolute conduct was calculated to inflict upon her. This endurance was also rendered greater by her proving unfruitful; but she succeeded, with due energy, and anxiety, after the death of Charles, in receiving much attention and respect. In 1693, she returned to Portugal, where, in 1704, she was made regent by her brother, Don Pedro, whose increasing intimacies rendered retirement necessary. In this situation, Catharine showed considerable abilities, carrying on the war against Spain with great firmness and success. She died in 1705, aged 67.

CATHARINE I., empress of Russia. The early history of this remarkable woman is uncertain. According to some accounts, she was the daughter of a Catholic priest in Lithuania, by name Samuel, for he had (as is frequently the case there) no family name. It is said that she was born in 1686, named Martha, and placed, by her poor parents, in the service of a Lutheran clergyman, named Daut, at Roop, in the circle of Riga, where she imbibed the principles of the Protestant religion. She then removed to Lithuania, in 1700, and joined Wrangel, and entered the service of a clergyman named Gluck, who caused her to be instructed in the Lutheran religion. Here she was married to a Swedish dragoon. But, a few days after, he was obliged to repair to the field, and the Russians, within a short period, gained the victory. In 1702, she was taken by the hands of general Schierenjeff, who relinguished her to prince Menzikoff. While in his possession, she was seen by Peter the Great, who made her his mistress. She became a proselyte to the Greek church, and assumed the name of Catharine Alexievna. In 1708 and 1709, she bore the emperor the princesses Anna and Elizabeth, the first of whom became the duchess of Holstein by marriage, and mother of Peter III. The second became empress of Russia. In 1713, the emperor publicly acknowledged her his wife. She was subsequently proclaimed empress, and crowned in Moscow. Besides the daughters above named, she bore the emperor five more children, all of whom died early. The princesses Anna and Elizabeth were declared legitimate. By her kindness, by her perseverance, and, above all, by her intelligence, she gained possession of the heart of Peter. With his army, seeming irremovable on the Pruth, in 1711, Catharine, in connexion with Ostermann and Schaffiroff, endeavoured to win over the grand vizier; and, having succeeded, by bribing his confidant with her jewels, she disclosed her plan to the emperor, who gave it his approbation, and was soon rewarded. She afterwards received many proofs of the gratitude of her husband. (Her coronation, as empress, in Moscow, which some place in 1718, took place, according to Weber and Bergholz, in 1724.) Peter even deemed her worthy of being his successor. But, in the latter part of 1724, she fell under his displeasure. Her chamberlain Mons, with whom Peter had found her tête à tête, was beheaded, on pretence that he had been bribed by the enemies of Russia; and she was obliged to view the head of Mons nailed to a gibbet. This, however, is only an anecdote, and the affair of Mons remains a mystery. Menzikoff, who had always manifested much attachment to her, had now been in disgrace for some time, and Peter had very frequent attacks of bodily pain, which were interrupted by dreadful explosions of rage. These circumstances made Catharine's situation critical, and her anticipations of the future must have been the most melancholy; as the emperor had uttered some threats of a change in the succession to her disadvantage. To prevent such an event, she applied to Menzikoff; and, by the prudence of Jaguschinsky, who then enjoyed the favour of Peter, and whom she gained over, a reconciliation was effected with the emperor. The empress and the favourite were labouring under their respective misfortunes; when Peter the Great died, Jun. 28, 1725. Catharine, with Menzikoff, and Jaguschinsky considered it necessary to keep the death of the emperor a secret, until, by judicious arrangements, they had secured the succession of the throne to the empress. Theophanes, archbishop embezzled their private funds to the greatest extent, but, Peter, on his death-bed, had declared Catharine alone worthy to succeed him in the government. She was then proclaimed empress and autocrat of all the Russias, and the oath of allegiance to her was taken anew. At first, the cabinet pursued the plans of Peter, and, under Menzikoff's management, the administration was conducted with considerable ability. But the pecuniary influence of favourites was soon felt, and great errors crept into the administration. Catharine died suddenly, on the 17th of May, 1727, in the forty-second year of her age. Her death was probably hastened by excess in the use of Tobacco, and orders of her. Catharine II., empress of Russia, a woman of remarkable ability, was born at Stettin, April 25th, 1729, where her father, Christian Augustus, prince of Anhalt-Zerbst, and Prussian field-marshal, was governor. Her name was originally Sophia Augusta. The emperor's death, and the fall into power of Peter III., chose her for the wife of Peter, his nephew, whom she appointed her successor. The young princess accompanied her mother to Russia, where she joined the Greek church, and adopted the name of Catharine Alexievna, given to her by the empress. The marriage was celebrated Sept. 1st, 1745. It was not a happy one, but Catharine found recreation in the improvement of her mind. She was endowed with uncommon strength of character; but the ardor of her temperament, and the ill-treatment of her husband, led her into errors which had the most injurious influence on her whole political life. Amongst the friends of her husband, count Solikoff was distinguished for talent and the graces of his person. He attracted the attention of Catharine, and an intimate connexion between them was the consequence. When Solikoff, who was employed in foreign embassies, was transferred to Thebes, Catharine had a young Pole, Stanislaus Augustus Poniatowski, celebrated both for his good and ill fortune, gained the affections of the grand princess. Their intimacy was known to the empress, but did not appear to displeasure her; and it was at her recommendation that Augustus III. appointed Poniatowski his ambassador at the court of St. Petersburgh. This connexion created alarm at Paris. France, at that time at war with Britain, had formed a secret treaty with Austria, and drawn Russia into the same. Poniatowski was known to be a warm adherent of Britain, and it was feared that, through his influence on the princess, he might prejudice Elizabeth against France; and Louis XV. endeavoured to induce the king of Poland to recall him. In the year 1761, Elizabeth died, and Peter III. ascended the throne. The emperor now became still more alienated from his wife. Peter lived in the greatest dissatisfaction, and on such intimate terms with a lady of the court, named Elizabeth Woronzoff, that it was generally thought that he would repudiate Catharine, and marry her mistress. The empress, therefore, was obliged to take measures for her personal security. At first, she endeavored to gain the confidence and more impartial with her subjects, owing to his blind predilection for the Prussian military discipline, his politics, and the faults of his character. This led to a conspiracy, at the head of which were the
The catharines, count Razumowski, count Panin, the enterprising princess Dachkoff, and a young officer of the name of Pot projection, who, on the latter's departure, had taken his place in Catharine's affections. All those who were dissatisfied, or who expected to gain by a change, joined this conspiracy. Panin and the greater part of the conspirators were actuated only by the desire to place the minor prince, Paul, on the throne, under the control of the empress, and a council of the empire. But this plan was changed through the influence of the Orloff. The guards were the first to swear allegiance to the empress, on her presenting herself to them at Peterhoff, on the morning of July 9, 1702; and Alexei Orloff prevailed on Ivan, who was afterwards appointed senator, to read, at the Kazan church, instead of the proclamation of the conspirators in favour of the young prince, one announcing the elevation of Catharine to the throne. Peter died, a few days after, in prison. The accusation against Catharine, of having contributed to hasten this event, is without foundation. The young, ambitious princess, neglected by her husband, whom she did not respect, remained passive on the occasion, yielded to circumstances, which were, it is true, propitious to her, and conspired for an event which she could not reasonably be held to have foreseen. She knew how to gain the affections of the people by flattering their vanity; showed great respect for their religion; caused herself to be crowned at Moscow with great pomp; devoted herself to the promotion of agriculture and commerce, and the creation of a naval force; improved the laws, and showed the greatest activity in the administration of the internal as well as the external affairs of Russia. A year after her ascension to the throne, she forced the Courlander to displace their new duke, Charles of Saxony, and to recall Biren, who was extremely odious to the nobles. After the death of Augustus III., king of Poland, she was the means of Stanislaus Poniatowski's being crowned at Warsaw. But, whilst she was forcing this king on the Poles, the number of the malcontents in her own empire increased, and several attempts against her life were made at St Petersburg and Moscow. The young Ivan (q.v.) was the person to whom the hopes of the conspirators were directed; but his sudden death, at the fortress of Schlusselburg, overthrew the plans of the disaffected. After this, the court of the empress was only disturbed, from time to time, by intrigues, in which gallantry and politics went hand in hand, and which had no other object than to replace one favourite by another. At the same time, the empress, Catharine did not neglect the improvement of the laws. Deputies from all the provinces met at Moscow. The empress had herself prepared instructions for their conduct, which were read at the first session; but it was impossible for so many different nations to understand each other, or to be subject to the same laws. In the first sessions, the emancipation of the peasants was proposed. This alone would have been sufficient to cause a bloody revolution. Catharine, who presided at the debates, and received from the assembly the title of mother of the country, soon dismissed the discordant legislators. About this time, France formed a party in Poland against Russia; but these attempts only served to accelerate Catharine's plans. The war to which the Porte was instigated had the same result. The Turks were beaten near Azaph, and the Russian flag was victorious on the Black sea; and the colony of Azaph, the plan of which had been formed of re-establishing the republics of Sparta and Athens, as a check to the Ottoman power. The advancement of Austrian troops into Poland inspired Catharine with the desire to aggrandize herself in this quarter. She therefore entered into an agreement for the division of the country with the courts of Berlin and Vienna in 1772, by which the governments of Saxony and Moldau fell to her share, and she ensured to herself exclusive title to Posen, by undertaking to guarantee the Polish constitution. At the same time, she abandoned all her conquests, with the exception of Azaph, Taganrog, and Khiurna, in the peace with the Porte, concluded at Kainard, in 1774, and the great navigation of the Black sea, and simultaneous control over the commerce of the Crimea. By this apparent independence, the Crimea became, in fact, dependent on Catharine. This peace was as opportune as it was advantageous to Russia; for, in the third year of the war, Moscow and several other cities were besieged by the plague; and, about the same time, an adventurer, named Pugatchoff, assuming the name of Peter III., had excited a revolt in several provinces of Eastern Russia. At this time, Potemkin exercised an unlimited influence on the empress. In 1784, he succeeded in conquering the Crimea, to which he gave its ancient name of Tauris, and extended the confines of Russia to the Caucasus. Catharine, upon this, traversed the provinces which had revolted under Pugatchoff, and navigated the Volga and Borysthenes, taking greater interest in the expedition, as it was connected with her own plans. It was in the same year that she was crowned in her Chapel of Moscow, by the Patriarch. For this occasion, she was dressed in a dress of pure gold, and a crown of gold with precious stones, and she sat on a throne of solid gold. The triumph was accompanied with the desire of seeing the Tartars, with whom she had been confined from her childhood. She was at once the Pilot, and the admiral of her own little fleet. Potemkin turned this journey, which took place in 1787, into a triumphal march. Throughout a distance of nearly 1000 leagues, nothing but feasts and spectacles of various kinds were to be seen. Palaces were raised on barren heaths, to be inhabited for a day. Villages and towns were built in the wilderness, where, a short time before, the Tartars had fed their herds. An immense population appeared at every step—the picture of influence and prosperity. A hundred different nations paid homage to their sovereign. Catharine saw, at a distance, towns and villages, of which only the outward walls existed. She was surrounded by a multitude of people, who were conveyed on during the night, to afford her the same spectacle the following day. Two sovereigns visited her on her journey—the king of Poland, Stanislaus Augustus, and the emperor Joseph II. The latter renewed his promise, given at St Petersburg, to assist her if she was attacked by the Russians and Turks. About this time, Prussia and England combined to instigate the Porte and Sweden to take up arms against Russia. The Turks were no more fortunate this time than before; and perhaps they would have been driven entirely out of Europe, had not Catharine been restrained by the interests of other states. (See Reichenbach Congress, 1790.) Peace was concluded at Jassy in 1792. Catharine kept Oczakow, and all the country between the Bug and the Dniester. Whilst Russia was occupied with the Turks, Gustavus III. had commenced hostilities, and, at one time, threatened St Petersburg. After a war of two years, peace was concluded at Werela, in 1790, leaving the possessions of both countries as they were before the commencement of hostilities. Thus all the wars undertaken against Russia had only tended to augment her political preponderance. Catharine's influence on Poland was equal to absolute dominion. When the republic, in 1791, wished to change its constitution, she took part with the opponents of the plan, gained the concurrence of Prussia, garrisoned Poland with her troops, and concluded a new treaty of partitions with the emperor, in 1792. The insurrection, which broke out in Poland in 1794, could not save this unhappy country, which, after the storming of Praga, and the devastation of several of its provinces, was, at last, in 1795, entirely divided. Courland, too, was united with the Russian empire. A pension was given to
the last duke of Courland, and the last king of Poland spent his pension at St. Petersburg. During these occurrences, Catharhne could not take part in the wars in which, however, broke off all connexion with the French republic, actively assisted the emigrants, and entered into an alliance with England against France. She likewise made war against Persia, and, as some historians assure us, entertained the project of destroying the power of the English in Bengal, when a fit of apoplexy put an end to her life, Nov. 9, 1796.

Catharine II. has been equally censured and praised. With all the weakness of her sex, and with a love of pleasure carried to licentiousness, she combined the firmness and talent of a powerful sovereign. Two passions were predominant with her until her death, love and ambition. She was never without her favourite, who, by the manner in which she distinguished him, and by the valuable presents she gave him, was publicly designated as such. She never, however, lost sight of her dignity. She was distinguished for activity, working with her ministers, writing a philosophical letter to Voltaire, and signing an order to attack the Turks, or to occupy Poland, in the same breath. She favoured distinguished authors, and was particularly partial to the French. At Paris she had a literary agent (baron Grimm). She corresponded with Voltaire, to whom she proposed to D'Alembert to finish the Encyclopedia at St. Petersburg, and to undertake the education of the grand-duke. Diderot visited her at her request, and she often allowed him the privilege of familiar conversation with her. By these means she gained the favour of the literary class of Europe, who called her the greatest of rulers; and, in fact, she was not without claims to this title. She protected commerce, improved the laws, dug canals, founded towns, hospitals, and colleges. Pallis and others travelled at her expense. She endeavoured to put a stop to the abuses which had crept into the administration of the different departments of government; but she began without being able to finish. Civilization advanced but slowly in Russia under her reign; and her anxiety to enlighten her subjects ceased when she began to entertain the idea that the French revolution had been undermining the national prosperity. Laws, colonies, schools, manufactures, hospitals, canals, towns, fortifications, every thing was commenced, but frequently left unfinished for want of means. She issued no paper money. Several letters, and other compositions by her, in the French and Russian language, have been preserved. In 1781, a statue of Catharine, of white marble, in a sitting posture, was executed by professor Gothe, at Stockholm, in 1825. The manners of the Russian court, in her time, are set forth in the diary of Krampusky (St. Petersburg, 1820). Krampusky was her private secretary for ten years. Among several histories of her life are Tocque's Life of Catharine II., (3 vols.), and Castern's Histoire de Catharine II. (3 vols.).

CATHARINE PARR, sixth and last wife of Henry VIII., was the eldest daughter of Sir Thomas Parr of Kendal, and was, at an early age, distinguished for her learning and good sense. She was first married to Edward Burglme, and secondly to John Neville, lord Latimer, and, after his death, attracted the notice of Henry VIII., whose queen she became in 1543. Her zealoue encouragement of the reformed religion excited the anger and jealousy of George Fox, the Quaker, Wriothesley, and others of the Catholic faction, who conspired to ruin her with the king. Taking advantage of one of his moments of irritation, they accused her of heresy and treason, and prevailed upon the king to sign a warrant for her committal to the Tower. This being accidentally discovered to her, she repaired to the king, who purposely turned the conversation to religious subjects, and began to sound her opinions. The character of Catharine was, as she well knew, to reply, "that on such topics she always, as became her sex and station, referred herself to the wisdom of his majesty, as he, under God, was her only supreme head and governor here on earth." "Not so, by St. Mary, Kate," replied Henry; "you are, as we take it, become a doctor, to instruct, and not to be instructed by us." Catharine judiciously replied, that she only objected in order to be benefited by his superior learning and knowledge. "Is it so, sweet-heart?" said the king; "and tender your arguments to no worse end? Then are we perfect friends again." After the death of the king she espoused the lord admiral Sir Thomas Seymour, uncle to Edward VI.; but this connexion proved unhappy, and involved her in troubles and difficulties. She died in child-bed in 1548, not without suspicion of poison. She was a zealous promoter of the reformation. Among her papers, after her death, was found a composition, entitled Queen Catharine Parr's Lamentations of a sinner, bewailing the Ignorance of her Mind; a contrite meditation on the years she had passed in Catholic fasts and pilgrimages. It was published, with a preface, by the great lord Burleigh, in 1548. It was subsequently published under the title of "Prayers or Meditations, wherein the Mind is stirred patiently to suffer all Afflictions here, and to set at nought the vain Prosperitie of this World, and also to long for the everlasting Felicite." Many of her letters have also been printed.

CATHARINE PAWLOWNA, queen of Wurtemberg, grand-princess of Russia; born May 21, 1788; younger sister of the emperor Alexander, and widow of George, prince of Holstein-Oldenburg, whom she married in 1809, and thus got rid of a proposal of marriage made her by Napoleon. George died in Russia, December, 1812. She had two sons, by this marriage, born in 1810 and 1812. She was distinguished alike for beauty, talents, and resolution, and exhibited the tenderest affection for her brother Alexander. After 1812 she was frequently his companion in the campaigns in Germany and France, as well as at his residence at Petersburgh, and evidently had an important influence on several of his measures. It is said that she effected, in 1814, the marriage of the prince of Orange with her younger sister. In 1813, William, crown-prince of Wurtemberg, in Germany, formed an acquaintance with her, and they were betrothed in 1814. They were married Jan. 24, 1816, at Petersburgh; and, after the death of his father, in October, 1816, he ascended with her the throne of Wurtemberg.—She was a generous benefactor to her subjects in the famine of 1816. She formed the female associations existing throughout the country, and established an agricultural society. Shelaboured to promote the education of her people, and founded valuable institutions for the poor (particularly a school for educating and employing poor children), a school for the females of the higher classes, and savings banks for the lower classes, after the example of the English savings banks. Indeed, she interfered, often arbitrarily, in the internal economy of the state, and chiefly imitated the institutions of England. For the fine arts she had but little taste. She died Jan. 9, 1819, leaving two daughters.

CATHCART is a townland of the parish of Dunseverick, county Londonderry; and a barony and civil parish of the same name. Cathcart Castle is situated near the south-western extremity of the county of Down, on the coast of Strangford Lough. The townland of Cathcart is about three miles from Glasgow. Cathcart Castle (now a ruin) holds a commanding station above the river Cart. Near it stood queen Mary,
during the engagement of her forces with those of the regent Murray, at Langside, and there she witnessed the extinction of her hopes. A hawthorn bush, called queen Mary's thorn, marked out the spot where she stood till it decayed through age; another has been planted in its place. The name Cathcart is derived from Coer Cart, the castle of Cart, and the old pronunciation is still popularly retained. The family of Cathcart obtained a peerage from James II. in 1442. Population of the parish, 29822, CATHEDRAL; the Episcopal church of a diocese. The word is derived from the Greek καθήδρα, a seat or bench. From the early times of the Christian church, the bishop presided in the presbytery, or the assembly of priests. He was seated on a chair, a little higher than that of the others. The whole meeting of priests was called cæthēdrā; and, at a later period, when Christians were allowed to build churches, this name was applied to the Episcopal churches, and the name basilica to the particular churches erected in honour of a saint or a martyr. In the middle ages, the cathedral received the form of the cross. Several of the old churches are masterpieces of Gothic architecture. Among these are the cathedral at Oviedo, that at Milan (see Storia e Descrizione del Duomo di Milano (commenced in 1387, and not yet finished), by Gaet. Franchetti, with engravings; Milan, 1821, 4to); those at Toledo and Burgos, in Spain; those of Rheims, Paris, Reims, and the church of Notre-Dame, in Paris (see Cathédrales Françaises, dessinées, lithogr. et publ. par Chapuy, avec un Atlas historique et descriptif, par Jolimont, 36 numbers, Paris, 1823, et seq. It contains views of twenty-five cathedrals). Those at Luzli, Drontheim, Upsel, at York, Salisbury, and Canterbury, also Westminster abbey, are celebrated (see J. Britton's History and Antiquities of the Metropolitan Church of Canterbury, London, 1823, with engravings; and Cathedral Antiquities, by the same author). The cathedrals at Oppenheim, Ulm, Marburg, Meissen, Freiburg (q. v.), in the Brisgau, are fine buildings (see Dr. Moller's Denkmale der Deutschen Baukunst, Darmstadt, 1825; and F. W. Schwechten's Der Dom zu Meissen, bildl. dargest. u. beschr, Berlin, 1826, three nos.). Respecting the cathedral of Cologne, see Boisserée. (For further information, see Wiebecke's work Die Kathedralen von Rheins und York, nebst den Erbauungen neuer und wiedererworbener Kirchen, Munich, 1825, fol., with engravings.) In Rome there has appeared, since 1822, the Collection of the oldest Christian Churches, or Basilicas, of Rome, from the 4th to the 13th century; drawn and published by J. G. Gutensohn and J. M. Oppenheim (architects); accompanied by an Archæol. Histor. Description, by Anh. Nibby, professor of Archæology in the University at Rome; seven numbers, each containing seven plates. From a work published at Milan, entitled Chiavi principali d'Europa, we extract the following measurements of celebrated buildings.

<table>
<thead>
<tr>
<th>St Peter's, at Rome.</th>
<th>English feet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of the cathedral</td>
<td>233</td>
</tr>
<tr>
<td>External diameter of the cupola</td>
<td>158</td>
</tr>
<tr>
<td>Total height</td>
<td>445</td>
</tr>
</tbody>
</table>

Cathedral at Milan.

<table>
<thead>
<tr>
<th>Feet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of the front</td>
</tr>
<tr>
<td>Width of the cross</td>
</tr>
<tr>
<td>Total height</td>
</tr>
</tbody>
</table>

Pantheon at Rome.

<table>
<thead>
<tr>
<th>Pied.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of the portico</td>
</tr>
<tr>
<td>Width of the</td>
</tr>
</tbody>
</table>

The measurements of this edifice are given in feet; but they are neither Roman nor Parisian, nor any other feet we are acquainted with.

<table>
<thead>
<tr>
<th>Cathedral.</th>
<th>English feet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of the facade</td>
<td>149</td>
</tr>
<tr>
<td>Height from the ground to the top of the cross</td>
<td>450</td>
</tr>
<tr>
<td>Greatest breadth between the two chief towers</td>
<td>235</td>
</tr>
</tbody>
</table>

Santa Maria del Fiore, Florence.

<table>
<thead>
<tr>
<th>Feet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole length</td>
</tr>
<tr>
<td>Total height</td>
</tr>
</tbody>
</table>

CATHERINE, See Catharine.

CATHERINES, Sr; an island near Brazil, in the South Atlantic ocean; lon. 47° 15' W.; lat. 27° 10' S. It is twenty-four miles in length and six in breadth, and contains above 30,000 inhabitants. Santa Cruz is its principal fort.

CATHOLIC CHURCH. See Roman Catholic Church.

CATHOLIC EMANCIPATION. Emancipation, with the Romanists, signified the release of a son from the power of his father, or of a slave from that of his master. It was performed before the pretor, attended by certain solemnities. By the emancipation of the Catholic profession, the Roman Catholics were enabled to be civil and ecclesiastical restraints to which the Catholics of Great Britain, and particularly of Ireland, were once subjected. Ireland, from the time of its subjugation, was maltreated by its conquerors; and repeated attempts, on the part of the natives, to free themselves from foreign domination, only increased the severity of their rulers. (See Orangemen.) The Catholic inhabitants of the country were excluded from public offices, and from all participation in the choice of members of parliament. None but the Anglo-Irish, belonging to the Episcopal church, which had now become the established church in Ireland—men who possessed the greatest part of the landed property, that had been torn from the original inhabitants—were eligible to public offices, or to a seat in parliament. In this oppressed condition the Irish Catholics remained till 1793. But when the principles disseminated at the time of the French revolution produced a general fermentation, which extended to the Irish Catholics, a lively desire was awakened in them to obtain equal rights with their Protestant fellow citizens. They were supported in England itself by a very respectable party, Burke repeatedly spoke in parliament in favour of their emancipation. In 1782, they presented a petition, praying for the abolition of all the restrictions to which they had hitherto been subjected. Upon this, a recommendation was addressed from the throne to the Irish parliament to contrive means for the mollification of the condition of the Catholics. Accordingly, the Irish act, so called, was passed in 1782, which conferred the elective franchise on the Catholics, threw open to them all employments in the army in Ireland, and all offices in the navy. Three offices in the army only were excepted—those of the commander-in-chief, master-general of the ordnance, and generals on the staff. They continued to be excluded, however, from thirty public offices, and from parliament—an arrangement which could not be changed without a repeal of the corporation and test acts (q. v.). A part of the Irish Catholics were satisfied with the concessions. Another party, however, encouraged by difficulties who had entered into connexion with France, cherished the hope that Ireland would succeed, with the help of France, in freeing itself from the British power. An insurrection speed-
CATHOLIC EMANCIPATION.

103

ily broke out, which was quelled by the severity of the governor, Lord Camden. It blazed forth again, however, in 1798, and Ireland became the theatre of a new civil war. By this rebellion, judicious men, both in England and Ireland, were convinced that, as long as the two kingdoms had separate legislatures, the people of both would clearly perceive the difference of interest that of the stronger, and the inhabitants of the two kingdoms thought their interests inconsistent, jealousy and distrust would continue. The Anglo-Irish, also, who had previously desired the independence of Ireland, and, at first, supported the rebellion, perceived that the separation of the two Catholics, and their bitter enmity to the Protestants, would make the separation of Ireland from Britain a great misfortune for them. It was resolved, then, to unite Ireland with Britain; and, three years after the last rebellion, the union was effected, and the united parliament was opened, Jan. 22, 1801. In regard to ecclesiastical affairs, nothing further was provided in the act of union, than that the Episcopal church in Ireland should remain the established church, and should constitute, with the English, one church of the united kingdom. To the Catholics, nothing was done, and Pitt observed that it would be well to reserve this business for future deliberation. The united parliament had been in session but a few days, when reports were spread, which cast a dark shade over the union, and gave occasion for much anxiety. The Catholics in Ireland, it was said, complained of the nonfulfilment of expectations which had been held out to them, to make them favourable to the union. Full emancipation had been promised them, as a certain consequence of it. Pitt, the author of the union, had pledged himself, with his colleagues, to promote the fulfilment of this wish of the Catholics. After the union was completed, invincible obstructions were found in the way of the accomplishment of their promise. Pitt and his colleagues had encouraged these hopes with the expectation of being able to fulfill them. For this reason, they explained, and the union was completed, to obtain an act of parliament, by which admission to parliament and to offices of state, from which the Catholics were still excluded, should be made possible for a certain number of them, by dispensing with the test-oath. But the king set himself to reverse his measure, as being unwise in the days of his coronation-oath. Pitt and his colleagues, therefore, in 1801, resigned their places. Pitt foresaw that, if both houses agreed to this measure, the king would still withhold his permission; and thus the discontent of the Catholics would be directed against the person of the king himself. This, like a wise statesman, he wished by all means to avert; and, on this ground, in 1803, he spoke against the emancipation, when the opposition proposed anew to grant the Catholic a seat and a voice in parliament, and admission to all offices of state. During later years, the petition was renewed, and it was several times renewed in vain. In 1822, on the motion of Mr Canning, a bill was passed, in the house of commons, by a majority of twenty-one voices, enabling Roman Catholic peers to sit in parliament and to have their votes recorded. The same happened in 1825, when the duke of York, who died in 1827, solemnly opposed it. In 1827, under Canning’s administration, the motion for emancipation was lost, in the house of commons, by a majority of three. The measure was, at last, eventually defeated by the administration of Lord Liverpool. The disturbances in Ireland were assuming continually a more organized character, under the influence of the Catholic association, which was spread through the country, and directed by men of great abilities—such as O’Connell and Shiel—so that his grace was, at last, driven to support the cause of emancipation. Mr Peel, who had formerly spoken warmly against emancipation, now moved it in the house of commons. One of the chief opposers of the measure was Lord Eldon, the former lord chancellor; one of the chief followers of the Roman Catholics—also took part with the opponents. The emancipation of the Catholics is so interesting an event, that the following abstract of the fate of various motions respecting it may not be unacceptable to our readers. In the year 1805, a majority of 129 in the house of lords, and of 212 in the house of commons, refused to act on the petition of the Catholics, moved severally by lord Grenville and Mr Fox. In 1807, lord Grenville withdrew his motion in favour of emancipation, it being understood that his majesty was averse to it. In 1808, Mr Grattan’s motion was rejected, in the house of commons, by a majority of 153, and lord Donoughmore’s, in the house of lords, by a majority of eighty-seven. In 1810, a motion to the same effect, by the same members, was again lost, by a majority of 112 in the commons, and of 116 in the lords. In 1813, there was a majority of 72 in the lords, and 85 in the commons, against the movers. Mr Canning’s motion was lost, in the same year, by a majority of 129 in the commons, and that of the marquis of Wellesley, by a majority of 113 in the lords. In 1815, the motions of Mr Grattan, Sir John Cox Hippesley, and doctor Duigenan, drew forth majorities against the Catholics of forty-eight, forty-eight, and forty-two, and, on the 24th of May, the bill was given up. In 1821, Mr Plunkett carried the bill through the house of commons by a majority of nineteen; but it was lost in the lords by a majority of thirty-three. In 1822, Mr Canning carried it, in the commons, by a majority of twenty-one; but it was thrown out, in the lords, by a majority of forty-two. In 1825, Sir Francis Burdett carried it, in the commons, by a majority of twenty-seven; but it was again thrown out, in the lords, by a majority of forty-two. In 1827, Sir Francis Burdett’s motion for a committee was lost, in the commons, by a majority of three. In 1828, the motion for a conference with the lords was carried, in the commons, by a majority of six; but thrown out, in the lords, by a majority of forty-five. And, in 1829 (April 10), a resolution, which declared the civil disabilities on Roman Catholics, by repealing the oaths of supremacy, &c., was carried through the commons by Mr Peel, with a majority of 180 on the second reading, and 178 on the third; and through the lords, by the duke of Wellington, with a majority of 105 on the second reading, and 104 on the third. By this bill, Catholics are eligible to all offices of state, excepting the lord-chancellories of England and Ireland, the lord-lieutenancy of Ireland, the office of regent or guardian of the United Kingdom, and that of high commissioner to the church of Scotland. This bill is carried out from the right of presentation to livings, and all places connected with the ecclesiastical courts and establishment. The church patronage attached to any office in the hands of a Catholic is vested in the archbishop of Canterbury. Attached to the bill is a clause by which the civil disabilities on the Jesuits and monastic orders (religious establishments of females excepted) At the same time, the duke carried a disrelationship bill, by which the forty shilling freeholders of Ireland were disfranchised, and the income of real estate necessary to entitle a Roman Catholic to the duke of the country raised to ten pounds sterling. There has been published a History of the late Catholic Association of Ireland, from its institution, in 1760, to its final Dissolution in 1828; by Thomas Wyse, junior,
CATHOLIC EPISTLES—CATILINE.

Esg., of one of the members of that body; London, 1829, 2 vols. 8vo.

CATHOLIC EPISTLES; a name given to seven epistles of the New Testament, because written to Christians in general, and not to believers of some particular place. They are, one of James, two of Peter, three of John, one of James, and one of Jude. CATHOLIC MAJESTY; a title which pope Alexander VI. gave to the kings of Spain, in memory of the perfect expulsion of the Moors out of Spain, in 1491, by Ferdinand of Aragon. But even before that time, and especially after the council at Toledo, in 1212, during Spanish kings had borne this title of CATHILINE, LICINUS SUGRESSUS, was just entering on the age of manhood when Rome became a prey to the rage of Marius and Sylla. Of patrician birth, he attached himself to the cause of the latter, had some share in his success, and still more in his pro-
scriptions. Murder, rape, and confiscations were the first deeds and pleasures of his youth. His in-
fuence on the fortunes of the disordered republic became important. He appears to have served in the army with reputation. He was peculiarly dan-
ergous and formidable, as his power of dissimulation enabled him to throw a veil over his actions. Such was his art, that, while he was poisoning the minds of the Roman youth, he gained the friendship and esteem of the severe Catulus. Equally well quali-
fi ed to deceive the good, to intimidate the weak, and to inspire his own boldness into his despised as-
sociates, he evaded two accusations brought against him by Clodius, for criminal intercourse with a ves-
tal, and for monstrous extortions, of which he had been guilty while proconsul in Africa. He was sus-
pected, also, of having murdered his first wife and his son. A confederacy of many young men of high birth and character, who saw no other means of extricating themselves from their enormous debts, than by obtaining the highest offices of the state, having been formed, Catiline was placed at their head. This eminence he owed chiefly to his con-
exion with the old soldiers of Sylla, by means of whom he kept in awe the towns near Rome, and even Rome itself. At the same time, he numbered among his adherents not only the worst and lowest of the riotous populace, but also many of the patri-
cians, and men of consular rank. Every thing favou-red his audacious scheme. Pompey was pursuing the victorious Lucullus had prepared for him; and the latter was not a subtle supporter of Catiline's patri-
ion in the senate, who wished him, but in vain, to put himself at their head. Crassus, who had delivered Italy from the gladiators, was now striving, with mad eagerness, after power and riches, and, instead of opposing, countenanced the growing influence of Catiline, as a means of his own aggrandizement. Cesar, who was labouring to revive the party of Marius, sparned Catiline, and, perhaps, even encour-
aged him. Only two Romans remained determined to uphold their falling country—Cato and Cicero; the latter of whom alone possessed the qualifications necessary for the task. The conspirators were now planning the elevation of Catiline and one of his ac-
plices to the consulsiphip. When this was effect-
et, they hoped to obtain possession of the public treasures and the property of the citizens under vari-
ous pretexts, and especially by means of proscrip-
tion. It is not probable, however, that Cicero or any of the others had promised them the liberty of burning and plundering Rome. Cicero had the courage to stand candidate for the consulsiphip, in spite of the impending danger, of the extent of which he was perfectly aware. Nevertheless, nor even threats, nor even execu-
tions and at-
tempts to assassinate him, deterred him from his pur-
pose; and, being supported by the rich citizens, he
}
battle was fought with bitter desperation. The insurgents all fell on the spot which the leader had assigned them, and Catiline at their head, at Pistoia, in Etruria, 5th Jan., B. C. 62. The history of Catiline's conspiracy has been written by Sallust.

CATINAT, Nicholas, marshal of France, was born at Paris, 1637. He quitted the profession of the law for that of arms, at the notice of Louis XIV., at the storming of Lille (1667), and was promoted. By a number of splendid deeds, he gained the esteem and friendship of the great Condé, particularly by his conduct at the battle of Senet. He was sent as lieutenant-general against the duke of Savoy, and took Villeroi (1690) and of Marsaglia (Oct. 4, 1693), occupied Savoy and part of Piedmont, and was made marshal in 1693. In the conquered countries, his humanity and mildness often led him to spare the vanquished, contrary to the express commands of Louis XIV. In Flanders, he displayed the same activity, and took Ath, in 1697. In 1701, he received the command of the army of Italy against prince Eugene; but he was straitened by the orders of his court, and was destitute of money and provisions, while Eugene was allowed to act with full liberty. July 6th, he was defeated by the newly-united forces under the command of the battle of Chieri, where Villeroi had the chief command. It was here, while rallying his troops, after an unsuccessful charge, that he replied to an officer who represented to him that death was inevitable in such an encounter, "True, death is before us, but shame behind." In spite of his representations, the French court would not believe the disasters in Savoy to be owing to the perjury of the duke of Savoy, and Catinat was disgraced. He bore his misfortune with calmness, and died at St Gratien, in 1712. He was a true philosopher, religious without austerity, a courtier without intrigue, disinterested and generous when in favour, and chivalrous in disgrace. From his unalterable calmness and consideration, his soldiers called him le Père de la Pensee.

CATO THE CENSOR (Marcus Porcius), surnamed Priscus, also Sapiens and Major (the Wise and the Elder), was born 232 B.C., at Tusculum, and inherited from his father, a plebeian, a small estate, within the territory of the Sabines, which he cultivated with his own hands. He was a youth at the time of Hannibal's invasion of Italy. He served his first campaign, at the age of seventeen, under Fabius Maximus, when he besieged Capua. Five years after, he fought in Spain against the Carthaginians, under the command of Tarentum. After the capture of this city, he became acquainted with the Pythogorean Neatres, who initiated him into the sublime doctrines of his philosopher, with which, in practice, he was already conversant. After the war was ended, Cato returned to his farm. As he was versed in the laws, and a fluent speaker, he went, at day-break, to the neighboring towns, where he acted as counsellor and advocate to those who applied to him. Valerius Flaccus, a noble and powerful Roman, who had an estate in the vicinity, observed the talents and virtue of the youth, conceived an affection for him, and persuaded him to remove to Rome, where he promised to assist him with his influence and patronage. A few rich and high-born families then stood at the head of the republic. Cato was poor and unknown, but his eloquence, which some compared to that of Demosthenes and Cicero, and his unbroken habits of industry, soon drew the publicattention to him. In court, and in the popular assemblies, he answered to the fine definition which he himself gave of an orator, and which Quintilian has preserved to us; "a virtuous man skilled in the art of speaking well." At the age of thirty, he went as military tribune to Sicily. In the following year, he was questor, at which period they contended, both in him and Scipio, a rivalry and hatred, which lasted till death. Cato, who had returned to Rome, accused Scipio of extravagance; and, though his rival was acquitted of the charge, this zeal in the cause of the public gaince Cat o a great influence over the people. Five years after, having been already tribune, he was chosen praetor, and obtained the province of Sardinia. His strict moderation, integrity, and love of justice, were here still more strongly displayed than in Rome. On this island, he formed an acquaintance with the poet Ennius, of whom he learned Greek, and whom he persuaded to take up his abode in Rome. In 1637, he finally made consul, 192 B. C., with his friend Valerius Flaccus for his colleague. He opposed, with all his power, the abolition of the Oppian law, passed in the pressing times of the second Punic war, forbidding the Roman women to wear more than half an ounce of gold, to dress in garments of various colours, or to wear other ornaments; but he was obliged to yield to the eloquence of the tribune Vale- rius, and the urgent importunities of the women. Soon after, he set out for Spain, which was in a state of rebellion. His first act was to send back to Rome with money and provisions, to him, by the consul Cato, who had been provided with an army, declaring that the war ought to support the solid citizens. He gained several victories with a newly-raised army, reduced the province to submission, and returned to Italy, where the honour of a triumph was granted to him. Scarcely had he descended from his triumphal car, when he put off the toga of the consul, arrayed himself in the soldier's habit, and followed Sempronius to Tharsus. He afterwards put himself under the command of the consul Manius Acilius, to fight against Antiochus, and to carry on the war in Thessaly. By a bold march, he made himself master of the Callidromus, one of the highest peaks of the mountain pass of Thermopylae, and thus decided the issue of the battle. He brought the intelligence of this victory to Rome, 189 B. C. Seven years after, he obtained, in spite of a powerful faction opposed to him, the most honourable, and at the same time the most feared, of all the magistracies of Rome, that of censor. He had not canvassed for the office, but had only expressed his willingness to fill it. In compliance with his wishes, Valerius Flaccus was chosen his colleague, as the only person qualified to assist him in correcting the public disorders, and restoring the ancient purity of morals. He fulfilled his duty with integrity, though his measures caused him some obloquy and opposition, they met, in the end, with the highest applause, and, when he resigned his office, it was resolved to erect a statue to him with an honourable inscription. He appears to have been quite indifferent to the honour, and when, before this, some one expressed his wonder that no statue had been erected to him, he answered, "I would rather have it asked why no image has been erected to Cato than why one has." Still he was not void of self-complacency. "Is he a Cato, then?" he was accustomed to say, when he would excuse the errors of another. Cato's political life was a continued warfare. He was continually accusing, and was himself accused with animosity, but was always acquitted. His last public commission was an embassy to Car thage, to settle the dispute between the Carthaginians and King Juba. The cause of the dispute was the discovery of silver in the silver mine of the Carthaginians, which mine was the original cause of the destruction of Car thage; for Cato was so astonished at the rapid recovery of this city from its losses, that he ever after ended every speech of his with the well-known words, "Fratera censeo, Carthaginem esse defen- dan " (I am also of opinion that Carthage must be
Cato. CATO. destroyed. He died a year after his return (147 B.C.), eighty-five years old. Cato, who was so frugal of the public revenues, was not indifferent to riches. He was rigorously severe towards his slaves, and considered them quite in the light of property. He made every exertion to promote and improve agriculture. In his old age, he gave himself up to the company of his friends and the pleasures of the table. To this the verses of Horace allude—

Narrat or et priest Catonis
Sapere muro custumus virtus.

He was twice married, and had a son by each of his wives. His conduct as a husband and a father was equally exemplary. He composed a multitude of works, of which the only one extant is the De rustica. Those of which the loss is most to be regretted are his orations, which Cicero mentions in terms of the highest encomium, and his history of the origin of the Roman people, which is frequently quoted by the old historians.

Cato, Marcus Porcius (called, to distinguish him from the censor, his great grandson, Cato of Utica, the place of his death), was born 93 B.C., and, after the death of his parents, was brought up in the house of his uncle, Livius Drusus. He early discovered great maturity of judgment and firmness of character, which made them conspicuous of him. In his fortieth year, when he saw the heads of several proscripted persons in the house of Sylla, by whose orders they had been murdered, he demanded a sword of his teacher, to stab the tyrant, and free his country from servitude. With his brother by the mother's side, Caipio, he lived in the tenderest friendship. Cato was chosen priest of Apollo. He formed an intimacy with the Stoic Antipater of Tyre, and ever remained true to the principles of the Stoic philosophy. His first appearance in public was against the tribunes of the people, who wished to pull down a basilica erected by the censor Cato, which was in their way. On this occasion, he displayed that powerful eloquence, which afterwards rendered him so formidable, and won the cause. He served his first campaign as a volunteer in the war against Spartacus, and distinguished himself so highly, that the pretor Gellius awarded him a prize, which he refused. He was sent as military tribune to Macedonia. When the term of his office had expired, he travelled into Asia, and carried the Stoic Athenodorus with him to Rome. He was next made quaeator, and executed his difficult trust with the strictest integrity, while he constantly reproved the officers for their acts of extortion and violence. His conduct gained him the admiration and love of the Romans, so that, on the last day of his quaeatorship, he was escorted to his house by the whole assembly of the people. The fame of his virtue spread far and wide. In the games of Flora, the dancers were not allowed to lay aside their garments as long as Cato was present. The troubles of the state did not permit him to remain in seclusion. The example of Sylla, in usurping supreme power, was followed by many ambitious men, whose mutual dissensions were all that saved the tottering constitution from immediate ruin. Crassus hoped to purchase the sovereignty with his gold; Pompey expected that it would be voluntarily conferred upon him; and Caesar, superior to both in talent, united himself to both, and made use of the wealth of the one, and the reputation of the other, to attain his end. He pressed against them a prætext, which he refused. At the head of the senate, the sole prop of the republic, stood Catulus, Cicero, and Cato. Lucullus, who stood very high in the favour of the army, which he had so victoriously commanded, might alone have upheld the sense, had he not, like Cato, desired in order to enjoy his wealth than to devote himself to the care of the commonwealth.

Cato, keeping aloof from all parties, served the commonwealth with integrity and courage; but he often injured the cause which he was so desirous of benefit, by the inflexibility of his character. He was on the way to his estate, when he met Metellus Nepos, who was travelling to Rome to canvass for the tribuneship. Knowing him to be a dangerous man, Cato returned immediately, stood candidate for the office himself, and was chosen, together with Metellus. About this time, the conspiracy of Catiline broke out. Cato supported with all his power the consul Cicero, first gave him publicly the name of father of his country, and urged, in a fine speech preserved by Sallust, the rigorous punishment of the traitors. He opposed the proposal of Metellus Nepos to recall Pompey from Asia, and give him the command against Catiline, and came near losing his life in a riot excited against him on this account by his colleague and Caesar. After the return of Pompey, he frustrated many of his ambitious plans, and first predicted the consequences of his union with Crassus and Caesar. He afterwards opposed, but in vain, the division of lands in Campania. Caesar at that time abused his power so much as to send Cato to prison, but was constrained, by the murmurs of the people, to set him at liberty. The triumvirate, in order to remove him to a distance, had him make an embassy to the king under some frivolous pretext. He was compelled to obey, and executed his commission with so much address that he enriched the treasury with a larger sum than had ever been deposited in it by any private man. In the mean time, he continued his opposition to the triumvirate. endeavouring to prevent the passage of the Tribonian law, which invested Crassus with an extraordinary power, he was a second time arrested; but the people followed him in a body to the prison, and his enemies were compelled to release him. Being afterwards made pretor, he carried into execution a law against bribery, that displeased all parties. After the death of Crassus, the civil commotions increased, and Cato, as the only means of preventing greater evils, proposed that Pompey should be made sole consul, contrary to the constitution, and the proposition was adopted. The year following, Cato lost the censorship by refusing to take the steps necessary for obtaining it. At this time the civil war broke out. Cato, then propretor in Sicily, on the arrival of Curio with three of Caesar's legions, departed for the camp of Pompey, at Dyrrachium. He had still been in hopes to prevent the war by interposition, and spared his officers from mourning in token of his grief. Pompey, having been victorious at Dyrrachium, left Cato behind to guard the military chest and magazine, while he pushed after his rival. For this reason, Cato was not present at the battle of Pharsalia after which he sailed over with his troops to Cyrene, in Africa. Here he learned that Pompey's father-in-law, Scipio, had gone to Juba, king of Mauritania, where Varus had collected a considerable force. Cato immediately set off to join him, and, after undergoing hunger, thirst, and every hardship, reached Utica, where the two armies effected a junction. The soldiers wished him to be their general, but he gave this office to Scipio, and took the command in Utica, while Scipio and Labienus sallied out against Caesar. Cato had advised them to protract the war, but they ventured an engagement, in which they were entirely defeated. Scipio also fell, and Cato. Cato had at first determined to defend himself to the last, with the senators in the place; but he afterwards abandoned this plan, and dismissed all who wished to leave him. His resolution was taken. On the evening before the day which he had fixed for executing it, he took a frugal meal, and discussed
CATOPTRICS—CATULLUS

various philosophical subjects. He then retired to his chamber, and read the Phaedo of Plato. Antici-
pating his intentions, his friends had taken away his sword. On finding that it was gone, he called his
shelves, and demanded it with apparent equanimity;
but was still kind-hearted, and threw himself on the
side of the slaves, who was endeavoring to pacify him.
His son and his friends came with tears, and be-
sought him to refrain from his purpose. At first he
reproached his son for disobedience, then calmly
advised those present to submit to Caesar, and dis-
missed all but the philosophers Demetrius, Apol-
louis, whom he asked if they knew any way by
which he could continue to live without being false
to his principles. They were silent, and left him, weep-
ing. He then received his sword joyfully, again
read Phaedo, slept a while, and, on awaking, sent
to the port to inquire if his friends had departed. He
heard, with a sigh, that the sea was tempestuous.
He had again sunk into slumber, when word was
brought him that the sea was calm, and that all was
tranquil in the harbour. He appeared satisfied, and
was scarcely alone when he stabbed himself with his
sword; his face was overthrown, and of a sloop, into
which he had fallen, to bind up his
wounds; but, on coming to himself, he tore off the
bandages, and expired (44 B.C.).

The Uticans buried him honourably, and erected a statue to him. But Caesar, when he heard the news of his death,
exclaimed, "I grudge thee thy death, since thou
hasst exclaimed, "I grudge thee thy death, since thou
Vetrix causa dies placuit, sed vieta Catoni.

CATOPTRICS (from nacor0, a mirror); the science
which treats of reflected light. See Optics.

CATRINE; a village of Scotland, pleasantly sit-
uated on the northern bank of the river Ayr, about
fourteen miles from the town of that name, and thirty-
two south of Glasgow. It was constructed, in 1787,
by Mr Alexander of Ballochny, and Mr David
Dale of Glasgow, for the accommodation of the
workers employed in the extensive cotton factories
erec"ted there at the same time. The population
of the place may be about 3,000. It is provided with a
good hospital.

CATS, JAMES; born in 1577, at Brouwershaven,
in Zeeland; one of the fathers of the Dutch language
and poetry. He studied at Leyden and Orleans.
In 1627 and 1631 he was ambassador to England,
and afterwards grand pensioner of Holland. His
poetry is distinguished for simplicity, naiveté, rich-
ness of imagination, and winning though unpredict-
ing morality. His works consist of allegories, ac-
cording to the taste of his times, poems on the differ-
ent ages and situations of life, idyls, &c. He died in
1662.

CATSKILL MOUNTAINS; a range of moun-
tains in New York, much the highest in the state.
They extend along to the west of the Hudson, from
which their base is, at the nearest point, eight miles
distant. The principal summits are in Greene coun-
ty. The two most elevated peaks are Round Top
and High Peak. The former, according to the mea-
surement of captain Partridge, is 3804 feet above the
level of tide water; and the latter, 3718 feet. The
Catskill mountains present scenery of singular beauty
and grandeur, and have become a noted resort of
travellers during the summer. On a level tract of
the mountain, 2214 feet above the level of tide water,
a large and commodious house has been erected for the accommoda-
tion of visitors. It is situated directly on the brow
of the mountain, and commands an enchanting view
of the country on both sides of the Hudson, embrac-
ing a tract about 100 miles in length and 50 in
breadth. This place, which is twelve miles from the
town of Catskill, is approached by a good turnpike
road, which winds to the left of the summit of the
mountain. Two miles west of Pine Orchard are the fine cascades
of the Kantskill, a stream which is supplied by two
small lakes situated high in the mountains. The
upper fall is 175 feet in height; and a few rods below
is the other, of 80 feet, both perpendicular. The
stream passes down into a deep and very picturesque
rivine, which is bordered by mountains rising abruptly
1000 or 1500 feet.

CATSUP. See Ketchup.

CATTAHO; a seaport in Dalmatia, capital of a
circle of the same name (formerly called Venetian
Albania), at the bottom of the gulf of Cattaro (bocca
di Cattaro), on the E. side of the Adriatic; twenty-
five miles W. N. W. Seutari, thirty S. E. Ragusa;
lon. 18° 58' E.; Int. 42° 17' N.; population, 2,500.
It is a bishop's see. It contains a cathedral, seven-
teen Catholic churches and chapels, one Greek
church, and one of the largest and most regular
harbour, one of the most secure in Europe, being de-
ferred by a castle and strong battlements, and en-
closed with rocks of such height, that the sun is
seen in winter only a few hours in the day. Popula-
tion of the circle, 31,579; square miles, 296.

CATTEGAT; a large gulf of the North sea, be-
" tween North Jutland to the W., Norway to the E.,
and the Danish islands of Zealand, Fnen, &c., to the
S.; about 120 miles from N. to S., and between 60
and 70 from E. to W. The adverse winds which of-
ten prevail here render the navigation dangerous.
The Cattégat is a large seaport, it contains the
islands Samsøe, Anholt, Lessoe, and
Hertzhoul.

CATTI; one of the most renowned and valiant
German tribes. They inhabited what is now Hesse,
also part of Franconia and Westphalia. They car-
ried on bloody wars with the Hermesdi and Che-
russi. In the time of Caesar they dwelt on the Lahn,
and opposed him with effect. Drusus defeated out-
without reducing them. In the reign of Marcus Aureli-
us they made incursions into Germany and Thrace,
but were afterwards defeated by Didius Julianus.
In 297 they made their last endeavor in his union with the
Franks. According to Caesar, their territory was divided into 100 districts, each of which
was obliged to send annually 1000 men into the field,
whose place was supplied the following year by those
who had before remained at home to cultivate the
ground. Their food was milk, cheese, and game;
their dress the skins of animals. Their limited prin-
ces, who governed in connexion with a diet, annually
distributed the lands among the families. See Ger-
maniae.

CATULLUS, CATUS VALERIUS, a famous Roman
poet, born, B.C. 80, at Verona (according to some,
at Sirnium, a small town on a peninsula of lake Be-
cacus, now lago di Garda), of rich and respectable
parents, went, in his youth, to Rome, where his ac-
complishments soon won him the favour of those who
adored that splendid era. He was the friend of Ci-
cero, of Plauces, Cinau, and Cornelius Nepos; to the
last he subsequently dedicated the collection of his
poems. This collection is not of great extent, but
shows what he was capable of doing in several kinds
of poetry, had he preferred a steady course of study
to pleasure and travelling. Probably a part of his
poems have never come to light, for his productions there has been but one opinion among
the ancients as well as moderns. Tibullus and Ovid
eulogize him; and Martial, in one of his epigrams,
CAUBUL, or CAUBUL. See Afghanistan.

CAUCASUS; a chain of mountains in Western Asia, extending from south-east to north-west, and occupying the Istamid (containing 127,140 square miles) between the Black and Caspian seas. The length of the whole chain is estimated at 644 miles; the breadth is various; from Mordox to Tiflis it may be estimated at 184 miles. Torrents, precipices, and avalanches render the mountains almost impassable. The Caucasus is divided into two parallel chains. The central ridge, from which the mountains fall off on each side, consists of various sorts of granite. The summits are covered with snow and ice, and are mostly barren; the lower parts are clothed with thick forests.

On the western declivity is the Elburz, which a Russian measurement makes 16,700 feet high. The Caspik is 17,388 feet high. The most elevated summit (the Snowy mountain) is on the eastern side, a few miles west of the Cuban. It was first ascended by an European traveller in 1810. It is also called Schah-Bagheh (King's mountain) and Schach-Elbours; Elbours being the common name of all the high, conical summits rising from the chain of the Caucasus. The limit of perpetual snow on these mountains is 1800 feet higher than on the Alpine regions of Savoy and Switzerland.

Two of the passes, or gates, as they are often called, are remarkable—the Caucasian pass and the Albanian or Caspian pass. Most of the rivers, which take their rise in the Caucasus, flow in an easterly direction to the Caspian, and in a westerly course to the Black sea. On the northern declivity, the Terek flows easterly into the Caspian, and the Cuban westerly into the Black sea; beyond these rivers, the mountainous chain sinks down, by degrees, to the sandy plains in the south of Russia. On the southern declivity, the Kur flows westerly into the Caspian, and the Rioni (called by the ancients the Phasis) westerly into the Black sea; beyond these rivers rise the mountains of Turkish and Persian Armenia, which connect the Caucasus with the other chains of Western Asia. The highest ridge of the Caucasian chain is rugged and barren, but the southern declivity is extremely fruitful. The whole surface of the country abounds in forests and fountains, orchards, and vineyards, corn fields, and pastures, in rich alternation. Grapes and various kinds of fleshy fruits, chestnuts, and figs, grow spontaneously. Grain of every description, rice, cotton, and hemp flourish abundantly. But agriculture is not yet so improved, partly owing to the indolence of the inhabitants, and partly to their want of numbers and of security, as the people of the mountains, particularly the Circassians, in their plundering expeditions, rob the cultivators of their harvests, industry, and carry off the men for slaves. There are multitudes of wild animals of every description here. The pheasant is a native. The mineral kingdom is full of the richest treasures, which are nearly untouched. Mineral waters abound, and there are fountains of petroleum and naphtha in many districts. Some fountains throw up a slime with the petroleum, which, being spread out, is prepared in the same style by the natives growing mountains. The medicinal baths are called by the general name of the baths of Alexander.

The inhabitants consist of small tribes of various origin and language—Georgians, Abassians, Circassians, Tschakhs, Khists, Ingouchees, Chechouls, Tatbelskens, Tartars, Armenians, and Turks, in some regions, wandering Tribes. Some of them are Greek and Armenian Christians; others are Mohammedans; others, Jews; and others worship stars, mountains, rocks, and trees. Many of the tribes are distinguished for the beauty, symmetry, and strength of their frames, particularly the Circassians and Georgians, who are the handsomest people in the world; hence the charming Circassian and Georgian females are sought for by the Eastern monarchs for their harams. The Caucasians (about 900,000 in all) are partly under petty sovereigns, who often rule over a few villages, and partly under the Turks. There are also inhabitants of the Isthmus who inhabit the Eastern regions, and are the terror of the Armenians, Persians, Turks, and Georgians. Freedom makes them courageous and formidable to all their neighbours. They are forced, by the want of the most common necessities of life, to resort to plunder. Hence their weaker neighbours have to appease them with presents. They are the rocks and crags, on the other hand, that protract the life of the whole nation, and keep it in existence. They are restless, hardy and active; and they are also the only persons that keep the missionaries and government in check, and who are enabled to resist the power of the sovereign, and to attempt to gain their independence by force of arms. They are the only people of that race who are capable of standing for a long time under Russian superiority and discipline.
inhabitants), with Bakou, the best harbour in the Caspian. This region, from its abundance of beautiful flowers, is called the Paradise of Roses. In the neighbourhood are the fountains of naphtha, to which the Parsees perform pilgrimages from India. Here, too, is the temple of fire, where a fire is kept perpetually burning.

Beyond Terek, on the northern side of Caucasus, lies, 6. the province of Caucasus (previous to 1822, the government of Georgievsk), containing 33,586 square miles, with 146,500 inhabitants, of whom 21,000 are Russians, and 48,000 colonists. Here are two deep fortified channels of Terek, Georgievsk, Kutiar (a commercial city, with a population of 9000), Alex- androvsk, &c.) along the Kuban, the Kama and the Terek, as defences against the savage tribes of the mountains. Since 1825, Savourpol has been the capital of this province, and general Jermoloff (q. v.) is the governor. The trade is mostly in the hands of the Armenians. Here is the Scottish missionary station of Kara, founded in 1803, and enlarged by Moravians from Sarepta, with schools and a printing-office.

CAUCUS; an American term, used throughout the United States, for those meetings which are held by the different political parties, for the purpose of agreeing upon candidates for office, or concerting any measure which they intend to carry at the subsequent public or town meetings. From the fact that the meetings were first held in a part of Boston "where all the ship-business was carried on," Mr Pickering, in his vocabulary of Americanisms, (Boston, 1816,) infers, that caucuses might be a corruption of canvassers, the word meaning being understood. He thinks he has sometimes heard the expression a canvassing (canvassers' meeting).

CAULAINCOURT. See Vicenza.

CAUDINE FORKS. See Acelinno.

CAULKING, or CAUKING, of a ship, consists in driving a quantity of oakum, or old ropes untwisted and drawn asunder, into the seams of the planks, or into the intervals where the planks are joined togeth- er, in the ship's decks or sides, in order to pre- vent the entrance of water. After the oakum is driven very hard into these seams, it is covered with hot melted pitch or resin, to keep the water from rotting it. Among the ancients, the first who made use of caulking were the inhabitants of Phoeacia, now Corfu. Wax and resin appear to have been commonly used previously to that period. The Poles use a sort of unctuous clay for the same purpose on their navigable rivers.

CAUSTIC. The name of caustic (Lat. causticus, from Gr. aza, I burn) is given to substances, which, by their chemical action, disorganize the parts of the body with which they are in contact. They are called, likewise, potential cauteries, to distinguish them from the fire called actual cauterery. Caustics, in general, act by decomposing chemically the tissues to which they are applied, and disorganize them of life, and producing a real local and circumscribed gan- grene, called eschar or scough. Those, the action of which is powerful,—for instance, caustic potassa, concentrated sulphuric acid, &c.—produce these phenomena with such rapidity, that inflammation takes place only after the formation of the eschar; whilst, on the contrary, inflammation is the Im- mediate consequence of the less energetic caustics. In both cases, suppuration occurs sooner or later, and separates the disorganized from the surrounding parts. Almost all the substances used as caustics have only a local action: some, however, are capable of being absorbed, and of exercising a deleterious action on the economy in general: arsenical preparations are an instance of it. The employment of caustics is now confined to a small number of cases. The ac- tual cauterery and the knife are, in general, preferred to them. They are used principally in order to establish issues, particularly in cases in which it is necessary to produce a powerful deration; to stop the progress of certain gangrenous affections, such as scab, gangrene; to change the mode of vitality of the skin in some can- cerous or herpetic ulcers; to destroy the excrences of wounds or proud flesh; and, finally, to prevent the absorption of the virus deposited at the surface of poisoned wounds.

CAUSTIC SODA (purrenc); protoxyde of sodium. Its physical properties are similar to those of potassa, and it may be used with advantage as a successor when employed as a caustic. In fact, the sub-carbo- nate, which forms during its action on the skin, is not deliquescent, as that of potassa, and, consequently, is not subject to spread.

CAVALCANTI, GIOVANNI; a Florentine philosopher and poet of the thirteenth century. He was a friend of Dante, and, like him, a zealous Gibellin. When the dissensions of the Giuelfs and Ghibelines disturb- ed the public peace of Florence, the citizens banish- ed the chiefs of both parties. The Ghibelines were exiled to Sarzana. On account of the unhealthy air of that place, they were permitted to return; but Ca- valcanti had contracted a disease of which he died (1300) at Florence. In his youth, he made a pilgrim- age to St Jago de Compostella, in Galicia. Re- turning home through France, he fell in love, at Tou- lose, with a young lady of the name of Mandetta. To her most of his verses which we possess are ad- dressed. They are remarkable, considering the per- iod at which they were written, for their beautiful style. His Canzone d'Amore has gained him the most fame. The learned cardinal Egidio Colonna, and some others, have made commentaries on it. His Rime, published by Cicciapori, appeared at Flo- rence in 1813.

CAVALIER, in fortification, is a work generally raised within the body of the place, ten or twelve feet higher than the rest of the works. It is most com- monly situated within the bastion, and made much in the same form. Sometimes the cavaliers are placed in the gorges, or on the middle of the curtain; they are then made in the form of a horse-shoe. Their use is to command all the adjacent works and sur- rounding country. They are seldom made except when a rising ground overlooks some of the works. In modem times, it is considered that cavaliers in a bastion occupy too much room, render retracements impossible, and, unless a ditch separates the cavalier from the parapet of the bastion, cause the grenades
to fall upon the defenders of the latter; for which reasons it is considered best to put them on the car-
taur, and it is said by some with the head of a horse.

CAVALRY: one of the three great classes of
troops, and a formidable power in the hands of a
leader who knows how to employ it with effect.
This requires a bold and active spirit, able to avail
itself, with quickness and decision, of every oppor-
tunity. It is the use of cavalry as a defensive instru-
cement of war, that gives its superiority to the
army from the moral impression which it produces on
the enemy. It is this greater in proportion to the size
of the mass and the rapidity of its motion. Its adap-
tation to speedy movements is another great advan-
tage, which enables a commander to avail himself
immediately of a decisive moment, when the enemy
exposes a weak point, or when disorder appears in
his ranks. It is a very important instrument in com-
pleting the defeat of an enemy, in disinconcerting
him by a sudden attack, or overthrowing him by a
powerful shock. The use of cavalry is, it is true, often-
times limited by the nature of the ground. In
forests, in mountainous districts, on a marshy soil,
&c., it is of but little avail in large bodies. In
modern times, cavalry have been led against intrench-
ments, but only to their own destruction. In some in-
stances, too, the cavalry have been dispersed, and
employed in detail, which may, on particular occa-
sions, be advisable, but, on the whole, is generally
injurious to their nature and purpose, and, if made a part
of their duty, like other half measures, is usually disad-
vantageous. It is also unadvisable to keep large bod-
ies of cavalry united during a campaign. They are
to be collected in large masses only for particular
objects. To keep them together, the whole time
would be troublesome, and their maintenance fre-
quently attended with difficulty.

The unequal size of the horse, the very great di-
versity in his strength and breed, have at all times
rendered it necessary to divide the cavalry into fight
and heavy horse. There is sometimes, also, an inter-
mediate class. These different sorts are employed
difficult for different purposes. The heavy cavalry with de-

defensive armour (cuirassiers), is more frequently em-
ployed in mass, where force is requisite; the lighter
troops are used singly, and in small detachments,
where swiftness and continued effort are required.
Nevertheless, cuirassiers and dragoons, lancers and
hussars, mounted riflemen, and chevaux legers, must,
in the main points, be equally exercised in the duties
appertaining to cavalry, and must be able to fight in
the line as well as singly.
The ancient cavalry is probably nearly as ancient as
war itself; for in those countries where horses thrive
most, and man may be said to live on horseback,
he has always preferred to fight on horseback. The
Egyptians are said to have had cavalry before the
time of Moses. The Israelites, when at war with their
neighbours, often had to encounter cavalry, but
were afraid to mount horses until the time of
Solomon. The Greeks appear not to have introduced
cavalry into their armies till the second Messenian
war, and even after that time, had comparatively
few; but with them it was considered the most re-
spectable class of troops, in which only the wealthy
citizens served. The Persian cavalry, and, at a later
period, the Macedonian, were much more numerous.
The Romans learned its use from Pyrrhus and the
Carthaginians. At a later period, the cavalry of the
Gauls were particularly good. In the middle ages,
the horseman was almost entirely on horseback, and
dependent on foot-service. At this period, however,
regular warfare was unknown, and was only gradually
restored in the progress of time. After the intro-
duction of artillery, although cavalry were used, yet their
manoeuvres were awkward and inefficient. The ge-

nious of Gustavus Adolphus first perceived the im-
portant use which could be made of it. He was
the first to introduce the heavy cavalry, which, since the
time of clavus, had become a nuisance of use; but the
advantage of this species of troops did not consist
in weight, but in the quickness of their motion. With
reference to this, he formed his regiments of horse,
and showed their real utility; but it was left to Sok-
litz, a general of Frederick the Great, to display this
most fully. Napoleon appears to have been well aware
of the great value of cavalry in large masses, but
he often sacrificed them unspuriously. This, together
with certain erroneous dispositions which had crept
into some armies, and had caused the cavalry to fail
in services on which they ought rather to have been
put, and which were sometimes performed as well or
better by other troops, gave rise, of late years, to
doubts concerning their utility, which, however, are
now abandoned. The writings of general Bismark,
on the subject of cavalry, are valuable; as are also
the Nachrichten und Betrachtungen über die Thaten
und Schicksale der Reiterei in den Feldzügen Frederic
II. und in denen neuerer Zeit (Statements and Ob-
servations respecting the Conduct and Fate of the
Cavalry in the Campaigns of Frederick II., and in
those of a later Period).

In the north of Europe, lances are now common
amongst the light cavalry, as they have proved a for-
midable weapon when skilfully used. They will,
no doubt, effect a change in the arms, and even in
the organization, of the infantry, who can do little
against lancers, if rain prevents them from firing.
In the Prussian cavalry, which are among the finest in
the world, lancers are very numerous.

A French author calls the cavalry, very appro-
priately, larme du moment; because they are pecu-
larly fitted to take advantage of decisive moments.
A moment may occur, when a great victory can be de-
cided by the sudden irruption of a body of cavalry, and
the next moment it may be too late. A commander
of cavalry must therefore be possessed of the rare
courge which shrinks not from responsibility. Many
battles in the late wars prove the truth of these
remarks. Napoleon won the battle of Marengo chiefly
by Kellermann’s daring charge, at the head of 500
horse, at the sight of the van of victory.
The campaigns in Russia, and the following war in
Germany, showed the great disadvantage under which
an army labours from the want of cavalry. Napo-
leon failed to follow up his advantages after the vic-
tories of Lutzen and Dresden, chiefly because his ca-
vality was unseasoned and inexperienced.
The training of cavalry is much slower than that of infantry. The
best cavalry are now generally considered to be the
Prussian and some species of the Russian. The
French never were good horsemen, and the English
have not kept pace with the numerous improvements
introduced by the wars on the continent. It is a fact
of interest, that the more civilization takes root
among a nation, the more importance is given to
infantry. All savage nations begin with cavalry, if
they have horses. At present, infantry is the most
numerous class of troops, though, before the time of
Charles V., they were little esteemed.

CAVAN; one of the nine counties in the pro-
cince of Ulster. The north-western part is occu-
pied by a range of lofty hills, called the Ballyna-
geeragh Mountains, but the remaining surface, which
is undulating and irregular, is perfectly level, and in
the direction of the chief rivers. The chief rivers
are the Erne, the Cloghan, and the Anniesel, and
the chief lakes Lough Ramor, Lough Sheelan,
Lough Gavingh, Lough Oughter, and Lough Erne,
which may be said to commence or rise here. The
soil of this county is cold, spongy, and inclined to be
Ill of the anil died those others a plates the tives and principally the year Hispania had altered times internal common wide running rivers. CAVANILLES, CAV, Spain. CAVANILLES, ANTONIO JOSÉTH; a Spanish clergyman and botanist; was born, 1745, at Valencia, in Spain. In 1777, he went to Paris with the children of the duke of Infinitando, and remained there twelve years, occupied with the study of several sciences, but chiefly with botany. He published there, in 1784, Observations on the Article Spain in the New Encyclopaedia, written with as much patriotism as profound reasonning. In the following year he commenced his great botanical work, Monadelphiu Classis Dissertationes decem (Paris, 1785—89, Madrid, 1790, 4to, with engravings). After his return to Spain, he wrote another beautiful work, Bones et Descriptiones Plandarum, quas aut Sponte in Madritof, &c. (Madrid, 1794—96, 6 vols., folio, with 601 engravings). It contains a number of new genera and species, natives of Spain, America, India, and New Holland. In pursuance of a commission from the king, Cavanilhes travelled in Valencia, and collected the materials for his Observaciones sobre la Historia Natural, Geografia, Agricultura, Poblacion, etc., del Reyno de Valencia (Madrid, 1795—97, 2 vols., folio, with copper plates from the drawings of the author). The work was published at the expense of the king, and intended as the first part of a similar work to embrace the whole of Spain. Thunberg has named a family of plants Cavanilha. Cavanilles died in 1804.

CAVATINA; a short air without a return or second part, and which is sometimes relieved with recitative.

CAVE, or GROTTO; an opening produced by nature in the solid crust of the earth. Caves are principally met with in limestone of the transition and fossil period, in gypsum, sometimes in sandstone, and in volcanic rocks (basalt, lava, tufa, &c.); sometimes they are the effect of crystallization. The form of the caves depends partly upon the nature of the substance out of which they are formed; but it is frequently altered by external causes. In reference to their internal construction, the hollows in the earth may be divided into three classes; those of the first are wide clefts; those of the second admit the daylight at both ends, and form natural passages, which sometimes serve the rivers as beds; the third and most common class consists of those which form a line of grottoes, about of an equal height, running in the same direction, and connected by passages more or less narrow. Out of some grottoes rivers take their course; others, again, admit rivers, or may be said to swallow them for space, till they again emerge. There are many and various causes for the formation of caves. Those in limestone and gypsum are unquestionably the results of the dissolving power of water; in fact, the almost perfectly uniform direction, the gentle and equable declivity of most caves, appears to have the best claim to the action of water. The most in them, the action of which has widened the existing crevices. In trouty and lave, caves appear to have been produced by the effects of gns. The caves of gypsum often contain foun air; the caves of limestone, various figures of stalactites, produced by the deposit of lime-water. The most of these lime caves contain remnants of bones of ani-

mals, viz., of hyraxes, elephants, bears. Many caves are remarkable only on account of their great size, or sublime from the awful gloom which pervades them, and the echoes which roll like thunder through their vaulted passages. Some are of great depth, as that of Fredericksbiuhl, in Norway, which is calculated to be 11,000 feet in depth. One of the grandest natural caverns known is Fingal's cave, in Staffa, one of the Western Islands of Scotland. Its sides are formed of ranges of basaltic columns, which are almost as regular as hewn stone. The grotto of Antiparos, on the island of the same name, in the Archipelago, is celebrated for its magnificence. The entrance is by a torch-light, as if it were studded with diamonds. The roof is adorned with stalactites, many of them twenty feet long, and hung with festoons of various forms and brilliant appearance. In some parts immense columns descend to the floor; others present the appearance of trees and brooks turned to marble. The Peak cave, in Derbyshire, England, is also a celebrated curiosity of this kind. It is nearly half a mile in length, and, at its lowest part, 600 feet below the surface. The caves of Kirkdale, in England, and Galleenreacht, in Germany, are remarkable for the quantities of bones of the elephant, rhinoceros, horses, and hyraxes, which are found. The mine of fluor spar, in Castleton, Derbyshire, passes through several stalactic caverns. In the rock of Gibraltar there are a number of stalactic caverns, of which the principal is St Michael's cave, 1000 feet above the sea. The most famous caves in Germany are those of Baumann and Biebstein, in the Hartz. (See Buckland's Reliquia Diluviana, London, 1823.) The most celebrated caves in America are Madison's cave, in Rockingham county, Virginia, extending 300 feet into the earth, and adorned with beautiful incrustations of stalactites; Wier's cave, in the same county, extending 800 yards, but extremely irregular in its course and size. Near Corydon, Indiana, is a cave, which has been explored for the distance of several miles, celebrated for producing Epsom salts. In Kentucky and Tennessee caves are numerous, which appear to have been used as burial places. In the north-west part of Georgia is a cave, called Nickeljack cave, 50 feet high and 100 wide, which has been explored to the distance of three miles. A stream of considerable size runs through it, which is interrupted by a fall. Caves are sometimes found, but it is frequently altered by external causes. The most remarkable known is the Grotto del Cane, a small cave near Naples. In Iceland there are many caves, formed by the lava from its volcanoes. In the volcanic country, near Rome, there are many natural cavities of great extent and coolness, which are sometimes resorted to as a refuge from the heat. The grottoes in the Cevennes mountains in France are both numerous and extensive, and abound in objects of curiosity. In South America is the cavern of Guacharo, which is said to extend for leagues.

CAVE, EDWARD, an English printer, the founder of the Gentleman's Magazine, was born in 1661. His first occupation was that of clerk to a collector of the excise in the country. He then went to London, and put himself apprentice to a printer. When his indentures expired, he obtained a place in the post-office, and employed his leisure in writing for the newspapers. He published in 1719, the first number of the Gentleman's Magazine, which has continued till this day, amid the crowd of magazines which have been established since. Cave was deprived of his place in the post-office on account of his having resisted some abuses relative to the privilege of franking letters. He died January 10, 1734.
CAVENDISH, THOMAS; an eminent navigator in the reign of Elizabeth. Having consumed his property by his early extravagances, he collected three small vessels for the purpose of making a predatory voyage to the Spanish colonies. He sailed from Plymouth, touched at and despatched many vessels, ravaged the coasts of Chili, Peru, and New Spain, and returned by the cape of Good Hope, having circumnavigated the globe in two years and forty-nine days, the shortest period in which it had then been effected. In 1591 he set sail on a similar expedition, in which a priapic success was the capture of the town of Sumatra, in Brazil. After suffering many hardships, he died in 1592.

CAVENDISH, WILLIAM, duke of Newcastle, was born in 1592, and educated by his father, on whose death he was raised to the peerage. On the approach of hostilities between the crown and parliament, he embraced the royal cause, and was invested with a commission, constituting him general of all his majesty's forces raised north of the Trent, with very ample powers. With great exertions, and the expenditure of large sums from his private fortune, he levied an army. His conduct and manner of conducting it, time, he maintained the king's cause in the north. In military matters, he depended chiefly on his principal officers, whilst he himself indulged in the courtly pleasures and literary society to which he was attached. He obtained a complete victory over lord Fairfax at Adeltonmouth, and, on the approach of the Scottish army, and its junction with the parliamentary forces, threw himself into York. Having been relieved by prince Rupert, he was present at the battle of Marston-moor, after which he left the kingdom. He returned, after an absence of eighteen years, and was rewarded for his services and sufferings with the dignity of duke. He died in 1674.

CAVENDISH, WILLIAM, first duke of Devonshire, was the son of William, third earl of Devonshire. He was born in 1640, and instructed with great care in classical literature. On various occasions, he distinguished himself by his spirit and valor, and, in 1677, began that opposition to the arbitrary measures of the ministers of Charles II., which caused him to be regarded as one of the most determined friends of the liberties of his country. Intimately connected with lord Russell, he joined him in his efforts for the security of free government and the Protestant religion. On the trial of lord Russell, he appeared as a witness in his favour, and offered to assist him in escaping, after he had been sentenced to death, by changing clothes with him in prison. In 1684, having succeeded to his father's title, and being regarded as one of the most formidable opponents of the arbitrary designs of king James II., attempts were made to intimidate him, but without success. Having been insulted by a minion of the king, he dragged him from the chamber by the nose in the royal presence. He took an active part in promoting the revolution, and was one of the first who declared for the prince of Orange. His services were rewarded with the dignity of duke of Devonshire. He still, however, maintained an independent bearing in parliament. He died in 1707.

CAVENDISH, HENRY, born 1731, the son of lord Charles Cavendish, and grandson of the second duke of Devonshire, devoted himself exclusively to the sciences, and acquired a distinguished rank among those learned men who have most contributed to the progress of chemistry. He discovered the peculiar properties of hydrogen, and the qualities by which it is distinguished from atmospheric air. To him we owe the discovery of oxygen. After Athanasius Kirch was dead, the weight of which was equal to the sum of the weights of the two gases. Lavoisier confirmed this conclusion in later times. The same spirit of accuracy in his experiments led Cavendish to another discovery which had escaped Priestley. The latter had observed that, on exposure of a phosphoric air, contained in a tube, through which the electric spark was transmitted, lost in volume, and formed an acid, which reddened the tincture of litmus; but he carried this experiment no farther. Cavendish repeated the experiment, by confining in the tube a solution of pure potash, which absorbed the acid, and thus proved it to be nitric acid. The analysis of the air, which remained in the tube after the experiment, showed that the weight of the oxygen and azote, which had disappeared, was equal to the weight of the acid thus formed. He easily determined the proportion of the azote and oxygen, which was 2:1. He also, that, when both gases, sufficiently pure, were mixed in that proportion, and exposed to the electric spark, the mixture disappeared entirely, by which his discovery was completely confirmed. Cavendish distinguished himself no less in natural philosophy, by the accuracy of his experiments. He possessed a profound knowledge of the higher geometry, of which he made a very happy use in determining the mean density of the earth. He found it to be 5.7 times greater than the density of water—a conclusion which differs but little from that obtained by Maske- lyne in another way. He was a member of the royal society at London, and in 1803, was made one of the eight foreign members of the national institute of France. Cavendish was probably the richest among the learned, and the most learned among the rich, men of his time. An uncle left him a large fortune in 1773. This increase of wealth made no change in his character and habits. Extremely regular and simple in his manner of living, he was liberal in encouraging science, and in his private charities. His large, well-chosen library was open for the use of learned men. He died in London, March, 1810, and left £1,200,000 sterling to his relations. His writings are a full and accurate record of the knowledge and actions, from 1766 to 1792. They are distinguished by acuteness and accuracy.

CVAJARE (šokari) is made in Russia from the roe of sturgeons, belugas, and many other fish. The roe is separated from the skin which encloses it, salted, and, after eight days, pepper and finely minced onions are added. It is then dried, and serves as a relish with toasted bread or bread and butter. The best caviare is that from the Crimea. From Kerch and Jenikale, in that province, 1,500 barrels are annually exported to Moldavia and the countries on the Danube.

CAXAMARCA, or QUAXAMARCA; a province of Peru, bounded N. by Jaen, E. by Chacapoyas, S. E. by Caxamarquilla, S. by Huamachuco, W. by Sana and Truxillo; population, 40,000. The country is generally mountainous. It abounds in fruits and cattle. The inhabitants are, for the most part, Indians, and chiefly weavers.

Caxamarca; a town of Peru, capital of a province of the same name; about seventy miles from the Pacific ocean, 280 N. Lima; lat. 7° 35'S.; lon. 78° 35' W.; population, 12,000. It was at one time a royal city, and one of the most important in the empire.
CAYENNE—CAPSLUM.

CAYTON, WILLIAM; an Englishman, memorable for having first introduced the art of printing into his native country. He was born in Kent, about 1410, and served an apprenticeship to Robert Large, a London mercer. On the death of his master, Caxton went abroad, and, as we gather, to many parts of the world, in which situation he continued about twenty-three years. His reputation for probity and abilities occasioned his being employed, in conjunction with Richard Whitchell, to conclude a treaty of commerce between Edward IV. and Philip, duke of Burgundy. He appears subsequently to have held some office in the household of duke Charles, the son of Philip, whose wife, the lady Margaret of York, distinguished herself as the patroness of Caxton. Whilst abroad, he became acquainted with the then newly discovered invention of printing. (See Feaust, John.) At the request of the duchess, his mistress, he translated from the French a work, which he entitled the Recueil des Histories de Troye, by Raoul le Feneur, which he printed at Cologne, 1471, in folio. This book, considered as the earliest specimen of typographia in the English language, is esteemed very valuable. The fame of the work spread, and the duke of Roxburgh having a library, in 1812, a copy was purchased by the duke of Devonshire, for £1,060, 10s. After this, he printed other works abroad, chiefly translations from the French; and, at length, having provided himself with the means of printing in England, he returned thither, in 1474, having address at WestminsterAbbey, where he printed the Game and Playe of the Cheese, generally admitted to be the first typographical work executed in England. Caxton continued to exercise his art for nearly twenty years, during which time he produced between fifty and sixty volumes, most of which were composed or translated by himself. Caxton died about 1492, and was buried, according to some accounts, at Campden, in Gloucestershire; though others state his interment as having taken place at St Margaret's, Westminster.

CAYENNE, or FRENCH GUIANA; a province or colony in South America, belonging to France; bounded N. and N. E. by the Atlantic ocean, E. and S. by Brazil, and W. by Dutch Guiana; between lat. 7° 50' and 6° N.; population, 12,331, of which only about 1000 are whites. This country was first colonized by the French in 1635; in 1654, it was taken to the Dutch, and, in 1676, by the Dutch; but, in 1677, it was restored to the French. The coast of the country is generally low, marshy, and subject to inundation. The soil, in many parts, is very fertile, though in others dry, sandy, and soon exhausted. The climate resembles that of the W. Indies, though it is more salubrious. The most noted article of produce is Cayenne pepper, the fruit of the capsicum baccatum. Other productions are coffee, sugar, cotton, cocoa, indigo, maize, cassia, and vanillin.

Cayenne; an island of South America, belonging to French Guiana. It is covered with large forests, separated from the mainland by the river Cayenne, which is about 300 miles in length. The island is eighteen miles long and ten broad, and has a fertile soil.

Cayenne; a town of South America, on the north point of the island above, at the mouth of the river Cayenne. It is the capital of the French colony of Cayenne, has a large and convenient port, and contains about 200 houses. Lat. 4° 50' N.; lon. 52° 10' W.

Cayenne Pepper, or Capsicum. Capsicum is the name of several species of South American and Indian plants, with a brown pod, of a shining red or yellow colour, which contain many small, flat, and kidney-shaped seeds. The principal species are bird or bell-pepper (capsicum annuum), and bird-pepper (capsicum baccatum). All the species of capsicum possess the same general qualities. In hot climates, but particularly in the East and West Indies, and some parts of Spanish America, the fruit is used in these various culinary purposes. It is eaten in large quantities, both as vegetable and vegetable food, and is mixed, in greater or less proportion, with almost all kinds of sauces. The Cayenne pepper used in cookery is made from the fruit of different species of capsicum. This fruit, when ripe, is gathered, dried in the sun, and then pounded; and the powder is mixed with a certain portion of salt, and kept for use in closely-stopped bottles. It is very generally used as a pungent ingredient in soups and highly-seasoned dishes. Its taste is extremely acid, and it leaves a durable sensation of heat on the palate, which is best removed by butter or oil. When taken in small quantities, Cayenne is a grateful stimulant; and, in medicine, it is used both externally and internally, to promote the action of the bodily organs, when languid and torpid; and it is said to have been found efficacious in many other complaints. The pure powder of the annual capsicum, is considered the most hardy of this whole tribe of plants; and, in many parts of the south of Europe, its fruit is eaten green by the peasants at their breakfasts, and is preferred by them to onions or garlic. The fruit of all the species may be used in domestic economy, either as a pickle, or when dried before a fire, and ground to powder in a common pepper-mill, as Cayenne pepper. See Capsicum.

Cayes, LES, or AUX CAYES; a seaport town on the south coast of Hayti; thirty miles S. S. E. Port-au-Prince; lat. 18° 15' N.; lon. 74° 51' W. This town, a few years since, contained 12 or 15,000 inhabitants. It is now very much reduced. The harbour is inferior, but the surrounding country is fertile.

Caylus, ANNE CLAUDE PHILIPPE DE TUBERIES, &c., count of, an archeologist, born Oct. 31, 1692, at Paris. After having served in the army during the war of the Spanish succession, he left the service in 1715, accompanied Bonac on his embassy to Constantinople the following year, and visited Greece, Troy, Ephesus, Byzantium, and Adrianople. In 1717, he returned to Paris, according to the wish of his mother, and began here (Tarbouj his extensive collections. He commenced a great work on Egyptian, Grecian, Etruscan, Roman, and Gallic antiquities, with numerous plates. He was a member of the academy of painting and of the academy of inscriptions, and divided his labours between them. He made a chemical examination of the ancient method of castic painting, investigated the mode of painting on marble, the art of hardening copper, the mode by which the Egyptians mixed great weights, the mummies, painting on wax, and many other subjects. If he has sometimes misunderstood the ancient authors, and committed some errors with respect to ancient monuments, he has, nevertheless, with great success, treated of the processes and materials employed in the arts by the ancients. He died in 1765. Integrity, simplicity, and disinterestedness were united in his character with occasional traits of dogmatism. He has left numerous works, tales as well as antiquarian researches. Among the latter is his Recueil d'Antiquites Egyptiennes, &c. (Paris, 1752—67, seven vols.). Caylus was also an industrious and skilful engraver, and has furnished a collection of more than 200 engravings, after drawings by the royal academy, and other followers; after the first masters. His mother, niece of Mad. de Maintenon, made herself known by a spirited little work—Mes Souvenirs. H.
CAYMAN—CECIL.

CAYMAN, See Alligator.

CAZOTTE, Jacques, an author, distinguished by facility and liveliness of style, born in 1720, at Dijon, studied with the Jesuits, and went, in 1747, to Mar-
tinius, professor in France. In 1748, he wrote a thousand pounds in letters of exchange upon the order of the Jesuits, to whose superior, Lavalette, he had sold his possessions in Martinique. The law-
suit which he commenced, on this occasion, may be considered as the beginning of all the proceedings against the Jesuits in France. Thus, in 1748, he shone in society among the beaux esprits. His romance of chivalry, Olivier, published in 1763, and, subsequently, his Dixie amoureux, the Lord Impromptu, and Ec
euvres morales et bonnes, are proofs of his rich imagina-
tion, and his talent for writing with ease and preci-
sion. Being received into the order of Martines de Pasqualis, Cazotte lost himself in cabalistic dreams. With the assistance of Dom Chavis, an Arabian monk, he translated four volumes of Arabin Tales—a conclusion of the Arabian Nights, form-
ing the thirty-seventh and fourtieth volumes of the Caxton, late at the age of seventy-
years, he wrote them at midnight, after his return from the circles in which he had been visiting. Chau-
vis dictated the outlines, and Cazotte wrought up the stories. He completed the task in two winters. The comic opera Les Sabots he composed in one night. In the following revision, which he opposed with all his power, he was thrown into the prisons of the Abbeve-
with his daughter Elizabeth, in 1792. When the massacre of the prisoners took place, Sept. 2 and 3, Cazotte being delivered into the hands of the assas-
sins, his daughter cast herself between him and the murderers, and prevented the execution of their pur-
pose; but he was again condemned to death, and exe-
cuted Sept. 29. From the scaffold he cried with a
firm voice to the multitude, "I die, as I have lived, faithful to God and to my king."

CAZWINI, Zacharia ben Mohammed, an Ara-
bian naturalist, descended from a family of lawyers, who derived their origin from Anas ben Malek, a com-
ppanion of Mohammed, and had settled in Caswin, a city in Persia. From that place this author receiv-
ed the surname under which he has become celebrat-
ed. Of the circumstances of his life, we know only that he was called of Wazith and Hilliah, and died in the 48th year of his age (A.D. 1339). His most important work is on natural history—The Wonders of Nature and the Peculiarities of Creation—which Ideler, professor in the university of Berlin, has pub-
lished the chapter on the Constellations of the Ara-
bians, and of which there are fragments in Bochart's Hierozon, in Ouseley's Oriental Collections, and in Wali's, John's, and De Sacy's Arab. Chrono-
thonis. It was the object of Caswini, like Pliny, to
describe the wonders of all nature. His work con-
tains a comprehensive view of all that had been writ-
ten before him, but in so grand and original a man-
ner, that it is of his value more than most of the origi-
nal works which treat of the same subjects. There
is an abridged translation of it in the Persian.

CEBES of Thebes was a disciple of Socrates. He
is said to have saved Phaedo, a young slave, from
moral ruin. Nothing more is known of his life.
Three dialogues—Hebeleme, Phrynichus, and Pionax, or the Picture—are ascribed to him; but most critics regard the latter as the work of a later Cebes, or of a Stoic philosopher under this assumed name. Since the revival of learning, this interesting dialogue has been often reprinted by itself, or in connexion with the works of Xenophon. The only complete edition
Among the larger editions is that of Schweighauser (Strasbourg, 1809). There are many school editions.

CECIL, William (lord Burleigh). This eminent

English statesman was son to Richard Cecil, master of the robes to Henry VIII., and was born at Bourne, in Lincolnshire, in 1520. He studied at St John's col-
lege, Cambridge, whence he removed to Gray's Inn, where he was elected a fellow, and gained a thousand pounds in letters of exchange upon the order of the Jesuits, to whose superior, Lavalette, he had sold his possessions in Martinique. The law-
suit which he commenced, on this occasion, may be considered as the beginning of all the proceedings against the Jesuits in France. Thus, in 1748, he shone in society among the beaux esprits. His romance of chivalry, Olivier, published in 1763, and, subsequently, his Dixie amoureux, the Lord Impromptu, and Ec
neuvres morales et bonnes, are proofs of his rich imagina-
tion, and his talent for writing with ease and preci-
sion. Being received into the order of Martines de Pasqualis, Cazotte lost himself in cabalistic dreams. With the assistance of Dom Chavis, an Arabian monk, he translated four volumes of Arabin Tales—a conclusion of the Arabian Nights, form-
ing the thirty-seventh and fourtieth volumes of the Caxton, late at the age of seventy-
years, he wrote them at midnight, after his return from the circles in which he had been visiting. Chau-
vis dictated the outlines, and Cazotte wrought up the stories. He completed the task in two winters. The comic opera Les Sabots he composed in one night. In the following revision, which he opposed with all his power, he was thrown into the prisons of the Abbeve-
with his daughter Elizabeth, in 1792. When the massacre of the prisoners took place, Sept. 2 and 3, Cazotte being delivered into the hands of the assas-
sins, his daughter cast herself between him and the murderers, and prevented the execution of their pur-
pose; but he was again condemned to death, and exe-
cuted Sept. 29. From the scaffold he cried with a
firm voice to the multitude, "I die, as I have lived, faithful to God and to my king."

CAZWINI, Zacharia ben Mohammed, an Ara-
bian naturalist, descended from a family of lawyers, who derived their origin from Anas ben Malek, a com-
ppanion of Mohammed, and had settled in Caswin, a city in Persia. From that place this author receiv-
ed the surname under which he has become celebrat-
ed. Of the circumstances of his life, we know only that he was called of Wazith and Hilliah, and died in the 48th year of his age (A.D. 1339). His most important work is on natural history—The Wonders of Nature and the Peculiarities of Creation—which Ideler, professor in the university of Berlin, has pub-
lished the chapter on the Constellations of the Ara-
bians, and of which there are fragments in Bochart's Hierozon, in Ouseley's Oriental Collections, and in Wali's, John's, and De Sacy's Arab. Chrono-
thonis. It was the object of Caswini, like Pliny, to
describe the wonders of all nature. His work con-
tains a comprehensive view of all that had been writ-
ten before him, but in so grand and original a man-
ner, that it is of his value more than most of the origi-
nal works which treat of the same subjects. There
is an abridged translation of it in the Persian.

CEBES of Thebes was a disciple of Socrates. He
is said to have saved Phaedo, a young slave, from
moral ruin. Nothing more is known of his life.
Three dialogues—Hebeleme, Phrynichus, and Pionax, or the Picture—are ascribed to him; but most critics regard the latter as the work of a later Cebes, or of a Stoic philosopher under this assumed name. Since the revival of learning, this interesting dialogue has been often reprinted by itself, or in connexion with the works of Xenophon. The only complete edition
Among the larger editions is that of Schweighauser (Strasbourg, 1809). There are many school editions.

CECIL, William (lord Burleigh). This eminent

Cecil.—Cedar.

In corde suo Dominus cantatul, diei, &c.; that is, she prayed—O Lord, allow my heart and my body to remain unprofaned. As soon as the bridegroom appeared, she forbade his approach, assuring him that an angel of the Lord protected her innocence. The unbelieving Valerian wished to convince himself; he sent to her cousin, who at once induced a profanation which conciliated esteem. He possessed, in a high degree, the solid learning, gravity, and decorum, which, in that age, usually accompanied elevated station. In his mode of living, he was noble and splendid, but, at the same time, economical, and attentive to the formation of a competent fortune for his family. His early occupation as a statesman precluded much attention to literature; but he is mentioned as the author of a few Latin verses, and of some historical tracts. A great number of his letters on business are still extant.

Cecil, Roman Earl of Salisbury, second son of Lord Burleigh, was born, according to some accounts, about the year 1560; but his birth may, with more probability, be placed thirteen years later. He was deformed, and of a weak constitution; on which account he was educated at home, till his removal to the university of Cambridge. Having received the honour of knighthood, he went to France as assistant to the English ambassador, the earl of Derby, and, in 1596, was appointed one of the secretaries of state. On the death of Sir Francis Walsingham, he succeeded him as principal secretary, and continued to be a confidential minister of Queen Elizabeth to the end of her reign. Having secretly supported the interests of James I., previous to his accession to the crown, and taken measures to facilitate that event, he was continued in office under the new sovereign, and raised to the peerage. In 1603, he was created a baron; in 1604, viscount Cranbourne; and in 1605, earl of Salisbury. The same year he was chosen chancellor of the university of Cambridge, and made a knight of the garter. He was the political rather than the personal favourite of the king, whom he served with zeal and fidelity; and, as he was also the most honest minister who presided over the affairs of state during that reign. In 1608, on the decease of the lord treasurer, the earl of Dorset, that office was bestowed on lord Salisbury, who held it till his death in 1612. This event took place at Marlborough, as he was returning to London from Bath, whither he had gone in a very debilitated state of health, to use the mineral waters. An interesting account of this journey, and of the last hours of this eminent statesman, drawn up by one of his domestics, may be found in Fock's Desiderata Curiosa. Lord Salisbury was the author of a Treatise against Papists; and of Notes on Dee's Discourse on the Reformation of the Calendar; and some of his letters, despatches, and speeches in parliament, have been published.

Ceres. There are several saints of this name in the Catholic church. The most celebrated, who has been falsely regarded as the inventress of the organ, and who is the patron saint of music, is said to have suffered martyrdom, A. D. 220. Her pagan parents, says the legend, betrothed her, contrary to her own wish, to a young man, but she had internally vowed to the Lord a perpetual virginity; and, whilst the instruments sounded, she sang in her heart to the Lord cantanibus organis,
CEDALONIA—CELIBACY.

Cedar-Larch, or Cedar of Lebanon (pinus cedrus, L.), distinguished by its strong, ramose branches, from all other trees of the same genus. The general character of the shoot, even when the tree is young, is singularly bold and picturesque, and quite peculiar to the species. The tree is native of the coldBS and is found from Denmark to Palestine, Armenia, &c.; in these places it is very abundant. The species is distinguished from the cedar of Lebanon by its looseness and thinness of its twigs, and differentia; Taurus; and, but it is not now to be found in those places in great numbers. Maundrell, in his journey from Aleppo to Jerusalem, in 1696, could reckon only sixteen large trees, though many small ones. The forest of Lebanon seems never to have recovered from the havoc made by Solomon's four-score thousand hewers. Beautiful specimens of this noble tree are to be seen at Witten park, ZIon-house, &c., in England, where it seems to have been introduced in 1683, and where, as professor Myrten observes, there are probably, at present, more cedars than in Palestine.

White-Cedar (cupressus thyoides) is a small or middle-sized evergreen, naturally forming an elegant head. Its branches are not pendulous. Its leaves are of a delicate green colour. It is a native of North America, China, and Cochinchina. In the United States, it occupies large tracts, denominated cedar swamps. The wood is soft, smooth, of an aromatic smell, and internally of a red colour. It is permanent in shape, and very durable, and is esteemed as a material for fences. Large quantities of shingles are made of it. It is a favourite material for wooden wares, or the nicer kinds of cooper's work.

Red or Common Cedar (juniperus Virginiana) is a native of North America and the West Indies. It is distinguished by its leaves, growing in threes, and being fixed by their base, the younger ones lying upon each other, and the older ones spreading. The trunk is smooth, almost knotted by a year, and unbranched. The heartwood is of a bright red, smooth, and moderately soft. This wood is much in request for the outsides of black-lead pens. On account of its powerful fragrance, it is often used for the bottoms of drawers, because it resists the attacks of insects. Some years ago, it was in great esteem for wainscoting and cabinet-work, but has been much neglected since the introduction of mahogany. The name of saris is, in some places, improperly applied to this tree. Unlike the white cedar, it grows in the driest and most barren soils. For posts of buildings, it is much in request; but it is difficult to obtain it of large size.

CEFAKONIA. See Cephalonia.

CELEBES. See Harpies.

CELEBES; an island in the East Indian sea, of an irregular shape, about 500 miles long, and about 200 broad, called, by the natives and Malays, Negree Oran Bogues, and, sometimes, Tanna Macasser; square miles, about 90,000. It is divided into six states or kingdoms, viz., Gon, Bony, Wajo, Sopin, Selindsay, and Mandir. Gon extends a considerable way along the west and south, and contains, besides Macasser, two Dutch forts, Bontyn, and Bulo Cumbo. The government is monarchical, and the king is called karawang, and, sometimes, rajah Gon. —Bony, or Pony, is of Gon, entirely under the influence of the Dutch, and is governed by a prince, called patjong, who is elected for life by seven orancagos, or nobles. —Wajo, or Wajo, or Tundjio, is situated N. E. of Bontyn, and is elected by the council of the kingdom. —Sipon is situated in the centre of the island, towards the eastern side, to the E. of Bon. —Selindsay is of small consideration, and is N. W. of Sopin. —Mandir lies on the W. and N. coast. The inhabitants are Mohammedans. —The heat of this island would be excessive, if it were not moderated by abundant rains. The trees are always green; fruit and flowers grow in all seasons; jasmines, roses, carnations, and other beautiful flowers, grow without culture; orange-trees and citrons shade the ground, with mangoes, bananas, and other fruits. Cotton-trees cover the extensive plains. It produces no spice except pepper. The inhabitants raise large quantities of it, and export it to all parts of Europe, but to those of Europe. In the forests are large herds of deer, wild hogs, and a great variety of monkeys, large and ferocious; some with tails, and some without; some walking upon four legs, others upon two. The principal articles which the Dutch obtain from this island are rice, gold, ivory, saffron, camphor, wood; cotton, camphor, ginger, long pepper, and pearls. The Dutch are said to have had 370 towns and villages under their control. Their principal settlement is at Macasser. Lat. 2° N. to 5° 40' S.; lon. 118° 40' to 126° 15' E.

CELESTINE. Two popes of this name are saints. The first was elected pope Nov. 3, 422, and followed Boniface I. There is a declarat letter of this pope extant, directed to the bishops of Vienna and Narbonne, prohibiting the bishops from wearing a dress distinguishing them from the people, and for- biding them to turn their backs on the people in church, or to exclude them from the displease of their flocks. The consent of the people, of the clergy, and of the magistrate, he says, is necessary to a choice. He died April 6, 432. His letters are preserved in the collection of D. Constant, folio, and in the collection of the councils.

Celestine V. was also a saint. He was chosen pope July 5, 1294, before which time he was called Peter of Marrhone. He lived as a hermit on Monte di Magella, in continual fasting and penance, and was entirely unfit for the papal chair, on account of his utter ignorance of business and of the world. He never had been chosen, nor had the papal chair been vacant for twenty-seven months, on account of the cardinals being divided into two parties. When Celestine entered Agilia, he rode on an ass, led by two kings. He soon found the burden of business too heavy, and abdicated his dignity Dec. 13, 1294. Boniface VIII. succeeded him, and kept him prisoner till his death, May 19, 1296. The greatest simplicity marks the government of this pope. He is the founder of the Celestines (q. v.).

CELESTINES (from their founder, pope Celestine V., q. v.), the hermits of St Damian, a religious order, instituted about the middle of the thirteenth century, and following the rule of St Benedict (q. v.), wore white garments with black caps and scapularies, and were devoted entirely to a contemplative life. In the beginning of the eighteenth century, the order was diminished to the number of ninety-six monasteries in Italy, and twenty-one in France. This society of gloomy monks appears recently to have become still smaller. In France, it no longer exists.

CELIBACY [written by a Catholic].* One of the sublime ideas of the Catholic church is its veneration of chastity. This places Christianity in the most striking opposition to the sensual religions of the pagan world. Whils the pagans lowered their gods

* The above article, written by a Catholic, presents the views entertained by the Catholics on the subject of celibacy. To those not educated in that church, it appears difficult to comprehend why a rule of life so wholesome and so advantageous to the soul and the church should be so forcibly resisted and so severely enforced. The Catholic church, it is said, has made more devoted to the secular interests of the church, there can be no doubt; but that they would be as capable of performing as the religious orders, for those who are experienced in the feelings of the people, through their social connections, we should find it very dif- ficult to believe.
to the human standard, Christianity directed men’s views to heaven, and idealized human nature. St Paul (1 Cor. 7) recommends virginity, without condemning marriage. The Catholic church respects matrimonial chastity, but esteem virginity a higher virtue, as a sacrifice of the pleasures of this life to purify the heart. The early church required the celibacy of its clergy, which was required of them as an entrance to consecration, and to devote themselves entirely to the duties of their office. One point only was disputed, whether clergymen were to be merely prohibited from marrying, or whether even those who were married before their consecration, should be required to separate themselves from their wives. At the general council of Nice, several bishops proposed that the bishops, priests, and deacons, who had received the holy consecration, should be directed, by an express ordinance, to give up their wives. But Paphnutius, bishop of upper Thebais, contended that celibacy was only a simple of chastity, it was sufficient, he said, according to the ancient traditions of the church, that clergymen should not be permitted to marry; but he who had been married before his consecration ought by no means to be separated from his lawful wife. As it became the general opinion, that a clergyman could not marry, it soon became the general practice to refuse consecration to married men. By this means, uniformity was effected. As for the bishops, it soon became a matter beyond dispute. After the institution of monachism had become firmly established, and the monks were regarded with veneratation, on the principle of perpetual chastity, public opinion exacted from the secular clergy the same observance of celibacy. The holy father Epiphanius assures us that, by the ecclesiastical laws, celibacy was commanded, and that, wherever this command was neglected, it was a corruption of the church. The particular council of Elvira commanded all bishops, presbyters, deacons, and subdeacons, to abstain from their wives, under penalty of exclusion from the clergy. In the Western church, celibacy was rigorously required. Pope Gyradius, at the end of the fourth century, forbade the clergy to marry, or to cohabit with their wives, if already married. At the same time, the canons were extended to canonizations, which increased the conformity between them and the secular clergy still further, and indirectly obliged the latter to observe celibacy. Several popes and particular councils repeated this injunction. The emperor Justinian declared all children of clergymen illegitimate, and incapable of any hereditary succession or inheritance. The council of Tours, in 566, issued a decree against married monks and nuns, declaring that they should be publicly excommunicated, and their marriage formally dissolved. Seculars, deacons, and subdeacons, who were found to dwell with their wives, were interdicted the exercise of spiritual functions for the course of a year. In Spain, the bishops were ordered to enforce celibacy upon their abbots, deacons, &c., once a-year, in their sermons; for, in that country, many priests, formerly Arians, and newly converted, refused to give up their wives, conformably to the requisitions of the Catholic church.

As in other points, in this also, the Greek church dissented from the Roman. The (Trullan) council of Constantinople, in 692, in its thirteenth canon, declares, “Having heard that the Roman church has ordained the priests and deacons, and those of their own family, who are assembled in this council, hereby grant to the human standard, Christianity directed men’s views to heaven, and idealized human nature. St Paul (1 Cor. 7) recommends virginity, without condemning marriage. The Catholic church respects matrimonial chastity, but esteem virginity a higher virtue, as a sacrifice of the pleasures of this life to purify the heart. The early church required the celibacy of its clergy, which was required of them as an entrance to consecration, and to devote themselves entirely to the duties of their office. One point only was disputed, whether clergymen were to be merely prohibited from marrying, or whether even those who were married before their consecration, should be required to separate themselves from their wives. At the general council of Nice, several bishops proposed that the bishops, priests, and deacons, who had received the holy consecration, should be directed, by an express ordinance, to give up their wives. But Paphnutius, bishop of upper Thebais, contended that celibacy was only a simple of chastity, it was sufficient, he said, according to the ancient traditions of the church, that clergymen should not be permitted to marry; but he who had been married before his consecration ought by no means to be separated from his lawful wife. As it became the general opinion, that a clergyman could not marry, it soon became the general practice to refuse consecration to married men. By this means, uniformity was effected. As for the bishops, it soon became a matter beyond dispute. After the institution of monachism had become firmly established, and the monks were regarded with veneratation, on the principle of perpetual chastity, public opinion exacted from the secular clergy the same observance of celibacy. The holy father Epiphanius assures us that, by the ecclesiastical laws, celibacy was commanded, and that, wherever this command was neglected, it was a corruption of the church. The particular council of Elvira commanded all bishops, presbyters, deacons, and subdeacons, to abstain from their wives, under penalty of exclusion from the clergy. In the Western church, celibacy was rigorously required. Pope Gyradius, at the end of the fourth century, forbade the clergy to marry, or to cohabit with their wives, if already married. At the same time, the canons were extended to canonizations, which increased the conformity between them and the secular clergy still further, and indirectly obliged the latter to observe celibacy. Several popes and particular councils repeated this injunction. The emperor Justinian declared all children of clergymen illegitimate, and incapable of any hereditary succession or inheritance. The council of Tours, in 566, issued a decree against married monks and nuns, declaring that they should be publicly excommunicated, and their marriage formally dissolved. Seculars, deacons, and subdeacons, who were found to dwell with their wives, were interdicted the exercise of spiritual functions for the course of a year. In Spain, the bishops were ordered to enforce celibacy upon their abbots, deacons, &c., once a-year, in their sermons; for, in that country, many priests, formerly Arians, and newly converted, refused to give up their wives, conformably to the requisitions of the Catholic church.

As in other points, in this also, the Greek church dissented from the Roman. The (Trullan) council of Constantinople, in 692, in its thirteenth canon, declares, “Having heard that the Roman church has ordained the priests and deacons, and those of their own family, who are assembled in this council, hereby decree, that priests and deacons, according to the ancient custom of the church, and the institution of the holy apostles, may live with their wives like the laity. We hereby forbid any one to refuse the consecration of a priest or deacon on account of his being married, and cohabiting with his wife, after he has been consecrated; for otherwise the party over whom the church has a right to exercise authority, cannot be unjust to marriage, nor separate what God has united.” These regulations are still in force in the Greek church; and, while celibacy is required of the bishops and monks, priests and deacons, if married before consecration, are allowed to continue in the state of matrimony. This is not a reason for saying that the Roman church introduced celibacy; she lays only retained it, as an old apostolical tradition, to which she has added the rule, not to consecrate married men unless the wife enter a religious order. As no one has a right to demand to be consecrated a priest, the Roman church has, by this addition, violated no one’s right. The Western church had new reasons for enjoining celibacy, when the system of benefices began to be organized. At first, the officers of the church lived on the voluntary gifts of the faithful. When the church had become wealthy, laws were passed to secure and keep the revenues and estates of all the churches belonging to the diocese of a bishop were considered as one whole, the administration and distribution of which depended on the bishop. But, in the seventh, eighth, and ninth centuries, a particular sum was taken from the common stock for each officer, the bishop not excepted. This constitution of the church was similar to that of the state, in which feudalities performed military and other services, in consideration of the usufruct of certain lands. Even the name was the same. The possessions of the feudalities were called benefices, as well as those of the clergy. If the clerical benefices and employments had become hereditary, as was the case with the lay benefices, we should have seen a hereditary ecclesiastical caste, similar to that of the nobility, which has been transmitted to us from the middle ages, as a caste of warriors and civil officers. We should have seen hereditary priests, hereditary bishops, and a hereditary pope. The ruinous consequences, moral and political, which would have resulted from such a state of things, are easily conceived. All the feelings and principles of a pure and divine religion would have disappeared in such an empire of priests. The most absolute despotism would have been established over the nations, and every attempt of the commons to attain a higher stand in political society would have been frustrated. When the canons in Wales afterwards abandoned celibacy, it was soon observed that they had succeeded in making their benefices hereditary, by intermarriages between their sons and daughters. The fate of Wales would have been that of all the Christian nations of the West, if the marriage of priests had been allowed.

Whilst, however, the church persevered in commanding celibacy, she had to struggle with the opposition of a corrupt clergy. The council of Narbonne, in 791, forbade the clergy to have any females living with them, even such as former rules had permitted. The same was ordered by the council of Ments, 888. By the council of Augsburg, every clergyman was forbidden, under penalty of dismissal, either to marry, or to take a wife, if already married, or to retain female companions who had been introduced under the name of sisters (subintronutæs); and the bishop was authorized, when suspicious women were found in the houses of clergymen, to drive them out with whips, and cut off their hair. In the council of Constance, King Eligius himself delivered a speech on the scandalous life of the clergy, whose
houses, as he said, might well be considered as brothels. Soon afterwards, a great number of canons and priests were dismissed, whose places were given to monks. In the council at Ernain, in 1003, the clergy were ordered to give up their concubines. To those who abstained, it was even promised, that they should be treated like nobles by birth. Leo IX. ordered that women at Rome, transgressing with priests, should be slaves in the Lateran for life. Adalbert, archbishop of Hamburg, excommunicated the concubines of priests, and had them ignominiously turned out of the city. Pope Victor II. dismissed several bishops on account of their irregularities. Notwithstanding all such prohibitions, it appeared impossible to maintain the law of celibacy in force. In 1061, the Lombard bishops, most of whom had concubines, themselves elected Nodolaus, bishop of Parma, afterwards Honorius II., antipope, merely because he did not live in celibacy; and it was, therefore, hoped that he would not insist on the observance of the prohibitory law. Add to this, that most of these clergymen, living with concubines, in violation of the prohibitions, obstained their places by simony, and you have a true picture of the church in those days. The necessity was urgent that a reformer of the church should arise. He appeared in Gregory VII., who, like all men of great genius, has a right to be judged in reference to the spirit of his age. In order to carry into effect the church discipline, he was obliged to encounter the simony and licentiousness of the clergy. The former he checked by opposing the emperor's right of investiture, and enforced the laws of celibacy by new regulations. In the council of 1074, at Rome, he ordered, that all married clergymen, and all laymen who should confess to the clergy, hear mass of them, or be present at any divine service performed by them, should be excommunicated. When the bishop of Coire began to read this decree to the synod in Mentz, the clergy assailed him with reproaches and blows, so that he narrowly escaped with his life. They declared that they did not pre-tend to be angels, and would rather give up their priesthood than their wives. Gregory, Nevertheless, succeeded, as he was supported by the most anient and most undoubted canons. After Gregory's decease, the church continued in the same course. The prohibitions were repeated, as well as the rules of caution concerning domestic life. Yet transgressions of this hard commandment were very frequent, particularly in the fifteenth and sixteenth centuries. In Petrarca's works are many complaints of the licentiousness of the clergy at the pope's court in Avignon, where Petrarca lived for some time. In the accounts of the council of Basle, it is stated that many cardinals present there lived openly with their concubines. In one of the chronicles of the mark of Brandenburg, we are informed that, at a feast, a question arose whether the bishop's concubine should precede the other ladies or not. The reformation followed. It recognised no sacrificing priests; virginity was esteemed no higher than conjugal fidelity; vows of chastity were considered no longer obligatory; and, as the Protestant clergy were subject either to the state or the religious communities, it was no longer to be feared that they would, by their own authority, make the benefits hereditary. Luther did not at first go the whole length of these changes. He thought the prohibi-

* In Abbe's Letters from Cuba (Boston, 1859, p. 13), it is stated, that most of the priests on these missions, live, and speak of their children without scruple, and will sometimes even reason on the subject, and defend the practice. The case is much the same in a great part of South America.
incontinent clergyman have left the Catholic church, and entered into one which allowed them to marry. Another reason is, that the Protestant reformation aroused the attention of the Catholic church to the necessity of a reform in its own body, and the observed by that many other circumstances tend to increase the influence of luxury; yet the far greater part of the Catholic clergy respect the rule of celibacy at the present day. Among the reasons against requiring celibacy in the clergy, is the increasing scarcity of men willing to devote themselves to a profession which requires such strict self-denial.

CELL; generally employed to designate an apartment used as a storehouse for wines, &c., and commonly under ground. The same term has various applications under different circumstances. Thus cella was used, by the Roman poets, to signify the lodge of a wild animal; while these lodges being anciently under ground (see Juvenal, sat. vi. ver. 121), having the names of the inmates over the doors. The name of cella was also used for the lodgings of servants, among the Romans for the apartments of the public baths, for the adytum or innermost and most retired parts of the temples, where the images of the gods were preserved. The term cella was also applied to a lesser or subordinate minster, dependent upon a greater, by which it was erected, and under whose government it remained. The great ancient English abbeys had generally such cells in distant places, which were accountable to, and received their supplies from, the apartments or private dormitories of monks and nuns are also called cells.

In technology, the term cell is employed very frequently to signify any small compartment into which substances are divided; thus the hexagonal chambers of the honey-comb are called cells, as in botany the cavities, separated by partitions in the pods, husks, or seed-vessels of plants, which are said to be uninodal, bilocular, trilocular, &c., according to the number of cells.

In anatomy, it is applied to various small cavities such as the air-cells, or pulmonary vesicles, the suprascavicular cavities, or spaces in the membrane which retains the fat, &c. The loose, inelastic texture which unites and surrounds all the parts and organs of the body, has the name of cellular, from its being made up of a succession of these little membranous interspaces.

CELLARIUS, Christopher, one of the most learned philologists of the 17th century, was born in 1638. After he had studied at several German universities, he taught moral philosophy and the Oriental languages at Wiesbaden. In 1673 he was made rector of the school at Weimar, and afterwards of the seminaries at Zeita and Marsbach, and, finally, professor of eloquence and history at Halle, where he died in 1707. He published a great number of ancient authors, with learned annotations and very accurate indexes, as, for instance, the letters of Cicero and of Pliny, Cornelius Nepos, Curtius, Estorquis, Sextius Rufus, Velleius Paterculus, the twelve ancient panegyrist, Minucius Felix, Silus Italicus, &c. His own compositions relate to ancient history and geography, Roman antiquities, and the Latin language.

CELLINI, Benvenuto; a sculptor, engraver, and watchmaker, who was in succession an active painter, a goldsmith, and a sculptor. He was born at Florence in 1560, and died there in 1570. Of a bold, honest, and open character, but vain and quarrelsome, and impatient of encroachment and dependence, he was often entangled in quarrels, which frequently cost his antagonists their lives. He himself incurred great dangers, and for a time was put into prison, and was saved only by his boldness and the powerful protectors whom his talents as an artist procured him. At the siege of Rome (if we believe his own account, given in his autobiography), he killed, with one cannon shot, the constable of Bourbon, and, with another, the prince of Orange. In 1545 he was imprisoned on the charge of having stolen the jewels of the papal crown, which were intrusted to him during the siege, and was released only by the interference of Francis I., whose court he visited, and executed there several works. He afterwards returned to Florence, and, under the patronage of Cosmo, made a Perseus with the head of Medusa in bronze, which is still an ornament of the market-place; also a statue of Christ, in the chapel of the Pitti palace, besides many excellent dies for coins and medals. In his fifty-eighth year, he wrote his own life in Latin, with equal care and originality; these being translated, in a masterly manner, by Goethe, into German. There is also an English translation by Dr Nugent, 1771; new edition by Thomas Roscoe, 1822. It contains striking descriptions of Cellini's own adventures, and of the characters of the persons with whom he came in contact. Among his other writings, the most important are Due Trattati, una in forma de etto prince papi Arti dell' Oreficeria, l'altro in Materia dell' Arte della Scultura (best edition, 1731). His style is free, strong, and original, and the academy of the Crusca often quotes him as a classic.

CELLULAR SUBSTANCE, or CELLULAR MEMBRANE (tel es cellulosa or mucea of Latin writers), is the medium which connects and supports all the various parts and structures of the body. Any person may gain a general notion of this substance by observing it in joints of veal, when it is infatuated by the butchers. It consists of an assemblage of fibres and lamina of animal matter, connected with each other so as to form immeasurable cells or small cavities, from which its name of cellular is derived. It pervades every part of the animal structure. By joining together the minute fibrils of muscle, tendon, or nerve, it forms obvious and visible fibres. It collects these fibres into large fasciculi and, by connecting such fasciculi, or bundles, to each other, constitutes an entire muscle, tendon, or nerve. It joins together the individual muscles, and is collected in their intervals. It surrounds each vessel and nerve in the body, often connecting these parts together by a firm kind of capsule, and, in a longer form, joining them to the neighboring muscles, &c. When condensed into a firm and compact structure, it constitutes the various membranes of the body, which, by long maceration in water, may be resolved into a loose, cellular texture. In the bones it forms the basis or ground-work of their fabric, a receptacle, in the interstices of which the earth of bone is deposited. As cellular substance is entirely soluble in boiling water, it is considered, by chemists, as that peculiar modification of animal matter termed gelatine. In consequence of its solution by the united agencies of heat and moisture, the muscular fibres separate from each other, and form the other structures of the body. This effect is seen in meat which is subjected to long boiling or stewing for the table, or, indeed, in a joint which is merely over-boiled. It forms a connexion and passage between all parts of the body, however remote or dissimilar it may be. It is the common cells of this substance everywhere communicative, as we may collect from facts of the most common and
familiar occurrence. In euphysyema, where air escapes from the lungs wounded by a broken rib into the cellular substance, it spreads rapidly from the chest into the most remote parts of the body, and has even been known to gain admission into the eye-ball. A distillation of this fluid may be effected by artificial inflation.

CELSUS, Aurelius Cornelius, lived, probably, under the reign of Augustus. He has been called the Roman Hippocrates, because he imitated the Greek physician, and introduced the Hippocratic system into Rome. He also wrote on rhetoric, the art of war, and agriculture. He is, however, best known as a medical writer. His style is elegant, concise, and, nevertheless, very clear. His work on medicine is an inexhaustible source, from which other good authors have drawn materials for writings, both medical and surgical. He has furnished subsequent writers with a multitude of authorities for the support of their different theories, but has suffered much arbitrary interpretation. Hippocrates and Asclepiades are the two authors whom he has followed most. More than fifty-nine editions of his eight books De Medicina have been published since 1785; at Florence, 1478, fol.: the best is by Kruse, Leipsic, 1768: that of Targu was printed at Padua, 1769, 4to, and one at Verona, 1810, 4to.

CELTIC (they called themselves, also, Gaet, or Gaels; see Gaed) one of the four chief nations which inhabited the western peninsula of Spain, or Celtiberia, from the extreme point of Brittany to the Rhine and the Alps. The Romans, therefore, called the whole country Celts, or Galatia. They left Asia at some distant period, and, at the time of Tarquinius Priscus, came, under Bellovesus, to Upper Italy, and large numbers of them spread over several countries of Europe. In Spain, they became mingled with the Iberians, whom they conquered. Internal wars weakened them; and commerce with the Romans, and with the people of Marseilles, made them more civilized. The Italian Celts were subjected, 220 B.C., by the Romans. The Boii united themselves with the Helvetic; the Ilyrian Celts with the Illyrians. Their government was aristocratical. The nobles formed a national assembly. The commons were regararded as little better than slaves. They were large, and of great bodily strength, impetuous in their attacks, but not well trained to endure hardships. A huge sword, generally of enormous length, was their chief weapon. Their priests, the Druids (q. v.), enjoyed the greatest authority.

CELTES, Conrad; born in 1459, at Protuch, in Franconia. His original name was Meissel, which he changed into Celtes Protocivis. He ran away from his parents, and studied in Cologne. In 1484 and 1485, he studied under the tuition of Rodolph Agricultor, at Heidelberg, and became a philologist and Latin poet. He then travelled to Italy, where he attended the lectures of the most learned teachers of his time. On his return through Ulm, Hungary, and Poland, he was taught astronomy and astrology by Albertus Brutsy, and met with the most favorable reception at the German courts. In Nuremberg, he was crowned by the emperor Frederic III. (1491), on account of the reputation which he had acquired by his Latin poems, being the first German poet who received this honor. He afterwards travelled for ten years, visiting all the universities in Germany, and found, at length, a resting-place in Vienna, where Maximilian I. appointed him, in 1501, professor of poetry and rhetoric, and president of the faculty established for the study of classical antiquities. He left a history and description of Nuremberg, a poem on the situation and manners of Germany, and, several philosophical, rhetorical, and biographical works, and a number of poems. He considered the study of languages, not, like other philologists of his time, as an object of pursuit in itself; but only as a means for obtaining an acquaintance with those sciences which have a more immediate bearing on the business of life, among which he placed history and geography. His plan for a universal history (sodalis Celtica), for which he had already obtained grants of privileges from the emperor, was interrupted by his death in 1568. Only the Rhenish society, which he founded in Heidelberg, outlived him.

CELTIBERI, or CELTIBERIANS; inhabitants of Celtiberia, a country along the Iberus, in the north-east part of Spain. They formed the most numerous tribe in Spain, and originated from Iberians mixed with Celts. They were brave, and their cuneus was formidable even to the Romans. They despised agriculture. After a long resistance to the Romans, they were, at last, in the Setorian war, subjected to their sovereignty, adopted their manners, language, dress, &c. They were divided into six tribes—the Bellones, Arevaci, Pelendones, north of the Durus; and the Lusones, Belli, and Ditthi, more to the south.

CEMENTATION; a chemical process, in which a metal (and often other bodies) is placed in connexion with other substances, often in layers (stratum super stratum), in close vessels, that the former may be separated from its combinations, or changed (frequently oxidized), at a very rapid rate. In the substance with which the metal or other body is surrounded is called cement-powder. In cementing gold, the alloy is beaten into thin plates, and placed in alternate layers, with a cement containing nitrate of potash and sulphate of iron. The whole is then exposed to heat, until a great part of the alloying metals are removed by the action of the nitric acid liberated by the nitre. Iron is cemented with charcoal-powder and other substances, and thereby converted into steel. Glass is changed, by cementation with gypsum, into Reamur's porcelain. Copper is cemented with a powder of calamine and charcoal, and thereby converted into brass. The copper obtained from the sulphate of copper, by precipitation with iron, is called cement-copper.

CEMENTS. The substances used for producing cohesion between different materials are very various. They are mostly soft or semi-fluid, and harden in the course of time. The binder of cement is the former it will hold. The number of cements employed is very great. We can mention only a few. The joints of iron pipes, and the flanges of steam-engines, are cemented with a mixture composed of sulphur and nitrate of ammonia, together with a large quantity of iron chippings. The putty of gla- siers is a mixture of linseed oil and powdered chalk. Plaster of Paris, dried by heat, and mixed with water, or with resin and wax, is used for uniting pieces of marble. A cement composed of brickdust and resin, or pitch, is employed by turners, and some other mechanics, to confine the material on which they are working. Common paint, made of white lead and oil, is used to cement China-ware. So also are resin- ous substances, such as mastic and shell lae, or isinglass dissolved in proof-spirit or water. The paste of bookbinders and paper-hangers is made by boiling flour. Bisc-glue is made by boiling ground rice in soft water to the consistency of thin jelly. Wafers are made of flour, isinglass, yeast, and white of eggs, dried in thin layers upon tin plates, and cut by a circular instrument. They are coloured by red-lead, &c. Sealing-wax is composed of shells, and is very finely sifted for that purpose. Common glue is most usually employed for uniting wood, and similar porous substances. It does not answer for
surfaces not pervious to water, such as metals, glass, &c. The cements mostly used in building are composed of lime and sand. Lime is procured by burning substances in which it exists in combination with carbonic acid, such as limestone, marble, chalk, and shells. By this process, the carbonic acid is driven off, and the limestone is separated into a white and impalpable powder. This is a hydrate of lime, and contains about three parts of lime to one of water. When intended for mortar, it should be made of carbonic acid and sand, and be used immediately before it imbibles carbonic acid anew from the atmosphere. The lime adheres to and unites the particles of the cement. Cements thus made increase in strength and solidity for an indefinite period. Fresh sand, wholly silicious and sharp, is the best. That taken from the sea-shore is unfit for making mortar, as the salt is apt to deliquesce and weaken the mortar. The amount of sand is always greater than that of the lime. From two to four parts of sand are used, according to the quality of the lime and the labour bestowed on it.

Cements, called also Roman cements, harden under water, and consolidate almost immediately on being mixed. Common mortar dissolves or crumbles away, if laid under water before it has had time to harden; but certain rocks, which have an argilaceous as well as a silicious character, communicate to lime or mortar the property of hardening in a very few minutes, both in and out of water. The ancient Romans, in making their water cements, employed a peculiar earth, obtained at the town of Puteoli. This they called puteolius. It is the same that is now called Puzolana. It is evidently of volcanic origin, as some of its original structures, have mostly employed a substance denominated terra, terras, or iras, found near Andermack, in the vicinity of the Rhine. It is said to be a kind of decomposed basalt, but resembles Puzolana. It is very durable in water, but inferior to the other kinds in the open air. Baked clay and the common greenstone afford the basis of very tolerable water cements, when mixed with lime. Some of the ores of manganese may be used for the same purpose. Some limestones, calcined and mixed with sand and water, also afford water cements, usually in consequence of the trouble and cost. Southern cements, of great hardness and permanency, have been obtained from mixtures, into which animal and vegetable substances enter, such as oil, milk, mucilage, &c. The name of malta or mastix is given to them. They are not much used.

Cemetery. In the article Burying-Places, we have given the history of the custom of interring the dead, and shall only mention, in this place, two cemeteries, perhaps the most interesting which ever existed. One of them is the common place of burial of the ancient Egyptians, which was situated beyond the lake Achernus, or Acheron, the name which signifies the last condition of man, and which probably is the foundation of the Greek fables respecting lake Acheron. On the borders of lake Achernus, a tribunal, composed of forty-two judges, was established, to inquire into the life and character of the deceased. Without this examination, a corpse could not be carried to the cemetery beyond the lake. If the deceased had died insolvent, the court adjudged the corpse to his creditors, in order to oblige his relations and friends to redeem it. If his life had been wicked, they refused his body the privilege of solemn burial. In the Cenci family, the corpse was plunged into a large ditch made for the purpose, which received the appellation of Tarter, on account of the lamentations which this sentence produced among the surviving friends and relations. The Greek Tartarus had its origin in this Egyptian Tartar. If no accuser appeared, or the accusations were found groundless, the judges decreed the regular burial, and the eulogium of the deceased was pronounced amongst the tombs, accompanied with the songs of his talents, virtues, accomplishments, every thing except his rank and riches, were praised. To carry the corpse to the cemetery, it was necessary to cross the lake, and to pay a small sum for the passage. This circumstance also was translated into the Greek mythology. The cemeteries were usually surronded by trees, and intersected by canals, to which was given the appellation Elisout, or Elisiums, meaning rest. Every one recognizes, in this description, the Greek Charon, his boat, his ferry-money, and the Elysian fields. The whole ceremony of interment seems to have consisted in depositing the mummy in the excavation made in the rock, or under the sand which covered the whole Elisium: then it seems that the relations of the deceased threw three handfuls of sand, as a sign to the workmen to fill up the cavity, after uttering three loud farewells.

Cemeteries. "Lectures on Hieroglyphics and An- tiquities, by the marquis Spineto, London, 1827. Another cemetery of great interest is that of Père Lachaise (see Lachaise), in the north-west part of Paris, not far from the barrière des Amandiers. This city of the dead has a superificie of more than fifty-one arpents, and contains a great variety of tombs, some of a touching simplicity, with the marks of unaffected grief, while others remind us of the words of St Augustine: "Curatio funeris, conditio sepulchra, pompa exequiarum, magis vivorum solutia quam vivabi di mortuorum." Columnns, obelisks, pyramids, fune- rary inscriptions, of all kinds, form a marked feature of the cemetery, but point out a few only of those who rest in this last abode of many generations. Here repose Heloise and Abelard, the conqueror of Es- singen, Delilie, Molière, La Fontaine, and Foy, amid a crowd of philosophers, artists, warriors, politi- cians, and individuals from the ordinary walks of life. From this place you look down on the bustle of the gayest city in the world. A chapel in the burying-ground affords the finest view of Paris. Cenci, Beatrice, called the beautiful parriodie, was the cause of the extermination of the noble family of Cenci by the first son, Farinaceus, of the Cenci.とした。The first son, Farinaceus, of the Cenci. The story, transmitted orally from father to son, was told by the poet, Metastasio, in his tragedy, "Cenci," where Beatrice discovered this shocking crime to her relatives, and even sought to obtain protection from pope Clement. It appears, however, that this was not granted: for, when the guilty father continued his former treatment, with aggravatated wickedness, she joined with her brother, Gio- como, and procured the death of the monster, by two assassins, as he slept. The guilty parties were discovered, confessed the murder on the rack, and were condemned by the pope to be torn to pieces by wild horses. In vain did the learned Pariacceus (cele- brated for his Questions) exert himself to obtain a mitigation of their punishment by a lively representation of the depravity of the deceased. According to other accounts, Beatrice and her relatives appear to have had little or no share in the murder of the Cenci. In the Cenci, Beatrice, the second daughter, false testimony of two banditti against the Cenci family. So much is certain, that, Sept. 11.
1599, Beatrice Cenci and her sister were executed with a sort of guillotine, called *mannaia*. Giacomo was killed with a club; the younger brother was pardoned on account of his youth; but the estates of the family, to which belonged the villa Borgiase, since so famed for its treasures of art, were confiscated by the reigning Prince, Paul V. of the house of Borgiase, to his family. In the palace of Colonna, at Rome, travellers are shown an excellent painting, said to be by Guido Reni, as the portrait of the unfortunate patriarch; and this charming picture of the beautiful girl has been the means of raising lodgers all along the street where the tale of horror connected with it. Percy Bysshe Shelley has made the Cenci the subject of a drama.

CENIS, Mount; a mountain belonging to the Alps, in the county of Maurienne, in Savoy. Its height is stated to be 8670 feet above the level of the sea. It is famous for the road which leads over it from Savoy to Piedmont. (See Alps, Roads over.) On the mountain is a plain, called Madeleino, and a lake, with an hospital, called La Ramasse. The lake contains torrents of sixteen pounds' weight. This plain is surrounded by higher peaks covered with snow. Beatrice Cenci's journey over the Alps, in the sixteenth century, Evelyn's, in the seventeenth, lady Mary Wortley's and Horace Walpole's, in the eighteenth, are all interesting; but the danger has been removed by Napoleon's road.

CENOBITE. See Anchorite, and Monastery.

CENOTAPH (from the Greek *kénon-taphs*, called also *kaphos*); a monument erected in honour of a deceased person, but not containing his body, as is implied from the terms *kénon*, empty, and *taphos*, a tomb. Some of these monuments were erected in honour of persons buried elsewhere, others for persons living. They were erected at a fixed time, and were entirely omitted. The second believed that, when the body was not buried, the soul could not be admitted into the abodes of the blessed. When a body could not be found, it was supposed that some rest was afforded to the sufferer by erecting him a cenotaph, and calling out his name three times with a loud voice. Such monuments were distinguished by a particular sign, usually a piece of a shipwrecked vessel, to denote the death of the deceased in a foreign land. The Pythagoreans erected cenotaphs to those who had quitted their sect, as if they were actually dead.

CENOSIS was a magistrate at Rome, who kept a register of the number of the people and of their fortune, and from 442 B.C. regulated the taxes. At the same time they watched over the manners of the citizens. They were chosen every fifth year. This institution, at the period of simple manners in which it was founded, may have been beneficial, but is wholly inconsistent with our ideas of individual liberty. In the different governments of Europe, censors are persons appointed by the government to administer the censorship of the press (q. v.).

CENSORSHIP OF BOOKS. See Books, Censorship of.

CENSUS; with the Romans, one of the most important institutions of the state, and the foundation of its future greatness. It was introduced by king Servius Tullius, B. C. 577. All Roman citizens, both in the city and in the country, were obliged to report the amount of their property, the number of their children, the name by which their property was known, and the value of it, and their property and their liberty. According to the statement thus given in, Servius Tullius divided the citizens into six classes, and those again into centuries (q. v.). The first class consisted of those whose fortunes were appraised at least to 100,000 asses or pounds of copper. The property of the second was at least 75,000; that of the third, 50,000; that of the fourth, 25,000; that of the fifth, 11,000 asses; all the rest belonged to the sixth class. (See Act.) Each class had a particular kind of arms a particular post in the army, &c. This division produced the most important consequences for Rome. At an earlier period, the poor citizens were obliged to pay the same tax as the rich; this was changed. The tale of horror connected with it. Percy Bysshe Shelley has made the Cenci the subject of a drama. This division produced the most important consequences for Rome. At an earlier period, the poor citizens were obliged to pay the same tax as the rich; this was changed. The tale of horror connected with it. Percy Bysshe Shelley has made the Cenci the subject of a drama.
through which a poisonous fluid is thrown out. The body is long, depressed, and membranous, each ring being usually split by the decayed cartilage of its predecessor, and mostly having one pair of feet; the last is usually thrown backwards, and elongated in form of a tail. These insects are nocturnal and carnivorous, and uniformly endeavour to escape from the light. They conceal themselves under the decayed bark of trees, the decayed timbers of buildings, among stones, lumber, and rubbish, whence they sally forth at night in search of prey. The centipede is one of the greatest pests to be encountered in the West India islands, and throughout the hot parts of the American continent. The materials of which the centipede consists, and which timber is subject in such climates, afford these noxious insects excellent hiding-places, and they multiply with great rapidity. The utmost vigilance, even in the most cleanly houses, is necessary to prevent these creatures from finding their way into the beds, which they often do notwithstanding all the care that is taken to prevent them. They always attempt to escape when a light is brought into the room. They run with considerable swiftness, but are quite ready to stand on the defensive, and bite with severity. This disposition to bite upon the slightest provocation renders them very dangerous when once they have entered a bed; the least movement of the sleeper over whom they may be crawling, and who can scarcely fail to be disturbed by their sharp-pointed feet or claws acting upon his skin, will ensure a venomous bite, which will be frequently repeated if the centipede be not speedily dislodged. The bite is exceedingly painful at the moment, and is followed by a high degree of local inflammation, and a fever of great irritation. Where the insect is large, and the bite severe, life is much endangered, and not unfrequently lost, especially if the sufferer be of delicate and irritable habit of body. The immediate application of a cupping-glass, or any convenient substitute, over the wound, removes the pain and danger at once. Spirits of hartshorn (volatile alkali, aqua ammonica alcoholis) applied to the part, and doses of the same administered internally (thirty or forty drops) twice, thrice, or oftener in a day, will also lessen the pain, and avert dangerous consequences. The mode of treatment first mentioned is the quickest and most certain. A popular remedy, in all places where the centipede is common, is the application to the wound of brandy or rum in which a centipede has been for some time preserved. This treatment, however, may be dangerous if the centipede be large and more in length, and is a formidable inmate of most of the houses in tropical regions. Bishop Heber speaks of them as being very large and poisonous in different parts of India. So accustomcd are the West India slaves and residents to their presence, that, regardless of danger from their bite, that no particular means are taken to lessen their numbers, or to banish them effectually. It is very probable that they might be readily destroyed by placing poisoned food within their reach; yet, while resident in the West Indies, we never heard of any one being at the trouble of the experiment, though considerable were almost daily killed about the house. They are frequently brought to America in cargoes of hides, &c.; and, a few years since, an individual, employed in unloading a vessel at Boston, lost his life in consequence of being bitten by one of these insects, brought over by it. Specimens have a considerable resemblance to the centipedes of the West Indies, and much dreaded on account of their bite, are often seen about extensive collections of timber and lumber at the saw-mills on the head waters of the Susquehanna, &c. A smaller, dark reddish-brown species, known by the name of thousand legs, is common in most parts of America, living under dead bark, or in the decaying parts of trees. Its much smaller than the former, and is not so injurious; some of these insects, on certain occasions, may be destructive, and which these insects pertain, from their crustaceous covering, the formation of the mouth, &c., appears to form the transition from the crustaceous or crab-like animals to insects proper. They are the only insects which, in their perfect state, have more than eight feet, and have the abdomen not distinct from the trunk. They live and grow much longer than other insects, surviving through several generations. When first hatched, they have but six feet, or, at least, fewer than they afterwards acquire. The additional feet, as well as the rings to which they are attached, become developed as they advance in age—a sort of change peculiar to this race.

CENTTIVRE, Susanna, a dramatic writer, was born in Ireland, in 1667. Her mind having early taken a romantic turn, on being unkindly treated by those who had the care of her after the death of her mother, she formed the resolution of going to London. Travelling by herself on foot, she was met by Sir Stephen Fox. 'Becoming a widow within a year, she took for a second husband an officer of the army, of the name of Carrol, who was killed in a duel the second year of their wedlock. This event in her singular career reduced her to considerable distress, and led her to attempt dramatic composition. Her first production was a tragedy, entitled The Purged Husband, which was performed in 1700. This was followed by several comedies, chiefly translations from the French, which exhibited the vivacity that distinguishes her literary character, and met with some temporary success. She also tried the stage as an actress on the provincial boards, and by that means attracted the attention of her third and last husband, Mr Centlivre, yeoman of the month to queen Anne, whom she married in 1706. She still continued writing for the stage, and produced several more comedies. Some of these remain stock pieces, of which number are the Busy Body, the Wonder, and a Bold Stroke for a Wife. They are darting from the battle of the incident, and the liveliness of the characters, but want the accompaniments of adequate language and forcible delineation. The First Book of the life of the aged Mrs Centlivre enjoyed the friendship of Steele, Farquhar, Rowe, and other wits of the day. Having, however, offended Pope, she obtained a place in the Dunciad, but is introduced by no means characteristically. She was handsome in person, and her conversation was sprightly and agreeable; her disposition also appears to have been friendly and benevolent. She died in 1723. Besides her dramatic works, published in 3 vols., 12mo, 1763, a volume of her poems and letters were collected and published by Boyer.
CENTRAL AMERICA. The republic of Central America comprises the old kingdom of Guatimala. It is bounded north by Mexico and the bay of Honduras, east by the Caribbean sea and the province of Veragua (belonging to Colombia), and south-west by the Pacific ocean. It extends from 8° 46' to 14° 27' north latitude. The population, but the particulars of the ridges are but little known. On the western shore, the country is subject to the most tremendous convulsions of nature, which have involved, at times, whole cities in ruins, and exterminated complete tribes of people. No less than twenty volcanoes are known to exist, which are in constant activity; some of them terrific. The soil is described as exceedingly fertile, and better cultivated than most parts of Spanish America; and, according to Humboldt, this country, when he saw it, was the most populous of the Spanish provinces. It produces, abundantly, grain, corn, coffee, cotton, indigo, chile, and cacao; and is also the seat of the precious metals. The climate is more healthy on the western coast than on the eastern. It is now divided into the states of Guatimala, Salvador, Honduras, Nicaragua, and Costa Rica, corresponding to the provinces of which it consisted before the revolution, in which it declared itself independent of Spain, in September, 1821.

This region was peopled originally by a party of the Toltecs Indians, from Mexico, as sufficiently appears from their language, and other indications of their origin; and tradition preserves the name of Nimaiquiche, who led the colony from Tula to their new abode. At the time of the conquest of Mexico by Cortez, a descendant of Nimaiquiche, called Tecum Umam, reigned in Uatlan, the principal seat of the Quiches, or primitive inhabitants of the country. They were subdued by Pedro de Alvarado, acting under a commission from Cortez. He set out from Mexico in the winter of 1529, and in 1530, a fleet of 300 Spaniards, commanded by Pedro de Portocarrero and Hernando de Chaves, with a large body of auxiliary Indians from Mexico, Cholula, and Tlacasa. Many desperate and sanguinary battles were fought before the invaders could effect the subjugation of the country. Most of these conflicts occurred in the districts of Suchitltempaque and Quezaltenango, where numerous traditions and local memorials of these events still remain among the aborigines. Six desperate battles took place near the river Zamala, which thus acquired, in the vicinity of the fields of carnage, the name of Xopnigel, or River of Blood. A long course of warfare ensued before Alvarado could break the spirit of the Quiches. After the death of their king, Tecum Umam, who fell in battle at the head of his subjects, they had recourse to a stratagem as bold as it was grand in conception. Their chief city, Uatlan, abounded in palaces and other sumptuous edifices, being hardly surpassed in splendour by Mexico and Cusco. It was encompassed by a lofty wall, and was capable of being entered only at two points; on one side by a causeway, and on the other by a flight of steps. Within, the buildings stood in the ruins of the pauper. In the attempt of exterminating their enemies, the Quiches invited the Spaniards into their capital, pretending a willingness to submit. After their entrance, the Quiches set fire to the city, and, if the Indians of another tribe had not been false to their countrymen, and betrayed the secret, Alvarado and his followers would have perished. Having escaped this danger, the Spaniards pursued their victorious course until all opposition was crushed, and, in 1534,declared the city of Guatimala. After the subjugation of the Quiches, the remaining tribes were subdued with comparative facility, and the dominion of the conquerors was permanently established.

The government of this country is constituted by Spain, subject to the Mexican; but the dependence was far from being close. It was denominated the kingdom of Guatimala, and governed by a captain-general. Owing to the secluded position of the people, and their peculiar occupations and spirit, they were almost the last among the Spanish colonies on the continent to embrace the cause of independence. While an obstinate struggle was going on around them, they remained for a long time in perfect tranquillity. At length, in September, 1821, they declared their independence of Spain; and, although, for a time, Iturbide obtained the control of a large portion of the territory, they, by 1824, they recurred to their original purpose of forming a separate republic. A constituent congress was convened, which completed the organization of the general government, Nov. 22, 1824, by the adoption of a federal constitution analogous to that of the United States. Under the constitution, Manuel Jose Arce was elected first president of the republic. Various differences, however, of a political nature, prevented his administration from being a tranquil or happy one. Violent factions plunged the country into a civil war, which continued from the beginning of 1827 to 1829. It was commenced by the inhabitants of the state of Salvador, who, on account of some jealousy of the people of Guatimala, proceeded from one degree of opposition to another, until they actually levied troops, and marched into the territory of the Guatimaltecos. They were beaten by the troops of the general government under the command of Arce, and driven back into Salvador; but still the war was protracted with various success. Besides this, disturbances of a serious character existed in others of the states; all tending to show that the people are far from being well fitted for the exercise of the political freedom of a free monarchy. It consists of a president, a senate, and a chamber of representatives. The Catholic is the established religion. No other is tolerated. Slavery is abolished. The commercial regulations are on a much more liberal footing than in the other new republics. Foreigners have the same rights with the natives. Englishmen and adventurers from the United States wander over this rich republic, and carry on a lucrative commerce with the natives, the treasures which the country offers in gold and silver being in the hands of the labouring class.

The flag of the United Provinces of Central America consists of three stripes of different colours, with three volcanoes (signifying the three principal provinces—Guatimala, Nicaragua, and Conwyaguana), under a rainbow, with the inscription, "God, concord, liberty." The principal town, Guatimala, and the province of the same name, are so called from the Indian word guatatemali (rotten wood), the Indian term for Campeachy wood. Cortez founded the towns of Guatimala and San Salvador. No colony cost Spain less blood than the vice-kingdom of Guatimala. The soil is volcanic, and luxuriantly fertile. A large part of the country is watered by the river Guatimala. The lake of Nicaragua, 121 miles in length and 41 in breadth, may become highly important in a com-
morial respect, as the navigable river S. Juan unites it to the Atlantic ocean, and a canal has been proposed for connecting the Atlantic and Pacific oceans, to receive its water from this lake. There are several volc anoes on its shores. The aboriginal population of this country has very much decreased. The ruins of Istam and Niquita, both on Mosquito coast, and other tribes. That part of the coast called the Mosquito coast, and extending to Cape Gracias-a-Dios, the congress at Columbia, in 1824, declared to belong to the territory of Colombia. A part of that coast called Peñas (q. v.), containing a town of the same name, was erected into a separate state by the Scotch adventurer, Mac Gregor.

Central America contains antiquities of a very interesting nature, which have been but imperfectly examined and described hitherto, and which indicate that the aboriginal inhabitants of the country had evidently a very respectable proficiency in the knowledge of the arts of life. Near the village of Palenque are the ruins of what was once a city of several leagues in circumference. Remains of temples, altars, and ornamental stones, statues of deities, and other works of sculpture, are permanent proofs of its former importance. Like remains are found near Ocoosingo, in the same part of Central America. A circus, and several stone pyramids, in the valley of Copan, in Honduras, are better known than the ruins of Palenque and Ocoosingo. Vestiges of the city of Utalhan, before mentioned, of Patinamit and Miskol, of the indigenous art in the ancient province of Quezaltenango, are mentioned by Juarros and other authors.

This country has attracted attention incidentally of late, owing to its geographical position, and the hope entertained by many of seeing a canal cut across the isthmus in some part of Central America, so as to unite the Pacific and Atlantic oceans by a navigable channel. It has been well described by a native, Domingo Juarros, whose account has been translated into English by Mr Baly—Statistical and Commercial History of Guatimala. See also Don Fernandez de la Cueva, the History of Guatemala, before and after the Spanish Conquest.

CENTRAL FIRE. Many natural philosophers have supposed a perpetual fire to exist in the centre of the earth, which they call central fire. In ancient times, volcanoes and other similar phenomena were explained by it. At a later period, when it was understood that such a fire in the interior of the earth was impossible, the phrase was used to express the interior warmth of the earth. To this central warmth Maimon ascribes a great part of the warmth on the surface of the earth. To a certain depth, there appears to be a fixed temperature in the lower strata of the earth, which probably arises from the penetrating heat of the sun. At least experiments show that in hot climates the interior of the earth is warmer than in cold ones. In Siberia, for instance, some workmen, having penetrated eighty feet in digging a well, found the earth frozen even at that depth. Interesting information on this subject may be found in Biot's Astronomie Physique (2d ed., Paris, 1810), in the 2d vol. 15th chap. De la Temperature de la Terre.

CENTRAL FORCES. When a stone is made to revolve round the hand in a sling, it has a continual tendency to fly off, and its revolution is checked by the string which draws the stone to the hand. The string acts as a centripetal force, by constantly drawing the revolving body to the centre of motion; but the moment that the string is let go, or breaks, the stone will fly off in a right line, in consequence of its centrifugal force. When both forces are spoken of together, they are called central forces.

The centripetal force of a body revolving round a fixed central point, is either the centripetal force of centripetals of which that body is composed, as is the case in a grindstone revolving on its axis; or it may be the influence of some attracting power, as gravity, in the case of the planets. So long as the revolving body retains its curvilinear path, the central forces are counteracted by gravity, and the two are in equilibrium; so that, when the value of the one is found, that of the other is also determined. The central forces are as the radii of the circles in which the bodies move, directly or inversely, as the squares of the times of revolution; and the squares of the times are as the cubes of the distances of the bodies from the centre of motion. By these laws we may determine the relative intensities of central forces; and as to the actual measure of these forces, it may be shown, that the actual velocity of a body moving in a circle is the same as it would acquire by falling through a distance equal to the fourth root of the product of the constant action of the centripetal force. In consequence of the action of these laws, there is a limit to the magnitude and velocity of revolving bodies. Thus, if the fly-wheel of a steam engine, the weight of whose rim is one ton, revolve at the rate of fifty-three revolutions in a minute, it will, by reason of the predominance of the centrifugal force over the cohesion of the cast metal, burst asunder; and the same laws put a limit to the height of edifices erected upon the surface of the earth; for the velocity of the top of a tower carried to a certain height would be so great, that the strength of the hardest stone or most tenacious cement would be overcome. With regard to the heavenly bodies, it is supposed that the Creator impressed them originally with a power to move on eternally, in one direction, by their inertia; but, by the action of gravity, the line of this direction is continually changing, the planets being all attracted to the centre of the system. See Circular Motion.

CENTRAL MOTION. See Circular Motion.

CENTRE, LE (French; signifying the centre). In the French chamber of deputies, the seats are ranged in a semicircle in front of the president, and leave only a narrow passage in front of the ministers. The ministers themselves do not sit, as in England, among the deputies, but in the front seat, on the left side of the centre. In England, the ministry is the centre of the majority, and all who do not vote with it, however different their views, unite in the opposition. In France, the two chief parties, one of which is attached to the old, the other to the new system of things, are opposed to each other independently of the ministers, and thus enable the ministry to maintain itself, as has been the case till very lately, without belonging decidedly to either party. The ministry besots many offices on the condition that all the officers shall always vote with it. In the French chamber of deputies, the adherents of the ministry chiefly sit near their leaders, on the seats in the centre (le centre). Here are to be found, therefore, the prefects, state-attorneys, and other officers of the government, who, for the sake of office, support all the propositions of the ministers. But private opinion, and the circumstances by which it is influenced, often operate so powerfully, that parties even appear in the centre. It is itself divided into a right and left side. —In England, the members of the parliament also sit on both sides, and the centre is empty. In the United States of North America, the seats are decided by lot, in both houses, and thus the
members of all parties are distributed all over the house.

CENTRIFUGAL FORCE. See Central Forces, Centripetal Force. See Centrifugal Forces.

CENTURIES or MAGDEBURG. The first comparison mentioned by the Protestant writers on the history of the Christian church was so called, because it was divided into centuries, each volume containing a hundred years, and was first written at Magdeburg. Matthias Flacius (q. v.) formed the plan of it in 1558, in order to prove the agreement of the Lutheran doctrine with that of the primitive Christians, and the difference between the latter and that of the Catholics. Joh. Wigand, Matth. Jules, Basilius Faber, Andreas Corvillus, and Thomas Holzhueter, were, after Flacius, the chief writers and editors. Some Lutheran princes and nobles patronized it, and many learned men assisted in the work, which was drawn, with great care and fidelity, from the original sources, compiled with sound judgment, and written in Latin. It was continued by the centurtares (as the editors were called) only to 1800. It was published at Bâle, from 1539 to 1574, in thirteen vols. for a great expense. A good modern edition, by Baumgarten and Semler, which reaches, however, only to the year 500, appeared at Nuremberg, from 1757 to 1765, in six vols. 4to. A good abridgment was prepared by Lucas Oslander (Tubingen, 1592—1604, 9 vols. 4to), of which the Tubingen edition, 1607 and 1608 (usually in four thick vols. 4to), comprehend also the period from the fourteenth to the sixteenth century. The Catholics finding themselves attacked in this alarming way, and confuted by matters of fact, Baronius (q. v.) wrote his Annals, in opposition to the Centuria (Century or centuriarum); a division of 100 men. This kind of division was very common with the Romans, and was used, in general, to denote a particular body, although this might not contain exactly 100 men. Thus centuries, in the army, were the companies into which the Roman legions were divided. This name was also given to the divisions of the six classes of the people, introduced by Servius Tullius. The first class contained eighty, to which were added the eighteenth centuries of the knights; the three following classes had each twenty centuries, the fifth thirty, and the sixth only one century. These people decided in the public elections by centuries. See Census.

CEPHALONIA, or CEFALONIA; the largest of the islands in the Ionian sea, west of the Morea, at the entrance of the gulf of Patras, or gulf of Lepanto, about forty miles in length, and from ten to twenty in breadth; lon. 29° 47' to 24° 18' E.; lat. 38° to 36° 28' N.; square miles 340, with 63,200 inhabitants, who own 400 vessels of different kinds. The island has 203 towns and villages, three ports, and excellent anchoring places and bays. The climate is warm and delightful, the landscape is adorned with flowers during the whole year, and the trees yield two crops of fruit annually. A great part of the soil is devoted to the production of raisins, currants, wine, oil, citrons, melons, pomegranates, and cotton. The raisins are preferred to those of any other islands, and the currants to those of the Morea. About 2500 tons are produced annually. Between 25 and 30,000 casks of oil, and 50,000 of wine, 5 or 6,000,000 pounds of currants, and 100,000 pounds of cotton, are likewise obtained yearly. Silks, medicinal herbs, oranges, and lemons are also raised. The chief products of the island are adapted to the market. The island owners require that a large proportion of the grain and meat consumed in the island should be imported from the Morea. The island is subject to frequent earthquakes. Cephalonian belonged to the Venetian force until 1797, when the French took possession of it. Since 1815, it has belonged to the republic of the united Ionian islands (q. v.). — See Napior's Statistical Account of the Island of Cefalonia, London, 1824.—The ancient name of the island was Cephalon, from Cephalus, husband of Procris, and the land of Procris. It was tributary to the king of Macedonians, and the Etolians, till the Romans took it. In the time of Thucydides, it had four cities; Sane, Prone, Crani, and Pale. Strabo only knew of two.

CEPHALUS; the son of Creusa; according to some, the son of Dekeules, king of Phocis; and of Diomedes. He was the husband of Procris. Shortly after his marriage, Aurora carried off the beautiful youth while he was hunting on Mount Hyetmus. He refused the love of the goddess, who induced him to put the virtue of his wife to a trial which it could not withstand. Procris, in return, tempted him likewise, and he yielded also. Learning their mutual weakness, they became reconciled. But Procris subsequently became jealous of her husband, and concealed herself in a wood to watch him. He mistook her, among the leaves, for a wild animal, and killed her. On the way home from Greece by the court of Arieopagus, or, as some relate, killed himself with the same dart which had destroy- ed Procris.

CERACCHI, Joseph, born at Rome, was an eminent statutey, when the revolution in his native city induced him to give up the practice of his art, and engage in politics. In 1759, he was among the warmest partisans of the new republic. On the re-establishment of the papal authority, he was obliged to leave Rome, and went to Paris, where he was employed in making a bust of the first consul. Nevertheless, he joined the young French emigrés when he had known at Rome, and whose ardent republican opinions coincided with his own, in a conspiracy against Bonaparte, in whom he saw only the oppressor of his country. In October, 1800, he was arrested at the opera, with Arena, Damerville, and Topino Lebrun. Before the tribunal, he answered only in monosyllables to the questions put to him. He was sentenced to death, together with his accomplices, and ascended the scaffold, Feb. 1901, with great firmness. The death of this disciple, and almost rival, of Cervantes, was a great loss to sculpture.

CERBERUS, the three-headed dog of the Greeks, pure serpents for hair, the offspring of Echidna by Typhon, the most terrible of the giants that attempted to storm heaven. At his bark, hell trembled, and, when he got loose from his hundred chains, even the Furies could not tame him. He watched the entrance of Tizarius, or the regions of the dead, and fawned on those who entered, but seized and devoured those who attempted to return. Hercules only subdued him. Thus says the Greek mythology. In the article Cemetery, the reader will find that it was customary, among the Egyptians, after a corpse had been cremated, to bid farewell to the deceased three times, with a loud voice. To express the circumstance that the deceased had been honoured with the rites of burial and the lamentations of his friends, they represented, in the legend imprinted on the coffin, or engraved on the tombstone of the statue of the horse of the Nile, which the Greeks mistook for a dog, and represented it with three heads, in order to express the three cries or farewell. The Egyptians called this hieroglyphic om, and the Greek zerkher, from the Egyptian zerkher, a word that means the cry of the dog. They have thus probably adopted the Egyptian om as the basis of the Greek wordo of Cep- berus. See page 148 in Lectures on Hieroglyphics and Egyptian Antiquities, by the marquis Spino, London, 1829, 8vo.
CERELLA. CEREMONIAL.

CERELLA is the goddess of the fields and of fruits. The production of agriculture, therefore, also the festivals of Cere.

CEREMONIAL OF THE EUROPEAN POWERS. One of the many ridiculous aspersions put out by the people of which some a number have arisen in Europe, is the subject of this article, which has given rise to much war and confusion, and thrown many obstacles in the way of peace. No independent state can actually have precedence of another; but, as the weaker seek the protection and friendship of the more powerful, there arises a priority of rank. This has occasioned the gradual establishment of dignities, rank, and acts of respect to states, their rulers, and representatives, by which means (in contradistinction to the internal etiquette of a state) an international ceremonial has been formed, to the observation of which more consideration is often paid than to the fulfillment of the most sacred contracts. Louis XIV. carried this folly further, perhaps, than any one before or after him. To this international ceremonial belong,

1. Titles of rulers. Accident made the imperial and regal titles of highest dignity, and thus conferred advantages apart from the power of the princes. After Charlemagne, the Roman emperors were considered as the sovereigns of Christendom, maintained the highest rank, and even asserted the dependence of the kings on themselves. For this reason, several kings, in the middle ages, to demonstrate their independence, likewise gave their crowns the title of imperial. England, for example, in all its public acts, is still styled the imperial crown. The kings of France received from the Turks and Africans the title emperors of France. In progress of time, the kings were less willing to concede to the imperial title of the successors of the Roman emperors. France, however, was the first to bestow the title of emperor.

2. Acknowledgment of the titles and rank of rulers. Formerly, the popes and emperor arrogated the right of granting these dignities; but the principle was afterwards established, that every people could grant to its rulers, at pleasure, a title, the recognition of which rests on the pleasure of other powers, and on treaties. Some titles were, therefore, never recognized, or not till after the lapse of considerable time. This was the case with the royal title of Prussia, the imperial title of Russia, the new titles of German princes, &c.

3. The title of Sovereign is applicable to the rank and titles of sovereigns. To the royal prerogatives, so called, which, however, were conceded to various states which were neither kingdoms nor empires, such as Venice, the Netherlands, Switzerland, the electorates, pertained the right of sending ambassadors of the first class, &c. In connexion with this, there is a much contested point, viz., that of precedence or priority of rank, i.e. of the right of assuming the more honourable station on any occasion, either personally, at meetings of the princes themselves, or of their ambassadors, at formal assemblies, &c., or by writing, as in the form and signature of state papers. There is never a want of grounds for supporting a claim to precedence. As the councils, in the middle ages, afforded the most frequent occasion of such controversies, the popes often interfered. Of the several arrangements of the rank of the European powers, which emanated from the popes, the principal is the one proclaimed in 1504, by Julius II., through his master of ceremonies, Paris de Crassis, in which the European nations followed in this order:—1. the Roman emperor (emperor of Germany); 2. the king of Rome; 3. the king of France; 4. the king of Spain; 5. the popes; 6. the emperors of the Holy Roman Empire; 7. Sicily; 8. Scotland; 9. of Portugal; 10. of Hungary; 11. of Navarre; 12. of Cyprus; 15. of Bohemia; 14. of Poland; 15. of Denmark; 16. republic of Venice; 17. duke of Britagne; 18. duke of Burgundy; 19. elector of Bavaria; 20. of Saxony; 21. of Brandenburg; 22. archduke of Austria; 23. duke of Savoy; 24. grand-duke of Florence; 25. duke of Milan; 26. duke of Savoy. This order of rank was not, indeed, universally received; but it contained a fruitful germ of future quarrels; some states, which were benefited by the arrangement, insisting upon its adoption, and others, from opposite reasons, refusing to acknowledge it. To support their claims for precedence, the emperors and emperesses, sometimes relied on the length of time which had elapsed since their families became independent, or since the introduction of Christianity into their dominions; sometimes on the form of government, the number of crowns, the titles, achievements, extent of possessions, &c., pertaining to each. But no definite rules have been established, by which states are designated as being of the first, second, third, fourth, &c., rank.

At the congress of Vienna, a discussion took place respecting the setting of the rank of the European powers, and its inseparable consequences; and the following conclusions were arrived at by the enlightened powers, who signed the peace of Paris, making in their scheme a division of the powers into three classes. But, as opinions were by no means unanimous on the subject, most of the plenipotentiaries voting for three classes, Portugal and Spain for two, and lord Castlereagh enounced the principle of classification, as the source of constant difficulties, the question respecting the rank of the powers was suffered to rest, and the ambassadors of the crowned heads were merely divided into three classes. (See Ministers Foreign.)

Many states claim not a precedence, but merely an equality. But, if neither can be obtained, there are several means of avoiding the scandalous scenes that formerly so often occurred. The ruler either comes incognito, or sends an ambassador of different rank from his with whom he contests the precedence; or the rulers or their ambassadors do not appear on public occasions; or, if they do, it is with a reservation respecting their dignity. In treaties between two powers, matters are made right, if not by the parties themselves, by only one party; or, if both sign, each party receives the copy in which it holds the place of honour. According to the above mentioned resolution respecting the relative rank of ambassadors, which forms the 17th article to the final act of the congress of Vienna, the order to be observed by the ambassadors in signing public treaties between powers, in respect to which the rule of alternate precedence exists, shall be decided by lot. In Britain and France, far less ceremonial is observed, in the official style, than in Germany, where forms and titles are carried to an absurd extent, and the ceremonial words, which extend even to the pronouns by which the princes are designated, is not possible to translate. Emperors and kings mutually style each other brother, while they call princes of less degree cousin. The Germans

*The following is an instance of the degree of folly to which the love of titles has been carried in Germany. We do not say that it was often carried to this extent, but the instance is too good to be omitted. A certain man of the name of Seeger, in the 17th century, had his likeness taken, and the poet then popularized the fashion of the period, and represented standing under a crucifix. From his mouth proceeded the words Domine Jesu Christe, amas me? and from the mouth of the Savages,.AutoComplete the sentence: ...same atque doctrinæe domine mag. Seeger, rector schola Wittenbergensis meritissime atque dignissime, omnibus uno
emperors formerly used the term *tithon* in addressing other princes. The *tithon* by which monarchs style themselves, is used either from an assumption of state, or from a feeling of modesty, on the supposition that *I was touched, while the others were untouched* to include the whole administration, &c.; but the first reason is the more probable.

CERES (with the Greeks, Demeter, or Dea.) She is particularly the goddess of the earth, or the productive and fruitful earth. She was distinguished, especially, as the inventress of agriculture; and as the founder of civil society, who fixed the wandering savages to the soil, and thus softened their manners, gave them the rights of property, the protection of laws, (hence her name *Thesmophoros*), and with these a love of country. These ideas are suitably expressed in the works of art. She was the daughter of Saturn and Rhea, born near Enna, in Sicily, which refers to the fruitfulness of that island. By Jupiter, her brother, she was mother of Proserpine. When her daughter was afterwards carried off by Pluto, Ceres resolved to wander over the whole earth, and distribute among men the gifts of the goddess. She was accompanied by a little swarm of bees, the size and length, the all-seeing eyes of the god of day discovered to her the residence of her beloved daughter, and, filled with anger, she demanded of Jupiter her restoration from hell. Jupiter granted her petition on condition that Proserpine had eaten nothing in Pluto's realms. But she had, in fact, eaten part of a pomegranate. Ceres, therefore, obtained her request only so far as this, that her daughter was allowed to remain half the year in the upper world. After finding Proserpine, she revolved the curse which she had pronounced upon the earth, and restored to it its life. It was attributed to the introduction of agriculture into Crete, was, by her, the father of Phitus, the god of riches. Jupiter, infamed with jealousy, slew Jasion with a thunderbolt. All these circumstances refer to the invention and extending of agriculture. "Ceres has," says Hirt, "in the representations of her, the same lofty stature and the same matronly appearance as Juno; yet there is something milder in her aspect than in that of the queen of the gods; her eye is less widely opened, and softer, her forehead lower, and, instead of the high diadem, her hair is bound with a light wreath or a simple band." She has in her hand a torch, often a sickle, a born of plenty, or a wreath. Her festivals in Rome were called the *Cerestia*; in Greece, *Thesmophoria* and *Eleusinia*. (See Egyptian Mythology.) Concerning the planet of this name, see Planeta.

CERESUS—CERINTHUS. See Gnostics and Millennium.

CERIUM, a rare metal, was discovered in 1803, by M. M. Hisinger and Berzelius, in a Swedish mineral, known by the name of *cevrite*. Dr Thomson has since found it, to the extent of 34 per cent., in a mineral from Greenland, called *altane*. The properties of cerium are, in a great measure, unknown. It is a brittle, white metal, which resists the action of nitric, but is dissolved by nitro-muriatic acid.

CERIOQUOZI, MICHAEL ANGELO; a Roman painter of the seventeenth century, who received the surname *delle battaglie* (battle painter), and at a later period, that of *delle bombecciate*, because, in imitation of Peter Lauer, he painted ludicrous scenes taken from low life. In the palace Spada, at Rome, is a picture representing Musaeiello among the Lazzaroni, painted by him. He was born at Rome, in 1602, and died in 1660.

CERTIORARI, in law; a writ, the purport of which is to remove convictions, orders or proceedings before magistrates, indictments, and records in civil actions before judgment, and, under special circumstances, after judgment, from inferior courts into the higher, and the whole of the records, with the evidence, if there be a grey or black court or justice to do him, or that the superior court may see whether the justices or court below, before which the proceedings have taken place previously to the *certiorari* being obtained, have kept within the limits of their jurisdiction. This writ, from the moment it arrives to the judges of the court below or magistrate, suspends their power, and any subsequent proceedings by them are void and *nulli non judicata*.

Although the writ of *certiorari* removes the record from the inferior court into the court above, yet the court above does not take up the case where the proceedings stopped, but begins de novo.

CERUSE, or white lead, is an oxide of lead, saturated with carbonic acid, and is prepared as an article of commerce, by the action of acetic acid on the metal. Plates of lead, being exposed to the vapours arising from boiling vinegar, are oxidized by the acetic acid of the air and the affinity of the acid. To obtain it in a pure state, plates of lead, three feet long, six inches broad, and one line thick, are rolled up in such a manner, that a space of half an inch or an inch is left between each roll. These rolls are fixed, perpendicularly, in earthen vessels, which, at the bottom, contain strong vinegar. The latter, however, must not touch the plates; and, to prevent this, some little bars are placed over it, in the form of a cross. The vessels are then covered with plates of lead, and, being placed horizontally in tan or horse dung, are exposed to a gentle heat. The vinegar now rises in vapours, which settle on the surfaces of the lead plates, penetrate them, and dissolve a great portion of the metal. In the space of three to six weeks, the vapours of the acetic acid become saturated with lead, and change the latter into a whitish substance, which, after some time, is scraped off the plates, unraveled for this purpose. The plates are then rolled up again, and the same process is repeated. Ceruse is extensively used in the manufacture of oil paints, and, for this purpose, it is reduced to a fine powder. The pounding and bruising, however, are extremely injurious to the health. The dust, if swallowed, causes a dangerous inflammation, called the painter's colic. Mr Ward, an Englishman, invented a machine to guard against its pernicious effects. Much of the ceruse which is sold in the shops is adulterated by a mixture of chalk.
CERVUTTI—CESAROTTI.

CERVUTTI, GIUSEPPE ANTONIO JOACHINO; one of the last members of the order of the Jesuits, (previously to its dissolution in 1773), and one of their most eminent professors in the college at Lyons, was born at Turin, June 13th, 1738. His Apology for the Jesuits attracted much attention. He had already published two pamphlets on the merits of the modern inquiring duelists, and on the reasons why modern republics have not reached the splendour of the ancient. The last received the praise of the academy of Dijon. The Apology for the Jesuits gained him the favour of the church. He died in Paris when the new system broke out, in 1785. His principles, and, perhaps, a desire of revenging the humiliations which he had experienced as a defender of the Jesuits, made him one of the most zealous supporters of the new order of things. He was intimately connected with Mirabeau, and laboured much for him. He also published several pamphlets, among which was a *Mémoire sur la Nécessité des Contributions patriotiques*. In 1791, he was a member of the legislative assembly. Some time after, he delivered, in the church of St Eustache, a funeral discourse upon Mirabeau. Exhausted by his severe exertions, he died Feb. 2, 1792. The city of Paris was decorated after his death.

CERVANTES SAAVEDRA, MIGUEL DE, one of the great writers of modern times, was born probably at Alcalá de Henares, in 1547. His parents removed from this place to Madrid, where he was about seven years old. Their limited means made it desirable that he should fix on some professional study; but he followed his irresistible inclination to poetry, which his master, Juan Lopez, encouraged. Elegies, ballads, sonnets, and a pastoral, *Filiae*, were the first productions of his poetical genius. Poverty compelled him to quit his country, at the age of twenty-two, to seek a living in Italy, where he became page to the cardinal Gualio Aquaviva, in Rome. In 1570, he served under the papal commander, M.A. Colonna, in the war against the Turks and African corsairs, with distinguished courage. In the battle of Lepanto, he lost his left hand. After this, he joined the troops at Naples, in the service of the Spanish king. In 1575, returning to his country, he was taken by the corsair Armaut Mami, and sold in Algiers as a slave. He remained in slavery for seven years. Servitude, far from subduing his mind, served to strengthen his faculties. Vincenzo de los Arcos, a Spanish diplomatist, who had been his college companion, was then ambassador in Italy, and he was induced to relate the bold but unsuccessful plans which he formed to obtain his freedom; but, as the only information we have of that period of his life is from his own novel (the Prisoner), of which we cannot positively say that it relates merely the facts of his imprisonment, we cannot determine, with great accuracy, his adventures in Barbary. In 1583, his friends and relations at length ransomed him. At the beginning of the following year, he arrived in Spain, and from this time lived in seclusion, entirely devoted to the muse. It was natural to expect some uncommon results from his laborious labours, which in his mind were a charge of invention, great richness of imagination, keen wit, and a lively humour, united a mature, penetrating, and clear intellect, and great knowledge of real life, and mankind in general. But it rarely happens, that expectation is so much surpassed as was the case with Cervantes. He began his new poetical career with the pastoral novel, *Galatea* (1584), in which he celebrates his mistress. Soon after the publication of this, he married. Being thus obliged to look out for more lucrative labour, he employed his poetical genius for the stage; and, in the course of ten years furnished about thirty dramas, among which *The Ingomar* and *The Cid of Granada* is particularly valued. He was not so successful in another kind of drama, particularly favoured by the Spaniards, a tangled mixture of intrigues and adventures; and this was, doubtless, the cause why he was supplanted by Lope de Vega, who was particularly qualified for this kind of composition. He, consequently, gave up the theatre, but, it seems, not without regret. From 1594 to 1609, he lived retired at Seville, where he held a little office. He did not appear again as an author till after the lapse of ten years, when he produced a work which has immortalized his name—*Don Quixote*. Cervantes had in view, by this work, to reform the taste and conduct of his contemporaries. No ridicule that adventurous heroism, with all its evil consequences, the source of which was the innumerable novels on knight-errantry. The beginning of the work was, at first, coldly received, but soon met with the greatest applause, in which, at a later period, the whole of Europe joined. Cervantes' true poetical genius was nowhere so powerfully displayed as in his Don Quixote, which, notwithstanding its prosaic purpose and its satirical aim, is full of genuine poetry. While it struggles against the prevailing false romance of the time, it displays the true chivalric spirit truly. The extraordinary good fortune of the work did not extend to its author. All his attempts to better his condition were unsuccessful, and he lived retired, with his genius and his poverty, and a modest though proud estimation of his merits. After an interval of some years, he again appeared before the public, in 1613, with Twelve Novels (which may be placed by the side of Boccaccio's), and his Journey to Parnassus—an attempt to improve the taste of his nation. In 1615, he published eight new dramas, with intermezzi, which, however, were indifferently received. Envy and ill-will, in the mean time, assailed him, and endeavoured to deprive the neglected author of his literary fame; for which the delay of the continuation of Don Quixote afforded the pretext. An unknown writer published, under the name of Alonso Fernandez de Avellaneda, a continuation of this work, full of abuse against Cervantes. He felt the malice of the act painfully, but revenged himself in a noble manner, by producing the continuation of his Don Quixote (1615), the last of his works which appeared during his lifetime; for his novel *Persiles and Sigismunda* was published after his death. He found a faithful friend in the count of Lenos, and this count was thus described by himself: 'The man of indolent poverty, his constant companion through life, remained true to him till his last moments. He died at the age of sixty-eight, April 23, 1616, in Madrid, where he had resided during the last years of his life. He was buried without any ceremony, and not even a common tombstone marks the spot where he rests. In addition to his celebrity as an author, he left the reputation of a man of a firm and noble character, clear-sighted to his own faults and those of others. Many of his works are translated; Don Quixote into all the languages of Europe.

CESAR., See Cesaire.

CESAROTTI, MELECHOR; one of the most celebrated of the Italian litarati of the eighteenth century; born at Padua, in 1730, of a noble family. He devoted himself to the belles-lettres, and was soon chosen professor of rhetoric in the seminary in which he was educated. He translated three tragedies of Voltaire—*Sémiramis, La Mort de César, and Mahomet.* In 1702, he went to Venice, where he translated Ossian into Italian, and was, in 1708, appointed professor of the Greek and Hebrew languages in the university of Padua. Here he published his translation of Demosthenes and of his Eulogy of Alexander. He was a master of Greek literature. After the establishment of the republican government, in 1797, he was appointed...
by the existing authorities, to write an Essay on Studies. In this, he made suggestions for the improvement of education. In 1587 appeared his poem called Pronea (Providence), in praise of his benefactor, Napoleon. In spite of his advanced age, he published, by the aid of others, a Latin version of all his works, which he had commenced in 1800; but his death, in 1808, prevented the completion of this enterprise.

Cesaretti was a man of great talents and genius. His prose is animated and powerful, but he indulges too much in innovations, particularly Gallicisms; and cannot, therefore, compete with such writers as Machiavelli, Galileo, &c. The translation of Ossian is considered his best poetical production, and Alferi praises its beautiful verisimilitude. A complete edition of Cesaretti's works was published by his friend and successor, Giuseppe Barberi (Pisa, 1805 et seq., thirty vols.).

Cestus (Gr. κέστος); a girdle worn by Venus, endowed with the power of exciting love towards the wearer. The following is Pope's translation of Homer's description of it:


Lace and every charm
To win the wisest, and the coldest warm-

Pond love, the gentle vow, the gay desire,
The charm that dress, the still-reviving Persuasive speech, and more persuasive sighs,
Silence that spoke, and eloquence of eyes.

Forcellini says, Fingunt poetae, intextas habeae capitis, divitiis, divinidad, deae Missae, deae Minervae, rei navis, risus, foceo, blanda verba, gaudii, jurgia, et hymnusmodi, quibus amatorum vita constat. This beautiful fiction has been happily imitated by Tasso, in his description of the girdle of Armida.

Ceto. See Phoenix.

Cetate (lat. 4° 54' N.; lon. 3° 47' E.); a town with 7000 inhabitants, in what was formerly Languedoc, now in the department of the Herault, upon a peninsula, between the Mediterranean and lake Thau, into which the great canal of Languedoc enters. The port, which is safe, and has been very much deepened, is guarded by the fort St Pierre and St Louis. Cette is the principal place of export for the productions of Languedoc. Its commerce in woollen, cotton, and silk goods, leather, wine, salt, oil, verdigris, soda, pitchballs, tobacco, soap, &c., is considerable. It has, likewise, some sugar refineries and sugar-susters, and a school of navigation. In the neighbouring lagoons, 600,000 cwt. salt are made annually.

Cetua (anciently Septa); a city on the African coast of the Mediterranean, in the kingdom of Fez, upon a peninsula opposite Gibraltar, with 7400 inhabitants. It is the seat of a bishop. It has a strong fort. The harbour is bad. The Portuguese possessed themselves of this city in 1415. With Portugal, it was included, in 1570, in the Spanish monarchy, by Philip II., and remained under the Spanish government after the revolution of 1640. In the peace of 1668, Portugal ceded it to Spain. Cetua is one of those Spanish presidios, which are used only for commerce, and as places of transportation for exiles or criminals. Lat. 35° 48' N.; lon. 5° 11' W.

Ceva, Thomas, born at Milan, in 1468. Lessing says, that this Italian Jesuit, who died in 1577, was as great a mathematician as poet; and truly a poet, not merely a rhymer, as appears from his Latin poem, the Puer Jesus, which he considered as a comic epic, rather than as a true epic poem. He published several excellent mathematical works; for instance, one on the division of angles, and Opera Mathe- matica. He also wrote a great number of metaphysical treatises; as that of the Italian poet Lemene, with judicious remarks upon poetry.

Cevennes, or Cevennes; a chain of mountains in the south of France, considered by some a branch of the Alps; by others, of the Pyrenees. They are connected with both, and extend also to Auvergne. In the highest regions of these mountains, hardly any vegetation is to be perceived. The highest summits are the Puy de Dome, 4900 feet high; and the Puy de la Celle, 5800 feet high. The lower range, which is called the Garigué, produces almost nothing. The central mountains are more fertile, and are intersected by pleasant valleys. The chestnut woods, in the cultivation of silk, and various sorts of fruit, employ and support a large population. The highest part of the mountains serves principally for pasturing sheep. Several kinds of metals are found here. These mountains have been distinguished as the theatre of a bloody civil war.

Ever since the thirteenth century, religious sects had been springing up in the Cevennes, which, irritated by the abuses of the Roman clergy, laboured to restore the Christian religion to its primitive purity. Truces of them at a very early period are found in this southern extremity of France, under the name of Albigenses, Valdensians, and Waldenses. The crusades directed against them by the popes and the inquisitorial tribunals had, and are, the enemies imagined, the effect of annihilating them; but great multitudes, in fact, still survived; and, when the Protestant religion extended itself in France, they naturally fell under it. In 1594, a council was held at Montpellier, for the purpose of converting this part of France, whom all the persecutions, down to the time of Henry IV., were insufficient to extirpate. From that time they were protected by the edict of Nantes. But, when Louis XIV. formed the insane resolution of repealing this edict, in 1685, and bringing all his subjects, by force or persuasion, within the pale of the Catholic church, the quiet of the poor but happy people of the Cevennes was broken in upon, and a series of persecutions commenced, hardly distinguishable from those which the early Christians experienced from the Roman government, except that now the persecutors themselves were Christians. The peace of Ryswick, in 1697, afforded Louis XIV. leisure to pursue, in earnest, this work of extermination. Dragons were sent out to second the preaching of the monks, and the tax-gatherers were instructed to exact a rigorous paymaster of the poor, in the name of Protestantism. Children were torn from their parents to be educated in the Catholic faith, men who frequented houses of prayer were sent to the galleys, women were thrown into prison, and preachers were hanged. These measures, reducing the people to despair, brought on combined resistance and a violent war. Prophets arose, and prophetesses, who foretold the victory of the country people. Whoever fell into the hands of the dragons was massacred, and every officer or soldier of Louis, who was taken prisoner suffered the same fate. The peasants attacked their tormentors, the tax-collectors, in the night, with no other dress than a shirt, to escape detection. (See Camisard.) The murder of the abbot Chalina, in 1703, who commanded the dragunades, as the attempts to produce conversion by the aid of dragons were called, was the signal, it appears, for a most desperate contest. The forces of Louis were incapable of bringing it to a conclusion, as the crags of the mountains offered numerous places of refuge to the Protestants, and his troops were every moment in danger of being cut off, or of perishing by hunger and cold. The enthusiasm of the populace grew more and more, several bands arose among them, and Cavalier, at the age of twenty years (with whom Voltaire became personally acquainted), highly distinguished himself. Louis XIV. was now placed in a very critical situation, because the war of the Span-
of the leaders of the rebels had conceived the project of effecting a union with the duke of Savoy in Dauphiny. The whole country, from the sea-shore to the highest mountain-ridge, was more or less in their hands, and with the inhabitants of Nîmes, Montpelier, Orange, Uzes, &c., agreements were made, which secured them arms, bread, and other necessities. They melted down a vast number of bells to make cannon, and Cavaleri acted like an able general. The Catholic country no longer dared to cultivate their fields, or to carry provisions into the cities. Such was the state of things when Villars arrived at Beaurea, April 20, 1704, and at Nîmes the 21st. He began with instituting the necessary inquiries in regard to the cause of the rebellion, the character of the people, and their mode of thinking. Then he proclaimed a general amnesty for all who would lay down their arms, and forthwith liberated every prisoner who promised to return to his allegiance. By this mode of proceeding, he induced several bodies of the insurgents to lay down their arms, while, on the other hand, for several reasons the obstinate with the severest punishment; and, to enforce his menaces, troops were sent out in every direction from a given point, where a body of forces was stationed to afford them assistance, and, if necessary, to meet the combined forces of the insurgents in the field. Every prisoner, taken in arms, was directly put to death, or hanged and broken on the wheel, in Alais, Nîmes, or St Hippolyte. Such was the success of Villars, that, on May 10, Cavaleri regarded the cause of the Cauterets as desperate, and made proposals for a treaty, which was conditional on the condition that he should surrender himself with his followers, and then be converted to the country with them. Villars had a personal interview with him in Nîmes; the whole troop consisted of 1600 men, and, not far from Nîmes, they were entertained by Villars with the greatest hospitality. The memoirs of Villars say their number was 1600; Voltaire speaks only of 800. On the 22d, the treaty was confirmed in Paris, and, at the same time, Cavaleri was made colonel, with a pension of 1200 livres, and permission to appoint the officers of the regiment which he was to raise. It was the design of Louis, probably by the advice of Villars, in this way to prevent a company of brave soldiers from leaving the country, at the same time that he guarded against injury from them. Villars now gave orders that every gibbet and every scaffold should be torn down; but, just as he seemed to have completed his task, things took another turn. Cavaleri had gone to Anglade, a terminted to renounce religion, but, when he left the peasants, instigated by his lieutenant, and animated by their proclamations, they restored him, as they had done the edict of Nantes; otherwise they had no security. At length, however, Villars succeeded, by his personal influence, and by cutting off their provisions, in bringing them to submission. They all entered the service of Piedmont, and marched under Cavaleri to Catalonia, where the whole regiment was destroyed in the battle of Almanza, in which Cavaleri himself was killed. Villars triumphed. The civil war in France did not end with their departure. There were still factions, of which the one headed by a certain Roland was the most distinguished. But Villars, who confided more in kindness and management than in his strength, fought to gain possession of the chiefs by the merits obtained. He succeeded, indeed, in capturing Roland, who was in love with a girl of the country, and the musket of a dragon spaied him the tortures of a public execution. Others surrendered themselves, trusting to the marshal's word, and the bils de sureté en blanche which he gave them and their friends from persecution, whether political or religious. Thus, by the end of December, Villars had happily accomplished his difficult enterprise, and there were only a few remnants of the party, wandering in the highest regions of the mountains. But, the next year, masses of the army, after the battle of Villars, dared to seize him at Nîmes had miscarried, totally suppressed them. Two hundred were executed, and many fled to foreign lands. From that time a war of opinions has prevailed, to a greater or less degree, in the south of France, and, lately, since the restoration, has led to dreadful outrages in Nîmes and other places. See Huguenots and France.
Hamaltec, 6680 feet high, on which the Cingaleses and all the Hindoo worship the colossal footsteps of Adam, who, according to their belief, was created there, and, according to the religion of Buddha, is Buddha himself. The island seems to consist of primitive rock. It has many rivers, few of which, however, are navigable, as they are, for the most part, too shallow in the dry season, and too dangerous in the rainy season. The climate is, on the whole, mild and healthy. Although near the equator, the heat is more moderate than on the continent, on account of the sea-breezes. The monsoons give variety to the climate.

The difference between the longest and shortest day is not above two hours, and the hottest day is rarely above 85°. The rainfall is from 100 to 150 inches, but the air is tolerably dry. The island produces gold, silver, lead, tin, iron, quicksilver, and salt; besides these, about twenty different kinds of precious stones, among them the amethyst, rock crystal, topaz, garnet, ruby, sapphire, lapis lazuli, turquoises, &c., are brought down by the rivers, after heavy showers in the rainy season. The rich soil produces nearly every plant peculiar to India and the tropical countries. All the tropical fruits grow wild. Rice, tobacco, pepper, sugar, coffee, pinang, tamarinds, several species of palm, the palmrya-tree, cloven, talipot or talipot-trees, with enormous leaves, of the species of which we would set up a collection of twenty people, hemp, dye-stuffs, &c., are found here.

The chief production, the cinnamon-tree, is peculiar to the island. About 340,000 pounds of cinnamon are annually sent to England. The best and most prolific cinnamon-woods, generally called cinnamon-gardens, are situated on the coasts. The annual produce is about 400,000 pounds. The thick forests, which are but seldom visited by men, contain numerous wild beasts—herds of elephants (the hunting of which constitutes a favourite amusement of the Cingaleses), ferocious wild boars, leopards, monkeys, jackals, &c. The island is also rich in tame animals, poultry, &c., and the shores abound in fish. The pearl fishery, on the western coast, in the bay of Ceylon, was formerly very prolific. The inhabitants, whose number Colquhoun estimates at 6,000 whites and 800,000 natives, but which, according to others, exceeds 2,000,000, are divided (exclusive of strangers settled there) into two principal nations, quite distinct from each other, namely, Wadgas (10,000)—a rude people, living in the interior of the forests, without any social order, who neither attend to agriculture, nor the breeding of cattle, but depend on the produce of the forest for support— and the Kegress, who have attained a certain degree of civilization, practise agriculture, work in iron and gold, weave cotton, and possess a written language. They are divided into certain castes, like the Hindus, of which each has its separate laws, customs, and dress, and are of the religion of Buddha, which is distinguished for its mild spirit, and the purity of its doctrine.

Besides these, there are Hindoos and Moors. The possession of the port of Trincamalee is of much consequence to the British, it being the safest of all the ports in the East Indies. Bishop Heber says of Ceylon, that the country "might be one of the happiest, as it is one of the loveliest, spots in the universe, if some of the old Dutch laws were done away, among which, in my judgment, the most obnoxious are the monopoly of cinnamon, and the compulsory labour of the peasants on the high roads, and amongst the villages. He mentions having been told that the number of Christians on the coast, and amongst the English settlements, does not fall short of half a million: very many of these, undoubtedly, are merely nominally such. The church missionary societies have stations on the island. For many other interesting facts, we must refer the reader to his Heber's Narrative of a Journey through the Upper Provinces of India, from Calcutta to Bombay, 1824—1828, with Notes upon Ceylon; London, 1828, 2 vols. 8vo.

CHABANON, a member of the French academy, was born at St Domingo, in 1730, and died at Paris, July 10, 1792. For his deficiency in genius, he was made amends by diligence. He translated Plutarch and Thucydides 1773 et seq. His best works belong to a species of criticism which is claimed by learning and taste, and affords much instruction and amusement, although never aspiring to a lofty elevation. Among these are his Discours sur Plutarch et la Policie Lyrique (1790), and Observations sur le Masque (1779 and 1785, 2 vols.; his best work). His literary taste, and academical essays are sensible, neat, elegant, but cold.

CHABERT, JOSEPH BERNARD, marquis of, a distinguished navigator, astronomer, and geographer. He was born at Toulou, Feb. 28, 1724, and entered the marine in 1741. In 1746, he sailed to Acadia (Nova Scotia), with a French squadron. This voyage made him sensible of the imperfection of all the charts of America, that had been attempted. Immediately on his return to Paris, he commenced the study of astronomy, and first introduced the naval officers of France to an acquaintance with a science which, at that time, was almost unknown; and by which he did much to ensure their safety. In the war which continued till 1748, he obtained the cross of St Louis. After peace was concluded, he presented to the government a plan for a voyage of observation in the North American seas, which was executed in 1750. (See the result in his astronomical and hydrographical work, entitled, Voyage sur les Côtes de l'Amérique Septentrionale, 1754, 4to.) In 1758, he was chosen a member of the academy, and formed the project of a chart of the Mediterranean. He commenced this work in 1754. He was likewise made inspector-general of the naval depots. While he held this office, the celebrated Mechain spent several years, under his direction, in reducing and arranging a great number of observations, which had been made by Chabert, as the foundation for a new atlas of the coasts of the Mediterranean. The American war interrupted the work, and called the brave Chabert to his post, where he distinguished himself so highly, that, in 1781, he was made commander of a squadron. The revolution drove him to England, and he was received by doctor Maskelyne with great kindness. In 1800, he lost his sight, in consequence of his intense application to astronomy; and, in 1806, having returned to Paris, he was made a member of the Bonaparte assigned him a pension. In 1804, he was appointed a member of the board of longitude, and, in 1808, he presented to it a map of Greece, and a description of the coasts of that country. Notwithstanding his blindness, his powerful memory enabled him to make additions to the stores of scientific facts. Lalande praises his accuracy in observations, his patience, his diligence, and his courage in overcoming every obstacle, in the highest terms. He died Dec. 2, 1805, of a lung fever.

CHACABUCO, BATTLE OF; celebrated in the history of modern Chili. In the beginning of 1817, the Spaniards were completely masters of Chili, living, in 1813, better Carrens, and compelled him and others, his compatriots, to cross the mountains for safety. But on the 12th of February, 1817, the troops of San Martin, commanded by O'Higgins, surrounded the Spaniards, and forced them to capitulate. Harington, having been sent to round the number of Christians on the coast, and amongst the English settlements, does not fall short of half a million: very many of these, undoubtedly, are merely nominally such. The church missionary societies have stations on the island. For many other interesting facts, we must refer the reader to his Heber's Narrative of a Journey through the Upper Provinces of India, from Calcutta to Bombay, 1824—1828, with Notes upon Ceylon; London, 1828, 2 vols. 8vo.

CHACABUCO, BATTLE OF; celebrated in the history of modern Chili. In the beginning of 1817, the Spaniards were completely masters of Chili, living, in 1813, better Carrens, and compelled him and others, his compatriots, to cross the mountains for safety. But on the 12th of February, 1817, the troops of San Martin, commanded by O'Higgins, surrounded the Spaniards, and forced them to capitulate. Harington, having been sent to round the number of Christians on the coast, and amongst the English settlements, does not fall short of half a million: very many of these, undoubtedly, are merely nominally such. The church missionary societies have stations on the island. For many other interesting facts, we must refer the reader to his Heber's Narrative of a Journey through the Upper Provinces of India, from Calcutta to Bombay, 1824—1828, with Notes upon Ceylon; London, 1828, 2 vols. 8vo.

CHACTAWS. See Chatoaux.

CHEROEKA; a place in Boroata, famous for the battle fought there, 338 B. C. between Philip of
CHALCEDONY; a mineral including several varieties, which have received distinct names in the arts. It occurs in small veins, or in cavities of other minerals, and appears to have been formed by the filtration of silicious matter.

the Romans was that in which the chief magistrates were seated. The cut given at the foot of the previous column, is from a drawing found in Pompeii, and the above stool, which closely resembles our modern camp stools, represents one found in Herculaneum.

CHALCEDON (at present, the village Kadevük); under the Roman dominion, a flourishing city in Bithynia, on the north-west point of Asia Minor, opposite Constantinople, and not far from the present Scutari. At this place, in the autumn of 451, Mar-ian, the emperor of the East, held the fourth general council, for the purpose of destroying the ascendency of the Monophysite doctrines (see Monophysites), obtained, in 449, by the influence of the Alexandrian patriarch Dioscurus, at the (so called) rubber-synod at Ephesus; and to establish a creed of Christian faith, which, equally remote from the Nestorian and Monophysite doctrines, should satisfy all parties of orthodox Christians. The emperor's commissioners took the lead, and after them came the legates of the Roman bishop Leo I., who had endeavoured to establish articles of faith without the aid of a council, but deemed it judicious to maintain his influence there, and take revenge for the excommunication pronounced against him by Dioscurus. This council, which consisted of 600 bishops, mostly of the East, deposed Dioscurus, and, after violent debates, adopted into their articles of faith, at the instigation of the Roman legate, the tenor of a missive of Leo to Flavian, the former patriarch of Constantinople, directed against Eutyches, the founder of Monophysitism, besides the confessions of faith of the general councils of Nice and Constantinople; also two synodal missives of the former patriarch, Cyril of Alexandria, condemning the Nestorian tenets. The articles of faith settled by them declared the mother of Jesus the parent of God, and established, in opposition to the Monophysites, the belief of two natures in Christ, existing without mixture or change, without division or separation, so that, by the union of the two natures in one person and substance, their distinction is not destroyed, but the characteristics of each are retained. Besides this creed, the council promulgated thirty canons against the abuses of the clergy, of which canons the twenty-eighth concealed to the patriarch of Constantinople equal rights and privileges with the Roman, to whom it merely gave precedence of rank; and thus the matter remained, notwithstanding the remonstrances of the Roman legates. Bloody rebellions in Palestine and Egypt were the immediate consequences of the decrees of the council of Chalcedon against Dioscurus and the Monophysites; and not till after a long period of ecclesiastical contests, during which the Monophysites were entirely separated from the orthodox, and formed a distinct church, did the Chalcedon.formula of faith obtain the authority which it now has in the Catholic, Greek, and many Protestant churches.

CHALCEDONY; a mineral including several varieties, which have received distinct names in the arts. It occurs in small veins, or in cavities of other minerals, and appears to have been formed by the filtration of silicious matter.
1. The common chalcedony has a cloudy or milky appearance when held between the eye and the light. It is semi-transparent, or only translucent in various degrees. Through sometimes nearly white, its more common colour is grey, more or less shaded with blue, yellow, brown, green, &c. The surface is often rough or uneven. Its fracture is usually even, though seldom smooth. It is usually contained in amygdaloid, porphyry, greenstone, or basalt, or in the cavities of these rocks. It sometimes traverses them in veins. Sometimes it occurs in metallic veins, also in granite and gneiss. Obsterin, in the palatinate of the Rhine, is one of the best localities. Fine specimens are found in the islands of Faroe. It is found, also, in Vicentino and Iceland, and in Trevasse mine, in Cornwall, in New South Shetland, in Nova Scotia, and in many parts of the United States. It receives a good polish, and is much used for ring-stones, seals, &c.

2. Another of the principal varieties is carnelian. The prevailing colour of this variety is red; sometimes it is a tinge of yellow or brown, or is nearly white. Its colours, or their different shades, sometimes appear in spots or stripes, or gradually pass into each other. It is commonly semi-transparent, sometimes only translucent. Its geological situation is similar to that of common chalcedony, which it often accompanies; the finest specimens, some immense, called Oriental carnelian, come from Cambay, Surni, &c., in India. It is obtained, also, from Arabia, Siberia, Sardinia, and Surinam. It is found on lake Superior near Portage river, in Missouri, at Hereculaneum, &c., in Massachusetts at Deerfield. It receives a good polish, and is much employed for seals, bracelets, &c. The ancient often enameled on carnelian.

3. Sardonix differs from carnelian in its colour only, which is reddish-yellow, or nearly orange, sometimes with a tinge of brown. It often appears blood-red by transmitted light. It is found in Massachusetts, at Deerfield, in greenstone. Chaldaeans, in ancient geography; the southerly part of Babylonia, towards Arabia and the Persian gulf, lying west of the mouth of the Tigris and Euphrates, formerly a fertile country, now barren. The Chaldeans were a Semitic tribe, and one of the most famous nations of Asia. They were the first people who employed the word, and therefore were not destitute of astronomical knowledge. They founded the Babylonian and Assyrian empires. Their name remained with the priesthood of the Babylonians, whose members were employed in the worship of the gods, in expounding their scriptures, prophesying, the practice of medicine, interpreting dreams, also in juries, magic, astrology, &c. They kept their knowledge secret from the people. None of their writings have been handed down to us. It is supposed that the Chaldeans were originally called Kenphitians, and lived on the Caucasus, and that they settled on the Persian gulf about 800 B.C. See Babylonia.

Chaldeans, Christians, see Sects, Syri-an Christians, and Christians of St. Thomas.

Chalk. See Lime.

Challenge, to jurors, is an objection either to the whole panel or array, that is, the whole body of jurors returned, or to the poll, that is, to the jurors individually; and it is either peremptory, that is, without assigning any reason, or for cause assigned. A peremptory challenge is allowed to be made only by the party accused, and not by the government, or prosecuting officer, though it might be done by either, and is said to be permitted on the ground that a man is liable to conceive a prejudice against another from his mere looks and appearance, for which he can give no reason; and such may be the case of the accused; and it is conceded in favour of life, that, in such case, he may exclude the juror without assigning any reason; and also on the ground that, by questioning a juror of his honesty, he thereby excited against the prisoner, who, to save himself from the effect of such prejudice, is permitted to have him rejected. The ground on which peremptory challenge is allowed, suppresses the prisoner's life to be in danger, and he is not entitled to it if he pleads in bar of imprisonment; for the trial of those pleas does not decide on his life. He must, before making such challenge, plead "not guilty," or some plea, the trial of which decides on his life. Having pleaded such a plea, the accused might, by the common law, peremptorily challenge thirty-five jurors; but the statute of Henry VIII., c. 14, limited the number to twenty, in felony, and the limitation is to this number in some of the United States. By the act of congress of April 30, 1790, a peremptory challenge of thirty-five jurors is allowed in trials for treason, and twenty in those cases of felony mentioned in the statute, and a challenge of the whole panel may be made, because the jury is illegally drawn or summoned, whereby it is not a legal jury; and a challenge of this description may be made by the government as well as by the prisoner. Challenge to the polls may be made both in civil and criminal suits for cause, as that the juror is not of the proper district, not duly qualified as a freecorder, not of suitable age, &c., or is near akin to one of the parties, is biased, has been guilty of felony, is interested, or is subject to any other exception, according to the common principles of proceeding, or the provisions of any statute on the subject. In court-martials, a prisoner who objects to either of the judges must assign his reasons. In other words, peremptory challenges are not allowed in these courts. The privilege of challenging here belongs equally to the prisoner and the prosecutor. The right of challenging the members of a court-martial prevails on the continent of Europe, as well as in England and America.

Challenge to fight a duel is punishable, in England, with fine and imprisonment. In several of the United States of America, this offence is subject to the additional punishment of ineligibility to any public office, either for life or for a limited term. See Duel.

CHALMERS, GEORGE, a Scotch literary and miscellaneous writer, was born in 1742, at Fochabers, in Banffshire. Having studied law at Edinburgh, he removed to America, where he practised that profession for upwards of ten years, till the colonies declared themselves independent. Mr Chalmers being a keen loyalist, returned to Britain, where his sufferings recommended him to the government, and he was, in 1786, appointed to the respectable situation of clerk to the Board of Trade. The duties of this office he continued to execute, with diligence and ability, for the remainder of his life, a period of thirty years.

Previous to his appointment, he had distinguished himself by various literary undertakings, particularly a work entitled "Political Annals of the United Co-lonies," which appeared in 1780 in 4to, and manifested a profound knowledge of colonial history, law, and policy. He had also published, in 1782, an Estimate of the Comparative Strength of Great Britain, during the present, and four preceding reigns; and, in 1784, Opinions on Interesting Subjects of Public Law and Commercial Policy, arising from American Independence, the former work in quarto, the latter in octavo. On his appointment, he transferred his attention in a great measure from political science to literature. In 1790, he published his life of Daniel Defoe; in 1794, his life of Thomas Ruddiman, (a very curious book); and in the course of the few subse-
quent years, various pamphlets apologizing for those, himself included, who had believed in the authentic-
city of the Shakespear manuscripts forged by Mr Ire-
land. In 1800, he edited the works of Allan Ram-
say, with an elaborate memoir of the poet; in 1805, the
works of Sir James Stewart of Colness, also with a
notice; and in 1813, the history and life of David
Lindsay of the Mount, which were embellished in like
manner. The first volume of his "Caledonia," which
appeared in 1807, in quarto, displayed a vast extent of
erudition and research. It professed to be an ac-
count, historical and topographical, of North Britain,
from a thousand different authorities, and the
original intention of the author was, that it should be
completed in four volumes, quarto, each containing
nearly a thousand pages. Former historians had not
presumed to inquire any further back into Scottish
history than the reign of Canmore, describing all be-
tore that time as obscurity and fable. But Chalmers
plunged fearlessly into the middle ages, and was able,
by dint of incredible research, to give a pretty clear
account of the inhabitants of the northern part of the
island since the Roman conquest. The historical part
of his work, which occupies the first volume, is divid-
ed into seven periods, according to the different mores
which predominated in the country: thus we have the
Roman period, the Pictish period, the Scottish period
(between the subjugation of the Picts, and the in-
trusion of the Saxons under Malcolm Canmore), and the
Scoto-Saxon period which ends with the accession of
Robert Bruce. The remaining three volumes were
designed to contain a topographical and historical ac-
count of each county, and the second of these com-
pleted his task so far as the Lowlands were concern-
ed, when death stepped in, and arrested the busy pen
of the antiquary, May 31, 1835. Mr Chalmers is un-
derstood to have left the remainder of his great
work nearly ready for the press; but hitherto, no
bookseller has ventured to publish it.

CHALONS, There are two considerable cities of
this name in France—Chalon-sur-Saône and Chalons-
sur-Marne. The latter is the most important. An-
ciently it was called Calatauumum. It lies on the
river Marne, and is the capital of the department of
the Marne. It is 201 miles east of Paris; lon. 4° 22' E.;
lat. 48° 57' N.; population, 10,784. Before the re-
velution, it was the see of a bishop, and chief place
of the generality of Champagne. It has manufac-
tures of silk, glass, and tobacco; it contains a Gothic
cathedral, ten churches, a public li-

crary of 30,000 volumes, a museum, a botanic garden,
and a cabinet of natural history. Attilia, the scourge of
God, was here defeated by the Romans after an
obstinate and sanguinary contest.

CHALOTAIS, LOUIS HENRE DE CARABNEC DE LA;
attorney-general at the parliament of Rennes. He
was born at Rennes, March 6, 1701, and died July
12, 1785. He is celebrated chiefly for a work which
he published against the Jesuits, and for the legal
process instituted against him, which accelerated the
approach of the French revolution.

CHAMADE, in military language (generally de-

rived from the Italian chiaramore, or call), is a signal,
either by beat of drum or sound of trumpet, to obtain
a conference, when any matter is to be proposed to
the enemy.

CHAMBER. Forcellini defines camera an arched
roof or ceiling; Herodotus uses the word wauke, to
signify a covered wagon; Otthiel and Notker, two
early German writers, use kammer to denote a vault-
ed chamber, the keeper of which, as early as the time
of king Dagobert, was called camerarius. The pub-
lic buildings of the 13th century, camera; and in German, down to the present
period, those sciences, an acquaintance with which
is essential to the proper administration of the dif-
cerent departments of government, are called cameral-

wissenschaften. Words derived from the Latin term
camera are common in modern European languages:
thus camera in Italian; in French, chambre; in Eng-
lish, chamber; in German, kammer; in Spanish, ca-
mera; in Italian, camera; in modern languages, the
word chamber, or camera, is employed to denote a
part of a building; in French, it signifies the room
or hall of a palace or castle, or the apartments of
which, a room, or suite of rooms, the poet has
often celebrated; in Scotch, a court; a court, or
apartment, of which the bower, or bower, formed
the chief part of the interior of an ancient mansion,
and which it was the custom of the master of the
castle to occupy, as well as his family. In Scottish
legal language, it is a term of great use, and the
word is applied to the court of a great officer of
the crown. Chambers, or courts of justice, exist
in every country, in which the laws of the state are
administered; and it is the business of the King's
chamber, or of the chambers of the Grand Council,
the magistrates of the city, and of the peasants,
to execute the orders of the King's body in
private and public matters. In the court of
Charles the First, each member of the grand council
was furnished with a chamber, and the master
of the chamber was charged to take charge of the
business of those members, and to cause the
orders of the King to be carried into effect. In the
court of James the First, chamberlain, chamber-
try, or the office of chamberlain, was the chief of the
honours and dignities of the kingdom. The
word chamberlain, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
was known to the Romans, who called it camerarius.

The word chamber, or the office of chamberlain,
Chamberry is a town in the department of Ain, in the Auvergne-Rhône-Alpes region of eastern France. It is known for its proximity to the Chaîne des Puys and the Massif Central volcanic landscape, as well as its historic abbey. The town is a popular destination for hikers and nature lovers due to its rolling hills and forested areas.

**Chambéry—Chameleon.**

Chamberry—Chameleon, his chief authority in this work, was the fabulous narrative of Boccaccio. In 1579 he published other two works in the French language, La Recherche des singularités, les plus remarquables concernant l'État d'Ecosse, and Discours de la légèreté successions des femmes aux possessions des leurs parens et du gouvernement des concessions aux extrémités royaume.

On the return of quieter times he returned to his native country, where he was, in the year 1586, restored to the bench, in which situation he continued till his death in November, 1592.

Chambord; a castle, park, and village, with the surrounding territory comprising 5000 acres of woodland and twenty-three farms; the castle embraces 11,000 acres. It is situated in the department of Loiret and Cher, near Blois. It was intended by the French nation as a present to the son of the murdered duke of Berry, the young duke of Bourbon; but the conduct of the ministry in this affair did not meet with the approbation of the public. The splendid castle of Chambord is situated in the middle of a park, enclosed by walls extending eight leagues. It contains 440 rooms, 13 large staircases, and stalls for the reception of 1200 horses. It was built, in the Gothic style, by Primat, for Francis II., and completed under Louis XIV. Here Francis I. indulged his inclination for gallantry; here the art first sprang to life in France; and here King Stanislaus Leszczinsky resided for nine years. In 1745 it was given by Louis XV. to marshal Saxe, who died there in 1750. The emperor Napoleon gave the domains of Chambord to the prince of Wagram (Berthier), and constituted it the principality of Wagram. When the widow of the marshal offered the estate for sale, a company was formed, which bought it for 1,542,000 francs, and gave it to the duke of Bordeaux in the name of the people of France, on the day of his baptism, May 1, 1814. Several lithographic prints of Chambord, with descriptions, were published by Engelmann, Paris, 1822; also a large lithograph by Isabey, the largest of the kind in France.

Chamberard (French; burning chamber); formerly, in France, a chamber in which state prisoners of high rank were tried by torture. The chamber was hung with black cloth. When Francis II., in the sixteenth century, established a court to try the Protstants, who were usually condemned to be burned, the people called this court, likewise, chambre ardente, in allusion to its sentences. CHAMBERER, a writer on the law, was called (chamber not to be found); an appellation that was bestowed, in ridicule, on the French chamber of deputies, which met after the second restoration of Louis XVIII., for its coldness and anti-nationality. This appellation has been preserved.

Chameleon (chameleo, dun) ; a genus of reptiles belonging to the saurian or lizard-like order, a native of parts of Asia and Africa. The very remarkable power which these animals possess of changing their colour, and at pleasure producing a succession of rich and beautifully varied tints over the whole body, at a very early period called the attention of observers to their habits. Aristotle has left a very perfect description of the chameleon, in the eleventh chapter of his second book on the history of animals. Various poets and fabulists have, at different periods, contributed to its celebrity, and, by inaccurate or fanciful representations, have rendered it far more of a prodigy than nature ever designed it to be.

The skin of the chameleon is composed of a sort of small, scaly grains, and, under ordinary circumstances, is of a greenish-grey colour. The general form of the body reminds one of the lizard, but the
the trunk is compressed, and the back highly ridged or cutting. The occiput, or posterior part of the head, external ear; the tongue is fleshy, cylindrical, and projecting far outwards, yet almost entirely covered over by the skin, except immediately opposite the pupil. What is still more singular, the eyes are capable of moving independently of each other, taking different directions at the same moment. There is no visible expression of the animal, but the eyes are more vivid or beautiful than the rapid transitions from hue to hue, exhibited by the chameleon, when aroused to motion. The chameleons are all exceedingly slow, dull, and almost torpid. The only part which they move with celerity is their long tongue. This organ is clothed, at its extremity, with a viscid, glairy mucous, and is darted out for the purpose of capturing insects, upon which the animal subsists. As they feed but seldom, and are frequently seen inhaling the air, to infuse their bodies as above mentioned, an ancient observers concluded that they fed altogether on air; but closer attention to their habits has shown that they require a diet rather more substantial. Three or four species are well known, and are natives of Africa and the Molucca islands. They pass their lives altogether upon trees, feeding upon small insects, for which their construction shows them to be perfectly adapted. Doubtless new species will be added to our catalogue, as the countries of which they are natives shall be more fully explored.

CHAMOIS (antilope rupicapra, Pall.); a well known species of the genus antelope (q. v.), found only in high, mountainous regions, where they feed, in company with the other large herbivorous and foraging vegetation, which are almost inaccessible to man. The chamois are exceedingly shy, and have very acute senses, so that it is only by great patience and skill, that the hunter can come sufficiently near to shoot them. They are so swift, and leap with so much vigour, and with such sureness of foot, as to render it impossible to overtake them in a fair chase.

Hence the hunters of the Alps, where a few of this species are still found, are obliged to encounter the greatest perils in pursuit of this favourite game; and, owing to the occurrence of sudden fogs, storms, avalanches, and various accidents, may always be regarded as placing their lives in great jeopardy. Chamois are found among the mountains of the Caspian range, and among the heights of the Himalaya, in greater abundance than in the Alps and Pyrenees, where they are so closely pursued. Their flesh is considered a very superior article of food; but whether it is in fact much better than that of other animals of the antelope or deer kind, may reasonably be doubted. The skin of the chamois is wrought into a soft, pliable leather, well known by the name of the animal furnishing it. During the winter, the chamois keeps in the caverns and hollows of the rocks. Its voice is a short, dull whistling or blowing note, and sometimes three young are produced at a birth.

The chamois is about three feet in length, and two feet high; its head resembles that of the domestic goat, but the nostrils are less, and the upper lip not so prominent. It has no muzzles or beard. The horns are six or seven inches long, round, almost smooth, at first straight and perpendicular, and suddenly terminating in a hook directed backwards, and slightly downwards. There are no larmiers,* nor cutaneous appendages or glands, in front of the lower part of the neck. The skin is in close coverings of hair—a short, thick, grey, and brownish woolly, and a dry and frangible, silky hair, varying with the seasons, over the body exclusively, of a rather deep-brown in winter, of a brown fawn colour in summer, and slightly grey in the spring. Both sorts of hair are grey at the base throughout the year. The head is of a pale yellow colour, excepting a black-brown band, which commences near the nose, and ends at the base of the horns and ears, after surrounding the eyes. The tail is black. The inside of the thighs and the ears are white. The hooves are conic beneath, and terminate by a projecting edge, especially in the males. The female has on the outside the two small horns of a different shape and size, except that she is much smaller. The kids are of a deep yellowish colour, having the under jaw, both sides of the head, and the throat, white. There is a black band, beginning at the corner of the mouth on each cheek, surrounding the eye, and ending on the forehead, without meeting the band of the other side; end of the tail black; thighs white; a dorsal line, crossed by a transverse one, upon the shoulders.

CHAMOMILE. See Camomile.

CHAMOMILE, ROMAN (anthemis nobilis, Lin.); a perennial plant, native of Europe, and flowering in June or July. Chamomile flowers, such as they are found in the shops, are white, desiccated, of a very aromatic and rather pleasant smell, and of a very bitter and warm taste. They contain an essential oil, of a fine blue colour, a gummo-resinous principle, cumphor, and tannin. Water and alcohol dissolve their active principles. The Roman chamomile is a moderately energetic stimulant, possessing, on account of its bitterness, some tonic properties, which have rendered it a popular remedy for a number of diseases. It is employed with success to stimulate the digestive functions in dyspepsia, chlorosis, gout, in flatulent colics, &c. It is also advantageously used in some chronic diseases, and spasmodic affections. A strong infusion taken warm, and in a large quantity, provokes vomiting; in consequence of which, it is used in this manner, especially in North America and England, in order to assist the action of emetics. It is also administered with advantage as an antispasmodic. The common chamomile (matricaria chamomilla, Lin.) is now out of use. See Camomile.

CHAMOUNI, CHAMOUNIS, CHAMOUNIX, or CHAMOIX; a town of Savoy, in Upper France; twelve miles E. S. E. Chambery, forty-two S. E. Geneva; population, 1500. It is situated in a celebrated vale, which lies N. of mont Blanc, S. E. of the lake of Geneva; eighteen miles long, and one and a half broad. The river Arve flows through the centre of it. The scenery surrounding the vale is unrivalled in beauty and grandeur. It is 3500 feet above the sea. It is visited by all travellers in Switzerland.

* The larmier is a construction appended to the eyes of various animals of the deer kind, &c., for which there is no English name; its use is unknown.
CHAMPAGNE; before the revolution, a country of France, bordered E. by Lorraine and Franches-Comté, S. by Burgundy and Nivernais, W. by the Isle of France and Picardy, and N. by Flanders. It is about 195 miles in length, and 135 broad. The land is fertile, and produces the celebrated wine called after its name; also much grain and pasturage. There is a notable amount of salt remaining in the glass nearly rapid. For it has been shown, by Humboldt, that, when the froth is collected under a bell-glass surrounded with ice, the alcohol becomes condensed on the sides of the vessel. Hence the still, or the creaming or slightly sparkling Champagne wines (vins crémants, or demi-mousseux) are more highly valued by connoisseurs, and fetch greater prices than the full-frothing wines (vins grand mousseux). By icing these wines before they are used, the tendency to effervescence is in some degree repressed; but, when they are kept cool, this precaution is unnecessary. In general, it may be observed that the vineyards on the banks of the Marne supply the choicest wines, and that the quality degenerates in proportion as they recede from the river. Among the white wines of Champagne, the first rank is generally assigned to those of Sillery, the produce of the vineyards of Verzenay, Mailly, Reims, and others. Of the red sparkling wines, those of Verzy, Verzenay, Mailly, Bouy and St Basle, are most esteemed; but the clos St Thierry furnishes perhaps the finest red Champagne. The soil of the principal vineyards throughout Champagne is composed of a loose marl, resting on chalk, and sometimes mixed with flints. For the manufacture of the white Champagne wines, black grapes are now generally used. In making the red wines, the grapes are trodden before they are introduced into the vat. Champagne, when well made, and placed in cool cellars, will retain its good qualities from ten to twenty years. For further information respecting this delicious liquor, and the art of making it, see A. Henderson's History of Ancient and Modern Wines, London, 1824, 1 vol., 4to.

CHAMPAGNE, Philip, an eminent painter, was born at Brussels, in 1602, and went to Paris in 1621, where he was appointed to the service of the queen Maria de Medicis, who gave him the direction of the paintings for the Luxembourg. He commenced the Galerie des Hommes illustres. In the suburb St Jacques he painted six pictures for the Carmelites. Their church contains a crucifix by him, which, though perhaps older than the church, appears to the present day perfectly well preserved. The paintings in the dome of the Sorbonne are among his best works. He was director of the academy of fine arts. When he began to feel the infirmities of age, he retired to the Port Royal, where his daughters served him. She afforded him the subject for a beautiful painting. She is represented seated, a protracted fever having brought her to the verge of death, given up by the physicians. She is praying with a sister of the convent, and regains her health. The figure of the daughter, particularly her head, is of extraordinary beauty. The museum of Paris possesses, besides this painting, six others of the same artist, among which are a Lord's Supper and a Mater Dolorosa. Numerous works of his are also to be found at Paris, and scattered through many town churches. The painter was very conscientious. He would never paint naked figures. He deserves a very high place amongst the painters of the Flemish school. He died in 1674.

CHAMPARTY, or CHAMPERTY (campi portitio, because the parties in champarty agree to divide the land, &c., in question), is a bargain with the plaintiff or defendant in any suit, to have part of the land, debt, or other thing sued for, if the party that undertakes it prevails therein; whereupon the champion is to carry on the party's suit at his own expense, subject to the payment of maintenance, and punished in the same manner. See Maintenance.

CHAMP CLOS. This was, from the commence- ment of modern history, and long afterwards, a place authorized by the laws made by sovereigns for the purpose, and consecrated to particular combats between the fighting parties, who were bound to determine, in that manner, either a lawsuit or dispute of honour. This name was also given to the place set apart for tournaments.

CHAMP D'ASILE; a settlement of French soldiers, in the state of Texas, which was put down in its infancy by the government of Mexico, because Spain was unwilling to permit its existence on the borders of that state. In October, 1818, the colonists were dispersed by a party of Spanish troops. General Lallemand, who was banished from France, and resided in New Orleans, collected them again, and led most of them to a colony established by French emigrants on the Tombigbee, in the state of Alabama. The district where they settled, and part of which they purchased, while the rest was granted them, was called Marengo, and the capital which they called Asile. A girl, the daughter of a general named Croduced who was a distinguished general of the revolution, came with a party of Frenchmen from the Champ d'Asile. The capital was Nacodoches. This republic, likewise, was soon dissolved, and general Long returned to the United States. Texas, at present, belongs to the United Mexican States, forming part of the state of San- tander. See Texas and San Felipe.

CHAMP-DE-BATAILLE (field of battle), in military language, is the ground on which an action is fought. The commander who obliges his adversary to quit this ground, and abandon it to him, obtains the victory.

CHAMP-DE-MARS, or DE-MAI (campus Mar- tinus). The campus Martinus was a large field on the Tiber, in ancient Rome, near the modern Ponte Molle. After the expulsion of the last king, who was the owner, it was consecrated to Mars, and served the Roman youth for a place of military exercise. The people used to assemble there for the election of magistrates, and the place was adorned
with splendid buildings and rows of pillars. At a short distance appeared the tomb of Augustus and the Pantheon, now the Church of St. Louis. The Franks had conquered the Gauls, in 486, they held their public assemblies, according to the German custom, in the open air. In the fifth and succeeding centuries, these assemblies were called, from the time of meeting, March-fields. In the 8th century, they were transferred to the Place St. Louis, or Charles-magne, to the month of May, and called the Mayfields; but the plain where the Frankish kings annually reviewed the army, had the name of the field of Mars, or the campus Martius. At the May-fields, the king was present with the members of the clergy, the bishops, the nobles, and the people. The latter, however, long neglected the privilege of attendance, and were at length deprived of it. All questions relating to public affairs, such as war, peace, the enactment of laws, were decided by the majority. Pepin called together only the nobility and the clergy; but Charlemagne ordered that every count should bring with him thirteen assessors, or the same number of the most respectable men within his jurisdiction, to represent the people in the general assembly. The first descendants of Capet departed from this usage; but Louis XVI., who reigned from 1285 to 1314, restored the old estate, by calling together delegates from the cities.

The modern Champ-de-Mars in Paris is an extensive plain, surrounded by trenches, and furnished with a fourfold row of trees on each side of it. The French guards, and the young men in the military school, used it for their place of exercise. During the revolution, public festivals were celebrated, and races took place there. Even Louis XVI. and his family took part in the preparations made here, in 1789, for a great fête de la fédération, which was succeeded by scenes of tumult and bloodshed. In 1815, Napoleon selected the Champ-de-Mars for the scene of a general assembly of the French people with deputies. He determined, after his return from Elba, to lay before the representatives of the nation the articles of a supplementary constitution, called the Annexion, which he had drawn up in the form of the French capitularies, and thus, by an imposing show, to establish the legality of his second accession to the throne. This meeting was held, June 1, 1815. After a solemn mass, Dubois, one of the five hundred deputies from the central committees of the electoral colleges, read an address expressive of the allegiances of every Frenchman to the person and authority of Napoleon. The high chancellor then made known the assent of the people to the proposed supplement to the constitution. Although no deputies appeared from forty of the departments, the herald announced that the acte was accepted by the French nation. Accordingly Napoleon signed it, and declared, in a speech before the assembly, that he enjoyed his distinction as an emperor, a consul, a soldier, in fine, that he received everything, from the people. He then swore to observe the fundamental laws of the constitution, and to enjoin upon their observance. The whole assembly, consisting of about 15,000 persons, repeated the oath. Then a Te Deum was chanted, and Napoleon distributed the eagles to the national guards, and the sea and land forces, who were drawn up around him in the form of squadrons and battalions of four, and each helped up the number amounted to 50,000 men. After this festival, which partook of a political, religious, and military character, Napoleon assembled the chamber of peers, and of the deputies of the people. Three weeks after the commencement of the session, the chamber declared the abdication of the emperor. CHAMPE, John, was born in London county, Virginia, and, in the year 1776, at the age of twenty-four, having entered into the American revolutionary army, was soon elevated to a general major in Lee's regiment of cavalry. After the discovery of Arnold's treason, Washington received frequent intelligence that many American officers, and one brigadier, high in his confidence, were concerned in the conspiracy, and, wishing to ascertain whether such was the case, or the report only an artifice of the British general to weaken his confidence in his officers, he desired major Lee to select from his legion some bold and trusty individual, who should proceed to the enemy's camp in the character of a deserter, make himself known to the conservators of the public, and in New York, obtain, through his means, evidence of the innocence or guilt of the suspected officers, and transmit the result to major Lee. He was also to seize Arnold, and convey him alive to the American camp, but by no means to kill him, as Washington only wished him to undergo public punishment, and hoped that, by his arrest, he would be able to unravel the conspiracy, and save the life of Andre. Lee fixed upon Champe to execute the project, who expressed his readiness to encounter any personal danger for the cause of his country, but the report quickly became known to the officer, however, finally induced him to undertake the hazardous service. Having taken down his instructions in a peculiar character, and passed the American lines with great difficulty, he reached the British galleys lying below Paulus Hook, hotly pursued by his comrades as a desertor. After an examination by Sir Henry Clinton, he was consigned to the care of general Arnold, who retained him in his former rank. One object of his enterprise—the preservation of Andre—was defeated by the precipitancy of that officer in confessing the nature of his connexion with Arnold, before preparations could be made for the instruction of the latter. Champe, however, obtained full evidence of the innocence of the American officers, and resolved on making a bold attempt to carry off Arnold. But, unfortunately, on the very night when the design was to have been executed, by seizing and gagging Arnold in a private garden, where he was accustomed to spend some time previous to retiring to rest, and then conveying him secretly to a boat, which Lee had stationed in the Hudson, he shifted his quarters in order to superintend the embarkation of some troops, and thus the plot was frustrated. On the junction of Arnold with lord Cornwallis in Virginia, Champe found no opportunity of effecting the rescue of general Greene, who provided him with means to return to Washington's camp, where he safely arrived, to the surprise and joy of his old confederates. When Washington assumed the command of the army under president Adams, he caused inquiry to be made concerning Champe, designing to reward him by promotion for his exemplary conduct; but he learned, with sorrow, that he had recently died in Kentucky.

CHAMPFORT, Sebastien Roch NICOLAS, was born in 1741, in a village near Clermont, in Auvergne, and went, while he was young, to Paris. He was then called Nicolas, and of his parents knew only his mother, for whom he always retained the tenderest affection. Doctor Morabib was his first patron and instructor. With beautiful features, and an active mind, ingenious, and impatient of restraint, he entered the career of life with the name of Champfort. He wrote several articles for the Journal Encyclopédique, and was one of the editors of the Vocabulaire François. He presented a number of papers to the French and other academies, and wrote some comedies, which were received with great approbation. His Le Marchand de Smyrne is still
formed. His health soon began to decline, and his income was scarcely sufficient to meet his expenses.

Chabanon, his most intimate friend, who enjoyed a pension of 1200 livres, compelled Champfleur to accept it. After he was restored to health, he retired to the country to labour and study. He procured the important edition of the Dictionnaire Dramatique (1776, 3 vols.), and completed his tragedy Mustapha et Zéangir. This production procured for him the office of secretary to the prince of Condé, which he occupied for a time, and then retired to Auteuil. In 1781, he was admitted to the Académie des Inscriptions and belles-lettres; and his concluding address to his new colleagues was his last purely literary work. After this, he married, and lived in retirement, till the death of his wife, when he became reader to the princess Elizabeth, the sister of the king. At the beginning of the revolution, Champfleur was connected with the leading characters of the two parties which hastened the approach of the revolution, the one by upholding, the other by attacking, abuses. He endeavoured in vain to enlighten the former party, and, being compelled to choose between them, he sacrificed his interest, and joined the one whose character and principles he approved, and to whose lot his connection with Mirabeau and others at first absorbed his whole attention. He had an important part in several of Mirabeau's speeches and writings. After a time, Champfleur's condition was altered, but his principles remained the same. He lost his pension and his office, and supported himself wholly by his own exertions. He was appointed, by the minister Roederer, librarian in the great national library; and thus his situation was, for a short time, improved. But, disgusted with the horrors of the revolution, he expressed himself without reserve, and was thrown into prison. He was tried and sentenced to death, and barely saved by a pecuniary donation. His fate was not long agitated in the court of claims, as to the right of a champion to appoint a deputy, in case of his personal incapacity, either through age or profession. The eldest son of the official champion (Mr Dymocke, in whose family the championship is hereditary, and who was himself in holy orders) was at length allowed to appear as his father's representative. — "When I see," says a German writer, "the number of follies with which governments have leisure to concern themselves, I cannot think that nations are very difficult to be governed."

CHAMPAIGN, a lake of America lying between New York and Vermont, is about 130 miles long, and from one to fifteen broad, containing 600 square miles, about two-thirds of which lie in Vermont. It contains upwards of sixty islands, the largest of which are North and South Hero, and Morin island, and receives the waters of several rivers. Otter creek, Onion river, Lamoille and Missisquoi flow into it from Vermont; and the Chazy, Saramac, Sable, Bouquet, and Wood rivers from New York. It discharges its waters northward into the St Lawrence by the Richelieu or Sorelle. Two steam-boats ply on this lake. The navigable portion of Lake Champlain, from the shipping on the lake, in 1816, amounted to 800 tons, belonging chiefly to Burlington. The principal towns on the lake are Burlington, St Alban's, Plattsburg, and Whitehall. Sept. 11, 1814, commodore Macdonough, commander of the American fleet, gained a victory over the British fleet, on this lake, in Cumberland bay, which lies directly in front of the town of Plattsburg.

Champlain Canal, in the state of New York, forms a communication between lake Champlain and the navigable waters of the river Hudson. It commences at the higher end of the lake, opposite the Hudson at Fort Edward, is continued along the west bank of the river, and forms a junction with the Erie canal at Watervliet, the whole length, including about seventy miles of improved natural navigation in Wood creek and Hudson river, being sixty-four miles. It is forty feet wide on the surface, twenty-eight at the bottom, and four deep. The amount of lockage is eighty-four feet. This canal was begun in June, 1818, and completed in November, 1822. See Canal.

CHAMPLAIN, Samuel de; a French naval officer in the seventeenth century, who explored the gulf of St Lawrence, in North America, founded Quebec and Montreal, in Canada, and gave his name to an inland lake, which it still retains. He was king's lieutenant, and afterwards governor-general of Canada, where he died in 1634. M. de Champlain was the author of a curious work, entitled Voyages et Tra- vels in New France, or Canada (1632, 4to).

CHAMPOLLION; two French literati of this name, viz:—

Champollion (J. F.) the Younger, was born at Genève, 1790, became professor of history at Grenoble, studied Oriental languages, though having previously continued to disgrace the English statute-book till the beginning of the reign of George IV., when an appeal of murder having been made in the case of Abraham Thornton (reported 1 Barnwell and Alderson), he was advised by his counsel to claim his right of trial by battle. (See Appeal.) As the judges decided that this could not be refused him, the next heir, the heir apparent, deceased, a lad of sixteen, declined any further proceedings. Even the right to the English crown was, in some degree, put in issue, by appeal to judicial combat; and the appearance of a champion, offering battle to any one who gainsays the right of the king to the crown, is still a part of the ceremonial of an English coronation. The most important of these coronation contests was long agitated in the court of claims, as to the right of a champion to appoint a deputy, in case of his personal incapacity, either through age or profession. The eldest son of the official champion (Mr Dymocke, in whose family the championship is hereditary, and who was himself in holy orders) was at length allowed to appear as his father's representative.—"When I see," says a German writer, "the number of follies with which governments have leisure to concern themselves, I cannot think that nations are very difficult to be governed."

CHAMPIGNON, in my dictionary, the headword is given in the active, as if it were a name of an animal. The sense is the same as that of the French name champignon, but it is not a botanical term, and the English name is a misprint.
was at Turin, in 1823 and 1824, and published the Panthéon Égyptien—a collection of designs taken from figures on Egyptian monuments, with explanations (Paris, 1824, 4to). He next published his Précis du Système Hiéroglyphique des Anciens Egyptiens, with engravings (Paris, 1824). In this work, he gives his theories; the hieroglyphic inscription, which he supposes he has found a key to the whole system of hieroglyphical writing. Hieroglyphics, according to his theory, are partly phonetic (those which serve as signs for sounds), partly hieratic (those which express whole ideas). The two kinds of writing, he says, are intermingled in by ancient documents. Champollion's system rests on the views of Warburton and Young. Th. Ausonioli, in his Analyse de la Théorie de M. Champ. le Jeune, sur les Hiérogly. des anc. Egypt. (Paris, 1824), has undertaken to show that his grounds are untenable. In 1825, Champollion delivered lectures on his system in Rome. In 1826, Charles X. appointed him to superintend the new department of the royal museum in Paris (in the Louvre), which contains the antiquities of Egypt, brought by Drovetti to Léoghorn, and purchased by the king, and the monuments of Eastern antiquity in general. In 1829, Champollion went with an expedition of learned men to Egypt, at the expense of the king. The results of this journey we shall give, in the articles Egypt and Hieroglyphics. He died at Paris in March, 1832.

Champollion-Figeac, J. J., the elder brother of the preceding, and his instructor, was born at Figeac, in Quercy, in 1779. He was formerly professor at Grenoble, and has distinguished himself by his Lettre sur l'Inscription du Temple de Dendérah, and other archaeological essays. His Antibes de Grenoble (Grenoble, 1807, 4to) is much esteemed. His Annales des Langues Orientales (1816, 2 vols.) received the prize of the royal academy of inscriptions, and was completed by him in 1820. He has published, also, inquiries into ancient chronology. With Motte, the lithographer, he published Les Tournois du Roi René (after the original manuscripts and designs found in the royal library), with observations, and twenty engravings (Paris, 1826, folio).

ChANCE is used to signify accident, and also probability. The latter is its meaning in mathematics. The doctrine of chances teaches how to find the probability of a given event taking place from an examination of the circumstances affecting it. It is called, more properly, the doctrine of chances. It is important for the calculation of insurance risks, the worth of life-annuities, &c. Pascal, Huygens, De Moivre, Parisot (Traité du Calcul conjectural, &c., Paris, 1810, 4to), Laplace, Lagrange (Traité élémentaire du Calcul des Probabilités, Paris, 1816), and others, have treated of this subject. James Bernoulli undertook a work De Arte conjectandi, but his death prevented its completion. See Probability.

CHANCE-MEDLEY; homicide happening either in self-defence, on a sudden quarrel, or in the commission of an unlawful act, without any deliberate intention of doing mischief.

CHANCEL is that part of the choir of a church, between the altar or communion-table and the rail that encloses it, where the minister is placed at the celebration of the communion.

CHANCELLOR; an officer supposed to have been created by the emperors, under the emperors, and named cancellarius, because he sat behind a lattice, called, in Latin, cancellatus, to avoid being crowded by the people. There are, however, other derivations of this title. Whatever may have been its origin, the office and name of chancellor were unquestionably known at the court of the Roman emperors, where the title seems to have signified, originally, a chief scribe or secretary, who was afterwards invested with several judicial powers, and superintends over the other officers of the empire. From the Roman empire the title and office passed to the Roman church, and hence every bishop has, to this day, his chancellor, the principal judge of his consistory. When the Roman empire was split up, Drovetti was employed upon the ruins of the empire, almost every state preserved its chancellor, with different jurisdictions and dignities, according to their different constitutions. In all, he seems to have had the supervision of all charters, letters, and such other public documents of the state, drawn and authenticated in the most solemn manner, and, therefore, when seals came into use, he had always the custody of the king's great seal. This officer has now great authority in all the countries of Europe.

The Lord High Chancellor of England is the first judicial officer of the crown; and first lay person of the state, after the blood royal. He is created neither by writ nor patent, but by the mere delivery of the great seal into his custody. In like manner, the act of taking away the seal by the king determines the office. He is, ex officio, a privy councillor, and, according to one extreme and another, the discretion of the house of lords by prescription. The question of separating the office of proctor of the lords from the office of chancellor has been sometimes agitated. He has the appointment of all justices of the peace in the kingdom, is visitor, in the king's right, of all royal foundations, and patron of all crown livings, under the value of twenty marks, in the king's books. The office having, in early times, been always filled by ecclesiastics (for no others were then capable of an employment requiring so much writing), he became keeper of the king's conscience; and, by special appointment, he was often called upon to give personal advice to the king. It is addressed, like the master of the rolls, by the style of his honour. Though the appointment was made with a view to meet the complaints against delay, and to facilitate the business of suitors, yet, as an appeal lies afterwards to the chancellor, the experiment has not been attended with great success. For an account of the court of chancery, see Equity, Courts of.

The Chancellor of the Exchequer is the principal finance minister of the government, and, as all questions of supply originate in the house of commons, a peer cannot be conveniently appointed to this office. When the first lord commissioners of the treasury is a commissioner, the two offices are generally united.

The Chancellor of the duchy of Lancaster presides in the court of the duchy chamber, to decide questions relating to lands helden the king, as duke of Lancaster; but it does not appear that this is a court of record. The chancellorship is filled during pleasure, though there are two instances of its being granted for life; the last being that of the celebrated lord Ashburnham. The chancellor of the duchy of Lancaster is one of the king's cabinet ministers.

The Chancellor of Oxford is the supreme head of that university, elected for life by the members of convocation. He is generally a notability of the highest
rank, who is installed with great ceremony. The duties of the office are almost entirely discharged by the vice-chancellor; the chancellor's own acts being limited to the signing of diplomas, &c.—Under the vice-chancellor are four pro-vice-chancellors, nominated annually by him from times, where a reelection has not taken place.—The title chancellor is given, in England, to several other officers of inferior bodies.

The chancellor was one of the highest officers in the German states, and, by the influence of his office, was one of the most important. In Germany, this dignity was, from the remotest times, vested in one of the higher clergy, until the head of the German clergy, the archbishop and elector of Mentz, united it for ever with his office as arch-chancellor of the empire. The two other spiritual electors held the same dignity, but it was merely titular; the archbishopric of Cologne, as arch-chancellor of Germany, the archbishop of Treves, as arch-chancellor of Gaul, and Arles, i.e., the kingdom of Burgundy, once belonging to Germany. The arch-chancellors of Mentz, on the contrary, had important duties attached to it — direction of the diet, and of the public business, as well as of all the imperial chanceries. The elector appointed a vice-chancellor, who was the actual minister of the empire at the imperial court.—

The chancellor of France was the highest officer of state, and the only one, who, when once appointed, could not be dismissed. In case, therefore, it was desired to remove him from participation in affairs, a keeper of the seals (garde des sceaux) was appointed. As the chancellor was properly the minister of justice, he was chosen from the body of jurists. A relic of his spiritual character was, that all his furniture, liverys, and even his coach, were black. This dignity is now restored. Besides the chancellor of the kingdom, the chancelier de France, the queen (in Germany, also, the empress had her arch-chancellor, the bishop of Fulda), the sons and grandsons of the king, the first prince of the blood, the orders of knighthood, the universities, &c., all had their chancellors. In Italy, the states began as early as the fifteenth century to appoint chancellors, whose duties are widely different, but are generally united with the office of president of the higher judicial and executive authorities. In Bavaria, for example, there were a chancellor of the privy council, and a court-chancellor, a chancellor of fiefs, and executive chancellors, in the different provinces. King Frederic II, (the Great) of Prussia established, some years after his accession to the throne, in 1747, the office of a grand-chancellor and chef de justice for the famous Samuel de Coccetti, to whom he had committed the reform of the judiciary, and several other important offices in this dignity, but it was finally abolished. In the Austrian monarchy there are three court-chancellaries—1. the imperial-royal, at the head of which stand the high court-chancellor, with three other court-chancellors, viz., the Bohemian-Gallic, the Lombardo-Venetian, and the Austrian-Ilyrian; 2. the Hungarian; and 3. the Transylvanian. In Austria, almost every office of importance is called a court office. The dignity of a privy-chancellor of the court and state was conferred, after a long interruption, upon Prince Metternich.

CHANGE. See Equities, Courts of.

CHANNEL, English; the sea between England and France, the passage of which is often very tedious for vessels going from the Atlantic into the German ocean. See Calais and Dover.

CHANNELS, or CHAIN WALES, of a ship broad and thick planks projecting horizontally from the ship's stem, to prevent her from being driven on the masts. They are formed to extend the shrouds from each other, and form the axis or middle line of the ship, so as to give greater security and support to the masts, as well as to prevent the shrouds from damaging the gunwale, or being injured by rubbing against it.

CHANCE. See Church Music.

CHAOSE; according to the signification of the word, the void which embraces all things. Hesiod mentions, as the original principles of all things, Chaos, Earth, Tartarus, and Eros (Love); other ancient poets made Chaos alone the primeval source from which everything is derived; others added to it Night, Erebos, and Tartarus; and others still represented Chaos as the parent of the Earth and Heaven; after the production of which, Eros (Love) completed the creation. In later times, by chaos is understood the entire void in which nothing is made. Chaos, according to Hesiod, produced by and out of itself Erebus and Night, who, in turn, were the parents of Ether and Day.

CHAPEL HILL; a post-town in Orange county, North Carolina, near the head of New Hope creek, a branch of the Haw; lon. 79° 38^1/2'.

CHAPELAIN, Jean, better known by an unsuccessful poem than by many poets by successful ones, was born in Paris, Dec. 4, 1595. Marinii, who went to Paris to have his Adonis printed there, induced him to write a preface to that poem, by which Chapelain attracted the notice of cardinal Richelieu. The latter, having the weakness to set up for a bel esprit, stood in need of a poet who would labour with him and, at times, also, for him. Chapelain was possessed of talents and learning: he was obsequious and (which was the principal thing) discreet, and thus his fortune was made. He became one of the first members of the Académie Française, and was charged with the edition of the Ovid. As a poet, Chapelain was universally esteemed. He died Feb. 22, 1674.

The most complete edition of his Pucelle (eighteen books) appeared at Geneva in 1702.
library in Paris contains all the twenty-four books in manuscript.

CHAPPELLE (properly CLAUDE EMANUEL LELLIER); so called from La Chapelle, a village near Paris, where he was born in 1626; one of the most amiable and characteristic ease, gravity, and wit. His description of a journey to Montpellier, Relation d'un Voyage fait en France (1662, 12mo), written jointly with Bachelmont, is a model of ease and pleasantry. He also wrote many songs, sonnets, and epistles. He possessed, in a remarkable degree, the talent of saying many witty things on a serious subject. He died in 1683.

CHAPLAIN properly signifies a person provided with a chapel, or who discharges the duties thereof. The name is applied to clergymen both in the Catholic and Protestant churches. The origin of the term is generally explained in the following manner: Bishop Martin (q. v.) is said to have worn a hood (capa) which was valued as possessing miraculous powers, and was, therefore, preserved, after his death, in a separate house, called, from this hood, capella (chapel), and the person stationed in the chapel to show it to pious spectators was termed chaplain. Charlemagne is said to have possessed St Martin's hood among his relics, and to have erected a chapel, called by the name of St Martin, in Germany, at the place where Furth afterwards arose. This emperor is also related to have built similar chapels at Nuremberg and Altenfurt. Another less probable derivation deduces the word, indeed, from capella, but explains it to signify the box in which the first missionaries carried the requisites for celebrating the Supper, who were thence denominated chaplains.

CHAPPE D'AUTEROCHE, JEAN, born in the year 1729, in Auvergne, took clerical orders, and devoted himself to the study of astronomy. In 1769, he was appointed by the academy to observe the transit (q. v.) of Venus over the sun's disk, at Tobolsk (June 6, 1761). He had the good fortune to find the sky clear and serene at the time when he wished to make his observations. After an absence of two years, he returned, and published a narrative of his travels. Besides much valuable information, it contains many unfavourable remarks on Russia, so that the empress Catherine II. herself wrote a reply to it, in a pamphlet, entitled Autodote contre le Voyage de l'Abbé Chappe. The same phenomenon, by which Chappe had been attracted to the north, prompted him, in 1769, at the suggestion of the academy, to undertake a voyage to California; but, before he could complete the object of his voyage, he died at St. Vincent, 1770. Observations on this voyage have been published by C. F. Cassini, under the title Voyage de Californie (Paris, 1772, 4to). They did not answer the expectations which had been entertained of them.

CHAPPE, CLAUDE, nephew of the above, was born in 1763. He is celebrated as the inventor of the telegraph, and attracted notice in his twentieth year, by several valuable essays in the Journal de Physique. Wishing to communicate with his friends, who lived at the distance of several miles from him, he conceived the idea of conversing with them by means of signals; and his experiments for this purpose led him to his important invention. Having succeeded in erecting his machine on a large scale, he laid a description of the work, which he called telegraph, before the national assembly, in 1792. The establishment of the first telegraphic line was ordered in 1793: the first event communicated by it was the capture of Condé. The convention, having received this news at the opening of its session, forthwith decreed that it should be called the Nordirère, and was apprized, in the same sitting, that the edict had been delivered and published to the army. The method of interchanging messages by signals was known to the ancients, and has been used by navigators from the time the helmsman attempted several attempts to express the letters of the alphabet at a distance by signals; and, towards the end of the eighteenth century, a trial of this kind was made by Amontons. The system of the former, however, admits of only a very limited application; a whole night being laughably insufficient to compose two or three words according to his method. Amontons, who is generally placed among the inventors of the telegraphic art, left no sketch of the machine contrived by him. The problem, therefore, still remained to be solved. The object was, to discover an expedient for conveying any information with despatch to any place and at any time. Chappe invented a machine, the signals of which are very distinct, while its motions are easy and simple. It may be erected at any place, defies every kind of weather, and, notwithstanding its simplicity, contains signs enough to convey any ideas, in such a way as to prevent more than two signals being commonly necessary. The honour of this invention was contested by many persons. The chagrins which these disputes produced in the mind of Chappe threw him into a deep melancholy, and, in 1803, he put a period to his existence by precipitating himself into a well. His brother, Jean Joseph, became director of the telegraph in Paris.

CHAPTAL, JEAN ANTOINE CLAUDE, count of Chanteloup, peer of France, was born in 1756, and devoted himself to the study of medicine and the natural sciences. Having been long known as a distinguished physician, he rendered himself conspicuous as an adherent to the cause of the revolution, at the assault upon the citadel of Montpellier, in 1791. Being called to Paris, in 1793, on account of the scarcity of gunpowder, his chemical knowledge, and his activity in the enormous factory at Grenoble, enabled him to supply the necessity by the production of 350,000 pounds every day. In 1794, he returned to Montpellier, received a place in the administration of the department of the Herault, and the professorship of chemistry, which had been founded there for him. In 1796, he was made a member of the Institute, favoured the revolution of the eighteenth Brumaire (q. v.), was appointed by the first consul, in 1799, counsellor of state, and, in 1800, minister of the interior, in which post he encouraged the study of all the arts, and established a chemical manufactory in the neighbourhood of Paris. In 1804, he fell into disgrace: the reason assigned is, that he refused to declare, in one of his reports, that sugar prepared from beets was better than that from the sugar-cane. In 1805, however, he was made, by the emperor, grand cross of the legion of honour, and member of the conservative senate. After the return of Napoleon from Elba, he was appointed director-general of commerce and manufactures, and minister of state. On the restoration of the king, he was obliged to retire to private life, and, at the same
time, to enter into negotiations with the princess of Orleans, relative to Chanteloup, which formerly had belonged to her. In March, 1816, the king nominated him master of the academy of sciences. Chaptal's works on national industry, chemistry, the cultivation of the vine, &c., are very much esteemed; especially his *Chimie appliquée aux Arts* (Paris, 1807, 4 vols.); his *Chimie appliquée à l'Agriculture* (Paris, 1823, 2 vols.); and *De l'Industrie Française*, Paris, 1810, 2 vols.). He was director of two chemical manufactories, at Montpellier and Neufly, discovered the application of old wool, instead of oil, in the preparation of soap, and the mode of dyeing cotton with Turkish red. He invented several kinds of cement and artificial Fuzamolins, by means of native calcined ochre, without the aid of foreign matters; new varnishes for earthen ware, without the use of lead ores and plumbago, &c., which are so often destructive of health and life; and extended the application of chemical agents to bleaching.

CHAPTER (from the Latin caput, head); one of the chief divisions of a book. As the rules and statutes of ecclesiastical establishments were arranged in chapters, so also the assembly of the members of a religious order, and of canons, was called a chapter, because some or all of the chapters, containing the rules, were read there; and the place where they assembled, as well as the mode of administering to a delinquent member, by reading the rules of the chapter transgressed, had the same name. The orders of knights, which originally had much of the ecclesiastical constitution, used this expression for the meetings of their members, and even some corporations of mechanics or tradesmen, call their assemblies chapters. In England, as elsewhere, the deans and chapters had the right to choose the bishop, but Henry VIII. assumed this right as a prerogative of the crown. In Prussia, also, Protestant bishops have been lately elected, and, still more lately, an archbishop, without the vote of a chapter, by a mere order of the government.

CHARACTER. This name is given to certain marks, used to signify objects or ideas. The written language of the Chinese is a language of figures, every object or notion being expressed in it by a particular symbol. We also, for the sake of brevity and precision, use, in several sciences, certain signs; for instance in—

Astronomy.

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mars</th>
<th>Jupiter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moon</td>
<td>Earth</td>
<td>Venus</td>
</tr>
<tr>
<td>Mercury</td>
<td>Venus</td>
<td>Ceres</td>
</tr>
<tr>
<td>Mars</td>
<td>Virgin</td>
<td>Archer</td>
</tr>
<tr>
<td>Virgin</td>
<td>Capricorn</td>
<td>Scorpion</td>
</tr>
<tr>
<td>Twins</td>
<td>Balance</td>
<td>Fishes</td>
</tr>
</tbody>
</table>

Arithmetic, Algebra, and Geometry.

<table>
<thead>
<tr>
<th>V</th>
<th>X</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>VI</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>VIII</td>
<td>L</td>
<td></td>
</tr>
</tbody>
</table>

The following signs have the like and equal, or square, greater than, or less than.

Chemistry.

<table>
<thead>
<tr>
<th>air</th>
<th>gold</th>
<th>iron</th>
<th>salt</th>
</tr>
</thead>
<tbody>
<tr>
<td>earth</td>
<td>silver</td>
<td>tin</td>
<td>sulphur</td>
</tr>
<tr>
<td>water</td>
<td>mercury</td>
<td>lead</td>
<td>启动</td>
</tr>
<tr>
<td>fire</td>
<td>copper</td>
<td>nitric</td>
<td></td>
</tr>
</tbody>
</table>

Dalton, in his modern times introduced a system of notation adapted to the atomic theory, of which the following is a specimen. Let denote oxygen, hydrogen, nitrogen, and carbon, then the atomic nature of their compounds may be shown thus—

Formerly there were more signs and abbreviations used in scientific works than at present. In Prussia, the use of signs in medical prescriptions has been abolished from the danger of their being confounded.

CHARACTER MASKS; such as appear, not in domino, but in the usual dress of certain ranks.

CHARADE; a syllabic enigma; that is, an enigma, the subject of which is a name or a word, that is proposed for discovery from an enigmatical description of its several syllables, taken separately, as so many individual words. A charade may be called complete, if the different enigmas which it contains are brought into a proper relation to each other, and, as a whole, unite in an epigrammatic point.

CHARLES; the name given to the person to whom the information contained in the article Carbon, we will only add a fact lately announced in the scientific journals, that, in Picardy, and other provinces of France, where turf is almost exclusively used as fuel, the inhabitants, by means of a cheap apparatus, are able to carbonize it so as to render it equal to the best charcoal.

CHARDIN, Jean, son of a Protestant jeweller in Paris, and a jeweller himself, was born in 1643. Before he had reached his twenty-second year, his father sent him to the East Indies, in order to buy diamonds. After a short residence in Surat, Chardin lived six years in Ispahan, where he was less engaged in mercantile business than in profound studies and scientific researches, making use of his connexions at court for collecting the most authentic information of the political and military state of Persia. He collected the most valuable materials relating to antiquities and history. In 1670, he returned to France. Finding, however, that he could hope for no employment on account of his religion, he again left France for Persia, in 1671, taking with him a considerable quantity of jewels, &c. He spent ten years partly in Persia and partly in India. In 1681, he arrived in London, where he received the honour of knighthood. He published the first volume of his travels, in London, in 1686. The other volumes were about to follow, when he was appointed minister plenipotentiary of the king of England to the states-general of Holland, and agent of the English East India company to the same. His new duties did not distract him from his favourite employment, so that, in 1711, two editions of his travels appeared. He soon after returned to England, where he died in 1713. The exactness and truth of his statements, and the extent of his knowledge, have been confirmed by all succeeding travellers. The best edition of Chardin's travels is that by Langlès, 1811, in ten vols. 8vo, with an atlas in folio.

CHARENTE; a river in France, rising in the department of the Upper Vienne. It falls into the sea about eight miles below Rochefort, opposite to the latter of four of about 100 miles. It gives its name to a department. See Departments.

CHARENTON; a market-town about three leagues and a half from Paris, on the road to Troyes and Lyons, at the confluence of the Marne with the Seine. To its situation, Charenton, which is a very
busy and populous place, owes its numerous mercantile and manufacturing establishments. The bridge across the Marne must be considered as the key to Paris on this side; hence the memorable attacks upon it both in the civil wars of France, and in those with foreign enemies. In 865, the Normans made themselves masters of it, and destroyed it. In 1814, its possession was warmly contested. The students of the veterinary school at Alfort, in the neighbourhood, had solicited from the government permission to defend this post against the advancing troops of Württemberg and Austria. It was intrusted to them; but they were compelled to retire, after a heroic defence, before superior numbers. At Petit-Charenton is the celebrated hospital for the insane, where many unfortunate individuals, of both sexes (usually 4—500), are treated with great care, in order to effect their cure: those who are declared incurable are sent to Bicêtre. Here died, in 1815, Sade, the author of Justine, whom Napoleon, on account of this immoral and dangerous publication, had ordered to be treated as insane.

CHARETTE DE LA COUTRIE. See Vendée. CHARLETTÉ D'AFFAIRE. See Minister, Foreign.

CHARIOT. The chariots of the ancients were strongly and even elegantly built, but were not well adapted for speed. Those of the Romans were named according to the number of horses used to draw them. Thus, a chariot with two horses was called a Biga; one with three, a Triga; one with four, a Quadriga, &c.

---

The Romans always yoked their horses in their race-chariots abreast. It is recorded that Nero once drove a chariot at the Olympic games with no fewer than ten horses abreast.

CHARITY, brothers and sisters of. See Fraternity.

CHARKOW; capital of Slobohdsk-Ukraine, in Russia, containing about 1,500 houses, and nearly 15,000 inhabitants. It carries on considerable commerce, and four great fairs are held in the place every year. In 1803, the high school at Charkow was erected into a university, and several professors were invited thither from Germany. The emperor granted it an annual income of 130,000 paper rubles, and, in addition to this, a donation of 400,000 rubles was offered by the nobility of the country for its organization, of which sum, however, the greater part was yet unpaid in 1805. The number of professors is thirty-eight, and that of the students about 300; sixty of whom are supported at the emperor's expense. The latter are bound, after leaving the university, to teach, for six years, in the schools within the district of the university, and are pretty arbitrarily sent, by the emperors, to those places in which they are to be employed. The university possesses a library, and a cabinet for the natural sciences. Charkow also contains a gymnasium, a military academy, &c. A philotechnic society likewise holds its meetings there.

CHARLATAN (in Italian, ciarlataano); a mountebank, quack-doctor, empiric; hence every one who makes loud pretensions to knowledge or skill which he does not possess. The word is probably derived from the Italian ciarlare (to prate), because the chief art of a charlatan consists in boasting and idle talk. We find charlatans in all sciences, politics, religion, &c. Of the latter, Moliere says:—

Aussi ne vois-je rien qui soit plus odieux
Que les dehors plîtrés d'un zèle spéculer;
Que ces francois charlatans, que ces devôts de paie, &c.

How many political proclamations resemble, in charlatanism, the boasting placards of quacks, or the advertisements of new systems for teaching languages, &c., in a few hours!

CHARLEMAGNE (Carolus Magnus, Charles the Great); one of those characters whose achievements bear the impress of gigantic power, by whom nations have been formed and destroyed, and who have exercised an influence which has been felt for centuries, and compelled succeeding generations to admire their greatness, though unable to justify all their actions. Charlemagne, king of the Franks, and subsequently emperor of the West, was born in 742, in the castle of Carlsberg, on the lake of Wurmssee, in Upper Bavaria. Others mention the castle of Engelnheim, near Ments, and others Aix-la-Chapelle, as the place of his nativity. His father was Pepin the Short, king of the Franks, son of Charles Martel. After the decease of his father, in 768, he was crowned king, and, according to the wish which Pepin had expressed, divided France with his younger brother Carloman; but the conditions of this partition were several times altered, without being ever adjusted to the satisfaction of the parties. Their mutual discontent was fostered principally by the king of the Lombards, Desiderius (the father-in-law of both princes), because Charlemagne had repudiated his wife. Desiderius sought revenge for the rejection of his daughter, by exciting and encouraging commotions in France, in which he was assisted by the circumstance that the nobles aspired to independence. The people of Aquitania were the first who attempted to become independent. Charlemagne marched against them with rather a small army; but he relied on the assistance of his brother Carloman, to whom a portion of Aquitania then belonged. Carloman appeared, indeed, in the field,
but, in the decisive moment, deserted his brother, who was obliged to sustain, alone, an unequal conflict. His great courage and conduct, after a long and doubtful contest, procured him the victory, in 770, and the insurgents submitted. In this campaign, the youthful hero displayed such distinguished merit as to please the heart of his master and to win the amity of his vassals. This contest convinced Charlemagne of the necessity of repressing the nobles, and employing them thenceforward in important enterprises, in order to divert their attention from the internal affairs of the empire. Had he not, therefore, himself been called to arms, he could have been employed for the service of his country, and his talents could be exhibited in all their splendour, he would have been induced to undertake them by the internal condition of the empire. At Charlemagne's death, in 771, and after the flight of his wife and her two sons to her father, in Italy, Charlemagne made himself master of the whole empire, the extent of which was already very great, as it embraced, besides France, a large part of Germany. He now formed the plan of conquering the Saxons, for, which his zeal for Christianity and its diffusion served him as a tolerable pretexts. The Saxons, a warring and warlike tribe, were divided over Holstein and Westphalia, between the rivers Weser and Elbe, and, like other barbarians, preferred pillaging to peaceful occupations, and a wandering to a settled mode of life. They had several leaders, and constituted various tribes, which were seldom disposed to co-operate. An invasion of the Saxons into the territory of the Franks was the alleged cause of the first war which Charlemagne began against them in 772. The other wars were produced by the rebellions of this warlike nation, which, overpowered, but not entirely vanquished, was never reduced to complete subjugation until the peace of Selingaver in 803, after it had embraced Christianity. A part of the Saxons Charlemagne removed to Flanders and Switzerland, and their sons were occupied by the Obotrites, a Vandal tribe in Mecklenburg. The famous pillars called Erminiauile were destroyed by Charlemagne, as monuments of pagan worship. Thus for thirty-two years did the Saxons resist a conqueror, who, at times indulgent to imprudence, often severe to cruelty, striving, with equal eagerness, to convert and to subdue them, never became master of their country till he had transformed it almost into a desert. To the Saxons might have made a more successful defence against the power and genius of Charlemagne, had they not been distracted by internal dissensions. The most celebrated of their leaders was Wittikind, and, next to him, Alboin, who finally embraced Christianity in 783. To explain the protracted resistance of the Saxons, we must remember that the manner in which the armies of those days were organized produced an armistice every year (the levy of troops being only for one campaign); that Charlemagne was obliged to wage wars at the same time against the Lombards, the Avars, the Saracens, and the Danes; and that the magnitude of his states facilitated the rebellions of his vassals, on which account all his attention was often required to preserve internal tranquillity, and maintain his own authority.

While he was combating the Saxons on the banks of the Weser, pope Adrian implored his assistance against Desiderius, who had taken by storm the episcopal see of Ravenna, which Pepin the Short had presented to the holy see, and who was urging the pope to crown the nephews of Charlemagne, that Charlemagne himself might be considered a usurper, and his sons be denied the grace of their allegiance. The danger was urgent. Charlemagne immediately left Germany, and marched with his army to Italy. De-
Roman emperors, and the only thing forgotten was, that the empire could not subsist long in a family where the authority was, by law, divided among the children. In the city of Aix-la-Chapelle, where Charlemagne had made a monk of one of his sons, Pepin, king of Italy, died in 810, whose death was followed, the next year, by that of Charles, the oldest. Thus, of his legitimate sons, one only remained, Louis, King of Aquitania, whom he adopted as his colleague in 812, as his age and infirmity gave him warning that the end of his life could not be far distant.

He died Jan. 28, 814, in the 71st year of his age and the 47th of his reign, with anticipations and fears that his empire would not long withstand the attacks of foreign enemies. Unfortunately, his death was not accompanied by the event confirmed. He felt, too late, that the same Saxons, part of whom he had driven from their seats, would one day take revenge on his empire, and in their train bring with them other barbarians. Charlemagne was buried at Aix-la-Chapelle, his favourite and usual place of residence. He was deposited in a vault, where he was placed on a throne of gold, in full imperial costume. On his head he wore the crown; in his hand he held a chalice; at his side was the sword; on his knees lay the book of the evangelists; at his feet his sceptre and shield. The sepulchre was formed in the shape of a triumphal arch, on which were the words "Here lies the body of Charles, the great and orthodox emperor, who gloriously enlarged, and for forty-seven years happily governed, the empire of the Franks."

Charlemagne was a friend of learning; he deserved the name of restorer of the sciences, and teacher of his people. He attracted by his liberality, the most distinguished scholars to his court; among others, Alcuin, from England, whom he chose for his own instructor; Peter of Pisa, who received the title of his grammarian; and Paul Warnefried, better known under the name of Paul Diaconus, who gave the emperor instruction in Greek and Latin literature. By Alcuin's advice, Charlemagne established an academy in his palace at Aix-la-Chapelle, the sitings of which he attended, with all the scientific and literary men of his court—Leidrades, Theodulphus, the archbishops of Treves and Ments, and the abbot of Corvey. All the members of this academy assumed names characteristic of their talents or inclinations. One was called Damatus, another Homer, another Candidus; Charlemagne himself took the name of David. From Italy he invited teachers of the languages and sciences, and he endeavored to plant learning in the principal cities of his empire. In the cathedrals and monasteries he founded schools of theology and the liberal sciences. He strove assiduously to cultivate his mind by intercourse with scholars; and, to the time of his death, this intercourse remained his favorite recreation. He spoke several languages readily, especially the Latin. He was less successful in writing, because he had not applied himself to it till he was further advanced in years. In the winter he read much, and even caused a person to read to him while he took his meals. He endeavored to improve the liturgy and church music. He was desirous of introducing the Roman liturgy into his states; but the clergy, who clung to the ancient usages, offered some resistance. Several churches, however, complied with the wish of the monarch, and others mingled the Roman and Gallican rites. He called to his court men of measures and weights, but was unable to accomplish his design. Another great plan of his was to unite the Rhine with the Danube, and, consequently, the Atlantic with the Black sea, by means of a canal. The whole army was employed on the work; but its accomplishment was prevented by the want of that knowledge of hydraulic architecture which has been since acquired. The arts, however, under his patronage, produced other monuments of his fame. The marble temple of Aix-la-Chapelle contained a splendid chapel, which he caused to be built of the most beautiful Italian marble. The doors of this temple were of bronze, and its dome bore a globe of massive gold. The imperial palace was built in the highest style of splendour. Charlemagne also erected baths, in which more than one hundred persons could swim in warm water. He was himself very fond of swimming, and frequently used these baths, with all the nobles of his court, and even with his soldiers. At Seltz, in Alsace, he had a no less splendid palace. To Charlemagne Franks were indebted for its first advancement in navigation. He built the light-house at Boulogne, and constructed several ports. He encouraged agriculture, and made himself immortal by the wisdom of his laws. Thus his law de villa is esteemed a monument of his views on rural economy; and Menzel, in his history of the Germans, says of him, "His greatest praise is, that he prevented the total decline of the sciences in the West, and supplied new aliment to their expiring light; that he considered the improvement of nations as important as their union and subjugation. This love of intellectual improvement is shown in a prince of the first rank, who commanded in military exercises and the chase, and his whole after life in the whirlpool of war; at a time, too, before the charm of beautiful models had made intellectual occupation an enjoyment, but when literature and science, appearing in heavy forms, destitute of grace, deterred rather than invited. His fame filled even the East. He received ambassadors from the patriarch of Jerusalem, from the emperors Nicophorus and Michael, and was twice complimented with embassies from Haroun al Raschid, the famous caliph of Baghdad, all of which he received with a splendour unexampled even in the East. He convened councils and parliaments, published capitularies, wrote many letters (some of which are still extant), a grammar, and several Latin poems. His empire comprehended France, most of Catalonla, Navarre, and Aragon; the Netherlands, Germany as far as the Elbe, Saale, and Eyder, Upper and Middle Italy, Istria, and a part of Schelavia. In private life, Charlemagne was exceedingly amiable; a good father, and generous friend. His domestic economy afforded a model of frugality; his person, a rare example of simplicity and greatness. In his court he despised brilliance. He equalled seven times the length of his foot. His head was round; his eye large and lively; his nose of more than common size; his countenance had an agreeable expression of serenity. His gait was firm; his bearing manly. He enjoyed constant health, till the last four years of his life, when he was attacked by fevers, and began to limp. In summer, he was accustomed to repose for two hours after dinner, for which purpose he used to undress; but at night he slept sumptuously. He wore the dress of his country; on his body, a linen shirt, over which was a coat with a silk border, and long breeches. For his outer dress, he wore a cloak, and always his sword, the hilt and scabbard of gold and silver. He could swim in a natural, impressive eloquence, and, in his expression of countenance, there was something to respect, united with gentleness and kindness. See Eginhard.

CHARLEMONT AND GIVET: one of the strongest fortresses in France, in the department of the Ardennes, with 3500 inhabitants. The works
occupy both banks of the Meuse, about twenty-five miles above Namur, at the junction of several roads, on a steep mountain. The two places completely command the river, and serve as a point of support to a friendly army, advancing along the Meuse, and as a serious obstruction if the forces belong to the enemy, obliging them to leave behind a corps of observation, which, by the number of that which composes the garrison. The castle and small town of Charlemont were built in 1555, by Charles V., Louis XIV., who had obtained possession of the place by the peace of Nimeguen, as it was capable of containing only two battalions, enlarged it by fortifying the summit of Givet, which lies at the foot of the hill, and by increasing the fortifications of Charlemont. At present, the place consists of four fortresses, two of which, Charlemont, and Great Givet, lies on the left bank of the Meuse, and the other two, Little Givet, and Mont d'Haur, upon the right. Charlemont rises from a narrow rock, which is two hundred feet high, commands almost every direction, descends perpendicularly towards the Meuse, and the west side, on the north, is very steep, and descends with a gentle slope on the east. This last side, the only one on which an attack can be apprehended, is defended by six bastions, a horn and a crown-work, and several detached works. Almost all the masts are hewn in the rock, and well provided with casemates. Great Givet has four bastions and three ravelins with dry ditches. Little Givet contains four bastions, and full ditches, but no covered way; and Mont d'Haur, a hill opposite to Charlemont, is included within the lines of the fortress by a strong crown-work, and may, at the same time, serve as a fortified camp. The fortress is calculated for a garrison of 11,000 men, but, in case of necessity, it contains 55,000, and may be defended by 3,000 men. Though the two Givets and Mont d'Haur would not offer great obstacles to an attack, yet Charlemont is almost impregnable. It has never yet been seriously attacked. The Prussians, indeed, contemplated assaults it, in 1815, but abandoned the design, although the Givets and Mont d'Haur had already capitulated. By the treaty of Paris, it was occupied by a Russian garrison.

CHARLEROY, or CHARLES SUR SAMBRE; a town in the Netherlands, in Namur, on the north side of the river Sambre, in a place formerly called Charnoy; twenty miles E. N. Moss, twenty N. E. Maastricht; lat. 50° 26' N.; long. 4° 38' E.; population, 3,744. It has manufactures of glass, hardware, and woollen stuffs, and in the neighbourhood are extensive pits of turf and coal. It was taken by the French, under general Vauban, in the month of November, 1798, with 4,000 prisoners. It was recovered by the Austrians, in the month of June, 1799, when the French were twice defeated; once with the loss of 4,000 men, and again on July 25, 1794, it again surrendered to the French at discretion, with the garrison of 3,000 men and sixty pieces of cannon.

CHARLES; the name of many important personages, whose lives are here given or referred to, in the following order:

Charles Martel, 148
Charles V., emperor of Germany, 148
Charles V., king of Naples, and king of Spain, 149
Charles VI., emperor of Germany, 152
Charles VI., king of France, 152
Charles the Bold, 153
Charles IX., king of France, 154
Charles I., king of England, 154
Charles II., king of England, 157
Charles Edward Stuart, 158
Charles XII., king of Sweden, 161
Charles XIII., king of Sweden, 161
Charles I., dux of Savoy, 152
Charles I., king of Spain, 151

For the sovereignty of this name not enumerated here, we refer the reader to the history of the countries to which they belong.

CHARLES MARTEL; a son of Pepin Heristel (mayor of the palace under the last kings of the Merovingian dynasty). His father had governed under the weak kings of France with so much justice, and so much to the satisfaction of the people, that he was enabled to make his office hereditary in his family. Chilperic II., king of the Franks, refusing to acknowledge Charles Martel as mayor of the palace, the latter deposed him, and set Clothaire IV. in his place. After the death of Clothaire, he restored Chilperic; and, having been crowned by the pope in the Temple church, showing how absolute was the control of the mayor, and that the royal dignity was a mere phantom. Charles Martel rendered his reign famous by the great victory which he gained, in October, 732, over the Saracens, near Tours, from which he acquired the name of Martel, signifying hammer. He died 741. His son Pepin the Short governed the Franks till the year 752, nominally under the effeminate king Childerich III.; but, in this year, pope Zachary replied to a question put to him by the states of France, that he ought to be king who held the royal power; in consequence, Pepin declared Pepin king at Soissons, in 752. He died in 768, highly honoured by his subjects. His sons were Charles Magne and Charlemain. See Charlemagne.

CHARLES IV., emperor of Germany, of the house of Luxemburg, was born in 1316, and educated at Paris. His father, John of Luxemburg, king of Bohemia, celebrated in history for his chivalric spirit, fell in the battle of Crecy. The quarrels of the emperor Louis the Bavarian with the king of Bohemia, the father of Charles, the choice of the latter, in the room of the emperor, excommunicated by Clement VI., and the victory which Louis, far his superior in power and talents, obtained over his rival, we have not room to relate. After the death of Louis, Oct. 21, 1347, Charles of Luxemburg, who inherited the kingdom of Bohemia, and had been chosen emperor in 1346, by five electors, hoped to occupy the imperial throne without opposition. But the very means which had raised him to the throne created him enemies. The princes of the empire regarded him as a servant of the pope. Ten years had not yet elapsed, since Germany, at the diet of Reine, had adopted the most-liberal, and at that time, the most-cruel, of all the holy sees. The election of Charles IV. was the first infringement of the celebrated constitution of 1338. In consequence, the archbishop of Ments, whom Clement IV. had deposed, the electors of Brandenburg and the palatinate, the duke of Saxe Lauenburg, who arrogated a vote in the election, assembled at Lahnstein, declared the choice of Charles to be void, and elected Edward III. of England, brother-in-law of the last emperor; but this monarch, then at war with France, made use of the offer of the election to secure only as to secure the neutrality of the king of Bohemia, and rejected the proffered crown. Equally fruitless was the choice of Frederic the Severe, landgrave of Meissen; upon which the enemies of Charles elected the virtuous and heroic count Gunther of Schwazburg, whom Charles, as some writers, though without sufficient authority, do not put up a poison. Though surrounded Gunther in his last moments extorted from him an abdication, for which they were munificently paid by Charles, who was as liberal, when the gratification of his ambition was concerned, as he was unjust and unkind, when giving his victims an opportunity of using every effort to appease his enemies. He married the daughter of the elector of the palatinate, gave
the elector of Brandenburg Tyrol as a fief, and was unanimously elected emperor, and consecrated at Aix-la-Chapelle. But no sooner was he crowned, than he took possession of the imperial insignia, and, contrary to his express promise, conveyed them to Bohemia. He persuaded his father-in-law, the elector of the palatinate, to subject a great portion of the upper Palatinate to the feudal court of Bohemian. This tribunal, which he regarded as the most proper instrument for the subjugation of Germany, was enlarged in its jurisdiction more and more. In 1534, the emperor went to Italy, to be crowned by the pope; but this favour he purchased on terms which made him an object of ridicule and contempt. He returned to Germany without any armed force. Having been consecrated, at Milan, king of Italy, he confirmed the Visconti in the possession of all the usurpations of which he had promised to deprive them. He also annulled all the acts of his grandfather, Henry VI., against Florence, and, by a treaty concluded at Padua, resigned the latter city, with Verona and Vicenza, to Venice. Trafficking thus with his rights, he went to Rome, and was crowned by a delegate of the pope, but did not dare to remain there a single day. He refused the request of some Romans, to claim the city, as belonging to him, in the name of the empire, and, in a treaty, renounced all sovereignty over Rome, the States of the Church, Ferrara, Naples, Sicily, Sardinia, and Corsica, and even took an oath not to return to Italy without the consent of the pope. Despised by the Guelphs, detested by the Ghibellines, Charles returned to Germany, where he issued the celebrated golden bull, which, till recently, continued a fundamental law of the German empire. (See Bull.) He thus acquired some claims to the public gratitude; but these were soon effaced by the general indignation, excited by the proposal made, with his consent, by the papal nuncio, to introduce a tax, equal to the tithe of all ecclesiastical revenues, for the benefit of the holy see. All the members of the diet opposed it; and Charles, in his anxiety to conciliate the princes of the empire, announced that he would propose to the assembly a reform of the German church. The pope, enraged at this proposal, exhorted the electors to depose him. Charles immediately relapsed into his accustomed submissiveness, and not only abandoned all his reforms, but even confirmed, in 1539, all the privileges of the clergy, all their present and future possessious, and made them independent of the secular power. He therefore ruled Poland in the contempt of both parties, of which he received a proof before the close of the same diet, which was held at Mentz. Several princes had, by degrees, obtained possession of many territories, formerly fiefs of the empire. Charles attempted to reunite them with the empire; but the dissatisfaction which was manifested at the attempt, frustrated this plan of the weak emperor, who indemnified himself by selling to the king of Poland the rights of sovereignty, which had been hitherto exercised by the German emperors, over some of his provinces. It may be easily supposed that, under such an emperor, Germany did not enjoy internal tranquility. Bands of robbers plundered the country in all quarters. The emperor marched against them without accomplishing any thing; and, finally, left the princes and cities to protect themselves by mutual alliances, as well as they were able. The state of Italy was no less menaced by anarchy. Tuscany was suffering the evils of anarchy; Lombardy was distracted by civil wars, and the Visconti had made themselves masters of the Milanese. The emperor, true to his principle of sanctioning power wherever found, appointed these usurpers his vicars-general in Lombardy. Unbowed by this, Barnabas Visconti threatened to subvert all Italy to his yoke. Pope Urban V. sent an invitation to Charles to concert measures of resistance with him, hastened from Avignon to Rome, concluded several alliances, confirmed many treasures, and waited for the emperor, who actually appeared with a considerable force; and was, in short, so successful in his attempts, that Charles took advantage of the pope's situation to persuade him to crown his fourth wife, Elizabeth of Pomerania, at Rome, and, in return, entered into the most positive engagements with Urban. Notwithstanding this, he again engaged in negotiations with the Visconti, and, at the same time, was engaged in the prosecution of all their usurpations. In like manner, during his residence in Italy, he sold states and cities to the highest bidder, or, if they themselves offered most, made them independent republics. With great treasures, but despised by his enemies, and hated by his allies, he returned to Germany. Gregory XI., having given his consent that his son Wenceslaus should be elected king of the Romans, he employed his ill-gotten wealth to purchase the votes of the electors, who were irritated at the conduct of the pope, and distributed among them, in addition, the domains of the empire on the Rhine, and several of the imperial cities, thus he attained his object. To maintain their rights against the arbitrary measures of the emperor, the imperial cities in Sabia formed the (so called) Staufer league, which Charles opposed in vain. To the pope he manifested his gratitude by extending the privileges of the clergy. The empire was nearly ruined, when Charles died at Prague, in 1378. To his eldest son, Wenceslaus, he left Bohemia and Silesia; to the second, Sigismond, the electorate of Brandenburg; and to the third, Luysia. His reign is remarkable for the improvement and prosperity of Bohemia; for the founding of the universities of Prague and Vienna; for the terrible persecution of the Jews, and as the period when the sale of letters of nobility commenced in Germany. The history of this prince affords a fine illustration of the soundness of the theory of legitimacy. Many of his usurpations having become a part of the "divine right" of the crown. CHARLES V., emperor of Germany and king of Spain (in the latter capacity, he is called Charles I.), the eldest son of Philip, archduke of Austria, and of Joanna, the daughter of Ferdinand and Isabella of Spain, was born at Ghent, Feb. 24, 1500. Philip was the son of the emperor Maximilian I., married to Mary, daughter of Charles the hands, duke of Burgundy. Charles's birth gave him claims to the fairest countries of Europe. He was educated in the Netherlands, under the care of William of Croy, lord of Châlons. Charles preferred military exercises to study. Châlons, without diverting him from his favourite occupations, taught him history, formed him for affairs of state, and implanted in him that gravity by which he retained through life. After the death of Ferdinand, his grandfather, in 1516, Charles assumed the title of king of Spain. The management of this kingdom was intrusted to the celebrated cardinal Ximenes, who, by his genius, prepared the way for the glorious reign of Charles V. In 1519, Maximilian likewise died, and Charles was now elected emperor. He left Spain to take possession of his new dignity, for which he had to contend with Francis I., king of France. His coronation took place at Aix-la-Chapelle, with extraordinary splendour. The elective capitulation (Wahlkapitulation, see Capitulation), signed by his ambassadors, he ratified without hesitation. * This was the title given to the person elected during the lifetime of the emperor, to succeed him after his death.
The chief features of it were the reservations made by the electors, securing themselves against foreign influence. The emperor was not to begin any war without their consent; no language but the German or Latin was to be used in the administration of the affairs of the empire; and the rich commercial confederacies of merchants, whose wealth, as the instrument expressed it, had enabled them to act according to their own will, were to be abolished by the emperor, assisted by the advice of the members of the empire. The association aimed at was the powerful Hanseatic league, whose influence had excited the electors' jealousy. The progress of the reformation in Germany had produced in this quarter of the empire, where it had held a diet at Worms. Luther, who appeared at this diet, with a safe conduct from Charles, defended his cause with energy and boldness. The emperor kept silent; but, after Luther's departure, a severe edict appeared against him, in the name of Charles, who thought it for his advantage to show himself the defender of the Roman church. The claims which Francis I. had advanced to the empire, and those which he still preferred to Italy, the Netherlands, and Navarre, made war appear inevitable. Charles prepared for it by an alliance with the pope. Hostilities were on the point of breaking out in January, 1521. The French, on the other hand, with the sure help of the Pyrenees, were unsuccessful in the Netherlands. A congress held at Calais only increased the irritation, and gave Henry VIII., king of England, a pretext for declaring himself for Charles, whose party daily acquired strength. A serious insurrection in Spain was happily subdued. The defeat of Bonivet, in the Milanese, and the accession of the constable of Bourbon, indemnified Charles V. for his want of success in Provence. Francis, who was besieging Pavia, was defeated by the imperial forces, and taken prisoner, in 1525. On this occasion, Charles feigned the modesty of a Christian hero. Without improving his advantages, he remained inactive in Spain. But he thought to attain his object in another way. He proposed to Francis I. such hard conditions, that this unfortunate prince swore that he would die in captivity, rather than accede to them. Meanwhile, he was carried to Spain, and treated with respect. Charles, however, did not visit him, until he was informed that the life of his prisoner was in danger. The interview was brief. Charles promised his captive a speedy release. The treaty of Madrid was finally concluded in January, 1526.

The power of Charles now became a source of uneasiness to most other princes of Europe. Pope Clement VII. placed himself at the head of a league of the principal states of Italy against the emperor; but their ill-directed efforts were productive of new misfortunes. Rome was taken by storm by the troops of the constable. Charles, sacking, and the pope himself made prisoner. Charles V. publicly disavowed the proceedings of the constable, went into mourning with his court, and carried his hypocrisy so far as to order prayers for the deliverance of the pope. On restoring the holy father to liberty, he demanded a ransom of 500,000 crowns of gold, but was satisfied with a quarter of that sum. He also released, for 2,000,000, the French princes, who had been given to him as hostages. Henry VIII. of England now allied himself with the French monarch against Charles, who suddenly proposed to Francis of breaking his word, given on the honour of his faith. The bishop of Liége was thought to have challenged a duel, which did not, however, take place. The war was terminated in 1523, by the treaty of Cambrai, of which the conditions were favourable to the emperor. Charles soon after left Spain, and was received in Burgundy as king of Lombardy and Roman emperor. On the occasion of this solemnity, the proud Charles kissed the feet of the same pope who had been his prisoner. In 1530, he seemed desirous, at the diet of Augsburg, to reconcile the various parties; but, not succeeding, he issued a decree against the Protestants, which they met by the Smalcalde league. He also published, in 1532, the imperial edict against heresy. (See Carolina.) Notwithstanding his undertakings in favour of the Catholic religion, Charles always showed himself moderate towards the Protestants, whenever his interest left room for Toleration. Nor did the Protestant princes hesitate to furnish their contingents, when he was assailed by an army against them. Having compelled Solyman to retreat, he undertook, in 1553, an expedition against Tunis, reinstated the day, and released 20,000 Christian slaves. This success added to his character somewhat of the chivalric, which gave him still more influence in Christendom, and promoted his political projects. He manifested this chivalrous spirit still more in a speech, which he made at Rome, before the pope and cardinals, when hostilities were renewed in Italy against France. In this he proposed a duel, in which the duchy of Burgundy on the one part, and the duchy of Milan on the other, were to be the prize; but, on the following day, he expressed himself in a manner to the French ambassador, that it was suspected that his challenge was only a figure of speech. His invasions of Provence and Picardy met with small success. A truce was concluded in 1537, and, in 1538, prolonged for ten years. The two monarchs had an interview, in which they spoke only of mutual respect and esteem. Soon after, Charles, who was in Spain, where he had annulled the old constitution of the cortes, wished to pass through France to the Netherlands. He spent six days with Francis I. in Paris where the two princes appeared together in all public places like brothers. Courtiers were not wanting who advised the king of France to detain his guest, until he had annulled the treaty of Madrid; but Francis was satisfied with promises, which Charles very soon forgot. Having quelled the disturbances in the Netherlands, Charles resolved, in 1541, to crown his reputation by the conquest of Algiers. Against Doria's advice, he embarked in the stormy season, and lost a part of his fleet and army, without gaining any advantage. After his return, his refusal to invest the king of France with the territory of Milan involved him in a new war, in which the king of England left this part to the emperor. Charles was defeated at Cerisola; but, on the other hand, he penetrated to the heart of Champagne. The disturbances caused in Germany by the reformation induced the emperor to acceele to the peace of Crespy, in 1545. The policy of Charles was to reconcile the two parties, and, towards the Protestants, he employed alternately threats and promises. After some show of negotiation, the Protestant princes raised the standard of war. The emperor declared, in 1546, the heads of the league under the ban of the empire, excited divisions among the confederates, collected an army in haste, and obtained several advantages over his enemies. John Federic, the elector of Saxony, was taken prisoner in the battle of Mühlberg, in 1547. Charles received him sternly, and gave him over to a court-martial, consisting of Italians and Spaniards, under the presidency of Alva, which condemned him to death, cut off his head, and exhibited this example to his predecessors. Nevertheless, his enmity to the emperor began to subsist. John Frederic of Saxony, having, during a short period, obtained a great em-
grave of Luther, and said, "I do not war with the dead: let him rest in peace: he is already before his Judge." The landgrave of Hesse Cassel, one of the heads of the Protestants, was compelled to sue for mercy: notwithstanding his promise, Charles deprived him of his freedom. After having dissolved the league of Smalcald, the emperor again occupied himself with perpetual religious parties, and for this purpose, issued the Interim (q. v.), so called, which was as fruitless as the measures proposed by him at the diet of Augsburg. Neither was he successful in securing the imperial crown to his son. Matters still agitated public mind, and of the war broke out against him. Maurice of Saxony, whom he had invested with the electoral dignity, formed a league, which was joined by Henry II., king of France, the successor of Francis. The preparations had been made with the greatest secrecy. Charles was at Innspruck, superintending the deliberations of the council of Trent, and meditating great plans against France and Turkey. He was expecting the aid of Maurice, when this prince threw off the mask, appeared suddenly at the head of an army, and invaded the Tyrol in 1552, while Henry II. entered Lorraine. Charles was now surprised at Innspruck, in the middle of a stormy night. Tormented by the gout, he escaped alone, in a litter, by difficult roads. Maurice abandoned the imperial castle to plunder, the council of Trent was dissolved, and the Protestants dictated the conditions of the treaty of Passau, in 1555. Charles was not more insatiable in Lorraine. He was unable to recover Metz, defended by the duke of Guise. In Italy, he lost Sienna, by a revolt. He withdrew to Brussels, where, hard pressed by his enemies, and suffering from the gout, he became gloomy and dejected, and, for several months, concealed himself from the sight of every one, so that the report of his death was spread through Europe. His last exertions were directed against France, which constantly repelled his assaults. The diet of Augsburg, in 1555, confirmed the treaty of Passau, and gave the Protestants equal rights with the Catholics.

Charles saw all his plans frustrated, and the number of his enemies increasing. He resolved to transfer his hereditary states to his son Philip. Having convened the estates of the Low countries at Louvain, in 1555, he explained to them the reasons of his resolution, asserted that he had sacrificed himself for their interests and religion, and of his subjects, but that his strength was inadequate to further exertion, and that he should devote to God the remainder of his days. He then turned to Philip, who had thrown himself on his knees, and kissed the hand of his father; reminded him of his duties, and made him swear to labour incessantly for the good of the people. He then gave him his blessing, embraced him, and sunk back exhausted on his chair. At that time, Charles conferred on Philip the sovereignty of the Netherlands alone. Jan. 15, 1556, he conferred upon him, in like manner, the Spanish throne, reserving for himself merely a pension of 100,000 ducats. The remaining time that he spent in the Netherlands, he employed in reconciling his son with France, and effected the conclusion of a truce. Having made an unsuccessful attempt to induce his brother Ferdinand to transfer the imperial crown to the head of his son, he sent a solemn embassy to Germany, to announce to the electors his abdication; after which he embarked at Zealand, and landed on the coast of Biscay. It is said that he threw himself on the earth on landing, kissed it, and exclaimed, "Naked I left the cradle, naked another man must now return to thee, thou common mother of mankind." He had selected for his residence the monastery of St Justus, near Placentia, in Estremadura, and here he died on the 10th of July, 1558. His amusements were confined to short rides, to the cultivation of a garden, and to mechanical labours. It is said that he made wonderful clocks, and, being unable to make two clocks go exactly alike, would remind the number of his efforts to his successors. A number of men to the same amount. He attended religious services twice every day, read books of devotion, and, by degrees, fell into such dejection, that his faculties seemed to suffer from it. He renounced the most innocent pleasures, and observed the most severe rules of the monastic life, and their rigour. In order to perform an extraordinary act of piety, he resolved to celebrate his own obsequies. Wrapped in a shroud, and surrounded by his retinue, he laid himself in a coffin, which was placed in the middle of the church. The funeral service was performed, and the monarch mingled his voice with those of the clergy, who prayed for him. After the last sprinkling, all withdrew, and the doors were closed. He remained some time in the coffin, then rose, threw himself before the altar, and returned to his cell, where he spent the night in deep meditation. The day following, he died. He was attacked by a fever, of which he died at the age of fifty-nine years, Sept. 21, 1558. Charles had a noble air, and refined manners. He spoke little, and smiled seldom. Firm of purpose; slow to decide; prompt to execute; equally rich in resource and sagacious in the choice of them; gifted with a cool judgment, and always master of himself, he steadily pursued his purposes, and easily triumphed over obstacles. Circumstances developed his genius, and made him great. Although his want of faith was notorious, he imposed, by the semblance of his authority, an enervating decrepitude; and even those who had already experienced his perplexity. An acute judge of men, he knew how to use them for his purposes. It is improbable that it was his intention to establish a universal monarchy. In misfortune he appears greater than in prosperity. He protected and encouraged the arts and sciences, and is said to have picked up a brush, which had fallen from the hand of Titian, with the words, "Titian is worthy of being served by an emperor." By his wife Eleonora, daughter of Emanuel, king of Portugal, he had one son, afterwards Philip II., and two daughters. He had, also, several natural children. Charles V. is one of the most remarkable characters in history. He exhibited no talents in his youth, and, in after life, when his armies in Italy were winning battle after battle, he remained quietly in Spain, apparently not much interested in these victories; but, even in his early youth, his motto was, non fatigandus. It was not till his thirtieth year, that he showed himself active and independent; but, from this time to his abdication, he was, throughout, a monarch. No minister had a marked influence over him. He was indefatigable in business, weighing the reasons on both sides of every case with great minuteness; very slow in deciding; unchangeable in purpose; so that he was once said to a courtier, who praised him for his perseverance and firmness, that he sometimes insisted upon things not right. Granvelle was the only person who possessed his entire confidence. (See Granvelle). William the Silent, had initiated the customs of the country, and won the favour of every people except the Germans. Among them he was not liked, owing to his want of the frankness which they expected in their emperor. Charles was slow in punishing, as well as in rewarding; but, when he did punish, he was very severe, and inflicted the most cruel and inhuman punishment with munificence. His health early declined. In his fortieth year, he felt himself weak. His suf-
ferings from the gout were extreme: he could not even open a letter without pain. After his mother's death, he thought sometimes that he heard her voice, calling to him to follow her. It is said that, when aiming for battle, he trembled in the very heart of the Turkish army, as cool as if it were impossible for an emperor to be killed. We know of no work, in which the character of Charles has been delineated with more truth than in the valuable production of Mr. Bkaune, professor in the university of Berlin.—The Princes and Nations of the South of Europe in the sixteenth and seventeenth centuries (Hamburg, 1837). Among the numerous sources of the history of Charles V., we would mention Hombury's Aus durchaus ungedruckten Papieren, in his Archiv. für Gegen. Historie, &c. (Jahrg. 1810). The work of Robertson is too well known to need recommendation.

CHARLES VI., the second son of the emperor Leopold I., was born Oct. 1, 1685. His father destined him for the Spanish throne. The last prince of the house of Hapsburg, Charles II., disregarding the honor of Austria, whose rights to the Spanish throne were of course of no importance, was dispossessed by the acceded, according to the law of inheritance by descent, had, by his will, made Philip, duke of Anjou, second grandson of Louis XIV., heir of the Spanish monarchy, and, after the death of Charles II., Nov. 1, 1700, Philip had taken possession of the vacant throne. England, a despotic nation, was not disposed against him, and this alliance was soon joined by the German empire, Portugal, and Savoy. Charles was proclaimed king of Spain, at Vienna, in 1703, and proceeded, by way of Holland, to England, from whence, in January, 1704, he set sail, with 12,000 men, for Spain, which was almost wholly occupied by the French, and landed in Catalonia. He succeeded in making himself master of Barcelona; but he was soon besieged there by his rival Philip V. The French had already taken Mont Joye, preparations were making for an assault on the city, and it seemed as if Charles could not escape being captured. Nevertheless, at the head of a garrison of hardly 2000 men, he made the most obstinate resistance, till the long-expected English fleet appeared, which put to flight the twelve French ships that blockaded the harbour, and landed a body of troops, which compelled the French to raise the siege. This event was followed by alternates of reverses and successes. Twice Charles reached Madrid, and twice he was driven from the city. The first time, in 1706, he caused himself to be proclaimed king, in the capital, under the name of Charles III. He had been a second time compelled to flee to the walls of Barcelona, when he was informed of the death of his brother Joseph I. According to the will of Leopold, this event placed the double crown of Charles V. on his head; to his claims on Spain, it added the more certain possession of the Austrian dominions. But the allies were averse to seeing so much power united in the same hands. Charles paried to Germany by way of Italy, and, on his arrival, learned that, at Eugene's suggestion, he had also been elected emperor. His coronation took place at Frankfort, in December, 1711; and, in the following year, he received, at Tresburg, the crown of Hungary. At the same time, he still retained the empty title of king of Spain. He now prosecuted, under the conduct of Eugene, the Spanish war of succession, which his brother had carried on with so much success in the Netherlands; but Marlborough's disasters, and the resolution of the Elector, having resulted in a defeat at Denain, the allies concluded a peace with France at Utrecht, in 1713, in spite of all the efforts of the emperor to prevent it. He was obliged, in the following year, to sign the treaty of Rastadt. This treaty secured him in the possession of Milun, Mantua, Sardinia, and the Netherlands. Soon after, in June, 1715, the Turks declared war against Venice. The emperor undertook the defence of the city. The Turks, joined by Eugene, achieved decisive victories at Peterwardein and Belgrade. But, as the Spaniards menaced Italy, Charles concluded, in 1718, the peace of Passarowicz, by which he obtained Belgrade, the north of Servia, and Temesvar. Cardinal Alberoni, who was at the head of the cabinet of Madrid, involved Austria, by his schemes, in a new war. But the quadruple alliance, concluded at London in 1718, terminated the war with the removal of this minister, in 1720. To secure his dominions to his daughter Maria Theresa, in default of male heirs, Charles strove to induce the various powers to guarantee the pragramatic sanction, which settled the succession in her favour. He succeeded, by degrees, in gaining the concurrence of all the European powers. The emperor availed himself of a short period of peace to establish various institutions for the benefit of commerce. He visited, in person, the ports of Ostria, where he caused roads and harbours to be constructed, and vessels to be built. His plans respecting the Indian trade in the Netherlands had not the same success, and he was compelled to sacrifice them to the pretensions of the maritime powers. The results of this new and valuable project, was marked with perpetual agitations. The succession to the Polish throne, after the death of Augustus H., in 1733, disturbed the peace of Europe. Charles, with Russia, supported the son of this prince; but France and Spain declared themselves in favor of Stanislaus Leszczyński. From this arose a bloody war, which terminated, in 1735, in the loss of the Two Sicilies and a part of the duchy of Milan. Austria received Tuscany in exchange for Lorraine, and obtained Parma. Hardly had Charles finished this war, when his alliance with Russia involved him anew in a war with the Turks. In 1737, his troops, under field-marshall Sckendorf, invaded Servia, without any declaration of war, and occupied Nissa. But the Turks renewed their attacks with a continually augmented force, and obliged the emperor, after three unsuccessful campaigns, to cede to them, by the peace of Belgrade, in 1739, the greater part of the Austrian possessions in Servia, and Belgrade. Charles died Oct. 20, 1740, at a time when he was employed in the improvement of his distracted finances, and was about putting the last hand to the pragmatic sanction, by causing the grand-duke of Tuscany, his son-in-law, to be chosen king of the Romans.

CHARLES VII. (properly Charles Albert), king of the Romans, born at Brussels, in the year 1697, was the son of Maximillian Emanuel, elector of Bavaria, then governor of the Spanish Netherlands. His youth was spent at the imperial court, and, in the war against the Turks, he commanded the army of auxiliaries sent by his father. In 1722, he married the daughter of Joseph I., having previously renounced all rights which this marriage might give him to the succession to the throne of Austria. In 1726, he succeeded his father as elector of Bavaria. He was one of the princes who prosecuted against the pragramatic sanction, guaranteed, in 1732, by the diet of Ratisbon, and, in consequence, concluded a defensive alliance with Saxony. After the death of Charles VI. (q. v.), in 1740, he refused to acknowledge Maria Theresa as his heiress, founding his own unsuccessful claim on the throne. But, in the same year, Alba was declared the heir of the house of Austria; and Charles was elected king of the Romans. He was supported by the king of France, with a considerable force. In 1741, he was recognized, at Lintz, as archduke of Austria. The obstacles thrown in his way by cardinal Fleury, who
wished not to dismember the Austrian monarchy, as well as the want of artillery and ammunition, prevented him from getting possession of Vienna. On the other hand, he took Prague, where he was crowned and proclaimed king of Bohemia. In 1472, he was unanimously elected king of the Romans; he made Gui de Faucigny, an archbishop of the city of Ghent, his chancellor, and the kingrowned by his brother, the elector of Cologne. But fortune soon deserted him. The armies of Maria Theresa reconquered all Upper Austria, and overwhelmed Bavaria. It was necessary to abandon Bohemia.

Charles fled to Frankfort, and convoking a diet as king of France and archbishop of Artois, Maria Theresa allowed him to return to Munich in 1744, in which city he died in January, 1745, exhausted by grief and disease. He was succeeded in the electorate by his son Maxmillian Joseph, in the imperial dignity by Francis I., husband of Maria Theresa.

CHARLES THE BOLD, duke of Burgundy, son of Philip the Good and Isabella of Portugal, born at Dijon, Nov. 14, 1433, at first bore the name of count of Charolais, under which he distinguished himself in the battles of Rupelmonde, in 1452, and of Nancy in 1474; but he was of a suspicious disposition, sometimes breaking out into fury; and early displayed that unhappy ambition, which was the source of his errors and misfortunes. His dislike of the lords of the house of Croy, the favour of his father, was insurmountable; and, being unable to secure his disgrace, he flew from the court, and went to Holland. He was again reconciled, however, with his father, whom he inspired with his own hatred of Louis XI., and placed himself at the head of the party then forming against that monarch. Having passed through Flanders and Artois, he crossed the Somme at the head of 50,000 men, and appeared before Paris. The bishop of the city, Alain Chartier, to reproach him for waging war against his sovereign. But the heir of Burgundy answered, "Tell your master, that against a prince who makes use of the dagger and poison, there are always sufficient grounds of war, and that, in marching against him, one is very sure of finding, on their way, companions enough. Moreover, I have taken up arms solely at the urgent request of the people, nobility, and princes: these are my accomplices!" Louis met him at Montlhery. Charles broke through one wing of the royal army, and allowed himself to be carried on too far in pursuit of the fugitives. Surrounded by fifteen gens d'armes, who had already killed his master of the horse, he received a wound, but refused to surrender; performed prodigies of valour, and thus gave his soldiers time to come to his release. From this time, Charles conceived so high an opinion of his talents for war, that the greatest reverses could not cure him of it. He succeeded his father in 1467, and immediately engaged in a war with the citizens of Liege, whom he conquered and treated with extreme severity. Before this undertaking, he had been obliged to restore to the citizens of Ghent the privileges which had been taken from them by Philip the Good. He now revoked his forced concessions, caused the leaders of the insurrection to be executed, and imposed a large fine on the city. In 1468, he married Margaret of York, sister of the king of England, and resolved immediately to renew the civil war in France; but Louis disarmed him by giving him 120,000 crowns of gold. October 3d of the same year, the monarch and the duke had a meeting at Peronne, in order to adjust their differences. There the duke learned that the inhabitants of Liege, instigated by the king of France, had declared themselves masters of Tongres. Charles was enraged. In vain did Louis on oath protest his inno-
CHARLES.

gave René time to come up with 20,000 men. On the approach of this army, he deserted, with his troops, to the enemy, so that the army of Charles now consisted of only 4000 men. Against the advice of his council, Charles persisted in risking battle with unexpected force, on the 5th or 6th Jan., 1477 (John von Muller himself is in doubt respecting the day), the two armies met: the wing of the Burgundian was broken through and dispersed, and the centre, commanded by the duke in person, was attacked in front and flank. As Charles was putting on his helmet, the head lion, which served for a crest, fell to the ground, and he exclaimed, with surprise, "Ecco magnum signum Dei!" Defeated, and carried along with the current of fugitives, he fell, with his horse, into a ditch, where he was killed by the thrust of a lance, in the forty-fourth year of his age. His body, covered with blood and mire, and with the head imbedded in the ice, was not found till two days after the battle, when it was so disfigured that for some time his own brothers did not recognize it. He was finally known by the length of his beard and mals (which he had suffered to grow since his defeat at Moral), as well as by his doublet, which was seized in the battle of Montherl. With this prince expired the feudal government in Burgundy.

Charles was not without good qualities. In the government of his people, we find no traces of the severity with which he treated himself, and his disposition made him attentive to the administration of justice. He was buried at Nancy, at the command of the duke of Lorraine. In 1560, Charles V., his great-grandson, caused his remains to be conveyed to Bruges. He was married three times, but left only one daughter, Maria, heiress of Burgundy, by Isabella of Bourbon, his second wife (See Maximilian II.).—Compare the work of the baron de Barante, peer of France, Hist. des Dues de Bourgogne de la Maison de Vélos (Paris, 1824, 10 vols.). In Quentin Durward, Sir Walter Scott has described the character of Charles, and some of the quarrels between him and Louis of France.

CHARLES VII., king of France. See France, and Joan of Arc.

CHARLES IX., king of France, son of Henry II. and Catharine of Medici, born in 1550, at St Germain-en-Laye, ascended the throne at the age of ten years, in the birth of his brother Francis II. No regency was appointed, and it was deemed sufficient to write to the parlement, through the young prince, that he had requested his mother to undertake the administration of the public affairs; and the parlement acquiesced in this resolution, to avoid exciting new contentions between the Guises and the princes of the blood. Catharine consented that the king of Navarre should be appointed governor-general of the realm, as she was too well aware of the weakness of his character to fear it. In order to gratify her ambition, she resolved to let nothing into confusion. (See Catharine de Medici.)—The Guises soon saw that they must oppose a Catholic league to the political associations of the Calvinists. (See Guise.)—The cruel persecutions against the Huguenots now broke out. (See Bartholomew's Day, St.)—The duke of Guise, who obtained possession of the person of the young king, was shot by an assassin before Orleans, in February, 1568. In his last moments, he advised the king and the queen mother to negotiate with the parties. This advice was followed; a treaty was signed, March 19, and Havre was taken from the English. The king, who was the same year declared of age, visited the provinces in company with his mother. At Bayonne, he had a meeting with his sister Isabella, the wife of Philip II. of Spain. This excited such suspicions in the Calvinists, that they took up arms, and immediately formed the plan of attacking the king on his return to Paris. Being warned in season, he escaped the danger; but this plot could not fail to arouse the hatred of Charles, who was avenged by nature, and not to forget the blame cast upon him for his too great confidence in his artful mother. After the battle of St Denis, 1567, in which the constable of Montmorenci lost his life, Catharine entered into negotiations for peace. But the Calvinists reserved a part of the places which they were to have surrendered, and continued to keep up a communication with England and the German princes. A new civil war soon broke out. Notwithstanding the jealousy of Charles, Catharine placed the duke of Anjou at the head of the royal army. The prince of Condé having been shot in the battle of Jarnac, in 1569, and the admiral Coligni having been defeated at Montcontour, in the same year, the king concluded peace, in 1570, on terms which were so favourable to the Calvinists, that they seem even to have suspected treachery under them. The heads of that party did not therefore all appear at court when Charles II. entered, and was received in the palace of his daughter of Maximilian II. By degrees this distrust disappeared, and the marriage of the young king of Navarre (afterwards Henry IV.) with Margaret, sister of Charles IX., seemed to banish every suspicion. This marriage took place August 18, 1572. On the 24th of the same month, the admiral Coligni, and on the 24th that massacre known under the name of the massacre of St Bartholomew's, from having taken place on the night of the festival of that saint. Civil war broke out for the fourth time, and Catharine now became aware of the errors of her policy. Charles could no longer conceal his aversion to her, and was on the point of assuming himself the reins of government, when he died, childless, in 1574. He was succeeded by his brother Henry III. Charles was brave, indefatigable, ambitious, of a lively, penetrating genius, and loved the sciences. The cruelties which disgrace his reign should be laid to the charge of his mother rather than himself.

CHARLES I., king of England and Scotland, was born in Scotland, in the year 1600, and was the second son of James VI. and Anne of Denmark. Soon after the birth of his brother, Prince Henry, who was born in England, and, upon the death of prince Henry, in 1612, Charles was created prince of Wales. His youth appears to have passed respectfully, little being recorded of him previously to his romantic journey into Spain in company with Buckingham, in order to pay his court in person to the Spanish infanta. Through the arrogance of Buckingham, this match was prevented, and the prince was soon after contracted to Henrietta Maria, daughter of Henry IV. of France. In 1625, he succeeded to the throne, on the death of his father, and received the kingdom embroiled in a Spanish war, and full of suspicion and dislike to the minister Buckingham. The first parliament which he summoned, being much more disposed to state grievances than grant supplies, was dissolved; and, by loans and other expedients, an expedition was fitted out against Spain, which terminated in disgrace and disappointment. In the next year, a new parliament was summoned; and the dispute and jealousy, which prevailed between the king and this assembly, laid the foundation of the misfortunes of his reign. The house of commons impeached the minister, and the king supported him. They held fast the public offices, and could not bear with the same counsellors, should they continue to resist his will, and suddenly and angrily dissolved them, after a short session, while they were preparing a remonstrance
against the levying of tonnage and poundage without due consent of parliament, Charles, that began to employ his threatened mode of raising funds, by loans, benevolences, and similar unpopular proceedings; which, however partially sanctioned by precedent, were wholly opposed to the rising notions of civil liberty throughout the nation, and to the constitutional doctrine which regulated the consorts of the guardian and dispenser of the public treasure. His difficulties were further increased by a preposterous war with France, intended to gratify the private em- bition of Buckingham, who added to the odium against him by an ill-fated expedition in assistance of the insurgents.

In 1628, the king was obliged to call a new parliament, which showed itself as much opposed to arbitrary measures as its predecessor, and, after voting the supplies, prepared a bill, called "A petition of right, recognising all the legal privileges of the subject," which, notwithstanding the employment of all manner of arts and expedients to avoid it, Charles was constrained to pass into a law; and, had the concession been unequivocal and sincere, and the constitutional mode of government, which it implied, been really adopted by both sides, much that followed might have been averted. Charles, however, by his open encouragement of the doctrines of such divines as Sibbthorpe and Mainwaring, who publicly inculcated the doctrine of passive obedience, and represented all limitation of kingly power as seditious and impious, too clearly sanctioned the jealousy of the commons, who would not, in consequence, rest in confidence or slacken their attacks upon Bucking- ham, on which account they were suddenly pro- rogued. The assassination of the favourite soon after, by the enthusiast Felton, removed one source of discord, and Charles became more his own minis- ter; and some differences with his queen, which had been fomented by Buckingham, being made up, he ever after continued much under her influence. The parliament which met in January, 1628, manifested so determined a spirit against the king's claim of levying tonnage and poundage by his own authority, that it was suddenly dissolved, and Charles was de- termined to try to begin without one. For this pur- pose, having judiciously terminated the pending wars between France and Spain, he raised Sir Thomas Wentworth, afterwards so celebrated as lord Strat- ford, to the principal place in his councils. This able statesman had begun his political career in opposi- tion, and was not in a hurry to get into the government, by his austerity, talent, and firmness, an exceedingly fit instrument to curb the spirit of resistance to prerogative, which had become so strong among the commons. In ecclesiastical affairs, Charles, unhap- ply for himself and the church, was guided by the counsels of Laud, then bishop of London, a Prelate whose learning and piety were delasied by superstition and a zeal as indigreent as intolerant. Under these counsels, some years passed away in the execution of plans for raising money without the aid of parliament, with other dangerous expedients. The antiquary courts of high commission and star cham- ber, in the hands of Laud, also exercised, in many instances, the most grievous oppression; of which the treatment of Williams, bishop of Lincoln, and others, affords memorable examples. In 1634, ship- money began to be levied, which being strictly ap- plied, was very successfully considered. And in such instance, the king was, with less than usual repugnance; and some writers, who courageously attacked the court against the principle, were treated with so much severity, that others were deterred from following their example. So desperate did the cause of liberty at this time appear, that great numbers of the puritans emi- grated to New England; and, by order of the court, a ship was fitted from the navy, with their Arthurl Hazlrag, John Hampden, and Oliver Crom- well. It was in 1637, not long after this remarkable event, that Hampden commenced the career of re- sistance by refusing to pay ship-money; the right to levy which, without authority of parliament, he was determined to bring before a court of law. His cause was argued for twelve days in the court of exche- quer; and, although he lost it by the decision of eight of the judges out of twelve, the discussion of the question was followed by the most important con- sequences in its operation upon public opinion. It was the time in which, however, this avaricious opposition was destined to commence. From the beginning of his reign, Charles had endeavoured to introduce into that country a liturgy copied from the English—an innovation which produced the most vio- lent tumults, and ended in the formation of the famous seamen, or, by 1638, by which all classes of people mu- tually engaged to stand by each other. The Cen- nameters levied an army, which the king opposed by an ill-disciplined English force, so equivo- cally in- clined, that, not able to trust it, Charles agreed to a sort of pacification. The next year, he raised an- other army, of his own armament; after an intermission of eleven years, he again assembled a parliament, which, as usual, began to state grievances previously to granting supplies. Losing all patience, the king once more hastily dissolved it, and prose- cuted several members who had distinguished them- selves by their opposition. Raising money in the best manner he could devise, an English army was again made to proceed towards the north; but, be- ing defeated by the Scots, it became obvious that af- fairs could no longer be managed without a parlia- ment, and, in 1640, that dreaded assembly was again summoned, which proved to be the famous long parliament, whose career forms so memorable a portion of English history. It is not within the limits of this work to give an account of the proceedings connected with the prosecution, condemnation, and execution of Strafford and Laud, or the various measures of re- action in regard to ship-money, tonnage, and pound- age, and the abolition of the iniquitous courts of high commission, and star chamber: suffice it to say, that Charles soon found himself reduced to a compara- tively passive spectator of the ascendency of the de- mocraetic portion of the constitution, and was ob- liged, both in Scotland and in England, to yield to the torrent. He was at first disarmed, but, in the mean- time, a flame burst out in Ireland, which had no small effect in kindling the ensuing conflagration at home. The oppressed Catholic popu- lation of that country, during the confusion of the times, rose against the government for the purpose of regaining their rights. Very exaggerated accounts of the massacre of the Protestants are to be found in several of the historians. Later writers have esta- blished the fact, that the number who perished in this insurrection was very limited. The old Catholic settlers of the English pale joined the native Irish, and, to strengthen their cause, pretended to have a royal commission, and to act in defence of the king's prerogative against a puritanical and republican par- liament. This pretended commission is now gene- rally deemed a forgery; but such was the supposed partiality of Charles to popery, that this event added considerably to the disadvantage of the government. Being summoned, the king left the conduct of the war entirely to it; but it now became evident that the commons intended systematically to pursue their advantages, and to reduce the crown to a state of complete dependence. They framed a remonstrance, containing a recapitulation of all the errors of the
regain; renewed an attempt for excluding bishops from the house of lords; passed ordinances against pernicious practices; and so inflamed the popular odium against the Episcopalian orders, as to intimidate its members from attending to their duty in parliament.

At length, it being apparent that either the zealous adherents, or those who were anxious to establish the government upon a more democratic basis, must give way, Charles, instigated, it is supposed, by the injudicious advice of his queen and lord Digby, caused his attorney-general to enter, in the house of peers, an accusation against five leading members of the king's affairs, and sent a sergeant-at-arms to the house to demand them. Receiving an evasive answer, he, the next day, proceeded himself to the house, with an armed retinue, to seize their persons. Aware of this intention, they had previously withdrawn; but the king's appearance with a guard caused the house to break up in great disorder and indignation. The accused members retired into the city, where a committee of the house was appointed to sit, and the city militia was mustered under a commander appointed by parliament, which also demanded the control of the army. Here the king hesitated, the many members which now engaged at a point which arms alone alone could decide. The queen fled to Holland to procure ammunition, and Charles, with the prince of Wales, proceeded northwards, and, for a time, fixed his residence at York. The king was received in his progress with great demonstrations of loyalty from the generality; and many eminent and virtuous characters, who had been the conscientious opposers of his arbitrary measures in the first instance, now joined his party. On the other hand, all the Puritans, the inhabitants of the great trading towns, and those who had adopted republican notions of government, sided with the parliament; and in no public contest was more private and public virtue ranged on both sides, however alloyed, as in all such cases, with ambition, bigotry, and the baser passions. The first action of consequence was the battle of Edgehill, which, although indecisive, enabled the king to approach London, and produce considerable alarm. He then retired to Oxford, and negotiations were entered into which proved unavailing. Nothing decisive, however, happened against the royal side, until the battle of Marston-moor, in 1644, which was gained chiefly by the skill and valour of Cromwell. The succeeding year completed the ruin of the king's forces, by the loss of the celebrated battle of Naseby.

Thenceforward a series of disasters attended his armies throughout the kingdom, and he took the resolution of throwing himself into the hands of the Scottish army, then lying before Newark. He was received with respect, although placed under guard as a prisoner; and, a series of abortive negotiations ensuing, an agreement was made with the parliament to surrender him to their commissioners, on the payment of a large sum, claimed as arrears by the Scottish army. The king was accordingly surrendered to the commissioners appointed, and was carried, in the first place, to Holmby-house, in Northamptonshire; subsequently, to the head-quarters of the army at Reading, and, soon after, to Hampton-court, where he was treated with no small portion of the respect exacted by his station. In the mean time, however, the army and nation were suffering all along for want of funds, to some fears for his personal safety, and, making his escape with a few attendants, proceeded to the southern coast. Not meeting a vessel, as he expected, he crossed over to the Isle of Wight, and put himself under the hands of Hammond, the governor, a creature of Cromwell's, by whom he was lodged in Carisbrook castle.

While in this remote situation, the Scots, ashamed of the manner in which they had delivered him up, and indignant at the proceedings of the English marched a considerable army to his relief, under the duke of Hamilton. This force, although strengthened by a large body of English royalists, was entirely routed by the English parliament. Wight, from his refusal to comply with him, that a vote was at length carried, that the king's concessions were a sufficient ground for a treaty. The triumphant army, however, on its return, cleared the house by force of all the members opposed to its views; and, thereby procuring a reversal of this vote, the king's person was again seized, and, being brought from the Isle of Wight to Hurst castle, preparations were made for trying him on the capital charge of high treason against the people. As the house of lords refused to concur in a vote for this purpose, the commons declared its concurrence unnecessary, and, accordingly, the king, who was stripped of all ensigns of royalty, was brought before the court of justice, specially erected for this unprecedented trial, on the 20th of Jan., 1649.

The behaviour of Charles had been calm and dignified throughout his adversity, and in no respect was it more so than on this occasion. Three times he rejected to the authority of the court, when brought before it, and supported his refusal by clear and cogent arguments. At length, evidence being heard against him, on the proof that he had appeared in arms against the parliamentary forces, sentence of death was pronounced, and he was committed to the Tower. He received a conference with both houses, which was rejected, and only three days were allowed him to prepare for his fate. As he left the tribunal, he was insulted by a portion of the soldiery, and other base and unpardonable indignities were offered to him, which he bore with dignified equanimity. The interposition of foreign powers, the devotion of friends and ministers, who sought to save him by taking all the blame upon themselves, were vain. After passing three days, between his condemnation and execution, in religious exercises, and in tender interviews with his friends and family, he was led to the scaffold. His execution took place the same day, at Banqueting-house, on the 30th of Jan., 1649, where, after addressing the people around him with great firmness and composed, the ill-fated king submitted to the fatal stroke.

Thus died Charles I., in the forty-ninth year of his age, than whom few kings have been more distinguished for the virtues which ornament and dignify private life. He was, in an eminent degree, temperate, chaste, and religious, and, although somewhat cold and reserved in demeanour, was, in fact, highly kind and affectionate, and secured the warmest attachment of those who had access to him. His talents were also considerable; but he shone more in suffering than in acting, and was deficient in the decision and self-reliance, which are necessary to superior executive ability. His mind was cultivated by letters, and a taste for the polite arts, particularly painting, the professors of which he munificently encouraged; and they heaped upon him all the panegyrics which his talents were fit to receive. He, in prosperity, show great judgment in the selection. He had also a feeling for poetry, and wrote in a good style in prose, without reference to the famous Ekdon Basileik, his claim to which is now generally disputed. To all these personal and private acquirements, he joined a graceful figure and pleasing comeliness, and, under happier circumstances, would
Charles. 157

...doubtless have been regarded as a very accomplished sovereign.

In respect to his political character, as exhibited in the great struggle between himself and the parliament, it is impossible not to perceive that he strove to maintain a portion of prerogative that had become incompatible with any theory of civil and religious liberty; but it is equally certain that he only sought those portions which his predecessors had possessed, and what power never concedes willingly. There are periods, possibly, in the history of every people, in which old and new opinions conflict, and a concusion becomes unavoidable; and it was the misfortune of Charles to occupy the throne at a time when the development of the representative system necessarily encountered the claims of prerogative. If the parliament had acquiesced in the kingly pretensions, as usually explained by Laud and the high-churchmen of the day, it would have dwindled into a mere registry of royal edicts, like those of France. On the other hand, Charles acted a part which every monarch in his situation, may be expected to act; for a philosophical appreciation of the true nature of a political crisis is scarcely to be expected from one who sits upon a throne. The most forcible accusation against Charles is on the score of insincerity. It has been asserted, that he never intended to fulfill the conditions imposed upon him. This can scarcely be denied; but it is equally certain that some of them might justly be deemed questionable, if not demanded with a direct view to produce that conduct in the king which so naturally followed. On the whole, though many may demur to his title of martyr, few will hesitate to regard him as a victim to a crisis which the growing power of the commons, and the unsettled nature of the prerogative, rendered sooner or later inevitable. His fate, like that of the house of Stuart generally, exposes the danger and absurdity of those high theoretical notions of kingly prerogative, which, while they add very little to the real power of those whom they are intended to favour, too frequently seduce them into encounters with currents of principle and action, a resistance to which is always futile, and generally destructive.

Charles II., king of England, Ireland, and Scotland, son of Charles I., and Henrietta Maria of France, was born in 1630. He was a refugee at the Hague on the death of his father, on which he immediately assumed the royal title. He first intended to proceed to Ireland, but was prevented by the progress of Cromwell. He then returned to the Continent, and was received in the person of his brother, who had proclaimed him their king; and, being obli-
ged to throw himself into the hands of the rigid Presbyterianists, they subjected him to many severities and mortifications, which caused him to regard that secret ever after with extreme aversion. In 1651, he was crowned at Scone; but the approach of Cromwell, with his conquering army, soon rendered his abode in Scotland unsafe. Hoping to be joined by the English royalists, he took the spirited resolution of passing Cromwell, and entering England. He was immediately overtaken by the adherents of the elder Charles, who, with a superior army, gained the battle of Worcester; and Charles, after a variety of imminent hazards, in one of which he was sheltered for twenty-four hours in the branches of a spreading oak, reached Shoreham, in Sussex, and effected a passage to France. He passed some years in Paris, little regarded by the court, which was awed by the power of the English commonwealth; and this indignity induced him to retire to Cologne.

It is the province of history to state the circumstances that produced the restoration, which general Monk so conducted, that Charles, without a struggle, succeeded at once to all those dangerous prerogatives, which it had cost the nation so much blood and treachery to remove. This unrestrictive return was not more injurious to the nation than fatal to the family of the Stuarts, which, had a more rational policy prevailed, might have occupied the throne at this moment. On the 29th of May, 1660, Charles entered his capital amidst universal and almost frantic acclamations; and the different civil and religious parties vied with each other in loyalty and submission. His first measures were prudent and conciliatory. Hyde, lord Clarendon, was made chancellor and prime-minister; and an act of indemnity was passed, from which those alone were excepted who were immediately concerned in the late king's death. A settled revenue was accepted in lieu of wardship and purveyance, and the army was reduced. In respect to religion, there was less indulgence; for not only were prelacy and the parliamentary rights of bishops restored, which was to be expected, but an act of uniformity was passed, by the conditions of which nearly all the Presbyterian clergy were driven to a resignation of their livings. In 1662, he married the infant of Portugal, a prudent and virtuous princess, but in no way calculated to acquire the affection of a man like Charles. The indolence of his temper, and the ease of his con-

centious way of life, soon involved him in pecuniary difficulties; and the unpopular sale of Duatkirk to the French was one of his most early expedients to relieve himself. In 1663, a rupture took place with Holland, which, as it proceeded from commercial rivalry, was willingly supported by parliament. It was |attended, in the first instance, by various naval successes; but, France and Denmark entering into the war, as allies of the Dutch, the English were overmatched, and a Dutch fleet entered the Thames, and, proceeding up the Medway, burned and destroyed ships as high as Chatham. Such was the naval disgrace of a reign, which, on many other accounts, is probably the most nationally discreditable one in the English annals. The domestic calamities of a dreadful plague, in 1665, and of the great fire of London, in 1666, added to the disasters of the period. Soon after, Clarendon, who had become very unpopular, and was personally disagreeable to Charles, was dismissed, and sought shelter from his enemies by a voluntary exile. A triple alliance between England, Holland, and Sweden, for the purpose of checking the ambition of Louis XIV., followed. It did however prevent the political purposes of William of Orange, and was one of the few public measures of the reign which deserve approbation. The thoughtless profusion of Charles, however, soon brought him into a condition which rendered him the mere pensioner of Louis, by whose secret aid he was supported in all his attempts to abridge the freedom of his people. In 1670, he threw himself into the hands of the five unprincipled ministers, collectively denominated the cabal, who supported him in every attempt to make himself independent of parliament. A visit which Charles received from his father, the duke of Orleans, was rendered subservient to French policy, by means of one of her attendant ladies, a beautiful Frenchwoman. This female made, as was intended, a conquest of Charles, who created her duchess of Portsmouth; and, amidst all his other attachments, retained in his hand the power which kept him steadily attached to France.

The party troubles of this reign commenced, about this time, by the open declaration of the duke of York, presumptive heir to the crown, that he was a convert to the Roman Catholic religion. Soon after, the ministry broke the triple alliance, and planned a
rupture with the Dutch; and, as the king did not choose to apply to parliament for money to carry on the projected business, the government next year was shut up in January, 1672, and, by several other disgraceful and arbitrary proceedings, gave great distress and alarm to the nation. The naval operations against the Dutch were by no means successful, and, a new parliament being called, which strongly expressed its disapprobation of the nation, the civil war was dissolved, and a separate peace made with Holland in 1674. Divisions in the cabinet, fluctuations in the king's measures, and parliamentary contests, followed, and occupied the next three years, until, in 1677, Charles performed a popular act, by marrying his niece, the princess Mary, in the prince of Orange. By taking some decided steps in favour of the Dutch, he also forwarded the peace of Nimeguen, in 1678. The same year was distinguished by the pretended discovery of the celebrated popish plot, for the assassination of the king, and the introduction of the Catholic religion. Notwithstanding the infamous characters of Oates and Bedloe, and the improbable nature of their disclosures, their tale, supported by the general suspicion of the secret influence of a Catholic faction, met with universal belief; and, in relation thereto, the parliament exhibited nearly as much credulity and heat as the vulgar. Many Catholic lords were committed; Coleman, the duke of York's secretary, and several priests, were hanged; and a venerable nobleman, the earl of Stafford, was beheaded. The duke of York thought fit to retire to Brussels, and a bill for his inclusion from the throne passed the house of commons. Such was the state of the country, that Charles was obliged to give way to some popular measures, and the great palladium of civil liberty, the habeas corpus bill, passed during this session. The temper of the parliament was produced excited, that the king first proposed and then dissolved it. The court now sought to establish a balance of parties; to distinguish which, the terms whig and tory were about this time invented.

In 1680, a new parliament assembled, and the commons again passed the exclusion bill, which was rejected by the lords. This parliament was also dissolved in the next year, and a new one called at Oxford, which proved so restif; that a sudden dissolution of it ensued; and, like his father, Charles determined henceforward to govern without one. By the aid of the tory gentry and the clergy, he obtained loyal addresses from lords and peers, and an attachment to high monarchical principles came again into vogue. The charge of plots and conspiracies was now brought against the Presbyterians. A person named College was executed upon the same infamous evidence as had been previously turned against the Catholics; and the famous earl of Shaftesbury, who headed the popular party, was brought to trial, but acquitted. The nonconformists, generally, were also treated with much rigour; and a step of great moment, in the progress to arbitrary power, was the instituting suits at law (quaestiones) against most of the communications in the kingdom, by which they were intimidated to a resignation of their charters, in order to receive them back so modelled as to render them much more dependent than before. These rapid strides towards the destruction of liberty at last led to the celebrated Ryedale plot, the parties to which appeared from the most respectable classes; but that the assassination of the king was ever formally projected seems very doubtful. It certainly formed no part of the intention of lord William Russell, whose execution, with that of Algernon Sidney, on the same occasion, forms one of the striking events of this disgraceful reign.

Charles was, at this time, as absolute as any sovereign in Europe; and, had he been an active prince, the fetters of tyranny might have been completely riveted. Scotland, which, at different periods of its reign, had been driven into insurrection by the arbitrary attempts to restore Episcopacy, was at length completely dragooned into submission; and the relics of the Covenanters were suppressed with circumstances of great barbarity. It is said, indeed, that Charles was becoming uneasy at this plan, which was chiefly supported by the bigoted austerity of the duke of York; and that he had made a resolution to relax, when he expired, from the consequences of an apoplectic fit, in Feb., 1685, in the twentieth year of his age, and the twenty-fifth of his reign. At his death, he received the sacrament, according to the rites of the Roman church, and thus proved himself to have been, during the whole of his life, as hypocritical as profligate.

The character of Charles II. requires little analysis. He was a confirmed sensualist and voluptuary; and, owing to the example of him and his court, his reign was the era of the most dissolute manners that ever prevailed in England. The stage was an open school of licentiousness, and polite literature was altogether infected by it. Charles was a good judge of certain kinds of writing, but was too deficient in sensibility to feel either the sublime or the beautiful, in composition; neither was he generous even to the writers whom he applauded. He possessed an easy good nature, but united with it a total indifference to the views of others, his own pleasure; and no man could be more destitute of honour or generosity. His ideas of the relation between king and subject, were evinced by his observation on Lauderdale's cruelties in Scotland: "I perceive," said he, "that Lauderdale has been guilty of many bad things against the people of Scotland; but I cannot find that he has acted in any thing contrary to my interest." Yet, with all his selfishness and demerits as a king, Charles always preserved a share of popularity with the multitude, from the easiness of his manners. Pepys' memoirs, and other private documents, however, clearly show the opinion of the more reflecting portion of his subjects; and it is now pretty generally admitted, that, as he was himself a most dishonourable and heartless monarch and man, so his reign exhibited the English character in a more disgraceful light than any other in British history. It need not be added, that he left many marks of good in the public mind, and some of whom are still among the leading peacocks of the country. The fate of his most distinguished son, the ill-fated duke of Monmouth, is an affair of history.

CHARLES EDWARD STUART, called the Pretender, grandson of James II., king of England, son of James Edward and Clementia, daughter of prince Sobiesky, was born in 1720, at Rome, where his father enjoyed the friendship of the popes Clement XI. and Innocent XIII. The last scion of the royal house of Stuart, from the very cradle he was inspired with an impulse, that inclined him, at the early age of twenty-two, to attempt the recovery of the throne of his ancestors. Supported by the court of Rome, he went to Paris in 1742, disguised as a Spanish courier, and succeeded in gaining over to his views Louis XV. 15,000 men, who, under the command of the comte de Tilly, from Dunkirk, landed in England, when the English admiral Norris dispersed the whole French fleet, before it had gained the open sea. This prevented the French court from undertaking a second expedition; all the requests of Edward were in vain, and he now resolved to cast his own lot with the House of Hanover, with borrowed money, and seven trusty officers, he landed like a
CHARLES.

knight-errant, June 27, 1745, on the north-western coast of Scotland, from a ship of eighteen guns which contained arms for 1500 men. The attempt succeeded, and he found so many adherents among the discontented Scottish nobles, who went over to his party, together with the Highlanders under them, that he was soon at the head of a little army in the interior of Scotland. He then encountered the British troops, which advanced to meet him from Edinburgh, captured Perth, and caused himself to be proclaimed regent of England, Scotland, and Ireland. He also took Edinburgh, Sept. 19, 1745, where he was once more proclaimed, and surrounded himself with his ministers and generals. Scotland, 21, 1745, the British defeated him at Prestonpans, with an army of 4000 British. He set the prisoners at liberty. His force was now 7000 strong. With this he advanced, and laid siege to Carlisle, Nov. 26, which, after three days, surrendered, and supplied him with a great number of arms. He now caused his father to be proclaimed king, and himself regent of England, removed his head-quarters to Manchester, and soon found himself within 100 miles of London, where many of his friends awaited his arrival. The rapid successes of the adventurer made the British government tremble; and a part of the British forces in France was hurried away to counteract the ambition and jealousy among the adherents of the house of Stuart. Some errors, and the superior force opposed to him, compelled prince Edward to retire in the beginning of 1746. The victory at Falkirk (January 23, 1746) was his last. As a final attempt, he risked the battle of Culloden, against the duke of Cumberland, April 27, 1746, in which his army was defeated, and entirely dispersed. The prince now wandered about for a long time through the wilds of Scotland, often without food, and the price of £300,000 sterling was set upon his head. He was at last discovered by his most faithful friend O'Neil, a Scottish policeman; they escaped detection by selling, in a miserable skiff, from island to island, and wandering from valley to valley, pursued by a thousand dangers; for constant search was made for Charles in every direction. At Lochnaneach, he was fortunate enough to meet one of the French frigates, which had been sent for the pursuit of the prince. He joined her five months after the defeat of Culloden, and sailed from Scotland, and arrived in France, destitute of every thing. By theinterest of madame de Pompadour, prince Edward now received an annual pension of 200,000 livres for life; he had also £12,000 doublons yearly from Spain. The situation in which he was placed, in his own country, of all prospect of recovering the throne of Britain; and when he heard that his own removal from France was stipulated in the articles of peace, his anger knew no bounds. It became necessary to carry him, under a guard, to the frontiers of Italy. He went to Rome, the residence of his father. James III., but his relations to the Roman court were changed after his father's death, January 1, 1746. His often ridiculous requests in regard to the etiquette to be observed towards him, which he made under the name of count of Albany, rendered his presence troublesome. He went to Florence, till Pitt VI. recalled him to Rome, by withdrawing his pension. That his family might not become extinct, he married in the fifty-second year of his age, April 17, 1747, a princess of Stolberg-Gedern. But his violence led to a separation, in 1780. (See Albany.) Edward now became addicted to intoxication. He died January 31, 1786, in the sixty-eighth year of his life. Three years before, he sent for his natural daughter from France, legitimated her, and declared her, on his royal authority, his lawful heiress, under the title of countess of Albany. His body was carried to Frascati, and entombed in a style worthy of a king. A sceptre, crown, sword, and the escutcheon of England and Scotland, adorned his coffin, and his only brother then living, the cardinal of York, performed the funeral service for "dead king Charles." The cardinal of York received from Britain an annual pension of £4000 sterling, from the year 1749, and died on July 13, 1807. The Stuarts ruled in Scotland 400 years, and in England eighty-five years.

CHARLES XI., king of Sweden, born at Stockholm, June 27, 1682, was well instructed in the languages, history, geography, and mathematics. He understood German, Latin, and French. Curtius' history of Augustus was his Augusteum, and he read Tacitus' last. After his father's death he was, in 1707, when he was fifteen years old, he was declared of age by the estates. Meanwhile, the young king showed but little inclination for business: he loved violent bodily exercises, and especially the chase of the bear. To his jealous neighbors, this seemed a favourable time to humble the pride of Sweden in the north. Frederic IV. of Denmark, Augustus II. of Poland, and the czar Peter I. of Russia, concluded an alliance which resulted in the northern war, so called. The Danish troops first invaded the territory of the duke of Holstein-Gottorp. This prince, who had married the eldest sister of the king of Sweden, repaired to Holm, and asked for assistance. Charles had a particular attachment for him, and proposed, in the council of state, the most energetic measures against Denmark. After making some arrangements respecting the internal administration, he embarked at Carlshage in May, 1700. Thirty ships of the line, and a great number of small transports, strengthened by an English and Dutch squadron, appeared before Copenhagen. Arrangements were made for the disembarkation, when Charles, full of impatience, plunged from his boat into the water, and was the first who reached land. The Danes retired before the superior power of the enemy. Copenhagen was on the point of being besieged, when the peace negotiated at Travenjul was signed (Aug. 8, 1700), by which the duke of Holstein was confirmed in all the rights of which it had been attempted to deprive him. Thus the war for the succession of the House of Charles XI., which he exhibited as much intelligence and courage as disinterestedness. He adopted, at this time, that severe and temperate mode of life, to which he ever remained true, avoiding relaxation and useless amusements; wine was banished from his table; at times coarse bread was his only food; he placed a cloak on his head, a bundle of newspapers, and a button with copper buttons, was his whole wardrobe; he wore large boots, reaching above his knees, and gloves of buffalo skin. With respect to the female sex, he manifested the greatest indifference, and no woman ever had any influence over him.

After this checking Denmark, the attacks of Augustus and Peter were to be repelled. The former was besieging Riga, the latter menaced Narva and the country situated about the gulf of Finland. Without returning to his capital, which, in fact, he never revisited, Charles caused 20,000 men to be transported to Livonia, and went to meet the Russians, whom he found, 80,000 strong, in a fortified camp, under the walls of Narva. On the 30th November, 1700, between eight and ten thousand Swedes placed themselves in order of battle, under the fire of the Russians, and the engagement began. On the previous evening, Peter had left his camp, in presence of bringing up reinforcements. In less than a quarter of an hour, the Russian camp was taken by storm. Thirty thousand Russians perished on the field or threw themselves into the Narva; the rest were taken prisoners or dispersed. After this
victorious, Charles crossed the Dvina, attacked the encampments of the Saxons, and gained a decisive victory. Charles might now have concluded a peace, which would have made him the arbiter of the North; but, instead of so doing, he pursued Augustus to Poland, and determined to take advantage of the discontent of a great part of the nation, for the purpose of detaining him. Augustus attempted in vain to enter into negotiations; in vain did the count Konigsmark, mistress of Augustus, endeavour to obtain an interview with Charles, and disarm the Swedish hero by her beauty. Charles refused to negotiate with the king, or to speak with the countess.

The war continued: the Swedes gained a brilliant victory at Clessau; in 1703, all Poland was in the possession of the conquerors; the cardinal primate declared the throne vacant; and, by the influence of Charles, the new choice fell on Stanislaus Leczinsky. Augustus hoped to be secure in Saxony, as Peter had meanwhile occupied Ingrin, and founded St. Petersburg, at the mouth of the Neva. But the victor of Narva despised an enemy on whom he hoped, sooner or later, to take an easy revenge, and invaded Saxony. At Altranstadt (q. v.), he dictated the conditions of peace, in 1706. The Livonian Party, in a moment, put to flight the prince and his troops, who were entangled in the desert, and were unable to bear arms.

In 1707, the Swedes left Saxony. They were 43,000 strong, well clothed, well disciplined, and enriched by the contributions imposed on the conquered. Six thousand men remained for the protection of the king of Poland: with the rest of the army Charles took the shortest route to Moscow. But, having been informed of the danger to Smolbock, altered his plan, at the suggestion of the Cossack hetman Mazeppa, and proceeded to the Ukraine, in the hope that the Cossacks would join him. But Peter laid waste their country, and the proscribed Mazeppa could not procure the promised aid. The difficult marches, the want of provisions, the perpetual attacks of the enemy, and the severe cold, weakened Charles's army in an uncommon degree. General Lowenhaupt, who was to bring reinforcements and provisions from Livonia, arrived with only a few troops, extinguished by the march, and by continual skirmishes with the Russians. Pulawa, abundantly furnished with stores, was about to be invested; when Peter appeared with 70,000 men. Charles, in reconnoitring, was dangerously wounded in the thigh; consequently, in the battle of June 27th, O. S. (July 8th), 1709, which changed the fortunes of the Swedish hero and the fate of the North, he was obliged to issue his commands from a litter, without being able to encourage his soldiers by his presence. This, and still more the want of agreement between Renschild and Lowenhaupt, were the reasons why the Swedes did not display their usual skill in manoeuvring, which had so often given them the victory. They were ob-
Charles, 161

Rusins, and Prussians immediately invested Stralsund. Charles performed, during the defence, miracles of bravery. But, being obliged to surrender the fortress, on Dec. 15, 1715, he proceeded to Lund, in Schonen, and took measures to secure the coast. He then attacked Norway. The baron of Gorts, whose bold but ill-judged enterprise was the cause of the revolution of the Swedish monarchy, was, at that time, his confidential friend. His advice was, that Charles should gain Peter the Great to the interest of Sweden by important concessions, make himself master of Norway, and from thence, to press against, in order to dethrone George I., who had declared himself against Charles. Gorts discovered resources for prosecuting the war, and entered into negotiations, at Aaland, with the plenipotentiaries of the czar. Peter was already gained, and a part of Norway conquered; the fortunes of Sweden seemed to assume a favorable aspect; Charles was besieging Fredericsham, when, on Nov. 30, 1718, as he was in the trenches, leaning against the parapet, and examining the workmen, he was struck on the head by a cannon ball. He was found dead in the same position on his horse. In his hand lay the portrait of Gustavus Adolphus and a prayer book. It is more than probable, that the ball which killed him was fired, not from the fortress, but from the Swedish side. His adjutant, Sigurier, has been accused as an accomplice in his murder. A century afterwards, Nov. 30, 1818, a monument was raised to be erected on the spot where he fell.

At Charles's death, Sweden sunk from the rank of a leading power. In his last years, he had formed great plans for the improvement of its navy, trade, and commerce. At Lund, he often conversed with the professors of the university, and attended public disputations on geometry, mechanics, and history. In Bender, the reading of useful books was one of his principal employments: he sent for Swedish scholars, and caused them to travel through Greece and Asia. Accounts of some of these travels have been printed; there are others in manuscript at Upsal. Firmness, valour, and love of justice were the grand features of Charles's character, but were disfigured by an obstinate rashness. After his return, he showed himself more peacable, gentle, moderate, and disposed to politic measures. Posteriority, considering him in relation to his times, will say that he had great virtues, but that he had not the same degree of prudence, which is a great need in a great prince. On him he bestowed his entire confidence. May 27, 1811, he founded the order of Charles XIII., which is conferred solely on free-masons of high degree. June 21, 1816, he ascended the holy alliance. His prudent conduct in the war between France and Russia, 1812, procured Sweden an indemnification for Finland by the acquisition of Norway, Nov. 4, 1814. Although some disappointed nobles may have given utterance to murmurs against his government, Charles XIII. nevertheless enjoyed the love of his people till his death, Feb. 5, 1818.

Charles Emanuel I., duke of Savoy, was born at the castle of Rivoli, in 1562. He proved his courage in the battles of Monbrun, Vigo, Asti, Châtillon, Ostante, at the siege of Berne, and on the walls of Suza. He formed, in 1590, the plan of uniting Provence to his dominions. Philip II. of Spain, his father-in-law, obliged the parliament of Aix to acknowledge him as the protector of this province, in order, by this example, to induce France to acknowledge the king of Spain as protector of the whole realm. The duke of Savoy, not less ambitious, likewise aimed at this crown; and after the death of Matthias, desired also to be chosen emperor. He resolved to conquer the kingdom of Cyprus, and to take possession of Macedonia, the inhabitants of which, opposed by the Turks, offered him the sovereignty over their country. The citizens of Geneva were obliged to defend their city, in 1592, against this ambitious prince, who fell upon them by night, in time of peace (See Geneva). Henry IV., who had reason to complain of the duke, and whose general, the duke of Lesdiguiere, had beaten Charles Emmanuel several times, entered, at last, into a treaty of peace with him, not disadvantageous to the duke of Savoy; but he could not remain quiet, and began against a war with France, Spain, and Germany. He died of chagrin, at Savilllon, 1630. He is one of those princes who render the surname of Great suspicious. His heart was as hard as his native rocks. He built palaces and churches, loved and patronized the sciences, but thought little of making them sources of happiness.

Charles III., king of Spain. See Charles V. Charles IV., king of Spain, born at Naples, 12th Nov., 1740, came to Madrid in 1759, when his father, Charles III., after the death of his brother, Ferdinand VI., was appointed to the throne. He succeeded him Dec. 13, 1788. He was married to the princess of Parma, Louisa Maria. Too imbecile.
to govern, he was always ruled by his wife and his ministers, among whom the prince of peace, Godoy (q.v.), duke of Alcudia, from the year 1792, had unbounded influence over him. The hatred which this favourite drew on himself from the prince of Asturias, and other granals, brought about his abdication in 1813, and the natural desire to dethrone the Bourbons (See Spain). Charles abdicated at Aranjuez, March 19, revoked this abdication, and finally ceded, at Bayonne, his right to the throne to Napoleon, who settled on him for life the province of Compiègne and a pension of thirty millions of francs, which two millions were for the queen’s jointure. Charles after this lived at Compiègne with the queen and the prince of peace, but subsequently exchanged this residence for Rome, where the climate was more congenial to him. From 1815, he occupied the palace of Barberini, in this city. Hunting he always made his principal employment. He died at Naples, Jan. 10, 1819, of a relapse of the gout, while on a visit to his brother, the King of the Two Sicilies. His wife died a short time previous, in Dec., 1818. Charles was an immense enter.

CHARLES AUGUSTUS of Weimar. See Weimar.

CHARLES RIVER; a river in Massachusetts, which flows into Boston harbor, dividing Boston from Charlestown. The source of the principal branch is a pond bordering on Hopkinton. It is navigable for lighters and large boats to Watertown, seven miles.

CHARLESTON; a city and seaport of South Carolina, in a district of the same name; 120 miles S.S.E. Columbus, 118 N.E. Savannah, 590 S.S.W. Baltimore; lon. 79° 54’ W.; lat. 32° 47’ N.; population in 1790, 14,290; in 1800, 18,712; in 1810, 24,711; in 1820, 11,688 whites, and 13,040 blacks; in 1830, 38,474 whites, 5,635 free whites, 12,552 slaves, 1,475 free people of colour: in 1830, 30,289. It is situated on a tongue of land formed by the confluence of the rivers Cooper and Ashley, which unite just below the city, and form a spacious and convenient harbor, communicating with the ocean below Sullivan’s island, seven miles from Charleston. At the mouth of the harbor, there extends, from shore to shore, a sand-bank, dangerous to vessels, but having two channels, the deepest of which has sixteen feet of water at low tide. The harbour is defended by fort Pinkney and fort Johnson, which are the innermost, and the latter two, and the latter two, miles below the city; and by fort Moultrie on Sullivan’s island. Charleston contains a city-hall, an exchange, a custom-house, a guard-house, a theatre, an orphan house, an hospital, an alms-house, two arsenals, two markets, a college, and nineteen houses of public worship, four for Episcopalians, three for Presbyterians, three for Methodists, two for Congregationalists, one for Lutherans, two for Roman Catholics, one for French Protestants, one for Baptists, one for Friends, and a Jews’ synagogue. The Charleston library contains about 13,000 volumes. The orphan asylum is a noble and well endowed institution, which supports and educates nearly 200 orphan children. There are several other charitable societies richly endowed, particularly the South Carolina society, the St. Andrew’s society, and the Fellowship society, instituted for the relief of widows and orphans. The city is regularly laid out in parallel streets, which are intersected by others nearly at right angles. The tongue of land, on which it is built, was originally indented with creeks and narrow marshes, which have been filled up; and it is drier and more elevated than most parts of the low country. The wash-board forms are of stone, built, and elegant, and furnished with pinaxes. It is much the largest town in the state, and was formerly the seat of government. It has an extensive commerce. The shipping owned here, in 1816, amounted to 36,473 tons; in 1820, to 28,405 tons. That dreadful distemper, the yellow fever, has made frequent ravages in Charleston; but its effects have been chiefly confined to persons from more northern stations; and the climate is praised by many as the healthiest in the union, more so than that of most other Atlantic towns in the Southern States. Its superior salubrity attracts the planters from the surrounding country, and it is the favourite resort of the wealthy from the West Indies. It affords much agreeable society, and is regarded as one of the most elegant towns in the United States. See Carolina, South.

CHARLESTOWN; a post-town in Middlesex county, Massachusetts, one mile north of the centre of Boston; population, in 1820, 6591. The principal part of the town is finely situated on a peninsula, formed by Charles and Mystic rivers, which here flow into Boston harbour. Charlestown is connected with Boston by two bridges across Charles river; with Chelsea and Maiden by two others across Mystic river, and with Cambridge by a bridge across a bay of Charles river. It is a pleasing and flourishing town, and is situated on the county line. Mass., with a climate advantageously situated for trade and manufactures. The principal public buildings are the state prison, the Massachusetts hospital for insane, a market-house, alms-house, and five houses of public worship. One of the principal navy-yards in the United States occupies about sixty acres of land, in the southeast part of this town. It is enclosed, on the land side, by a wall of solid masonry, and contains, besides other buildings, several arsenals, magazines of public stores, and three immense edifices, each sufficiently capacious to receive a ship of 100 guns, with all the apparatus and equipment for a large residence.

Bunker hill, on which was fought one of the most celebrated battles of the American revolution, is in this town. (For an account of the events which brought on the battle, see Massachusetts and United States.) The British army in Boston had been increased to about 10,000 men, by the arrival of reinforcements, towards the end of May, 1775, and was under the command of general Gage, governor of Massachusetts bay, generals Howe, Clinton, Burgoyne, &c. The American army of citizen-soldiers amounted to about 15,000 men, enlisted for a few months, about 10,000 of whom were armed with smooth-bore muskets, and the other 5000 with fowling-pieces, but few of them provided with bayonets. The whole was under the command of general Ward, of Massachusetts, whose head-quarters were at Cambridge. The right wing, under brigadier-general Thomas, occupied the heights of Bexly-brary; the left, under colonel Stark, was stationed at Medford. The city of Boston is built on a small peninsula, having the town of Charlestown, also built on a peninsula, and separated from it by a narrow arm of the sea, about 1500 feet wide, on the north. The heights of Charlestown, Breed’s hill (sixty-two feet high) and Bunker hill (110 feet high, about 130 rods N.W. of the former), command the city. The Americans having received information of the intention of the British to occupy these heights, and advance into the country, orders were issued to colonel Prescott (June 16) to take possession of Bunker hill in the evening, and erect the fortifications requisite to defend it. General Putnam had the superintendence of the expedition. Finding, on their arrival, that, though Bunker hill was the most commanding position, it was too far from the enemy to annoy his shipping and army, the British commander determined about 4 a.m. to begin their labours soon after midnight. Everything had been conducted with so much silence, that the British were not aware
of their presence till daybreak, when the ships of war and floating batteries, which lay in the harbour of Charlestown, together with a battery on Copp's hill, opened a heavy fire on the redoubt which had been constructed on a perpendicular hill, and was, meanwhile, continued their labour, until they had thrown up a small breastwork, extending north, from the east side of the redoubt, to the bottom of the hill. About one o'clock, the British, under general Howe, landed at Morton's point, in Charlestown, without opposition. Here they waited for reinforcements, which arrived soon after. The whole number amounted to about 5000 men, with six field-pieces and howitzers. The original detachment of provincials amounted to 1000 men, with two field-pieces. They had been reinforced by about the same number, among whom were the New Hampshire troops, under colonel Stark. General Pomeroy, and general Warren, president of the provincial congress, joined the ranks as volunteers. The troops on the open ground formed a cover from the musketry of the enemy, by pulling up the rail fences, placing them at small distances apart in parallel lines, and filling up the intervening space with new-mown grass. The British columns now moved forward, under general Howe, to the attack of the rail fence, and, under general Pigot, to attack the breastwork and redoubt. In the afternoon, the breaches within the redoubt were untimely filled, according to the words of Putnam, "they saw the white of their enemies' eyes." The British were repulsed with great loss. Had they charged, they would probably have been more successful, as the American troops were almost entirely destitute of bayonets. A second attack, during which the village of Charlestown was burned to the ground, was attended with the same result. But the Americans had nearly expended their ammunition, and their communication with the main army was interrupted by the fire of the floating batteries, which enfiladed Charlestown neck. The English now rallied for a third attack, determined to concentrate their forces on the redoubt and breastwork, and to charge; at the same time, their artillery turned the left of the breastwork, enfiladed the line, and sent their balls directly into the redoubt. The Americans, after resisting with stones and bags of sand, retired under a heavy fire. They were, however, not pursued very warmly, and drew off with an insensible loss. They had 115 killed, among whom was general Warren, 305 wounded, and 30 made prisoners. The British loss was 1054 killed and wounded. June 17, 1815, the 47th anniversary of this battle was commemorated by a public celebration, and the corner-stone of the Bunker hill monument was laid.

CHARLEVOIX—CHARLOTTEVILLE.

163

A French Jesuit, was born at St Quentin, in 1682, and taught languages and philosophy with some reputation. He was, for some years, a missionary in America, and, on his return, had a chief share in the Journal de Trévoux for twenty-two years. He died in 1761, greatly esteemed for his high moral character and extensive learning. Of his works, the Histoire Générale de la Nouvelle France is the most valuable. This describes his own experience, and the manners and customs of the native Americans, for which he is often quoted, as a writer of good authority. His style is simple and unaffected, but not perfectly correct.

CHARLOTTE AUGUSTA, daughter of queen Caroline and George IV., and the wife of prince Leopold of Coburg, was born at Carlton house, Jan. 7, 1796, and passed the first years of her life under the eye of her mother, who watched over her with the fondest affection. She was afterwards placed under the care of lady Clifford, and the bishop of Exeter su-

perintended her studies. These were calculated to prepare her to become, one day, the queen of a great nation, and she was obliged to attend to them from morning to evening. She is said to have been well acquainted with the literature of different nations, and well versed in the history and statistics of the European states, especially with the constitution and laws of her native country. She spoke, with ease, French, German, Italian, and Spanish, sung well, played on the harp, piano, and guitar, and sketched landscapes from nature with much taste. Her style of writing was pleasing, and she was fond of poetry. In the unfortunate dissensions between her father and mother, she inclined to the side of the latter. The prince of Orange was fixed upon as her future husband, and the nation desired their union, because the prince had been educated in England, and was acquainted with the customs and interests of the people.

After having completed his studies at the university of Oxford, he had served in the British army in Spain, and distinguished himself. The union, however, was prevented by the disinclination of the princess. In the mean time, she was introduced at court, in 1815, on her nineteenth birthday. The princess, who, in any situation, would have been an ornament to her sex, displayed an ardent but generous disposition, and independence and loftiness of spirit. She was loved and respected by Elisabeth, and the princess was the model of an English queen; and some persons even thought there was a resemblance between them. In 1814, prince Leopold of Coburg visited England, in the suite of the allied sovereigns, who went to London after the peace of Paris. His cultivated mind and amiable manners having made an impression on the heart of the princess, he was permitted to sue for her hand. Their marriage, the result of personal inclination, was solemnized May 5, 1816. The prince (whom Napoleon declared, at St Helen, one of the finest men he had ever seen) loved her with tenderness. They were always together, rode out in company, visited the cottages of the country people, and exhibited a pleasing picture of conjugal love. They seldom left Claremont, and only went to London when their presence at court was necessary. Their domestic life resembled that of a private family; and the evenings the evenings were devoted to music or reading. Meanwhile, the nation anxiously expected the moment when the princess, who was highly beloved, should become a mother. The expectations which had been entertained, however, were disappointed by a premature and violent death. The princess died, Aug. 30, 1817; and it is believed she died of consumption, of which she had some time been affected.

A Frenchman, who had attended her shot himself.

CHARLOTTENBURG; a residence of the king of Prussia, built by Sophia Charlotte, the first queen of Prussia, on the banks of the Spree, about three miles from Berlin, with a beautiful garden. The town, which has lately grown up, contains 450 houses, of which a large number are public houses, and 4700 inhabitants. A beautiful walk leads through the park of Berlin to Charlottenburg, which is a favourite resort of the citizens of Berlin. In the garden adjoining the castle is the tomb of the late queen Louisa, by the statuary Rauch.

CHASTELLUCHE; a town and capital of Alenarue county, Virginia; lat. 38° 2' N.; lon. 78° 52' W. It is very pleasantly situated, one mile from the Rivanna, and is laid out in squares of three or four acres. The university of Virginia was established here, by the legislature, in 1817. The buildings comprise ten pavilions, for the accommo-
dation of professors; 109 dormitories and six hotels, for the lodging and dicting of the students. The site is a little distance out of the village, and occupies 200 acres. The institution is to receive annually, from the Virginia lottery fund, the sum of $15,000 dollars.

CHARON, in mythology, the son of Erebus and Nox. It was his office to ferry the dead, in his crazy boat, over the dark flood of Acheron, over Cocytus, resonating with the doleful lamentations of the dead, and, finally, over the Styx, dreaded even by the immortals. The shades were each obliged to pay him an obolus, which was put, at the time of burial, into the mouth of the deceased. Those who could not pay the fare, or had been so unfortunate as to find no grave in the upper world, were compelled to wander on the desolate banks of the Acheron, till Charon was pleased to carry them over to their final resting-place. He was represented as an old man, with a gloomy aspect, matted beard, and tattered garments. Respecting the Egyptian origin of this fable, see Cemetry, and Egyptian Mythology.

CHAROST (Amélie Joséphine de Betheuze), duke of, born at Versailles, in 1728, a worthy descendant of his great ancestor Sully, distinguished himself, on many occasions, in the military service of his country. He was the friend and father of his soldiers, and rewarded the brave from his own resources. In 1763, he sent all his fortune to the mint, to supply the necessities of the state. The peace concluded in 1763 restored him to a more quiet sphere of usefulness; yet he did not discontinue his favours towards the soldiers whom he had commanded. He was particularly active in the promotion of agriculture and public institutions. Long before the revolution, he abolished the feudal services on his estates, and wrote against feudal instruction. He established charitable institutions in sundry parishes, provided for the support and instruction of orphans, employed physicians and midwives, founded and liberally endowed an hospital. In a year of death, he imported grains into Calais at his own expense. In the provincial assemblies, he spoke against the convótes. In the assembly of the notables, he declared himself for an equal distribution of the public burdens. The revolution broke out. Before the decree relative to a patriotic contribution appeared, he made a voluntary present of 100,000 dollars. During the reign of terror, he retired to Melling, where he was arrested, and did not obtain his liberty until after the 9th Thermidor. In the testimonies given in his behalf by the revolutionary committees, he was called the father and benefactor of suffering humanity. He returned to Melling, where he established an agricultural society. No sacrifice was too great for him, and his vast fortune was scarcely sufficient for his enterprises. He died October 27, 1800, of the small-pox, lamented by the people, whose benefactor he had become.

CHARPENTIER, I. F. G.; a man who did much to improve the art of mining. He was born in 1738, and died in 1805. He was one of the professors in the mining academy at Freiburg, in Saxony.

CHART. See Map.

CHARTA MAGNA. See Magna Charta.

CHARTER. Every written document in the middle ages was called carta, charta, or chartula. There were several kinds, distinguished by different names, according to the nature of the subjects, or the materials on which they were written, or their internal or external form. Thus a kind of document issued under the seal of a bishop (carta indented or partitale), because originally written on a piece of parchment, which was afterwards cut asunder in an indented form, so that the fitting of the several parts to each other was considered necessary to prove their genuineness. (It was also customary to write a word, commonly the word chirographum, between the two instruments, and cut it in two, whence such an instrument was called chirographum.) This method has also been resorted to as a means of securing certificates of stock from being counterfeited: they are bound up, and then cut out, so that each number must fit the part belonging to it remaining in the book.

Carta per crucemzys per punctum signified, in the middle ages, charters signed only by a cross or point, for want of the knowledge of writing in the signer. The signification which is now usually affixed to the word charter, meaning a document relating to public law, the constitution of a state, or some parts of it, likewise originated in England, where the royal grants of certain privileges to towns or other corporations are styled charta libertatum, or charters. No European nation has set so high a value on documents of this nature, none has maintained its ancient rights and liberties with so much care and solicitude as the English. The fundamental law of the literature of this department is richer among them than in any other nation. Since 1758, when the Doomsday-Book, that celebrated accumulation of landed property, or register and description of all feudal estates, in the time of William I. (commenced in 1080, and finished in 1086), was printed, the expense of parliament, and particularly since 1800, when a committee of parliament was appointed for the purpose of making search after the ancient documents that might be still extant, and causing them to be printed, much has been done by the English for promoting the publication of these monuments of their history and constitution. Rymer's collection (Fondation, Conventiones, Litera et Enquisse Generall Acta publica inter Reges Angliae, &c., 1704-35, 20 vols., folio; Hague, 1745, 10 vols., folio), even in the first edition, very complete for a private collection, and a model in its kind: the second and part of the third edition have appeared under the direction and at the expense of parliament, and are far superior to the former. The first volume of this work appeared in 1816. According to the report of the committee, in 1821, 45 vols., folio, of ancient documents, had then been printed since 1801, considerably augmented in the meantime, and the whole edition was published with great light on history and politics. The city of London is still in possession of two original charters, granted by William I., in the year 1066, one of which confirms the privileges which the city had received from Edward the Confessor, and the other bestows on it the fief of Gyllywood. They are handsomely written, in the Anglo-Saxon language, on two pieces of parchment, each six inches in length, by one in breadth, the former consisting of nine lines, the latter of three. The seals, though broken in pieces, are still attached to them, enclosed in silk borders. In France, the fundamental law of constitutional liberty, given by Louis XVIII., is called Charta constitutionelle. In 1822, there was established in France a school of charters (école des chartres), to instruct young men in deciphering and explaining the charters of the middle ages, which are to be found in the French archives. There is, even since the revolution has destroyed so many documents, an immense mass of grants, charters, &c., written on parchment, many of great antiquity, in France. Mr Isambert has collected, in the preface to vol. I. of his useful Recueil des Anciennes Lois du Royaume de France, an extensive information respecting the catalogues, descriptions, places of deposit, &c., of charters.

CHARTER-PARTY is a contract under hand and
seal, executed by the freighter and the master or owner of a ship, containing the terms upon which the ship is hired to freight. The masters and owners usually bind themselves, the ship, tackle, and furniture; the freighter is bound to provide mariners, tackle, &c., and to equip the ship complete and adequate to the voyage. The freighter stipulates to pay the consideration money for the freight and terms of the articles are annexed to enforce the reciprocal covenants.

CHARTRES (anciently Autricum and Carnutum); a city of France, in the Eure-et-Loir, 11 posts S. W. Paris, 18 ½ N. E. Tours; lon. 1° 13 ½ E.; lat. 49° 27' N. The population amounts to 15,000. It is the see of a bishop. It is one of the most ancient towns of the country, and contains a cathedral, eight churches, an hospital, a public library of 25,000 volumes, and a cabinet of natural history. The streets are narrow, but some of the houses are uncommonly neat, and the cathedral is esteemed one of the most beautiful churches in the kingdom. It is situated on the Eure, over which is a bridge, the work of the celebrated Vauhan. The principal trade is in corn, wine, and manufactured goods. Regnier, the poet, Nicole, Brissot, and Desportes were natives of this place.

CHARTREUSE, or GREAT CHARTREUSE; a famous Carthusian monastery in France, a little N. E. of Grenoble, situated at the foot of high mountains. It was founded in 1086. See Chartuans.

CHARYBDIS; a daughter of Neptune and Terra, whom Jupiter, on account of her insatiable rapacity, hurled into the sea, where she became a whirlpool, and swallowed up voyagers in its rapidity. This mythological fiction was occasioned by the whirlpool in the Sicilian sea, which was the more dangerous to inexperienced navigators, because, in endeavouring to escape it, they ran the risk of being wrecked upon Scylla, a rock opposite to it. Charybdis is no longer dreadful to navigators, who, in a quiet sea, and particularly if the south wind is not blowing, cross it without danger. Its present names are Calafora and La Rena. The earthquake of 1783 is said to have much diminished its violence.

CHASE, Samuel, one of the signers of the American Declaration of Independence, was born April 17, 1741, in Somerset county, Maryland. His father, a learned clergyman, instructed him in the ancient classics, and subsequently placed him at Amupollis as a student of law. He was admitted to the bar at the age of twenty. His talents, industry, ingenuity, imposing stature, sonorous voice, fluent and energetic eloquence, raised him to eminence in a very few years. Having become a member of the colonial legislature, he distinguished himself by his bold opposition to the royal governor and the court party. He took the lead in denouncing and resisting the famous stamp act. His revolutionary spirit, his oratory and reputation, placed him at the head of the active adversaries of the British government in his state. The Maryland convention of the 22d of June, 1774, appointed him to attend the meeting of the general congress, at Philadelphia, in September of that year. He was also present and conspicuous at the session of December following, and in the subsequent congresses, during the most critical periods of the revolution. That of 1776 deputed him on a mission to Canada, along with doctor Franklin, Charles Carroll of Carrollton, and the reverend John Carroll, afterwards bishop of Maryland. Mr Chase denounced to congress the reverend doctor Zubly, a delegate. from Georgia, as a traitor to the American cause, and forced him to a precipitate and ignominious flight. He signed the declaration of independence with promptitude, and was an active and able member of congress almost throughout the war; at the end of which he returned to the practice of law and was a member in the Pennsylvania legislature. After the war, he went to London, and was a commissioner, to recover stock of the bank of England, and large sums of money which belonged to the state. He remained in England nearly a year, during which time he put the claim in a train of adjustment. There he paired much of his time in the society of the eminent statesmen and lawyers. In the year 1791, he accepted the appointment of chief justice of the general court of Maryland. Five years afterwards, president Washington made him an associate judge of the supreme court of the United States. Political cases of deep interest having been tried when he presided in the circuit courts, and his conduct having given much displeasure to the democratic party, he was impeached by the house of representatives at Washington. The trial of the judge before the senate is memorable on account of the excitement which it produced among the people, in which it was condemned in France, and very few were particularly interested. It was a new and important example of the power of the people; and in the history of the world, is an interesting and fruitful subject. It has been published. It continued to exercise his judicial functions, with the highest reputation, until the year 1811, in which his health failed. He expired June 19 of that year. Mr Chase led an eventful and interesting life, and left in the character of a sagacious, erudite, and fearless judge, and a patriot little inferior in merit to any of his contemporaries.

CHASING, in sculpture; the art of embossing on metals. This is the art of representing figures, &c., in a kind of baso relievo, punched out from behind and sculptured on the front with small chisels and gravers.

CHASSEKI; the first sultana, or that wife of the Turkish emperor who presents him with the first prince. See Turkey, near the close of the article.

CHASTELER (Jony Garnier) marquis of, gran- deur of Spain of the first rank, Austrian master of ordnance or general of artillery, military governor in Venice, descended in a collateral line from the dukes of Lorraine, was born in 1763, and received his first education at Metz, in the college de Font. In 1776, he entered the Austrian service. After having served against the Austrians, against the Turks when he was 21 years of age, he displayed his zeal for the house of Austria in the disturbances in the Netherlands. In 1796-97, he was employed in the negotiations of his court in Poland and Russia; was afterwards with Suvaroff in Italy, where he distinguished himself in several engagements with the French armies. In 1808, with Hornay, he was the soul of the famous insurrection in the Tyrol, and all the political as well as military events which were connected with it. Meanwhile, the disaster at Ratisbon (q. v.) had taken place. Chasteler was obliged to retreat into the northern part of Tyrol. Napoleon, enraged at the surrender of 8000 French and Bavarians at Innsbruck, issued a proclamation at Eims, in which "a certain Chasteler, who calls himself a general in the Austrian service, but who is the leader of a body of robbers, and the author of the murders committed upon the French and Bavarian officers, as well as the instigator of the Tyrolese insurrection," is declared an outlaw, and ordered to be brought before a court-martial, and shot within twenty-four hours. The emperor Francis commanded, that an order which violated all international laws, and which was the more cruel, as it was a public act of inhumanity, care of the prisoners and the wounded, should be met by retaliation. The Bavarian army, under the command of the marshal duke of Dantziack, entered
Tyrol: Chastel ferociously encountered it; but his army was routed on the 13th of May. After the close of the war, he received several appointments, and in 1814, was a member of the government of Venice, where he died, May 7, 1825. This general was of a chivalrous character and a cultivated mind; he spoke twelve languages, was as brave as he was generous, and was one of the noblest Walloons in the armies of Austria.

CHASTELET (GABRIELLE EMILE BRETEUIL) marquise du; of an ancient family in Picardy; born in 1706. She was taught Latin by her father, baron Breteuil, and was as well acquainted with that language as madame Dacier; but her favourite study was mathematics. She had a sound judgment and much taste; loved society and the amusements of her age and sex; and abandoned all these pleasures, and, in 1733, retired to the dilapidated castle of Chirey, situated in a dreary region on the borders of Champagne and Lorraine. She embellished this residence, formed a library, collected instruments, &c. Chirey was often visited by the learned; for instance, by Maupertuis, John Bernoulli, &c. Here the marquise learned English of Voltaire in the space of three months, and read with him Newton, Locke, and Pope. She learned Italian with equal rapidity. She also wrote an analysis of the system of Leibnitz, and of the most eminent and necessary commentary. Voltaire lived six years with her at Chirey. She then went to Brussels, to prosecute a lawsuit, which was terminated by an advantageous compromise, brought about by Voltaire. She also carried on a correspondence with the German philosopher Wolff until her death. Her Traité de la Nature du Feu obtained the prize of the Parisian academy of sciences, and is published in their collections. Her husband, the marquis du Chastélet Lomont, was high steward of King Stanislaus Leczinsky, at Lunéville. The marchioness died at Lunéville, in 1749.

CHATEAUX, MARIE ANNE, duchess of, of the illustrious house of Nesle, was married to the marquis de la Tournelle in 1734. Being left a widow at the age of twenty-three, she was received by her aunt, the duchess Mazarin, but soon lost this support. Her two sisters (mesdames de Vintimille and Maillot) had died in the bosom of the heart of Louis XV., when the king conceived an ardent passion for her. She was made lady of honour to the queen, and afterwards duchess of Chateauroux, with a pension of 50,000 livres. By her persuasion, Louis XV. put himself at the head of the armies in Italy, and the fort of Nîmes fell. Dick at Metz, his life was despaired of, and he was obliged to consent to the dismissal of the duchess. She was received in Paris by Richelieu, who, after the king's recovery, excelled her recall. Her triumph was complete, and she was promised the important post of superintendent of the dauphiness, when she died, in 1744. A collection of her letters appeared in Paris, 1806, in two small volumes.

CHATELET was anciently a small chateau or fortress, and the officer who commanded it was called châtelain. The word is a diminutive of château, formed from castellum, a diminutive of castrum; or from castellator, a diminutive of castellum, castle. The term, in later times, has been applied to certain courts of justice, established in several cities in France. The grand châtelet, in Paris, was the place where the presidial or ordinary court of justice of the prévôt of Paris was kept. It is the residence of a presidial, a civil chamber, a criminal chamber, and a number of police officers. The term signified the same at Montpellier, Orleans, &c. When Paris was confined to the limits of the old city (cités), it could be entered only by two bridges (le petit pont and le pont au change), each of which was fortified with two towers,—a smaller one in the wall, facing the city, and a larger one before the braille, towards the country. These two exterior towers were lately knocked down, and the situation that the grand châtelet was built by Julius Cesar, though adopted by some literati (e. g. La Marre, in his Traité de Police, vol. i. p. 87), is not well supported; but it is certain that the great tower was standing as early as the siege of the city by the Normans (855). The grand châtelet was the castle of the counts of Paris, and, therefore, the seat of all the royal courts of justice within the city and county, and also of the feudal court. The city had no proper jurisdiction whatever; its ouvrage ou provost (prévôt) was appointed by the king, and was president of the court (though only nominally, because he had no voice in the judgments), and, by virtue of his office, leader or the nobility. The office of provost of the marchands (prévôt des marchands; in other cities, maire), established before the former, and afterwards united with it for a time, was finally separated from it in 1836. The business of the châtelet was transacted by the deputies of the ouvrage (lieutenant), of whom there were five, three for civil causes, one chief judge of criminal cases, and a lieutenant-general of police (lieutenant-général de la police). The latter, indeed, was minister of police for the whole kingdom, and the first and second persons mentioned are simply the heads of the new arrangement, made by the celebrated d'Argenson, under Louis XIV., rendered him one of the most important officers of the state. In the châtelet, however, he held only the fourth place. The whole court of justice was composed of fifty-six counsellors, with thirteen state attorneys, and a multitude of subalterns, as sixty-three secretaries or greffiers, 113 notaries, 236 attorneys, &c. All these offices were sold. The place of the first officer of the civil chamber was rated at 500,000 livres; that of a notary at 40,000 livres. The châtelet was first in rank after the supreme courts (cours souveraines).

CHASTELET, the marchioness of. See Chastelet.

CHATHAM; a town in Kent, England, on the Medway, united to the city of Rochester, of which it is considered a suburb; thirty miles S. E. of London. It is celebrated for its dock. An immense quantity of naval stores of all kinds are kept ready, in magazines and warehouses, and arranged in such a manner that whatever is wanted may be procured without the least confusion. Above twenty forges are constantly at work. Anchors are made, some of which weigh five tons. In the rope-house, which is 700 feet in length, cables have been made 120 fathoms long, and twenty-two turn over round. The dock here is about a mile long, the sail-loft 200 feet in length, and there are large store-rooms, one of which is 650 feet long. Here is an hospital for decayed seamen and their widows. The town is defended by fort Pitt, and very extensive fortifications called the lines; and, with the exception of Portsmouth, Chatham is considered the most regular and complete fortress in Great Britain. Population in 1831, 17,936.

Many towns and counties in America are called Chatham, after the great minister (q. v.); also straits, islands, &c.; for instance, Chatham bay, or Punjo bay, on the W. coast of Florida, lat. 81° 50' W., long. 25° 30' N.—Chatham island, in the South Pacific ocean; lat. 183° 10' E., lat. 44° S.—Chatham sound, between the islands of Dundas and Stephens, on the W. coast of North America.—Chatham strait, a channel of the North Pacific ocean, on the coast of North America, between the head of George the Third's archipelago and Admiralty island, rather more than 100 miles in length from N. to S.

CHATHAM (WILLIAM PITT), earl of; one of the most illustrious statesmen of Britain. Integrity, dis-
inestimable and patriotism were united in him with indefatigable industry, promptitude, and sagacity. In eloquence he was never surpassed by any of his coun-
trymen. His speeches were bold and sublime, and his influence over the minds of his audience was ir-
resistible. His ease and dignity, fine voice and mas-
terly address (which allowed even him to be his superior), possessed his hearers in his favour, while the perspicuity and power of his arguments carried conviction. He was the son of
Robert Pitt of Boscocmoc, in Cornwall, born in 1708, and educated at Eton and Oxford. On quitting the
university, he became a cornet in the blues, and, in 1735, represented the borough of Old Sarum in the
house of commons, where he attracted universal no-
tice. He was a powerful opponent of Sir Robert
Walpole, who revenged himself by taking away his
commission. In 1744, he received, on account of his
patriotism, a legacy of £10,000 from the duchess of
Marlborough, and, at a later period, a considerable
estate was bequeathed him by Sir W. Pynsent. He
had been appointed gentleman of the bedchamber
to the prince of Wales, but resigned this place in 1737, on the ministerial changes which left the young
ruins of the city was Bute, house of commons. In 1751, he placed arguments to his credit, which were conveyed out of the house of commons. Afterward removed to his country-seat at Hayes, in Kent, where he died, May 11. The parliament annexed an annuity of £4000 to the earldom of Chatham; his debts were paid, and he was ho-

named with a public funeral, and a magnificent monu-
ment in Westminster abbey. Another was erected,
in 1782, in Guildhall. The sentiments of Lord
Chatham were liberal and elevated, but he was haughty, and impatient of contradiction, and perhaps exhibited too marked a consciousness of his own su-

periority. His private was as estimable as his pub-
lie character. To use the language of Lord Ches-
terfield, “it was stained by no vice, nor sullied by

any meanness.” No literary production of lord
Chatham, except one or two short poems, had ap-
ppeared, until the publication by lord Grenville,
in 1804, of the “Letters” to this publication was a
first lord Camelford, which contain much excellent advice to a young man, clothed in easy and familiar
language, and reflect equal honour on the author’s
head and heart.—In America, where lord Chatham
was very popular, several places are called after his
title, such as Chatham, Maryland. The publication
of the book pleased it widely.

CHATILLON, CONGRESS OF. The negotiations of the allied powers with Napoleon, begun at Frank-
fort, Oct. 10 and Nov. 27, 1813, but broken off,
when, in consequence of their declaration of Dec. 1,
the theatre of war was transferred to the heart of
France, Jan. 8, 1814, were renewed in the small
town of Chatillon-sur-Seine (chief place of arron-
dissement in the department Côte d’Or, with 3967
inhabitants), which had been declared neutral. Cau-
lincourt (duke of Vicenza), who had succeeded
Maret (duke of Bassano) as minister of foreign af-

airs, was waiting, in that place, the answer of prince
Metternich to his last letter. Lord Castlereagh
conducted the negotiations in the name of Great
Britain: besides him, there were three other British ministers present—lords Catherc, Aberdeen, and
Stewart. Count Rumnowsky was the minister of
Russia, count Sedlitz of Austria, and baron William
von Humboldt of Prussia.

CHATTERTON, THOMAS, a youth whose genius, eccentricity, and melancholy fate have gained him
much celebrity, was born at Bristol, in 1752, of poor
parents. He had not yet learned to read, when an
old French musical work happened to fall into his
hands; the characters of which excited his curiosity.
His mother now taught him to read from an old
black-letter Bible. When eight years old, he en-
tered a charity school at Colston, where the work-
ings of his genius lay concealed under the appearance of melancholy and inactivity. For several years of
age, he acquired a taste for reading, which be-
came, from that period, a kind of ruling passion.
His first work, a satire on a Methodist, who had
abandoned his sect from interested motives, was
written at the age of 11½ years. From this time his
taste was decided. His melancholy gave way to
vivacity and vanity, and dreams of glory, fortune,
and immortality. He became particularly fond of
antiquities and antique expressions. At the age of
fourteen, he left school, and was articled as ap-
prise to a scrivener, at Bristol. His father, who
had closed the business of his father, died before
his eighteenth year, and he was placed in the com-
mission of a number of old parchments of the 18th
century. Many of these were consumed in the fam-
ily; but several fell into the hands of Chatterton who,
after a few days, declared that he had discovered a treasure. He then procured glossaries of the old dialects of the country, and, in 1768, when the new bridge at Bristol was completed, he inserted a paper in the Bristol Journal, entitled *A Description of the Friars’ first Passing over the Old Bridge, taken from an ancient Manuscript.* He was then but sixteen years old. Upon being questioned as to the manner in which he had obtained it, he finally asserted, that he was in the possession of several valuable old manuscripts, taken (as those above mentioned really were) from an old chest in the church. He had been engaged for a year in the composition of several satires, which he sent to some of the leading writers, particularly to one Rowley. In 1769, he ventured to write to Horace Walpole, giving him an account of his literary discoveries, and enclosing a specimen. Having received a polite answer, he wrote a second letter, informing Walpole of his situation, and requesting assistance to enable him to follow his inclination for poetry. Walpole, however, who in the mean time had discovered the poems to be spurious, returned them to Chatterton without taking any further notice of him. Discontented with his situation, he obtained a release from prison, and during an interval, applied himself to his life, and went to London. The favourable reception, with which there met from the booksellers, inspired him with new hopes. He wrote for several journals, on the side of the opposition. He indulged the hope of effecting a revolution, and used to boast that he was destined to restore the rights of the nation. Failing to procure the rewards which he had expected for his exertions in favour of this party, he observed, that “he must be a poor author who could not write on both sides.” On this principle he acted; but prosperity did not attend his declension from principle. His situation daily became worse. Although extremely temperate, and often voluntarily confining himself to bread and water, he was frequently destitute even of these necessaries. What he gained by his labours he spent, partly in presents for his mother and sisters, to whom he always held out the most splendid expectations, partly in public places of amusement, which he continued to visit under the appearance of easy circumstances. At last, after having been several days without food, he poisoned himself, in 1770, when not yet eighteen years old. His works were more extensively read than any other contemporary with them, in the history of his misfortunes. The most remarkable are the poems published under the name of *Rowley,* which he composed at the age of fifteen years. They display a vigorous and brilliant imagination, fertility of invention, and often a deep sensibility. Among the poems which he published under his own name, his satires deserve the preference. His prose writings are spirited. His works have been several times published. The best edition is that of 1803, in three volumes.

**CHAUER, Geoffrey,** born in London, in 1328, was the son of a merchant, or, according to some writers, of noble extraction. He studied at Cambridge and Oxford. At the former place, he distinguished himself, at the age of eighteen, by his Court of Love, the oldest poem in English now extant. Having improved himself by travelling, he studied law; but, having gained this object, he repaired to court, where he became yeoman to Edward III. He was in high favour with the king, and particularly with his son, John of Gaunt, the celebrated duke of Lancaster. He was the trustworthy of the prince’s love to his cousin, the duchess Blanche, and in the event of their marriage, the charms and virtues of the duchess, the themes of his songs. The duchess, however, soon found a rival in lady Catharine Swypswalad, whose sister Chaucer married. This alliance established him more firmly in the favour of the duke, by whose influence he was appointed to the most honourable offices. He was sent ambassador to Genoa; on which occasion he fell into the hands of Petracch. He was also sent as a legate to Charles V. of France, to negotiate the renewal of the truce, and a marriage between Richard, prince of Wales, and the king’s daughter, in which mission, however, he was unsuccessful. As an adherent of the duke of Lancaster, he embraced the opinions of Wickliffe, and formed a close connexion with him. He held high favours in the court, nor the theological controversies of the time, interrupted his poetical labours. His first poem was soon followed by Trolus and Cressida, the House of Fume, and other works, which were imitations of Boccaccio and other celebrated authors. He seems particularly to have borrowed from the works of the Troubadours. These works bear the stamp of the corrupt taste, which, at that time, prevailed throughout Europe; but they are remarkable for correct delineation of character. He is considered as the inventor of English heroic verse. In 1382, the king ordered him to attend the com- position of the clergy, to elect a lord mayor of London of their own party. The disturbances, to which this dispute gave rise, occasioned a severe persecution of that sect on the part of the court, and Chau- cer, who was hated by the people as the personal friend of Wickliffe, fled to Hainault, where he con- tinued to receive his salary. The faithlessness of his agents, who discontinued their remittances, having obliged him to make a secret journey to England, he was discovered, arrested, and deprived of his post of comptroller of the customs, the duties of which had been discharged, in his name, by his deputy. He finally obtained his liberty by disclosing the designs of the party with which he had been connected. This conduct drew upon him a load of obloquy, while, at the same time, he was suffering from poverty. During his distresses, he wrote his Testament of Love, a sort of imitation of Boethius’s *De Consola- tione,* which he had translated in his youth. Chau- cer’s situation was once more changed with that of the duke of Lancaster, who, in the hope of ascending the Spanish throne, had entered into a second mar- riage with the daughter of Peter the Cruel; and though the king returned to the first, and having gained this object, yet he brought back con- siderable sums, which he employed in reviving his party at court. Four years later, on the death of his second wife, the duke married Catharine Swan- ford. Chaucer, now nearly connected with the royal family, regained the favour of the court, and was re- stored to his office. After the duke’s death, he seems to have lived in retirement at Donnington castle, where the oak, in the shade of which it was said he loved to muse, long bore his name. There he wrote his most celebrated work, the Canterbury Tales, in verse. They are distinguished for variety of character and liveliness of description. Chaucer is the first writer who introduced the spirit and fic- tions of chivalry into poetry. His *Sir Topaz,* how- ever, is written in ridicule of these fictions. He died in the year 1400. His works have been often printed. His *Caucasian* is the one most lamented in verse.

**CHAUDET.**

Antoine Denis, deserves, perhaps,
the first place among the French statuaries of modern times. Born at Paris, March 31, 1765, when the most corrupt taste in sculpture prevailed, he finished his career by works which display a degree of Grecian grandeur and truth which few modern artists have attained. In the twelfth year of his age, he obtained the first prize of the academy. He then went to Rome, where he met the celebrated Drouais (q. v.). They were soon united by the ties of the most intimate friendship, and an equal enthusiasm for art. After his return to Paris, he became a member of the academy. His first work was a bas-relief under the peristyle of the Pantheon, representing the love of glory. The bad taste of the period could not justly estimate the grand and simple character of this work: it was reserved for later times to appreciate the mastery and sublime performance. Travellers may find in the museums of Luxembourg and Trianon several of Chaudet's finest works; among them, La Sensibilité, a young girl, astonished at the motion of the sensitive plant, which shrinks from her touch; the beautiful statue of Cypraisse, &c. Chaudet died April 29, 1810.

CHAUDIERE; a river of Lower Canada, which rises on the borders of Maine, near the sources of the Kennebec, and, after a northerly course of about 190 miles, flows into the St Lawrence, six miles above Quebec. The banks of the river are generally high, steep, and calcareous, washed with wood of indiffer- ent growth. Three or four miles above its entrance into the St Lawrence, the river has a remarkable cataract, of about 12 feet perpendicular. These falls are considered not inferior to those of Montmorenci; the perpendicular height is only about half as great, but the quantity of water is vastly greater; the width of the river at the cataract being 300 feet. In some parts, sheets of water roll over the precipice, and fall, scarcely broken, to the bottom; while, in other places, the falling water dashes from one fragment of rock to another, with the wildest impetuosity, and forms a great mass of foam of a snowy whiteness.

CHAUDON, LOUIS MAIEL, a learned Benedictine of the monastery of Cluny, which was secularized in 1787, born at Valensole, May 10, 1737, wrote several works in defence of the Catholics, for which he received the thanks of the popes Clement XIII., and Pius V., in two briefs directed to him. Among his works must be mentioned the Nouveau Dictionnaire historique (Avignon, 1766, in 4 vols.), of which ten editions have appeared, the ninth of which, in 1820, is less correct than the former ones. The tenth appeared at Paris in 1829, in twenty-five vols. Besides this, he wrote several other valuable works. He must not be confounded with his brother Maieu Chaulion, like himself a member of the academy of Arcadians in Rome, but belonging to the order of the Capuchins. The latter is the author of La Vie du bienheureux Laurent des Bruines (first edition Paris, 1786).

CHAUFFEPÉ, Jacques George de, a Calvinistic preacher, born at Lewarden, in Friesland, in 1702, preached at Flushing, Delft, and, in 1743, at Amsterdam, where he died in 1786. Besides several theological works, and translations from the English, he wrote a Nouveau Dictionnaire historique et critique, pour servir de Supplément ou de Continuation au Dictionnaire historique et critique de Bayle (Amsterdam and Hague, 1750-56, four vols. fol.). This work is founded on an English translation of Bayle, in ten vols., in which many additions had been made to the original. Of 1400 articles, which it contains, 600 are translated from the English without additions, about 280 are corrected and augmented, and the rest added by Chauvepé. He displays much learning, but, in genius, and style, falls far below Bayle. Chauvepé also wrote the life of Pope.

CHAU LiEU, Guillaume Amfuye de, the French Amurecon, born at Fonteval in 1639, early distin- guished himself by his genius, and gained the esteem of the Duke of Buckingham, then the eldest son of the king; he was appointed abbot of Aumale, and received, besides, several other benefits, so that his yearly income amounted to 30,000 livres. Pleasure was now the sole occupation of Chaulieu. He lived in the Temple, where many persons were assembled who, like himself, united the love of pleasure with a taste for letters. In this society of Epicureans, though it was frequently visited by the grand prior of Vendome himself, decorum and morality were not very rigor- ously observed, but the pleasures of the table were heightened by poetical allures. Chaulieu, a disciple of Chapelle and Bachamont, distinguished himself among the rest by the charms of his wit and the gay-ety of his disposition, and received the surname of the Ancoron of the Temple. Like Amurecon, he de- voted himself to love and poetry to the last. In a letter to the marquis de la Palice, he describes himself as vain, impatient, and impetuous, by turns active and indolent, fond of projects, and not less fond of repos. He died in his house in the Temple, in 1720, aged eighty-one. La Harpe justly remarks, that his ver- ses display the negligence of an indolent mind, but, at the same time, good taste, and are free from all affectation.

CHAU MONT (department of the Oise), Treaty of; concluded March 1, 1814. The former coalitions of Russia, Prussia, Great Britain, Sweden, Austria, and most of the German princes, against Napoleon, in 1813, were principally directed to the delivery of Germany, and the dissolution of the confederation of the Rhine. The principal object of the quadruple alliance concluded at Chaumont between Austria, Russia, Great Britain, and Prussia, was declared to be to destroy the preponderance of France, and to re- store permanent peace to Europe, founded on the balance of power, and national independence. In case this end should not be attained by the negotia- tions already opened with Napoleon at Châtillon, the mutual obligations already existing between the allies to prosecute the war were to be confirmed. The four parties to the treaty of Chau Mont agreed on their respective contributions for the accom- plishment of their object, which, being punctually fulfilled, led to the peace of Paris, in 1814. This treaty was signed by prince Metternich, count Nesselrode, lord Castleraugh, and the Prussian chancellor of state von Hardenberg. The treaty of Chau Mont forms an epoch in the history of Europe. It contains the diplomatic key to all the events which occupied the eyes of Eu- rope in 1815. As it was, however, directed personal- ly against Napoleon, and as France joined the allies at the congress of Aix-la-Chapelle, in 1818, for the purpose of maintaining the peace of Europe, it has not been renewed.

CHAUNCY, CHARLES, D. D., an American preacher, was the descendant of president Chauncy of Harvard university, a distinguished scholar and divine, who came to America on account of his reli- gious opinions, in 1638. Dr Chauncy was born in Boston, January 1, 1705, and, after being graduat- ed at Harvard, in 1721, studied divinity, and was ordi- nated pastor of the first church in Boston, in 1727. Dr Chauncy was eminent for learning, independ- ence, and attachment to the civil and religious liberty of his country. He was easily excited, and was, in vain, to his followers for the character of high and reserved, was, in fact, not so much esteemed for his honesty, sincerity, and piety. He died February 10, 1787, in the eighty-third year of his age. His productions are numerous, consisting
of an extensive collection of sermons, a work entitled *A Complete View of Episcopacy*, of which he was a decided enemy, and several polemical works.

CHAUSSÉE, PIERRE CLAUDE NIVELLE DE LA; a dramatic writer, born at Paris in 1691, and whose first work was a critique on the fables of La Motte. When La Motte advanced the paradox that verse is useless in the tragedy and ode, he was answered by Chausée, in his *Epître à Cio*, which is still esteemed. His first dramatic work, *La Fausse Antipathie*, written after he had passed the age of forty, was rejected with approbation. The following circumstance gave rise to the new species of drama which he introduced. The actress Quinault, perceiving a good subject for an affecting drama in a farce, proposed it to Voltaire, who declined the attempt. She then applied to Chausée, who, at her suggestion, wrote *Le Prêjugé à la Mode*. Thus the sentimental comedy (comédie larmoyante) originated from the farce. Chausée then attempted tragedy, and wrote the unsuccessful piece *Maximine*, a subject which had already been treated of by Th. Corneille. His *École des Mères*, and his *Gouvernante*, which failed, are still acted. He died in 1754. Voltaire says he is one of the first writers, after those of genius.

CHAUΞ DE FONDS, LA; the name of a village in the district of Vallengen, in the Swiss canton of Neufchatel. The valley that bears this name is unfit for agriculture, but rich in cattle, and carries on much trade in cheese. It is remarkable, as is also the neighbouring village of Locle, for its manufactures of watches and lace. La Chaux de Fonds has about 5800 inhabitants, among whom are upwards of 400 watch-makers, and 600 females that gain their living by making lace. About 40,000 gold and silver watches are annually made here, beside the clocks.

The village of Locle has about 5900 inhabitants. The village of Fleurier is the chief place for the trade in lace.

CHECK; a draft or bill on a banking house, to be paid, at sight, to the bearer. See *Bill of Exchange*.

CHECK, Sir John; an eminent English statesman and cultivator of classical literature in the 16th century. He was born at Cambridge in 1514, and received his education at St John's college, in the university of that place. After having travelled on the continent, he returned to Cambridge, and was made regius professor of divinity in 1541. He distinguished himself by introducing improvements in the pronunciation of that language. Bishop Gardiner, chancellor of the university, opposed these innovations, and a literary correspondence took place between the professor and the chancellor, which was, some time after, published at Basel, 1544.

Cheke was appointed tutor to the prince of Wales, afterwards Edward VI., and he appears, likewise, to have assisted in the education of the princess Elizabeth. On the accession of Edward, he received a pension of 100 marks, was made provost of King's college, Cambridge, and attained a considerable landed property. He soon after married, and, in 1547, retired from court to the university, in consequence of some disappointment, but was soon recalled, and remained a great favourite with the king to the end of his reign. In 1550, he was made gentleman of the bed-chamber, the next year, he was knighted, and in 1553, he obtained the post of secretary of state. He was also a privy councilor.

The death of his royal patron occasioned a revolution in his fortunes. Cheke was a sincere Protestant, and was deeply involved in the measures adopted for the reformation of the church of England; and, having had the imprudence to engage in the scheme for raising lady Jane Grey to the crown, he was, on his failure, committed to the Tower. After a few months, however, he was set at liberty, and, having obtained from queen Mary permission to travel, he went into Italy, and thence to Strasburg, in Germany. His conduct while abroad gave offence to the Catholic party, and, on his return, he recommended the confiscation of his estates, on the pretext of his impiety. On the leave of absence which had been granted him. He was then obliged to support himself by giving lectures on the Greek language. In 1556, having been induced to visit Brussels (probably through the contrivance of agents) who advoated the death of Philip II., he then sovereign of the Nether-lands, and sent prisoner to England. Powerful means were adopted to convert him to popery. The fear of death prevailed over his constancy, and he was induced to make a public abjuration of his former faith. His estates were not restored, but he received an equivalent for them from the queen, and he was much caressed by the heads of the Catholic party, who, however, with cruel policy, obliged him to sit on the bench at the trials of the unfortunate Protestants. It is a circumstance honourable to his character, that he appears to have keenly felt his degraded state. He died in England in 1591, and was buried in the church of St Mary, in the Chichester, on the 1st of November, 1557. Sir John Cheke published several small treatises, original and translated, chiefly relating to theology. He was also the author of many works preserved in manuscript. Among these is an English translation of the gospel of St Matthew, intended to exemplify his plan for the reformation of the English language, by banishing from it all words but such as are of Saxon origin.

CHELSEA, a parish in Middlesex, chiefly distinguished for containing a royal military hospital. The building was originally commenced by James I., as a theological college, but was left unfinished on the restoration of Charles II., that king, wishing to erect a convenient hospital for the reception of sick, maimed, and superannuated soldiers, converted the unfinished buildings of the college to that use, and the hospital has retained the name of college ever since. It was founded by king Charles II., carried on by king James II., and finished in the reign of king William and queen Mary, by Sir Christopher Wren, in 1692. The whole expense of this structure amounted to £130,000, and the extent of the grounds is above forty acres. The number of indoor pen- sioners is 300, the expenses of the establishment are bear- ed in his majesty's service, or who have served for twenty years. They are provided with clothes, lodging, and diet, and have an allowance of eightpence a-week. The annual expense of the London establish- ment (including salaries, &c.) varies from £247,000 to £30,000 per annum. The allowance to the out-pensioners is five-pence a-day, and they always have a half-year's pension in advance. Their number is not limited by law, and at present amounts to 22,000. There are 400 sergents, who have a shilling a-day allowed them. Connected with the hospital is a royal military college, founded in 1803, under the auspices of the late duke of York, by parliamentary grant, for the education and maintenance of soldiers' children; towards the support of which institution the whole army contribute one day's pay per annum. Population of the parish in 1831, 32,571.

CHELTENHAM; a town of England, in Gloucester, on the Chelt; 94 miles N.W. London. It is celebrated for its medicinal waters, and, within a few years, has become a place of public resort, and was honoured with the residence of the royal family in the year 1788. About 4000 persons, during the course of the summer, live there as a laxative and restorative to invalids. It has a weekly market on Thursday. The water of these springs has no briskness or pungency, but is briskch, rather
bitter, and chalybeate. Its temperature is uniformly from 52° to 53° Fahr. The first effects of drinking these waters are some drowsiness, and sometimes headache, which ceases, however, even previously to the temperature. He distinguished mists. He tended. They contributed to the establishment of phlogiston, and explained the difficulties which beset the phlogistic theory. To Black we are indebted for the basis of our present knowledge of the theory of heat. His experiments were repeated, extended, and confirmed by Cavendish, who was the first to discover the composition of water, as also the properties of carbonic acid gas and hydrogen. Light and unity were introduced into chemistry by the new technical nomenclature adopted in 1787, by the aid of which all the individual facts are easily retained in the memory, since the name of each body is expressive either of its composition, or of its characteristic property. Twelve or fifteen terms have been found sufficient for creating a methodical language, in which there is no inexpressive term, and which, by changing the final syllables of certain names, indicates the change which takes place in the composition of the bodies. Fourcroy, Gay-Lussac, Mohr, and Berthollet, were the authors of this felicitous innovation. The chemical terminology admits of nothing arbitrary, and is adapted not only to express known phenomena, but also any which may be hereafter discovered. It is the first example of a systematic and analytic language.

The commencement of the 19th century forms a brilliant era in the progress of chemistry. The galvanic apparatus of Volta presented to the experimenter an agent unequalled in the variety, extent, and energy of its action upon common matter. With this apparatus, Sir Humphrey Davy commenced a series of researches, which resulted in a greater modification of the science than it had ever before experienced. He proved that the fixed alkalies were compounds of oxygen with metallic bases, and thus led the way to the discovery of an analogous constitution in the alkaline earths. To the same individuality is principally indebted for the establishment of the simple nature of chlorine, and for the investigation of iodine. Electric chemistry had its origins in the researches of this great man, in which line of discovery he has been followed by Mr Faraday, who is at present carrying on a series of experiments, that will, to all appearance, lead to the establishment of definite proportions in the electric properties of all the bodies in nature. The researches of Sir H. Davy concerning the nature of flame, resulting as they did in the invention of the miner's safety-lamp, afforded to mankind a demonstration of the utility of philosophy in contributing to the improvement of the arts of life.

But that department of chemistry, which has of late been most successfully investigated, relates to the definite proportions in which bodies unite to form the various chemical compounds. To establish the conclusions which have been arrived at, a multitude of exact analyses were requisite. These were accomplished principally through the labours of Westzel, Vanguelin, Richter, Dalton, Guy-Lussac, Thénard, Berzelius, and Thomson; and have terminated in the establishment of the general truth, that, when bodies combine in precisely unequal proportions, they are, however, combined in determinate quantities; and that, when one body unites with another in more than one proportion, the ratio of the increase may be

**CHEMISTRY.**

By this name, the etymology of which is uncertain, we never could form a science, which teaches the nature of bodies, or rather the mutual agencies of the elements of which they are composed, with a view to determine the nature, proportions, and mode of combination of these elements in all bodies. *Natural philosophy,* or *physics,* examines the reciprocal influence of matter in masses. *Chemistry* treats of the mutual action of the integral parts. In the former, the phenomena are produced by the general attraction or repulsion of bodies; in the latter, by minute combination or decomposition. With our present knowledge of matter and its laws, we cannot separate physics entirely from chemistry: one science cannot be studied without the other. Those artisans who first discovered the means of melting, combining, and moulding the metals; those physicians who first extracted vegetable substances from plants, and observed their properties, were the first chemists. They possessed a philosophical method in their examinations; instead of passing from what was known to what was unknown, early inquirers suffered themselves to be led astray by astrological dreams, the fables of the philosopher's stone, and a hundred other absurdities. See *Alchemy.*

Until the year 1630, we find but little worthy of notice in the history of chemistry. Rheims, Roger Bacon, Arnaud de Villeneuve, Basilius Valentin, Paracelsus, Agricola, &c., observed some of the properties of iron, quicksilver, antimony, ammoniac, saltpetre. They discovered sulphur, nitric, and other acids; the mode of rectifying spirits, preparing opium, jalap, &c., and of purifying the alkalies. Glauber was distinguished for the accuracy of his observations. He endeavoured to improve certain instruments; advised operators not to throw away any residuum, in performing experiments, as useless; discovered the salt which is called, from him, *Glauber's salt,* &c. Such is the natural progress of the science, but it did not form itself into complete science. Stahl appeared, and, although his theory was unsatisfactory and entirely gratuitous, and, as later observations have proved, erroneous, yet he laid the foundations of the chemical school of Ber-lin, which has produced a succession of eminent chemists. He was himself much indebted to the celebrated Becher, whose views he corrected and extended. He was sensible that the greater part of chemical phenomena might depend on a general cause, or, at least, on a few general principles, to which all combinations must necessarily be referred. He supposed that bodies contained a compound element, which inflammable bodies lost by being burned, and which they could regain from other inflammable bodies. This element he called *phlogiston.* The establishment of a hypothesis, which connected almost all phenomena with each other, was an important step. Boerhaave adopted Stahl's system, and contributed much to its general diffusion. He is the founder of philosophical chemistry, which he enriched with numerous experiments, in regard to fire, the caloric of light, &c. Although the principles on which those philosophers proceeded were false, yet the science could not be deprived of the names of Priestley, Cavendish, Lavoisier, Bergmen, Schule, and Kirwan, to overturn Stahl's system, and substitute the pneumatic or alphilosophic chemistry, the best history of which is to be found in Fourcroy's *Philosophie Chimique,* and his *Système des Connaissances Chimiques.* As soon as the composition of the atmospheric air was made known by Priestley, it was concluded that carbonic acid was in contact with it, instead of losing one of its elements, absorbed one of the component parts of the air, and were thus increased in weight. This component part has received the name of *oxygen,* because many of the combustible bodies are changed by its absorption into mineral compounds. Oxygen was the establishment of phlogiston, and explained the difficulties which beset the phlogistic theory. To Black we are indebted for the basis of our present knowledge of the theory of heat. His experiments were repeated, extended, and confirmed by Cavendish, who was the first to discover the composition of water, as also the properties of carbonic acid gas and hydrogen. Light and unity were introduced into chemistry by the new technical nomenclature adopted in 1787, by the aid of which all the individual facts are easily retained in the memory, since the name of each body is expressive either of its composition, or of its characteristic property. Twelve or fifteen terms have been found sufficient for creating a methodical language, in which there is no inexpressive term, and which, by changing the final syllables of certain names, indicates the change which takes place in the composition of the bodies. Fourcroy, Gay-Lussac, Mohr, and Berthollet, were the authors of this felicitous innovation. The chemical terminology admits of nothing arbitrary, and is adapted not only to express known phenomena, but also any which may be hereafter discovered. It is the first example of a systematic and analytic language.

The commencement of the 19th century forms a brilliant era in the progress of chemistry. The galvanic apparatus of Volta presented to the experimenter an agent unequalled in the variety, extent, and energy of its action upon common matter. With this apparatus, Sir Humphrey Davy commenced a series of researches, which resulted in a greater modification of the science than it had ever before experienced. He proved that the fixed alkalies were compounds of oxygen with metallic bases, and thus led the way to the discovery of an analogous constitution in the alkaline earths. To the same individuality is principally indebted for the establishment of the simple nature of chlorine, and for the investigation of iodine. Electric chemistry had its origin in the researches of this great man, in which line of discovery he has been followed by Mr Faraday, who is at present carrying on a series of experiments, that will, to all appearance, lead to the establishment of definite proportions in the electric properties of all the bodies in nature. The researches of Sir H. Davy concerning the nature of flame, resulting as they did in the invention of the miner's safety-lamp, afforded to mankind a demonstration of the utility of philosophy in contributing to the improvement of the arts of life.

But that department of chemistry, which has of late been most successfully investigated, relates to the definite proportions in which bodies unite to form the various chemical compounds. To establish the conclusions which have been arrived at, a multitude of exact analyses were requisite. These were accomplished principally through the labours of Westzel, Vanguelin, Richter, Dalton, Guy-Lussac, Thénard, Berzelius, and Thomson; and have terminated in the establishment of the general truth, that, when bodies combine in precisely unequal proportions, they are, however, combined in determinate quantities; and that, when one body unites with another in more than one proportion, the ratio of the increase may be
CHEMISTRY.

expressed by some simple multiple of the first proportion. Upon this general fact, doctor Wollaston constructed the logarithmic scale of chemical equivalents—an invention which has contributed, in an eminent degree, to render our knowledge of the constitution of compounds precise, by actually reducing the subject to that of an arithmetical relation, which, when fixed with accuracy, are not susceptible of change. The doctrine of definite proportions may, therefore, be regarded as having communicated to the principles of chemistry that certainty which has long been considered peculiar to the mathematical sciences; and it is in the development of these important relations that the advancement of the science has been most conspicuous. Among the still more recent improvements in chemistry may be cited the discovery of Dobereiner, relating to the power of platinum in effecting the combination of oxygen and hydrogen; the researches of Faraday, in which many of the gases have been reduced to the liquid form; the discovery of new compounds of carbon and hydrogen, and the singular fact, which they exhibit, of different combinations being established in the same proportions; the elucidation of the new compounds of carbon and chlorine; the hydroiodide of carbon; the perchoric, iodous, fulminic, and other acids; the discovery of the real bases of silex and aaron, and of the new principles, brome and flourine; and, in all these, our knowledge of light and electricity has been greatly enlarged, and that the phenomena of electro-magnetism are altogether new, and it becomes strikingly obvious that chemistry is still a progressive science. "Nor can any limits be placed to the extent of its investigations. Its analysis is indefinite; its termination will have been attained only when the real elements of bodies shall have been detected, and all their modifications traced; but how remote this may be from its present state we cannot judge. Nor can we, from our present knowledge, form any just conception of the stages of discovery through which it has yet to pass."

Chemistry has two ways of becoming acquainted with the internal structure of bodies, analysis and synthesis (decomposition and combination). By the former, it separates the component parts of a compound body; by the latter, it combines the separated elements, so as to form anew the decomposed body, and to discover the process of the combination. These methods depend on a complete knowledge of the two powers, by which all bodies in nature are set in motion, viz., attraction and repulsion. Attempts have been made to distinguish the attraction of elementary particles from planetary attraction; the former being designated as chemical affinity: but nature has only one kind of attraction. The alternate play of attraction and repulsion produces a great number of sensible phenomena, and a multitude of combinations, which change the nature and the properties of bodies. The study of these phenomena, and the knowledge of these combinations, appertain to the department of chemistry. The history of a body must always precede its analysis. The mere examination of its form, its colour, its weight, and the place where it was found, &c., is often sufficient, by a comparison, to lead to a knowledge of its chemical properties. There is no science more extensive than chemistry, nor is it possible for one person to embrace it in its whole extent. To facilitate the study, it is considered in different points of view, and thrown into divisions and subdivisions, so that a person may devote himself to one department of it, although the method of observation, analysis, and combining is the same in all, and although all the phenomena must be explained by the general theory, and refer to certain laws, of which a previous knowledge is requisite. These laws constitute what is called philosophical chemistry, which explains what is meant by the affinity of aggregation or cohesion, and by the affinity of composition, or chemical affinity. Different affinities may be exerted, 1. between two simple bodies; 2. between a simple and a compound one; 3. between compound bodies; and, establishing the principle, that the same body has not the same affinity for all others, but attracts them unequally; it shows us the laws which determine this preference, and the circumstances which modify it; such as cohesion, mass, insolubility, elasticity, and temperature. It measures the degree of affinity, whether of simple or compound bodies. It observes the circumstances which aid or obstruct the play of attraction, and shows that two bodies will not act upon each other, unless the attraction of at least, is in a fluid state; that bodies, even in a state of solution, act upon each other only at imperceptible distances; that two bodies, which have no perceptible affinity, may be made to combine by the interposition of a third; and, finally, that the peculiar properties of bodies are destroyed by their combination, and the compound possesses entirely new properties. Proceeding from these principles to the examination of bodies themselves, philosophical chemistry considers the effects of light, heat, and electricity; the nature of the simple and compound inflammable bodies; of air and water; the composition and decomposition of acids; the nature and properties of the salts; their relations to the acids; the calcination, solution, and alloying of metals; the composition and nature of plants; the characteristics of the immediate elements of vegetable substances; the phenomena of animalization; the properties of animal compounds, and the decay of organic substances. This is the sphere of philosophical chemistry, while it confines itself to general views.

According to the application of these general views, chemistry is divided into seven or eight branches. Of these branches, the great one is the chemical dressing of the land, and the study of the great phenomena which are observed in the atmosphere, and which are called meteorological chemistry. This explains the formation of the clouds, rain, snow, water-spouts; the state of the atmosphere in relation to the hygrometer, barometer, and thermometer; the nature of the aurora borealis, meteoric stones; in short, all the chemical processes going on above the surface of the earth. Geological chemistry treats principally of the great combinations of nature, which produce volcanoes, veins of metals, beds of mineral coal, coal, basalt, mineral waters; the enormous masses of salt and lime, the sulphur in the bed of the Indus, the meteor of the lakes of Egypt, the borax of the lakes of Thibet. The geological chemist endeavours to discover and explain the causes of deluges, earthquakes, the decrease of the waters on the globe, the influence of climate on the colour of animals and plants, on the smell of flowers, and the taste of fruits. In these general views, he needs the aid of natural philosophy and physics. Chemistry, in its application to natural history, is divided in the same manner. There is a chemistry of the mineral kingdom, which we shall have to treat at length. In the examination of all inorganic substances, as stones, salts, metals, bitumen, waters; a chemistry of the
vegetable kingdom, which analyzes plants and their immediate products; and a chemistry of the animal kingdom, which analyses the products of living and dead animals. This last is subdivided into physiological chemistry, which considers the changes produced in animal substances by the operation of life; pathological chemistry, which traces the changes produced by disease or organic defects; therapeutic or pharmacological chemistry, which teaches the nature and preparation of medicines, shows the means of preserving them, and exposes the pretensions of empirics; hygienic chemistry, which acquaints us with the means of constructing and arranging our habitations, so as to render them healthy, of examining the breath which we breathe from the ground against contagious diseases, choosing wholesome food, discovering the influence of occupation, fashion, and custom on the health. Agricultural chemistry treats of the nature of plants and soils, and the laws of production.

Sir Humphrey Davy first gave it the character of a science. It treats, 1. of the general powers of matter which have any influence on vegetation, of gravity, cohesion, chemical affinity, heat, light, electricity, the elements of matter, especially such as are found in vegetables, and the laws of their composition and arrangement; 2. of the organization of the vegetablecell, the chemical composition of their organs, and the substances found in them, &c.; 3. of soils; 4. of the nature of manure.

Chemistry, finally, exerts an influence on the routine of domestic life, and on the arts. It simplifies and regulates the daily offices of the housekeeper; renders our dwellings healthy, warm, light; assists us in preparing clothing, food, drink, &c.; it teaches the best way of making bread; preparing and purifying oils; of constructing bakehouses, ovens, and hearths; of bleeding and washing all kinds of stuff; of producing artificial cold, &c. The application of chemistry to the arts and manufactures is, however, still more important and extensive. Here its aim is to discover, improve, extend, perfect, and simplify the processes by which the objects to be prepared may be adapted to our wants. We close our remarks with the observation, that a knowledge of chemistry may frequently be useful in judicial proceedings, in exposing crime; e. g., in cases of poisoning, counterfeiting coins and written documents, &c.

Chemical Classification and Nomenclature. The chemist finds a small number of bodies, from which only a small variety can be obtained, in the present state of his knowledge. He places these bodies and agents which he now has at his disposal. On the other hand, there is a large number of bodies, from which he obtains several kinds of matter. The former he calls elements or simple bodies; the latter, compound bodies. The number of simple bodies now known is fifty-three; that of the compound bodies is much greater, and might, at first, appear to be infinite, since not only a difference of elements, but even a difference of the proportions in which they are combined, makes an essential difference in the properties of the compound. It is, however, much less than would be supposed, and even less than the number of possible combinations of simple bodies. Twelve of the simple bodies are oxygen, iodine, chlorine, bromine, fluorine, hydrogen, boron, carbon, phosphorus, sulphur, azote, and selenium; and forty-one and a half are the terminal compounds of the gases or carriers of combustion, because they combine with the others, producing a disengagement of heat and light, and acidifying principles, because they are also capable of producing acids by a similar combination. The forty-eight others are called simple combustibles, because their union with the supporters of combustion, above mentioned, is a real combustion. Combustible bodies, as has been observed, are not so few as might be supposed; they are of two kinds, 1. from the combination of oxygen, or one of the other simple supporters of combustion, with one of the simple combustibles; such are the acids: 2. from that of a simple body combined with oxygen, with another similar compound; such are the salts: 3. from that of two, three, rarely four, simple combustibles with one another: 4. from that of oxygen with hydrogen and carbon, forming vegetable matter: 5. from that of oxygen with hydrogen, carbon, and azote, forming animal matter. Combustibles combined with the simple supporters of combustion are sometimes called simple bodies; from the number of these elements, they are also called binary compounds. When their taste is acid, and they have the property of redhening vegetable blues, they are termed acids. If they are not acid to the taste, and have the property of turning blue what has been redhended by acids, they are distinguished by the termination ide, as oxide, chloride, &c. If only one of the latter class is formed, that is, if the supporter of combustion will unite with the combustible in only one proportion, we call this compound simply the oxide, chloride, &c., of the combustible; as, oxide of carbon. If they can unite in several proportions, we distinguish one which contains the smallest proportion of oxygen, &c., protioxide, &c.; the second, deutioxide; the third, trioxide. The highest is also called pero- oxide. So, if only one acid is formed, we designate it by the name of the combustible, with the termination ic. Thus carbon with oxygen forms carbonic acid. If several are formed, that which contains the larger proportion of the acidifying principle is designated by the termination ic, and that which contains less, by the termination ous. Thus sulphur forms sulphuric acid and sulphurous acid. If there are still intermediate compounds, we annex hypo (signifying less), to designate a lower degree of acidity. Thus we should have sulphuric, hyposulphuric; sulphurous, hyposulphurous. In the acids and oxides, chlorides, &c., the combustible is called the base. When the base is the same, the peroxyde, &c., always contains less oxygen, &c., than the lowest acid. For the names of compounds of two binary burnt bodies, no rules have been adopted to express the union of two oxides, two acids, or an acid with a non-metallic oxide. But those formed of acids and metallic oxides are called salts, and their individual names are formed by changing the termination of the oxide, or of the acid, the termination ous being changed into ate, and the termination ate into ate; sulphuric acid with the oxide of tin would form sulphate of tin; sulphuric acid and tin, sulphate of tin. If the same acid combines with more than one oxide of the same metal, then we prefix the characteristic of the oxide to the name of the acid; thus sulphuric acid, combined with the protioxide of iron, forms the protosulphate, with the peroxyde, the per sulphate, of iron. Other substances have also the property of uniting with acids, neutralizing them, and forming compounds analogous to salts. There are no general rules for the names of these compounds; but the substances themselves are called salifiable bases. The rules of nomenclature, in regard to the combination of the combustibles, vary:—1. If the constituents are metals, they form alioys: 2. If the compounds are solid or liquid, and formed of a metal and a combustible, we give to the latter the termination uroet; as, carbon with iron forms carbonuret of iron. If both are non-metallic, the termination uroet may be attached to either; as, phospheturet of sulphur, or sulphoturet of phosphorus. 3. If the compound is gaseous, we name the gas or one of the gases, if it
CHEMNITZ—CHERIBON.

is composed of two, and join the other component as an adjective; as, phosphated hydrogen. See the appended Chemical Chart by Mr William Grier.

CHEMNITZ, the principal town in the historic county, in the department of the Erzgebirge, on the river Chemnitz, is well built, and contains 1000 houses, with 16,000 inhabitants, amongst whom are 1197 master-weavers, and 860 journeymen and apprentices. The principal manufactures are white and printed calicoes, ginghams, woolen and silk stuffs, and for bed quilts. Of twelve cotton factories, founded about the middle of last century, several employ from 300 to 500 workmen. Forty spinning-mills, in the town and its environs, manufacture upwards of 1,000,000 pounds of yarn annually. The manufacture of cotton hose has been brought to very great perfection, and they are exported in large quantities to the United States and South America, besides furnishing most of the European markets, through the fairs of Leipzig, Frankfort, and Brunswick. Within a few years, they have even been sent to England, strange as this may sound. They are manufactured in the neighbouring villages.

CHEMNITZ, MARTIN, a distinguished Protestant theologian of the sixteenth century, rose, by his extraordinary talents and profound knowledge, from low circumstances to a high degree of eminency. He was born at Trusetzen, in the Mark of Brandenburg, Nov. 9, 1529, of poor parents; received his education at Magdeburg and Frankfort on the Oder, and, in 1544, became a schoolmaster in Writzen on the Oder, to obtain the means of continuing his studies and Wittenberg. By the advice of Melanchthon, heelepplied himself to mathematics and astrology. In 1559, he became librarian of duke Albert of Prussia. He then wrote his Locii theologici (edit. Polycarp. Leyser, Frankfort on the Main, 1591, fol.), a valuable commentary on Melanchton's system of dogmatics. Being invited to Brunswick, as minister, he attacked the Jesuits in his Theologian Jesuitarum prope Capita (Leipsic, 1562), and, when the council of Trent thought itself assailed in this work, he wrote his Examen Concilii Tridentini (best edit. 1707, fol., Frankfort on the Main), a work of great historical value. He adhered to Luther's doctrine concerning the sacraments, on this subject compiled the Corpus Doctrinae protestan in the Lutherans, and gradually became so implicitly attached to the Lutheran doctrine, that his efforts in support of it contributed to check the progress of theological science. He died, April 8, 1586, at Brunswick. He was the author of a great number of works besides those already mentioned—His grandson, Philip Bogislav von Chemnitz, born in 1605, a soldier in the Swedish service, wrote the celebrated work, De Ratione Status in Imperio nostro Romano-Germanico, &c. nec. Hip. pollio a Lapide (1640, 4to, and 1647, 12mo), which did more injury to the interests of the emperor than the loss of many battles. He then became Swedish historiographer, and wrote a history of the Swedish and German war (1648 and 1653). He died at his estate near Hallstadt, in Sweden, in 1678.

CHENIER, MARIE JOSEPH DE, born, Aug. 28, 1764, in Constantinople, where his father, Louis Chenier, known as the author of valuable works on the Moors, Morocco, and the Ottoman empire, was consul-general, went, when very young, to Paris, served as an officer of dragons, left the service, and devoted himself to literary pursuits in Paris. After an interval of three years, he published his Charles IX., which may be considered as a monument of the taste prevailing in France at the beginning of the revolution, and is not without poetical merit. Chenier, by flattering the passions of the people, soon gained great popularity. His Henri VIII., La Mort de Colas, and Cains Gracchus, were received with great applause. He was chosen a member of the convention in 1791. He then became a member of the party of the most violent democrats. This spirit appears even in his Fezclon and Timoleon, published in 1793 and 1794. In the last years of his life, he was engaged in preparing a history of French literature. His discourses at the Atheum, in Paris, in 1806 and 1807, were afterwards published, and delivered in the language, and of the different departments of poetry and prose, down to the times of Francis I. In an introduction, published in 1806, he explained the plan of the work, together with the principal results of his researches. (See his Fragments du Cours de Littérature, fait à l'Athéée en 1806 et 1807, &c. Paris, 1808.) Chenier also treated of the characteristic features of the principal works in French literature, from 1785 to 1808, in his Tableau historique de l'État et des Progrès de la Littérature Française depuis 1780. In his last piece on the decennial prizes, he maintained that the work of the best senator or the best digesting work was due to one of his former enemies. His criticism on La Harpe's Lyceé is the most correct and impartial view that has been given of that work. He died Jan. 11, 1811.

CHERIBON, or CHERBOURG; a seaport of France on the Channel, in the department of La Manche (the Channel); sixteen leagues N. St Lo, thirty-four W. N. W. Paris; lon. 1° 37' 30" W.; lat. 49° 38' 30" N.; population, 15,000. It has a commercial court, an exchange, a school of navigation, and a learned society. It is situated at the bottom of a large bay, between cape Barfleur and cape La Hogue. The building of small vessels and the manufacture of woollen stuffs form the principal employment of the inhabitants. This port has always been considered, by the French, as an object of great importance in the navigation of the English channel and immense sums have been expended in the erection of piers, deepening and enlarging the harbour, and erecting fortifications. After the peace of 1783, the French government determined to make Cherbourg a great naval depot, and in different attempts before 1808, expended more than £2,000,000 in constructing a vast bulwark to break the water, rendering the road and lock nearly £5,000,000, with the object of improving the roads. The mud, however, already begins to accumulate in the basin. The current, if the tides set in, is so strong, that sometimes ten or twelve cables are necessary to hold a vessel. Napoleon's views respecting Cherbourg, as given in Count Las Cases' Journal, are very interesting.

CHERIBON; a principality of Java, on the N. coast; lat. 6° 40' S.; lon. 108° 35' E. It is divided into nine districts, and contains about 90,000 inhabitants, besides strangers. This country is divided between two princes, both of whom are feudatories of the Dutch East India company. The productions are coffee, timber, cotton yarn, neen, indigo, sugar, and also a little pepper; this last article formerly grew here in such abundance, that, in the year 1680, the bhar, or 575 tons, was paid for at the rate of no more than ten Spanish dollars. The gardens are seen on both coasts, and in the forests in this district. The horses are small and well made, but vicious.

Cheriton, Sherbon, or Teherbon; a town in Java, capital of the principality of the same name, 170 miles E. Batavia. It is situated at the bottom of a
CHEEROKES—CHERUSCI.

deep bay, and was formerly a station of some importance. 25,000 inhabitants.

Chersonesus is the name of a place on the East Indian sea, near the north coast of Java; lat. 6° 9' S.; lon. 108° 34' E.

CHEROKEES or TSULLAKKES, the more proper name. See Indians.

CHERONEA. See Cheronea.

CHERRY. The cherry is a fruit of the prune or plum tribe, the original stock of which is the wild cherry (prunus cerasus). The gradual effect of cultivation on the cherry has been the production of several kinds, which, both in size and flavour, greatly exceed the fruit of the parent stock. The kinds that are best known are the May-duke, white-heart, and black-heart cherries. The fruit is not damaged by grafting them usually upon the stocks of wild black and red cherry-trees, which are reared for that purpose. This agreeable fruit is eaten fresh or dried. It is sometimes preserved with sugar as a sweetmeat, made into jam, used in the preparation of the liquor called cherry-brandy, and made into wine. From wild black cherry trees, the mulberry-tree, &c., were doubtless derived an ardent spirit, by the sale of which to the French and Germans, they derive considerable profit.—The wood of the cherry-tree, which is hard and tough, is much used, particularly by turners and cabinet-makers, in many places, for the manufacture of chairs and other furniture. The wood which excludes distilled spirit is, in many respects, equal to gum arabic, and is considered very nutritious. Hesselius informs us that, during a siege, more than 100 men were kept alive for nearly two months, without any other sustenance than a little of this gum, which they occasionally took into their mouths, and suffered gradually to dissolve.

CHERRY-LAUREL. The cherry-laurel (prunus lauro-cerasus) is remarkable only as producing the celebrated laurel-water. This is a most powerful poison, the strength of which (like that of peach-kernels, bitter-almonds, cherry-leaves, &c.) depends upon the presence of prussic acid, now so well known. Laurel-water is obtained from the leaves and flowers, or the leaves only, of this plant, by distillation, and was formerly much used, and much dreaded, as a poison. Of late years, it has gone out of use, and the Leghorn distiller, in his eagerness for profit, possessing the same properties, in a less degree, as do noga, and other similar cordials, which should all be used with great caution.

CHERSON, capital of the Russian government of Cherson, on the Dnieper, about sixty miles from its mouth. It is the chief naval station on the Black sea, founded in 1778, is well fortified, and contains about 8000 houses, partly of stone, with 20,000 inhabitants. The city consists of four parts:—1. the fortress, with a church, a mint, an arsenal, and a cannon foundry; 2. the naval office, with extensive naval magazines and dock-yards; 3. the Grecian suburb, with a large warehouse; and 4. the seaport, for soldiers. The naval office has been transferred to Nikolajev (at the confluence of the Inglul with the Bug), founded in 1789, the situation of which is more convenient and healthy. The harbour is annually entered by 1400 Greek boats, besides several Austrian and French vessels. Wherever large rivers have but a slight descent towards their mouths, a great quantity of mud accumulates, which renders the bed gradually shallower, and, finally, rises above the surface of the water, forming morasses and islands, which leave a narrower bed for the stream. Such an accumulation takes place more rapidly, if two rivers of considerable size, like the Dnieper and Bug, empty into the same bay. A deep bed should, therefore, be dug and embanked for the united rivers, which will be kept free by the action of the current, at least for some time. This was overlooked by Potemkin, when he formed the plan of this city; and large vessels in consequence, obliged to discharge part of their cargoes in the harbours of Ocezov, which has seventeen feet of water; and those which are outward bound complete their cargoes there. In 1823, however, the bed of the Inglul, which discharges its waters into the Black sea, was deepened to 60 feet. In 1826, the ship of 110 guns could be launched at Nikolajev.

The province of Cherson or Nikolajev (containing 25,500 square miles, and 371,000 inhabitants) is a dry heath, rising gradually towards the south, containing rich meadows here and there, and, along the rivers, about eighteen lineal miles, marvelously fertile. The soil along the shores is everywhere impregnated with iron, and produces salt plants in abundance. It is, therefore, suitable for raising sheep. The climate, in summer, is hot; in winter, cold. The mulberry-tree, which loves a soil impregnated with salt, thrives here luxuriantly; but the inhabitants do not turn it to profit, as he took his course through the thick woods: agriculture is yet in its infancy here. In 1787, the emperor Joseph and the empress Catharine II. met at Cherson, and, amid the splendid festivities of that occasion, formed an alliance against the Porte. The tomb of Potemkin is in the city, and that of Howard a few miles from it. The cities of Odessa and Ocezov, and the ruins of Olbia, at the mouth of the Bug, are in the government of Cherson.

CHERSONESUS (Greek; a peninsula). This name has been given to several peninsulas; as, 1. the Cimbrin chersonesus (chermonesus Cambria), now Jutland, &c. (see Jutland); 2. the Taurian chersonesus (ch. Taurica, also called Magna), the peninsula formed by the Black sea and the sea of Azof—the Crimean; 3. the Thracian chersonesus (ch. Thracia, or merely Chersonesus), the great peninsula in Thrace, now the peninsula of the Darwennex.

CHERUB, in the Scriptures; an angel of the second choir of the first hierarchy. Cherubim is the Hebrew plural of cherub, or seaphim is of seaph. The former signifies, as children; the latter, as flames of fire. The church has assigned to them two ranks; one belongs to earthly, heathen, or profane sculptors commonly represent the cherubim by a child's head, between wings. Raphael's paintings are beautifully adorned with these lovely creations of fancy.

CHERUSCI; the most celebrated German tribe among the Istevones. They inhabited both sides of the Hartz mountains, between the south-western part of the Thuringian forest, where the Catti were their neighbours, and the Saale. Drusus, on his retreat from the Saale to the Rhine, passed through the southern part of their country. But, in advancing from the territory of Paderborn, over the Weser, towards the adjoining district, they were obliged to subdue them. All the northern part. Here the Aller seems to have been their northern and eastern boundary. They also possessed some territory on the west bank of the Weser. Their national league comprised all the tribes between the Weser, the Rhine, and the Lippe—the Cattarini, Assirardi, Dulignumii, Marsi, Chameravi, &c. The Romans first became acquainted with the Cherusci in the year 10 B.C., when Drusus forced his way as far as the Weser, but, for want of provisions, was obliged to return. In the following year, he advanced from the Weser towards the Elbe, and then turned towards the Hesse, on the north side of the Hercynian forest, through the midst of the Cherusci. At that time, they were not very formidable. In the year 7 B.C., they even entered into an alliance with the Romans, and served in their armies. But when Varus attempted to
make them tributary to Rome, and subject them to the Roman laws, they revolted. Varus, being de- 176 CHEAPEAKE BAY—CHESSE.

cided in the first instance, was lost. In the year 9 A.D., was destroyed, with his whole army, in a battle which lasted three days. (See Arminius and Germania.)—Upon this, the Cherusci became the chief object of the attacks of the Romans. Ger- manicus (q.v.), victorious over the Marst and Catii, marched against the Cherusci, whose leaders, Seges- tus and Arminius (the latter of whom had carried off the daughter of the former), were at war with each other. Segestus, pressed by Arminius, called Germanicus to his aid, who delivered him, indeed, from his danger, but was obliged to return, after several engagements, without having gained any permanent advantages. By their last successes, the Cherusci had become very powerful. Their alliance with the Lombards and Semnones, who had ren- mounced the Marcomannic confederacy, and the victory of Arminius over the Marcomanni under Maroboduus, raised the Cherusci to the first rank among the German nations. But, after the assassi- nation of Arminius (21 A.D.), new disturbances broke out among them. They committed the supreme command to Italicus, the last survivor of the family of Arminius, but soon after expelled him. They then appointed him to his rights and dignity, after a long and destructive war with the Che- rusci, who, abandoned by their allies, were now confined to the territory between the Saale and the south side of the Hercynian forest. In the third century, they, with their former allies, were swal- lowed up in the great Frankish confederacy, and no longer appear as a distinct people.

CHEAPEAKE BAY; a spacious bay of North America, in the states of Virginia and Maryland. Its entrance is between cape Charles and cape Henry, sixteen miles wide; and it extends 190 miles to the northward, through the states of Virginia and Mary- land, dividing them into two parts, called the eastern and western shores. It is from seven to twenty miles broad, and generally as much as nine fathoms deep; affording many commodious harbours, and a safe and easy navigation. It receives the waters of the Sus- quehanna, Potomac, Rappahannock, York, and James- rivers, which are all large and navigable.

CHESLEDEN, WILLIAM; a celebrated English surgeon and anatomist. He was born in Leicester- shire, in 1685, and, after a common school education and some medical instruction in the country, he went to London to prosecute his studies. At the age of twenty-two, he began to give lectures on anatomy, and, in 1711, he was chosen F.R.S. In 1713, he published a treatise on the Anatomy of the Human Body, 8vo, long esteemed a favourite manual of the science. He continued to read his lectures for more than twenty years, during which he gradually rose to the head of his profession. In 1725, he published a Treatise on the High Operation for the Stone. Ches- elden, who was a very dexterous and successful operator, afterwards added to his reputation by prac- tising what is termed the lateral method of operating for the stone, since generally adopted. A peculiar operation, which he performed on a youth of four- teen, who had been blind from his birth, and who ob- tained his sight by means of it, attracted much at- tention; and, in 1728, he published an account of it in the Philosophical Transactions. In 1733 was pub- lished his Osteography, or Anatomy of the Bones, folio, containing 500 large plates, and adorned with the splendid and accurate work. Cheselden obtained, in 1737, the appointment of chief surgeon to Chelsea hospital. This situation he held till his death, which took place at Bath, April 10, 1752, in consequence of a fit of apoplexy. Besides the productions already mentioned, he published a translation from the French of Le Drai's Surgery, and several anatomical and medical works. He was a fellow of the Royal Society. The private character of Cheselden was generally re- spectable; but he was not exempt from faults and foibles. Among these was a predilection for pulgism, and a degree of vanity which rendered him more am- bitious of being thought a skilful architect or con- structor than a good anatomist. He was, however, humane and liberal, and was much esteemed by Pope and other literary men with whom he was acquainted.

CHESS; the most celebrated and general of all sedentary games. One of the greatest charms of chess lies, no doubt, in the circumstance, that, whilst no man is ever too young, or too old, to play this game, as generally played, he has entirely excluded it, except that it must be decided by chance which of the two players shall begin. The game affords so much variety, so much scope for calculation, so many opportunities to exhibit foresight and penetration, that it has been held in great esteem by all nations ac- quainted with it, and all persons who have conquered the difficulties of learning it. The Mohommedans except chess from the law against gambling. Whilst this game affords enjoyment worthy of mature minds, it is an excellent exercise for the young; as it teaches patience and circumspection, strengthens the judg- ment, and encourages perseverance in a plan afford- ing a prospect of eventual success, though, at the moment, the situation of things may appear very crit- ical. The Chinese pretend to have known it 200 years previous to our era. It was brought, in the sixth century, from India to Persia, whence it was spread by the Arabians and the crusaders all over the civilized world. It is most commonly played in Asia. In fact, its whole composition and its name prove its Asiatic origin. In Sanscrit, it is called sjughrantsh, a word which is believed to indicate the most important component parts of an ancient Eastern army—elephants, infantry, sithed waggons, and horses. But this name was supplanted by the Persian term shah (king), which the game has retained, more or less corrupted, in all languages.

Generally, chess is played by two persons upon a board, the same as that used in draughts or che- quers, containing sixty-four squares. The board must be so placed, that each player has a white square at his right hand. The squares are named from the pieces, viz.; that on which the king is placed is called the king's square; that on which the king's pawn is placed, the king's second square; that on which the queen's pawn is placed, the queen's first square; that on which the knight's pawn is placed, the knight's third square; that on which the bishop's pawn is placed, the bishop's fourth square; that on which the queen is placed, the queen's fourth square; and so on with all the pieces of each side. Each player has eight pieces and eight pawns. In placing the pieces, the ancient rule is to be followed—serving regina colorum (the queen maintains the color)—that is, the black queen is to be placed on the black square, in the middle of the line next to the player; in a similar way, the white queen on the white field. On the side of the king and the queen stand the bishops; then follow the two knights; and last, the rooks or castles. The object of the game is, to bring the adversary's king into such a situation that he cannot move, which is called checkmating. The king can never be taken. The play ends with a checkmate.

It is not uninteresting to consider the different names which the pieces have received in various countries. In the East, the queen is called the queen regnant, the queen general. The bishops are called, in German, laufers; and in France, fous (fouls). These were, originally, elephants, with giants on them. The knights are called, in German, leapers. The castles were, originally, war-chariots, which is also indicated by the word root, from the
Indian rock, or red. With the old Germans, the
pawns, now called peons, were styled Wenden
(Vandals), a tribe despised by the Germans. Don
John of Austria had a room, the floor of which
was made like a chess board. On this he played with
living persons.

The inhabitants of a German village, Stropke, or
Strobeck, near Halberstadt, for about 300 years, have
been distinguished as chess-players. The reason for
this is doubtful. The most probable opinion is, that
a certain bishop, who lived among them, made them
acquainted with this game, and freed them from the
very taxes on condition that they would continue to
practice it. Numerous anecdotes show how much
the game of chess can absorb the mind. The elector
of Saxony, John Frederic, was taken prisoner in the
battle of Muhlberg, by the emperor Charles V.,
and was playing at chess with his fellow prisoner,
Ernest of Brunswick, when it was intimated to him
that the emperor had sentenced him to death. He
paused for a moment, to remark on the irregularity
of the proceeding, and immediately resumed the
game, which he won, and expressed, in a lively man-
er, the pleasure which he derived from his victory.
Charles XII. of Sweden played at chess when he
was so closely besieged in the house near Bender, by
the Turks. Al Amin, caliph of Bagdad, would not
be disturbed in chess-playing when his city was car-
ried by assault. Frederic the Great loved chess
more than his papillon did not play it particularly well.

Among the most famous players and writers on
the game are, a duke of Brunswick, named Augustus,
who, in the 17th century, published, under the name
of Selenus, an Introduction to the game (1616, 4to),
now very rare; Philidor, a Frenchman, who was par-
ticed in distinguished in London, in 1789–90; and
Gionchino Greco, celebrated in the beginning of the
seventeenth century; and the Arabian Philip Stam-
ma in Paris, 1737. Caxton's "Game and Playe of the
Cheese," printed in 1474, is generally admitted
to be the first typographical work executed in Eng-
l. Across a, a German novel by Heine, con-
tains many ingenious ideas on chess-playing, and
several fine games. Some very curious manuscripts,
relating to this game, in the Chinese, Sanscrit, Per-
ian, and Arabic languages, have been partially tran-
slated; and the pressures of Europe have teemed with
similar productions, the most noted of which are
identified by Mr. Lewis, in the preface to his edition
of Sarat on Chess, 1822.

Laws of the game. 1. If the board, or pieces, be
improperly placed, the mistake cannot be rectified
after four moves on each side are played. 2. When
a player has touched a piece, he must move it, unless
it was only to replace it; when he must say,
'J'adoube, or I replace. 3. When a player has quitted
a piece, he cannot recall the move. 4. If a player
'check' one of his adversary's pieces without saying
'J'adoube, he may be compelled to take it, or, if it
cannot be captured, to move it. A pawn is moved two steps, it may be taken by any adver-
sary's pawn, which it passes, and the capturing pawn
must be placed in that square over which the other
leaps. 6. The king cannot castle if he has before
moved, if he is in check, if in casting he passes a
check, or if the check has moved. 7. Whenever a
player check's his adversary's king, he must say Check,
otherwise the adversary need not notice the check.
If the player should, on the next move, attack the
queen, or any other piece, and then say Check, his
adversary may replace his last move, and defend his
king. 8. In case of the adversary's side, it may be made a queen, or any other piece
the player chooses. 9. If a false move is made, and
is not discovered until the next move is comple-
ed, it cannot be recalled. 10. The king cannot be
moved into check, nor within one square of the ad-
verse king, nor can any player move a piece or pawn
that leaves his king in check.

Chess Clubs; societies for the purpose of playing
che, and assembling the best players of a place.
They flourished highest in France and Britain, but there
are many in Germany. They often challenge each
other, and the game is carried on by letter.

CHEST (called, in anatomical language, the
thorax) is the cavity of the body between the
neck and the belly. The external parts of the thorax
are the skin, the breasts, various muscles, and the bones
which form the frame of the cavity. These are the
sternum, running from the neck down the middle
of the breast, and the ribs, which are inserted in the
spine, and arched towards the sternum, with which
they are firmly connected by means of a cartilage.
The parts within the cavity of the thorax are the
pleura and its productions, the lungs, heart, thymus
gland, esophagus, thoracic duct, arch of the aorta,
part of the vena cava, the vena azygos, the eighth
pair of nerves, and part of the great intercostal
nerve. It is covered by the lungs above and the
diaphragm below. The diaphragm is a large muscle
in the lower part of the thorax, which divides the
thoracic cavity from the abdominal cavity, and
sets up waves of percussion, which are used in
breathing.

CHESTER, or CHESHIRE; a county palatine of
England, bounded by the rivers Mersey and Tume,
which separate it from Lancashire, on the east by the
 counties of Derby and Stafford, on the south by
Shropshire and Flintshire, and on the west by Den-
bighshire, Flintshire, and the estuary of the Dee. Its
form is oval, with two projecting necks of land, the
one called the Wirral, about twenty miles in length,
and six in breadth, extending into the Irish sea,
between the estuaries of the Dee and the Mersey,
and the other forming part of Macclesfield hundred,
extending fifteen miles in length, and about four in
breadth, between Derbyshire and Yorkshire. Under
the ancient Britons, it formed part of the territories
of the Cornavii, and it constituted a part of the pro-
vince of Flavia Caesariensis of the Romans. The dairy
is the principal object of attention with the Cheshire
farmer, and this county has for ages been celebrated
for its cheese, of which from twelve to eighteen thou-
sand tons are made annually. Salt and coal are
abundant in this county. There are also mines of
copper, lead, and cobalt. The principal salt-works
are at Nantwich, Middlewich, Winsford, and North-
watches. The Mersey, which winds its way for the
most part, direct their currents northward, and dis-
charge themselves into the Mersey and the Dee.
Population of the county in 1831, 334,410.

CHESTER (anciently Deva); a city and county
in itself, situated on the Dee, about twenty miles
from the Irish sea, 145 N. Bristol, 181 N. W. London. It
is a bishop's see. The city is square, and surrounded
by a wall nearly two miles in circumference. It con-
tains a cathedral, nine parish churches, a Roman
Catholic chapel, and eight places of worship, for
dissenters of different persuasions. The streets are
hollowed back to the river. The summit of the city
is about one hundred feet above the level of the ground
on each side; and the houses have a sort of covered portico running on from
house to house, and from street to street, level with
the ground behind, but one story above the street in
front. The castle is a noble modern structure, built
on the site of the old castle, and contains the county
courts and jail. Chester has two yearly fairs, the most
considerable in the north of England, held on the
fifth of July and tenth of Oct., each lasting several
days. Chester may be deemed a sort of provincial
metropolis for the gentry of the neighbouring coun-
tries, of more interior parts. It is celebrated for
casting, and with Ireland, whence great quantities
of linen are imported for the fairs. Besides linen,
wood, hides, tallow, feathers, butter, provisions, and
CHESIRE.

OTHER articles, are received from Ireland; grocery from London, timber from Wales; hemp, flax, and iron from the Baltic; and fruit, oil, barilla, cork, and wine from Spain and Portugal. The exports are coal, lead, calcimine, copper-plates, cast-iron, and vast quantities of cheese. The only manufacture of consequence is a large production of gingerbread, and some well conducted establishments for ship-building. The shopkeepers of Chester likewise keep up a very profitable intercourse with North Wales. The port of Chester has been much improved of late years, but the shifting navigation of the Dee is an allifying consequence. Population of the city in 1831, 21,369.

CHESTERFIELD (Philip Dormer Stanhope), earl of, a statesman, orator, and author, born in London, in 1694, studied with great success at Cambridge. In 1714, he made a tour through Europe, and acquired, particularly at Paris, that polished grace of manners for which he was distinguished. On the accession of George I., general Stanhope, his great uncle, procured him the place of gentleman of the bed-chamber to the prince of Wales; and the business of the cabinet, in C我不是, was committed to him. However, though he had not yet attained the legal age, at the close of the first month of his membership, he delivered a speech, in which he astonished the audience by the vigour of his thoughts no less than by the elegance of his style, and the facility and grace of his delivery. He distinguished himself equally in the house of lords, in which he took his seat after his father's death. In 1728, he was appointed ambassador to Holland, and succeeded in delivering Hanover from the calamities of a war, by which it was threatened. On his return, he was made knight of the garter, and lord steward of the household to George II. He was afterwards appointed lord-lieutenant of Ireland, and, on his return, in 1746, received the place of secretary of state; but he soon retired from public affairs, and devoted the remainder of his life to study and the society of his friends. His talents as an author are displayed in several moral, critical, and humorous essays, in his parliamentary speeches, which were printed at a later period, and particularly in a collection of letters to his son, which are celebrated throughout Europe. To the charms of wit and grace he united good sense, a thorough knowledge of the manners of the times, and the political situation of Europe, extensive information, a noble and unaffected elegance, and a style that would do honour to the most experienced writer. All this, however, cannot excuse the corrupt moral tone of his letters. One is shocked to hear a father recommending to his son grace of manners as the most essential quality for a man of the world, and even instigating him to licentious irregularities. It must be mentioned, however, in his excuse, that the young man to whom these letters were addressed (a natural son, whom he had adopted under the name of Stanhope) was remarkable for the awkwardness of his manners, and that his father, who set so high a value on elegance, hoped to inspire him with the same taste, by setting the subject in its strongest light. His efforts, however, were not successful. Towards the close of his life, Chesterfield became deaf, and suffered from other bodily infirmities, which cast a gloom over his last days. He was intimate with Pope, Swift, Botanic, and other distinguished scholars, and an acquaintance of doctor Johnson, who called him a wit among lords, and a lord among wits, and said of his letters, that they taught the morals of a prostitute, and the manners of a damsel. He died in 1773, at the age of seventy-nine.

CHESTNUT. The sweet chestnut (fagus car-
CHIARAMONTI—CHILE.

179

CHIARAMONTI; the family name of pope Pius VII. (q. v.). Like his predecessors, Clement XIV. and Pius VI., from whom the museum Pio-Clementinus is called, he augmented the treasures of art in the Vatican. The description of this museum (II. Museo Chiaramonti descritto ed illustrato da Filippo Aurio Visconti e Giu. Ant. Guattani &c., Rome, 1818, fol.) forms a supplement to the work on the museo Pio-Clementino, published by Giamb. and Emilio Quir. Visconti.—The entrance into the museo Chiaramonti, as well as into the library of the Vatican, is by the museo (Chiaramonti) delle inscrizioni, the museum of Greek and Roman inscriptions, which are inserted in the walls of a long corridor—a collection which has not its equal in Europe. The pope caused it to be arranged by Gaet. Martini. The entrance to it is through a small court, adjacent to the library. There is also a Chiericato: Biblioteca Chiaramonti, containing the whole library of cardinal Zelanda, which has been added to the Vatican.

CHIARI, PIETRO; a prolific writer of comedies and novels; born at Brescia, towards the beginning of the 18th century. After having composed thirty plays, he entered the order of Jesuits, but soon changed the monastic for the secular life, and, thus becoming free from all official duties, devoted himself solely to letters. He resided at Venice, with the title of poet to the duke of Modena, and, in the space of ten or twelve years, brought more than sixty comedies on the stage. Chiari and Goldoni were rivals, but the public adjudged the palm to the latter. Chiari's dramas in verse fill 10 vols.; those in prose, 4. He is not desistute of invention nor of art in the management of his subjects, but his works are deficient in animation, vigour, and humour. He died at Brescia, at a very advanced age, in 1787 or 1788.

CHIARO SCURO (an Italian phrase; meaning clear-obscure; in French, clair-obscure), in painting, is the art of judiciously distributing the lights and shadows. If the composition of a picture is success- ful in other respects, becomes a picture only by means of the chiaro scuro, which gives faithfulness to the representation, and therefore is of the highest importance for the painter; at the same time, it is one of the most difficult branches of an artist's study, because of the want of precise rules for its execution. Every artist has a point where rules fail, and genius only can direct. This point, in the art of painting, is the chiaro scuro. The drawing of a piece may be perfectly correct, the colouring may be brilliant and true, and yet the whole picture record lose cold and hard. This we find often the case with the ancient painters before Raphael; and it is one of the great merits of this sublime artist, that he left his masters far behind him in chiaro scuro, though he is considered not so perfect in this branch as Corregio and Titian, who were inferior to him in many other respects. The modelling in which the light and shade are distributed on any single object is easily shown by lines supposed to be drawn from the source of the light which is shed over the figure; but chiaro scuro comprehends, besides this, aerial perspective, and the proportional formation, by which objects are made to swell or recede from the eye, produce a mutual effect, and form a united and beautiful whole. Chiaro scuro requires great delicacy of conception and skill of execution; and excellence in this branch of art is to be attained only by the study of nature and of the best masters.—Chiaro scuro is also understood in another sense, paintings in chiaro scuro being such as are painted in light and shade and redexes only, without the use of glazes, or than the local one of the object, as representations of sculpture in stone or marble. There are some fine pieces of this sort in the Vatican at Rome, by Polidoro da Caravaggio, and on the walls of the staircase of the royal acad- emy of London, by Cipriani and da Sangano. CHICKEN, MARGARET CAREY'S. See Petrel.

CHIUAHUA; a state or province of Mexico, bounded E. by Coaghuil, S. by Durango, and W. by Chihuahua and Sonora. It is an elevated district, and suffers for want of water.

CHIHUAHUA; a town of Mexico, and capital of the province of the same name, on a small branch of the Conchos; 180 miles N. of Mexico; lon. 104° 30' W.; lat. 28° 50' N.; population, 11,060. It is surrounded by rich silver mines.

CHILBLAINS are painful inflammatory swellments, of a deep purple or leaden colour, to which the fingers, palms, and soles of the body are subject, on being exposed to a severe degree of cold. The pain is not constant, but rather pungent and shooting at particular times, and an in- susurable itching attends it. In some instances, the skin remains entire; but in others, it breaks, and small black pustules are formed. The degree of cold has been very great, or the application long con- tinued, the parts affected are apt to mortify, and slough off, leaving a foul, ill-conditioned ulcer be- hind. Children and old people are more apt to be troubled with chilblains than persons of middle age; and such persons as have a scorbutic habit are remarked to suffer severely from them.

CHILDERMARS DAY; a festival celebrated by the church of Rome on the 28th of December, in commemoration of the massacre of the Innocents. Bourne, in his Antiquitates Fugituses, mentions a popular superstition, that "it is very unlucky to be- gin any work upon Childermars day." Revels, how- ever, were held on this day.

CHILE; a country of South America, bounded N. by Buenos Ayres, E. by Buenos Ayres and Patagonia, from which it is separated by the Andes, S. by a strait called the Strait of Magellan, and W. by the Pacific ocean; lon. 60° to 74° W.; lat. 24° to 45° S.; about 1400 miles long, and from 100 to 200 broad; square miles about 2,000,000. Population stated, in 1806, at 780,000; by Malte-Brun, in 1820, and a Spanish journal, at 900,000. Another statement, said to be founded on a census, makes it 1,200,000, exclusive of the Andes. It is divided into two inten- dencies, St Jago and Conception, which are subdivided into thirteen provinces, viz. Copiapó, Coquimbo, Quillota, Aconcagua, Melipilla, St Jago, Rancagua, Colchagua, Maule, Itata, Chillan, Pu- chacuy, and Huaco and Quemchi. The islands are Coquim- banes, 396 sq. miles; Tocol, 49, Massapoa, Juan Fernandez, Mocha, and the archipelago of Chiloe. The chief towns are Santiago or St Jago (the capital), Conception, Valparaiso, Valdivia, Chillan, Co- quimbo, St Fernando, and Petorca. The rivers are numerous, but small, and have generally rapid cur- rents. Some of the principal ones are the Maule, Biobio, Cauten, Tolten, Valdivia, Chaivin, Bueno, and Sinfonlo. Chile presents a plain, gradually rising in elevation as it recedes from the coast and approaches the Andes. From this sloping confor- mation, any other colour than blue is seen. Many rivers flowing from the Andes; and of these, fifty- three communicate directly with the Pacific ocean. The country, intercepted between the foot of the Andes and the Pacific ocean, is divided into two
CHILE.

equal parts, the maritime and midland. The maritime part is intercepted by three ridges of mountains, running parallel with the Andes, between which are numerous well-watered valleys. The midland country is generally level, of great fertility, and enjoying a delightful climate. The great chain of the Andes traverses the country from north to south, and presents a number of summits, the height of which has been ascertained up to 21,000 feet. Above the coastal range, the Chilean Andes there are said to be fourteen volcanoes in a state of constant eruption, and a still greater number that discharge smoke at intervals. Chile abounds with vegetable, animal, and mineral productions. Maize, rye, barley, pulse, wine, oil, sugar, cotton, and fruits of various kinds, are cultivated. It has luxuriant pastures, which feed numerous herds of cattle. It is rich in mines of gold, silver, copper, tin, and iron. All the metals are found; also a variety of earths and precious stones. It is free from dangerous or venomous animals, which are so much dreaded in hot countries, and has but one species of small serpent, and that perfectly harmless. The climate is remarkably salubrious, and the weather generally serene. In the northern provinces, it rarely rains, in some parts never, but dews are abundant; in the central part, rain often continues three or four days in succession, followed by a long series of days of dry weather. In the southern provinces, rains are much more abundant, and often continue nine or ten days without cessation. The rainy season commences in April, and continues through August. Snow falls abundantly on the Andes, but is never seen on the coast. Earthquakes are common. Chile was formerly a colony of Spain, but, in 1810, the people took the government into their own hands, and, in 1818, made a declaration of absolute independence, which has been hitherto uninterrupted, and recently acknowledged by Portugal. The supreme authority was administered by an elective magistracy, called the supreme director, until May, 1827, when a president was substituted, in imitation of the government of the United States. The Roman Catholic is the established religion of Chile, and the church is very rich. There are said to be about 10,000 monks and nuns, in addition to the religious institutions with which they are connected hold nearly one-third of the landed property of the country. The army, in 1818, was stated at 8400 regular troops; the militia at 28,960 men, and the revenue at 2,177,967 dollars. The part of Chile lying south of the river Biobio, in latitude 39° 40', is inhabited chiefly by Indians. The Araucanians, a celebrated and warlike tribe, inhabit the region lying between the rivers Biobio and Valdivia. They are enthusiastically attached to liberty, and have never been subdued.

Of the history of Chile, previous to the middle of the fifteenth century, nothing more is known than what may be derived from the vague traditions of the natives. In 1533, the Spaniards first visited it. They were at first received by the Chilianwith the utmost respect; but a cruel massacre of some of their chief men, by order of Almagro, the Spanish general, produced opposite feelings; and Almagro, advancing into the country of the Pronuncianos, was defeated with loss, when the Spaniards, disgraced with their general, and with the state of affairs, returned to Peru, where they arrived in 1538. Two years afterwards, Fierro despatched Pedro de Valdivia, with 200 Spaniards and a considerable body of Peruvians, to Chile, for the purpose of settling such districts as he should conquer. Valdivia succeeded in overcoming the resistance of the natives, and founded the city of Santiago, Feb. 24, 1541. Hostilities with the natives ensued, till Valdivia, having settled his power in the northern provinces of Chile, turned his arms against the southern portion of the country. In 1550, he founded the city of Conception, and was soon afterwards attacked by the Araucanians with whom he had fought several battles, and was finally defeated and taken prisoner, Dec. 3, 1553. Many battles were subsequently fought between the Spaniards and this tribe of Indians which, though they generally terminated in favor of the former, were generally destructive to them, and impeded the progress of the settlements. In 1598, a general insurrection of the Araucanians took place; and, with the assistance of their allies, they put to death every Spaniard whom they found outside of the forts. Villancas, Valdivia, Imperial, and several other towns, were attacked and taken, and Concepcion and Chillar were burnt. To add to the misfortunes of the Spaniards, the Dutch landed on the Chiloé islands, plundered Chiloé, and put the Spanish garrison to the sword. Hostilities were continued for many years without any extraordinary result. Each party seemed obstinate in its determination, and each committed cruelties and outrages upon which the history of South America is unhappily too familiar. At length, in 1641, preliminaries of peace were finally settled between the marquis of Bayside then governor of Chile and the Araucanians. By the terms of the treaty, the two nations agreed to suspend hostilities; and in 1644, the Araucanians renounced all claim to the Indians; and the Spaniards undertook to pay no foreign power from land to their territories. Two years afterwards, the Dutch made an attempt to settle a colony at Valdivia; but, hearing that an arm of Spaniards and Araucanians were marching against them, they evacuated Chile. The peace between the Spaniards and Araucanians lasted until 1655, when hostilities again broke out with their former fury, and continued for ten years with various success. At the end of this period, a formal treaty was made. This peace was more lasting than the former, and, until the beginning of the eighteenth century, the history of Chile presents little deserving of record. Though tranquil for so long a time, the spirit of the Araucanians was not broken, nor was their aversion to the Spaniards abated. In 1722, a general conspiracy was formed by the nations from the borders of Peru to the river Biobio. At a fixed moment, when the Spaniards were taken by surprise in the mountains, the Indians were to rise against the whites, and release the country from their yoke. The design, however, miscarried: only the Araucanians took up arms; and, after a short contest, peace was again concluded. In 1742, don Jose Manto, then governor, captured and destroyed the Araucanian country into provinces, and founded several new cities. In 1770, an attempt of don Antonio Gonzago to compel the Araucanians to adopt habits of industry, and to associate in towns, was the cause of a new war. At length, peace was restored, one condition of which was that the Araucanians should keep a resident minister at Santiago—a stipulation which proves their power and importance.

Chile appears to have enjoyed tranquility during the remainder of the eighteenth century, and, being relieved from the hostility of the Araucanians, agriculture and commerce, which had been greatly neglected, soon revived. The occupation of Spain by the French troops, in 1800, caused a revolutionary movement in Chile, as well as in other parts of Spanish America. July 10, 1810, the president Carrasco was deposed by the native inhabitants, and a junta of government was formed, under the presidency of Don José de Bernardo, but with the secret intention of ultimately proclaiming independence. At this period, the most active and influential persons were the three Carreras, Rodriguez, and O'Higgins, the government being, in reality, exercised by
the Carreras. In 1814, Chile was invaded by a royalist
Osorio; and the defeat of the patriots at Rancagua,
Oct. 1, 1814, compelled the leading individuals to
cross the Andes, and seek refuge in Buenos Ayres,
leaving their wives and families at the mercy of the
Provisional Government. In 1817, the patriots obtained
successes from Buenos Ayres, commanded by general San Martin, and re-
entered Chile at the head of a powerful body
of troops, which defeated the Spaniards at Chacabuco,
Feb. 12, 1817, and again at Maypú, April 5, 1817,
and thus permanently secured their independence of
the country. By the intrigues of San Martin, the
three Carreras and their friend Rodriguez, the best
men in Chile, were shamefully murdered, and his
favourite, Don Bernardo O'Higgins, was placed at
the head of the government, with the title of supreme
director. Meanwhile, San Martin, with the liberat-
ing army, and aided by a Chilean fleet under lord
Cochrane, invaded Peru in return, and gave it a tem-
porary independence. O'Higgins continued to ad-
minister the government until Jan. 23, 1823, when
he was compelled to resign the supreme authority,
owing chiefly to the dissatisfaction of the people with
his conduct. He was succeeded by general Ramon
Freire, the latter being appointed supreme
director. In January, 1826, the archipelago of
Chiloe, which had remained to that time in the hands
of the Spaniards, surrendered to the government of
Chile. But disturbances have existed among the
Araucanians, on the southern frontier, down to the
present time, occasioning more or less inconvenience
to the Chilenos. In other respects, Chile has been
wholly unmolested by foreign enemies, unless an at-
tempt of the exile O'Higgins upon Chiloe, in 1826,
can be considered such. But the unsettled state of
the government, and the malfunction of its ma-
fineeps, have impeded the prosperity of the country.
In July, 1826, the director Freire resigned his office,
and admiral Manuel Blanco was appointed in his
place. In May, 1827, the form of the government
was changed, and, Blanco having resigned, Freire
was again called to the head of affairs as president,
but refused to be qualified; and the administration
of the government devolved upon don Francisco
A. Pinto, the vice-president. Three attempts have
been made to effect a solid organization of the
government by means of a permanent constitution.
The first was made in 1823, but was rejected by
other in 1824, and in a third in 1826; but neither of
them accomplished the object of their meeting, and
the country is agitated still between the advocates
of a central and of a federal constitution. Steven-
son's South Am., vol. iii.; Amer. An. Reg., vol. i.
SOUTHERN \n
CHILICOTHE; a post-town and capital of Ross
county, Ohio, on the west bank of the Scioto, forty-
five miles in a right line, and seventy according to
the windings, from its mouth; lon. 82° 57' W.; lat.
39° 16' N.; population, 2426. It is pleasantly sit-
ated on the borders of an elevated, extensive, and
fertile plain, regularly laid out, the streets crossing
each other at right angles, and is a flourishing town.
It contains a court-house, a jail, a market-house,
three houses of public worship, a rope-walk, four
cotton manufactories, and a steam mill. In the vi-
cinity of the town there are many valuable mills.

CHILTON, william, resident divi-
vine and writer on controversial theology. He was
born at Oxford, in 1606, and received his education
at Trinity college, in the university of that city. He
did not confine his academical studies to divinity,
but also distinguished himself as a mathematician, and
cultivated poetry. Metaphysics and religious casu-
istry, however, appear to have been his favourite pur-
suits; and lord Clarendon, who was particularly in-
timate with him, celebrates his rare talents as a dis-
pount, and says he had "contracted such an irre-
solution and habit of doubting that, by degrees, he
grew confident of nothing." This sceptical disposi-
tion is shown in his later years...." He died in 1661,
and his works were collected by his widow, who
persuaded him that the church of Rome, in establish-
ing the authority of the pope as an infallible judge,
afforded the only means for ascertaining the true re-
ligion. He was convinced by this reasoning, and
converted, but subsequently came to the conclusion that
the pope had no such authority, and repented of his
conversion, to justify his second conversion, especially The Religion
of Protestants a safe Way to Salvation, first published in
1657. Some scruples of conscience, relative to
signing the thirty-nine articles, prevented him, for a
time, from obtaining church preference. His scrup-
ules, however, were so far overcome, that he made the
subscription in the usual form, and was promoted
to the chancellorship of Salisbury, with the prebend of
Brixworth annexed, in July, 1638. On the civil war
taking place, Chillingworth joined the king's
party, and employed his pen in a treatise On the Un-
lawfulness of resisting the lawful Prince, although
among the most illustrious individuals of his day, his
writing was not, however, committed to the press. He
did not confine himself to literary efforts in support of
the royal cause, having, at the siege of Gloucester,
in 1643, acted as engineer. His classical reading sug-
gested to him an imitation of some Roman machine
for the attack of fortified places; but the apparatus
of the parliamentary army prevented the trial of it
against the walls of Gloucester. Not long after, he
retired to Arundel castle, in an ill state of health,
and was made a prisoner on the surrender of that for-
tes to Sir William Waller. Being removed, at his own
request, to Chichester, he died in the episcopal
palace, in January, 1644. Chillingworth published
sermons and other theological works, of which the best
dition is that of doctor Birch, 1742, folio.

CHILOE; a considerable island in the south Paci-
fic ocean, on the coast of Chile; lon. 78° 45' W.;
lat. 43° 53'; 140 miles long, and sixty, where widest,
broad. It produces most of the necessaries of life;
and much ambergris is found here. The cedars-trees
grow to an amazing size. There are many small
islands east of Chiloe, in a narrow sea, called the
archipelago of Chiloe, which separates the island from
the coast. There are islands on both sides of the
Chief town, San Carlos. There are forty-seven
islands in the archipelago of Chiloe, thirty-two of
them inhabited.

CHITTERN HILLS; a range of chalky hills, in
England, in the county of Oxford, once covered with
woods, supposed to have been, at one time, a royal
forest. There still remains a nominal office, called
the stewardship of the Chiltern hundred, in the gift
of the crown. By the acceptance of this, a member
of the house of commons vacates his seat in parlia-
ment. It is, therefore, generally conferred on such
members as wish to resign their seats.

CHIMBORAZO; a mountain of Columbia, in the
province of Quito, about 100 miles S. by W. Quito;
at about 28° S. It is the most elevated summit of
the Andes, rising to the height of 21,440 feet above
the level of the sea, and covered with perpetual
snow 2000 feet from the summit and upwards. It
presents a magnificent spectacle when seen from the
shores of the Pacific ocean after the long rains of
winter, when the transparency of the air is suddenly
increased, and its enormous circular summit is seen
projected upon the deep azure-blue of the equatorial
sky. On the northern side, the snow-bedded, ice-
tops of the Andes are seen, adds very much to the
splendour of the snow, and aids the magical effect of
its reflection. This mountain was ascended, in 1802, by Humboldt and Bonpland, who reached to within 2,140 feet of the summit, being, by barometrical measurement, 19,500 feet above the level of the sea—a greater elevation than ever was before attained by man. Their further ascent was rendered difficult by rocks 500 feet wide. The air was intensely cold and piercing, and, owing to its extreme rarity, blood oozed from their lips, eyes, and gums, and respiration was difficult. One of the party fainted, and all of them felt so much discomfort. Chimahine ascended, in 1745, to the height of 15,815 feet.

CHIMERA: a fabulous monster, breathing flames, with the head of a lion, the body of a goat, and the tail of a dragon, which laid waste the fields of Lyvia, and was at last destroyed by Bellerophon. (See Hipponon.) Her form is described by the poets as an unnatural mixture of the most incongruous parts.

Therefore the name of chimeres is used for a non-descript, an unnatural production of fancy. According to some, Chimera was a volcano in Lycia, around the top of which dwelt lions, around the middle goats, and at the foot poisonous serpents. Bellerophon is said to have been the first who rendered this mountain habitable.

CHIMES, in horology, is a species of music, mechanically produced by the strokes of hammers against a series of bells, tuned agreeably to a given scale in music. The hammers are lifted by levers, acted upon by metallic pins, or wooden pegs, stuck into a large barrel, which is made to revolve by clock-work, and is so connected with the striking part of the clock-mechanism, that it is set in motion by it at certain intervals of time, usually every hour, or every quarter of an hour. The music thus produced with some sort of division on the succession of the notes constituting an octave, frequently repeated, or otherwise may be a psalm-tune, or short popular air in the key to which the bells are tuned. This species of mechanical music most probably had its origin, like clock-work itself, in some of the most ancient institutions of Germany, in the middle ages. The first apparatus for producing it, is said to have been made at Alost, in the Netherlands, in 1487. The chime mechanism may be adapted to act with the large bells of a church steeple, by means of wheel-work strong enough to raise heavy hammers; or some of the thoughts of designing ones may be ranged concentrically within one another on one common axis, sufficiently small to be introduced into the frame of a clock, or even of a watch. The chime mechanism is sometimes so constructed, that it may be played like a piano, but with the fist instead of the fingers. This is covered with leather, that the blow on the key may be applied more forcibly. Difficult as the performance is, some players can execute compositions consisting of three parts, and even produce trills and arpeggios. Burney relates that the chime-player Scheppehen, at Louvain, laid a wager with a music master of his town, that he would execute a difficult solo for the violin with the bells, and won his wager. Potthoff, organist and chime-player at Amsterdam, became blind in his seventh year, and received the above named appointment in his thirty-first year; and, although every key in his apparatus required a force equal to a two-pound weight, yet he played his bells with the facility of a performer on the piano-forte. Burney heard him perform some fugues in 1772.

CHIMNEY. How far the Greek and Roman architects were acquainted with the construction of chimneys, is very doubtful. No traces of such works have been discovered in the houses of Caesar, Pliny, and Vitruvius gives no rules for erecting them. The first certain notice of chimneys, as we now build them, is believed to be that contained in an inscription at Venice, over the principal gate of the Scuola Grande di Santa Maria della Carità, which states that, in 1347, a great many chimneys were thrown down by an earthquake. Chimneys require much attention, to make them secure and prevent their annoyance as so great an annoyance to domestic comfort. It seems, at present, to be acknowledged, that it is much better to exclude the cold, damp air from the flues, by narrowing the aperture at the top, than to give a larger volume of smoke. Chimney-pots are of great size, and at the risk of admission of a quantity of air to rush down the flue. For this reason, chimney-pots are of great use. In Prussia, where the architectural police (Baupolizei) is strict, great attention is paid to the erection of chimneys, and to the regular sweeping of them, the chimney-sweepers being bound to sweep the chimneys of a certain number of streets within a regular time. The longer a chimney is, the more perfect is its draught, because the tendency of the smoke to draw upwards is in proportion to the different weight of the column of air included in a chimney and an equal column of external air. Short chimneys are liable to smoke up the places in upper stories are, therefore, more apt to smoke than those in the lower ones. Two flues in the same chimney should not communicate with each other short of the top. Some chimneys, in large establishments in London, are very remarkable for their size.

CHIMNEY-SWEEPERS are, in all countries, in a state deserving great pity. Their condition in London has led to the establishment of a Society for superseding the necessity of chimney-boys, by encouraging a new method of sweeping chimneys, and for improving the condition of children and others employed by chimney-sweepers.

Of chimney-sweepers, generally Savoyards.

A salutation to some of the chimney-sweepers and their singular and extremely interesting deeds, as they have been recorded in the newspapers of the day.

CHINA, that empire, including the tributary states, and those under its protection, consists of about 5,250,000,000 miles, with 242,000,000 inhabitants. China Proper, "the centre of the world," contains 1,298,000 square miles (lat. 18° 37'—61° 35'), with 140,800,000 inhabitants, of whom 2,000,000 live on the water. Among the inhabitants are 31,000 sailors, 829,000 foot-soldiers, 410,000 horse, 7,552 military and 9,611 civil officers.

Subject to China are Mantchou (726,800 square miles), Mongolia (1,035,910 square miles); and Tartary (757,275 square miles). Under her protection are Tibet, Corea, and Japan. In 1761, China contained 726,329 square miles. The Portuguese navigators who followed Vasco da Gama were the first from whom the Europeans obtained tolerably
China.

Correct ideas of the situation, extent, and character of this country. Since that time, our knowledge of China has been derived from several ambassadors, who saw the court and the roads, from merchants who had inhabited the suburbs of one seaport (Canton), and from numerous missionaries, who relate what they had observed, but little is known of the inhabitants of this country. Much information is to be hoped from the Canton Register, a paper which is published twice a-month in Canton.* The emperors of the Mantchou dynasty, erroneously called Tartars, have extended their conquests over the greatest part of the Asiatic continent, but the Tartars, as the inhabitants of which are, however, not Tartars, but mostly Cylmacks and Mongols. The Russians have advanced, on the other side, into Siberia. Russia and China have thus come into contact, on a line extending from lake Palaic to the mouth of the river Amour. This extensive frontier is principally formed by the Altai, Sayanin, and Dalourin mountains. In Dalouria, however, the Russians have extended their possessions beyond the last-named mountains to the banks of the river Amour. Lake Palaic, the Alak mountains, and the Belooor mountains, divide the Chinese empire, on the west, from the Kirghizes, Usbecks, and other independent Tartar tribes. While the Chinese dominions extend to the confines of Asia-Tic Russia, on the north and north-west, on the west and south-west they extend over the immense regions of Tibet, and almost reach the English territories in Bengal. On this side, China is divided from India by the small countries of Sirinagar, Nepal, and others, and by the Garrow mountains.

Farther to the east, the Burman empire bounds on the Chinese province of Yunnan. In the south, the empire of Annam and the provinces of Laos and Tonquin touches the borders of the Chinese empire. On the south, the Red sea, and the gulf of Corea, washes the coasts of China for an extent of 3000 miles, from the Tonquinese frontier to the mouth of the river Amour. To the south are the Chinese and Yellow seas, and the gulf of Tonquin. The channel of Formosa separates the island of that name from the continent. The Blue and Yellow seas flow, the former between China and the islands of Loo-Choo and Japan, the latter between China and Corea. The sea of Japan extends from Corea to the river Amour; at the extreme point, it goes under the name of the channel of Tartary.

China Proper is bounded on the east by the Eastern ocean, on the north, by the immense wall of Mongolia and Manchooria, which has been built more than 2000 years, and is 1500 miles in length, thirty feet high, and fifteen feet thick on the top. To the west, political limits are prescribed to the wanderings of the Cylmacks or Elenithes of Hoho-Nor and of the Sifars. To the south, the boundaries of the Chinese empire and China Proper are the same. China Proper contains 1572 towns, the principal of which are Pekin, Canton, and Nankin (q. v.); 1193 fortresses, 2796 temples, 2600 convents, thirty-two imperial palaces, &c. It is divided into fifteen provinces. Two chains of mountains extend through the country; the one in the south-east, the other in the north-west. The former extends between the provinces Quang-si, Quang-tong, and Fo-Kien, on the south, and the provinces Ho-o-Quang and Kiang-si on the north. Its original course is from west to east, but, after reaching the limits of Foo-Kien, it turns to the north-east. The principal chain is difficult of ac-

* A museum, to be called The British Museum in China, is stated in the Canton Register, is about to be established among the British residents in that city. Perhaps this final palace, also, will contribute to enlarge our knowledge of China.
agriculture by the Chinese government are generally known. Every year, on the 15th day of the first
moon, the emperor repairs, in great state, to a
certain field, accompanied by the princes and the
principal officers, prostrates himself, and touches the
ground. Incense is offered on the altar, a plough
drawn by a pair of oxen, highly ornamented, is
brought to the emperor, who throws aside his im-
perial robes, lays hold of the handle of the plough,
and opens several furrows over the whole field. The
principal mandarins follow his example. The festival
closes with the distribution of money and cloth
amongst the peasantry. In the same manner the
emperor again comes to sow the seed. In the prov-
inces, the viceroy perform the same ceremony on the
same day. In the cultivation of trees, the Chi-
inese have made comparatively little progress. They
have many fruit-trees, but have done little for their
improvement. Grafting is not common. Currants,
raspberries, and, according to some, olives, do not
grow in China. But nature has conferred on this
country other treasures, such as the tea-plant, from
which the Chinese derive immense profits, the cam-
phor-tree, the aloes, the sugar-cane, the bamboo, in-
digo, cotton, rhubarb, the varnish-tree, soap-tree, tal-
low-tree, lime, wax-tree, and the li-tchi. The Chi-
inese all have the domestic animals of Europe and
America, amongst which the hog is the most numer-
ous. The camel is the usual beast of burden. The
wild animals are the elephant, the rhinoceros, the
tiger, the musk-ox, several kinds of apes, the deer,
the wild boar, the fox, &c. Poultry abounds in
China, particularly ducks. Several sorts of birds are
distinguished for the richness of their plumage, such
as the gold and silver pheasants, and the peacock
with spurs. Great quantities of fish are found in the
waters. The gold-fish are there, as with us, kept as
an ornament. Amongst the insects of China, the
silkworm, which is found in all parts of the country,
and appears to be indigenous, is the principal. Of
the mineral productions our information is very im-
perfect. Silver mines are abundant, but they are
little worked. The gold is, for the most part, ob-
tained from the sands of the rivers in the provinces of
Se-tchuen and Yen-man; but gold and silver are not
coincd. Tutenagie is a metallic substance peculiar
to China, which is used for the manufacture of ves-
sels and utensils, and which some suppose to be pure
zinc, and others an artificial composition. China pro-
duces a peculiar kind of copper; also arsenic, much
 quicksilver (in Yun-man), but little lead and tin. Of
valuable stones, it affords the lapis lazuli, the rock-
crystal, the loadstone, and various kinds of marble.
Of clays, the porcelain is the only kind we need
mention. Salt is a profitable monopoly of the go-
government.

The features and the shape of the skull of the Chi-
inese prove their descent from the Mongols; but a
residence of many centuries in a milder climate has
softened their characteristic marks. A Chinese wo-
man is proud of her beauty in proportion to the small-
ness of her eyes, the protuberance of her lips, the
lankness and blackness of her hair, and the smallness
of her feet. The last completes the Chinese idea of
beauty, and is obtained by pressure and hindering the
growth. By the men, corpulency, the sign of an
easy life, is regarded with respect. Lean people are
considered void of talent. The higher classes allow
the nails of their fingers to grow, some on one hand
some on both, and dye their hair and beards black.
The Chinese possess the usual virtues and vices of a
slavish, industrious, and commercial people.

The government is an absolute monarchy, but the
mandarins and tribunals are permitted to make re-
gular and lawful remonstrances to the emperor. The
emperor calls himself holy son of heaven, sole guardian of the
earth, and father of his people. He is obliged to oc-
cupy himself constantly with the affairs of state. He
has three wives, of whom only one bears the title and
rank of empress. He resides, generally, in Pekin;
in summer, at Tcherch. Offerings are made to his
image and to his throne; his person is worshipped;
his subjects prostrate themselves in his presence.
The emperor never appears in public without 2000
lictors, bearing chains, axes, and other instruments
characteristic of Eastern despotism. The revenue is
estimated at 150,000,000 dollars, and consists chiefly,
in the productions of the soil. It is raised by a land-
tax, by duties on imports and exports, and on articles
of internal commerce, and by a poll-tax on every
person between the ages of twenty and sixty. The
Chinese army is very numerous, consisting of about
900,000 men, but does not appear capable of resis-
ting the irregular Asiatic troops, much less European
soldiers.

The Chinese nobility is of two kinds, the dignity
of the one being personal, that of the other official.
Of the former there are five degrees, the three first
of which are conferred only on the relations of the
emperor, and are generally translated by the term
prince. These princes are bound to live within the
precincts of the imperial palace. The personal no-
bility has precedence over the mandarins, or official
nobility. The rank of the mandarins is indicated by
the colour of the buttons on their caps. There are
likewise titular mandarins.

Chinese Mandarins.

There are, in all, from 13,000 to 14,000 civil mandarins, called
governors, and 18,000 military mandarins. The former are divided into nine, the latter
into five classes. The highest body of officers in the
empire is the council of the ministerial mandarins.
These transact business with the emperor. Subordi-
nate central authorities are, 1. Li-pu (guard of civil of-
cers), which proposes pardons to the emperor; 2. Ho-
pu (ministry of finance); 3. Li-pu (court of ceremonial);
4. Ping-pu (council of war); 5. Hong-pu (ministry of
jurisprudence, or court of judicature). In every province, a mandarin is governor, with a
council to watch over his actions and execute his com-
mands. There are courts of justice in the different
The ceremonial dress of the mandarins is of embroidered satin, with a covering of blue crepe. Badges, indicating the civil or military rank of the wearer, are embroidered in front and on the back. The right to wear a peacock's feather on the back of the cap is equivalent to a European order, and is conferred as a particular mark of favour. The following cut represents the costume of the body-guard of the emperor.

The pretended wisdom of the Chinese laws may be characterized in a few words—they are good police regulations, accompanied with good lessons on morality. They give to the emperor, as well as to the mandarins, unlimited power over the nation, which considers blind obedience to superior its first duty. Innumerable ceremonies perpetually remind it of the distinctions of rank. (See the Chinese Ceremonial, in verse, Macao, 1824.) In intellectual improvement, this nation has long been stationary. This is partly owing to the love of antiquity common throughout Asia, partly to the want of intellectual communication with other nations. This is principally prevented by the difficulty of their written language, which is not, like ours, formed of letters and syllables, but of characters. (See Chinese Language and Literature, at the conclusion of this article.) Mechanical skill has been carried to great perfection among them; their industry in the manufacture of stuffs, porcelain, lacquered ware, &c. is astonishing, and can only be compared with their own labours in digging canals, in the formation of gardens, levelling mountains, and other similar works. Many of our most useful inventions are to be found among them. They printed books, before the art was invented in Europe, with characters carved on wooden tablets, which is their present practice. They also used the magnet before its use was known to us; but they have remained far behind us in the art of navigation, on account of their ignorance of ship-building. A short time ago, a translation of a Chinese treatise on navigation, by one of their naval officers, was published, which showed an utter ignorance of this art. The monuments of China have, perhaps, been, on the whole, too much praised. Yet we must acknowledge our wonder at their great roads, their immense single-arched bridges, their pyramidal towers, but, above all, at their great wall, called, in Chinese, Van-ti-Teking (the wall of 10,000 Li), which traverses high mountains, deep valleys, and, by means of arches, wide rivers, extending from the province of Shen-Si to Wanghay or the Yellow sea, a distance of 1500 miles. In some places, to protect exposed passages, it is double and treble. The foundation and corners are of granite, but the principal part is of blue bricks, cemented with pure white mortar. At distances of about 200 paces are distributed square towers, or strong bulwarks.

The national character is the result of their attachment to established customs. The manner of living is prescribed to each rank by invariable rules. The Chinese abstain almost entirely from spiritsuous liquors; the use of tea is general. Their principal article of food is rice. Polygamy is permitted to the nobles and mandarins. The emperor maintains a numerous harem. Women are kept in a sort of slavery. The peasant yokes his wife and ass together to the plough. The Chinese pay a kind of religious worship to their ancestors, and perform certain ceremonies around their tombs. Respect toward parents is a duty inculcated by their religion and laws. The primitive religion of China appears to have been a branch of Shamanism, the foundation of which is the worship of the stars and other remarkable objects of nature. This ancient religion has been supplanted by the doctrines of more modern sects. Among these, the principal are the sects of Cong-fu-tse (Confucius) and of Lao-Kiin or Tao-tse. The bulk of the nation has embraced the religion of Fo (see Confucius, and Fo), which was brought from India. The religion of the emperors of the Tartar-Manchou dynasty is that of the Dalai-Lama. (See Lama.) The following represents the costume of Chinese lamas or priests.

For the propagation of Christianity in China, see Missions. The discovery of a conspiracy against the emperor, in 1823, gave rise to a general persecution of the Christians, which, however, terminated in 1824. According to the accounts of the French mission in China, the number of Christians in that country in September, 1824, amounted to 46,287; there were 27 schools for Christian boys, and 45 for Christian girls. In the year 1829, two Chinese Christians were brought to Paris; they spoke Latin, as most Christians of that country do. The principal mart of Chinese commerce is Canton (q. v.). Opium, although a contraband article, is imported to a large extent. In 1830-31, the quantity of Indian opium smuggled into China amounted to 18,760 chests, value £2,580,000. The
Chinese Merchants.

The ancient history of China is enveloped in darkness and fable. According to tradition, China was governed, for many millions of years, by the gods, Tien-Hsian-Chi, and the fabulous families of kings, Ti-Hsian-Chi, Kien-ho-Tche-Ki. Amongst the latter was Po-hi, the lawgiver of the Chinese, and U-ti, under whose family commences, with the reign of the celebrated Yau, the work called the Shu-king, from which the Chinese derive their early history. But the historical character of this book cannot bear criticism. The royal families of this obscure period are the Kia (till 1767 B. C.), Shang (till 1129), Chew (till 255). Wu-wang is invariably considered the founder of this last dynasty, but the accounts of its establishment differ. According to one account, the natives of the interior dethroned Chew-sin, the last of the preceding dynasty. According to others, Wu-wang came, with an army of foreigners, from the west, and introduced civilization amongst the natives. After the establishment of this family, there is a long chasm in the historical records. This the Chinese writers fill with fables. Under this dynasty is the Chew-kuei, or period of fighting kings, who ruled over many little neighbouring states, and were continually at war with each other (from 770 till 320 B. C.). At length, a Chinese hero, Chi-huang-ti, of the princely house of Ting, made his appearance, in the age of Hsuni-tal, and with him commenced the house of Tsin (from 255 till 207 B. C.). He extirpated all the petty princes of the branch of Chew, and united the whole of China (247). He built the great wall as a protection against the Tartars. The empire was again dismembered, after his death, under his son Ul-shih, but was re-united, ten years later, by Lieu-pang. He adopted the new name of Hang, and founded the dynasty of Hang, which reigned till A. D. 220, and was divided into the western and eastern Hang (Si-Hang, from B. C. 217 to A. D. 24, and Tong-hang, from A. D. 24 till 220). The princes of this dynasty extended their conquests considerably to the west, and took part in the affairs of Central Asia. The religion of Tao-tse prevailed during their ascendency; and in the same period Judaism was introduced into China. In the course of time, the princes degenerated, and, under Hien-ti, China was divided into three kingdoms (820), which were again united under Wu-ti (280). He was the founder of the family of Tsin (285–420). The sovereigns of this family were bad rulers. The last, Kung-fu-ti, died by his own hand, and brought to a close the Han dynasty (420). The Sung dynasty (420–479). A short time before this, a separate kingdom was formed in the southern provinces (386), called U-tai, or the five families. The Songs were likewise sovereigns of little worth. Whilst the whole aspect of Europe was changed by the gathering together of nations, the same revolution took place in China, with the extinction of the dynasty of Tsin—one in the north (386), and the other in the south (420); the latter of which was likewise called U-tai, or the empire of the five families. In the latter reign succeeded successively the family Song (till 479), Tsin (till 403), Lang (till 437), Tchin (till 489), Suni (till 619). The northern empire (386 till 587) was founded by the Goli Tartars, who conquered the northern part of China, and was governed by four dynasties,—two native and two foreign,—viz. the Goel, of the race of To-pa, and the Hew-Chew, of the race of Chao-ti. a. The dynasty of Goel reigned from 386 till 556 in three branches (Yuen-Goel till 534, Tong-Goel till 550, and Si-Goel or the western Goel, till 550); b. the dynasty of Pe-Tsi (the northern Tsin), from 550 till 557; c. the dynasty of Hew-Chew (the last Chew), from 557 till 581; d. the dynasty of Hew-Lang (the last Lang), from 554 till 587. Yang-Kien dethroned Hew-Chew (581), conquered the empire of Hew-Lang (587), of the Tsin (589), and founded the dynasty of Sung. The second emperor of this dynasty, Yang-ti, was dethroned by Li-i-en (517), who founded the family of Tang, which maintained itself 300 years, and reigned at Siang-fan, in Shensi. During the reign of the first emperors of this line, particularly under Li-i-en's learned son Tai-tsong I. (620), China grew very powerful. But his successors gave themselves up to pleasure, and were entirely governed by their eunuchs. Internal distractions were the consequences. The last emperor, Tchao-siu-en-ti, was dethroned by Shu-weu, who founded the dynasty of Hede-Lang (907). This, as well as the succeeding dynasties of Hede-Tang (922), Hede-Tsin (930), Hede-Hun (946), Hede-Tchew (957), was of short duration. These are called Hede-dynasties, after the last family. In 951, a large part of China was torn by internal commotions, and almost every province had a separate ruler, when, in 990 the people elected the able Shao-Quang-Yu emperor. He was the founder of the dynasty Sung, or Song, which reigned till 1279. His immediate successors resembled him, yet the country suffered considerably by the devastations of the Tartars. Under Yinsong (1012), the Chinese were forced to pay tribute to the Tartar Lao-tsong. Whyey-tsong overthrew the empire of Lao-tsong (1101); but the Tartars possessed themselves of the whole of the north of China (Pe-cheli), 1125. Kao-tsong II. was their tributary, and reigned over the southern provinces only. Under the emperor Ning-tsong, the Chinese formed an alliance with Genghis-Khan, and the Nu-cheng submitted to this great conqueror (1180). But the Mongols themselves turned their arms against China, and Kubilai-Khan subjected them, after the death of the last emperor, Ti-ping (1260). Under the Tang dynasty, arts and sciences flourished in China; several of the emperors themselves were learned men. The Chinese authors call the Mongolian dynasty of emperors Yuan (1279). The last dynasty is by the name of Shih-tau. This was the first time that the whole of China was subjected by foreign princes. But the conquerors
conformed themselves entirely to the Chinese customs, and left the laws, manners, and religion of the country unchanged. Most of the emperors of this line were able princes. But after the death of Timur-Khan, or Tsing-Tsang (Tamerlane), 1307, and still more after that of Yet-si-Timur-Khan, or Tai-tsong, this empire, which had frequently occasioned internal wars, which weakened the strength of the Mongols. The Chinese Chu took up arms against the voluptuous Toka-mur-Khan, or Shen-ti, and the Mongolian grandees became divided among themselves. Toka-mur-Khan fled into Mongolia (1308), where he died (1379). His son Bsiudor fixed his residence in the ancient Mongolian capital Karakorum, and was the founder of the empire of the Kalkus, or northern Yuen. This state did not remain long united; but, after the death of Tokes-Timur (1460), each horde, under its own khan, became independent; in consequence of which, they were, with few exceptions, constantly in subjection to China after this period. Chu, afterwards called Ta-tsoo IV., a private individual, but worthy of the throne, delivered his country from theforeign yoke. He continued the war (1388 till 1644), which gave the empire sixteen sovereigns, most of whom were men of merit. On the frontiers of the empire, the remains of the Nijd-shee Tartars, now called Manchoos, still existed. The emperor Shin-tsong II. gave them lands in the province of Leano-tsong; and when an attempt was made, soon after, to expel them, they resisted successfully, under their prince Taitai, and obtained possession of Leano-tsong; upon which their chief assumed the title of emperor. He continued the war during the reign of the Chinese emperors Quan-1318), and his successor, son of the first Ta-tsong succeeded him, and Hsai-tsong, a good but weak prince, was the successor of Hs-tsong on the throne of China. On the death of Ta-tsong, the Tartars did not appoint any one to succeed him, and discontinued the war. But in China, Li-tching ex- cited an insurrection, during which Hong-Puan put an end to his life (1644). Li-tching's opponents called in the Manchoos to their assistance. They got possession of Pekin, and of the whole empire, over which they still reign. Under Shen-chi, a child of six years old, the conquest of China was completed (1644—47), and the present dynasty, which is called Chou, was founded by Taitim, or Tsim, or Tsing, was founded. He was succeeded, in 1662, by his son Kang-hi, who subdued the khan of the Mongols, took Formosa, and made several other additions to his empire. During the reign of this prince, the Christian religion was tolerated, but his son Yong-chih prohibited it in 1794. The son of the latter, Kien-Lung, continued the persecution against the Christians (1746—73). He conquered Cashgar, Yarkand, the greatest part of Songaria, the north-eastern part of Thibet and Lassa, the empires of Miao-tae and Shio-Kia-tauien, and subdued the imperial founder Bir- charia. He peopled the Calmuck country, which the expulsion of the Songarians had rendered almost a desert, with the fugitive Torgots and Songarians from Russia. In 1708, he was totally defeated by the Birmese of Ava; nevertheless, the Chinese took possession of a town in Ava in 1770, and returned to their country with the loss of half of their army. They were more successful against the Minote (mountaineers). Towards the end of his reign, his minister, favourite, and son-in-law, Ho-Tichington, abused his influence over him. Kien-Lung was a favorite, and in 1799, by his fifteenth son, Kiu-King. His reign was frequently disturbed by internal commotions; for in China there exist secret combinations of malcontents of all classes. In their nightly meetings, they curse the emperor, celebrate Priapian mysteries, and prepare everything for the arrival of a new Fo, who is to restore the golden age. The Catholics, whom he favoured, have lost most of their privileges by their inconsiderate zeal, and at Pekin, the preaching of the Christian religion has been strictly prohibited. Kiu-King was succeeded, in 1820, by his son Amherst. The British ambassador, in 1816. The envoys were unable to form political or commercial treaties with this "celestial empire of the world," which treats all monarchs as its vassals. (See Stauton's Miscellaneous Notices relating to China, &c. London, 1822.) A history of China, translated from the Chinese of Choo-foo-Tse, by P. P. Thomas, many years resident at Macao, in China, was lately announced for publication. It is stated to commence with the reign of Fuh-he, according to Chinese chronology, B. C. 5000, and to reach the reign of Min-te, A. D. 300. It is entitled, Chino-English Language, Writing, and Literature.—The Chinese language belongs to that class of idioms which are called monosyllabic. (See Languages.) Every word of it consists only of one syllable. They may, however, be combined together as in the English words welcome, welfare; but every syllable is significant, and therefore is of itself a word. If the Chinese language were written, like our own, with an alphabet, it would be found to possess comparatively but few sounds. It wants the consonants $b, d, t, v, m,$ and $z.$ Every syllable ends with a vowel sound. The Chinese language is composed very small. According to Remusat, it does not exceed 2622, but Montagu thinks there are 460. It is not, therefore, accurately known. But this number is quadrupled by four different tones or accents (some say five), of which an idea cannot be given by words. By means of these accents, the Chinese speak in a kind of cantilena, or recitative, in which is spoken a long sentence or phrase; the inflections, of which they speak fast, in their ordinary conversation. It requires a nice ear to distinguish those various tones of tone. This language, consisting of monosyllables, is destitute of grammatical forms. The nouns and verbs cannot be inflected, and therefore the differences of tenses, moods, cases, and the like, are either left to be understood by means of the context, or expressed by the manner in which the words are placed in relation to each other, as in French, sage-femme and femme-sage. With all these deficiencies, if they can so be called, the Chinese understand each other perfectly well, and need no grammar to express their ideas. Their extensive and varied literature is a proof of it; but this is generally ascribed to their writing, which, it is said, expresses more than their spoken language. But we do not concur with those who hold this opinion. We think that the spoken language is fully adequate to the expression of every idea, and that the written characters add nothing to its force. The enthusiasm with which some writers speak of the wonder- ful effects of the Chinese writings upon the minds of those who read them, has often reminded us of the peculiar habit of speech of Father Castel. The Chinese characters, like all others, represent sounds; and that is to say, the syllabic sounds or words of the spoken language; and through those sounds the ideas are communicated to the mind.
The writing of the Chinese, indeed, if we consider only the number of their characters, and compare it with that of their words, would seem to possess a very great superiority. There are not less than 80,000 Chinese characters; but of these only 10,000 are in common use, and the knowledge of them is sufficient to enable one to understand the meaning of any Chinese book. It was once thought that it required a man's whole life to learn and write Chinese; but M. Remusat, the celebrated professor of that language in the royal college at Paris, has demonstrated by facts, that the Chinese may be learned in as short a time as any uninitiated. The study of these characters proceeds, in the first place, from the considerable quantity of homophonous words which exist in the Chinese. These are represented by different characters, as with us by different modes of spelling, of which the French words cen, ces, sang, sen, sceu, sent, each having a different meaning, but all pronounced alike, are a striking example. Neither are homophonous words wanting in English, as bow and bough, great and grave, and many others. The Chinese characters, also, by being combined together, as it were, into one, express two or more words at the same time, and rendered, in a great measure, accountable for there being so many of them. The Chinese characters are all reducible to 214, which are called keys or radicals (in Chinese, p'oo), each of them representing one word, and each word an idea. By the analogy of those ideas the complex characters are formed—an ingenious contrivance, which facilitates very much the acquisition of the knowledge of them. Thus all the words which express some manual labour or occupation are combined of the character which represents the word hand, with some other, expressive of the particular occupation intended to be designated, or of the material employed. This has induced many of the learned, and even the Chinese literati themselves, to maintain that the Chinese writing is ideographic, and represents ideas in a manner unconnected with the spoken language; but this supposition is disproved by the fact that no two Chinese can read aloud from the same book without using the same words, which are precisely those which the characters represent. If it were otherwise, every person in reading would use different words, and the written language, as it is called, would be translated, not read. It must be added, also, that the Chinese poetry is in many cases addressed to the ear, not to the eye. This shows that it is impossible for those who are ignorant of the Chinese language to read the Chinese writing, unless their own idiom should be constructed exactly on the same model with the Chinese, have the same number of words, with the same meaning affixed to each, and the same grammatical forms. It has been repeatedly asserted that the Coreans, and other nations in the neighbourhood of China, can all read the Chinese writing, and understand it, without knowing a word of the spoken language; but this appears impossible. It is more reasonable to suppose, either that they have adapted the Chinese characters to their own idiom, or that the Chinese is among them, as Latin is with us, a learned language, which is generally acquired as a part of a liberal system of education. The Chinese characters are written from top to bottom, and from right to left. The lines are not horizontal, but perpendicular, and even in every Chinese literature is rich in works of every description, both in verse and prose. They are fond of works of moral philosophy, but they have a great many books of history, geography, voyages, dramas, romances, tales, and continued all their lives. Several of the latter works have been lately translated in England and France. The books called the Kings, ascribed to their great sage Confucius, are now in a course of translation. The works of his successor, Meng-Tsueu, have been lately published at Paris in the original, with an elegant Latin translation, in two octavo volumes, by M. Stanislas Julien. Other translations from the Chinese are in progress, both at London and Paris, of the history of China and other works by M. Remusat, who has already produced several distinguished works. The study of the Chinese language appears to be no longer a difficult one in Europe, and with the publication of these works is likely to succeed with remarkable success. The reverend Mr Morrison has published a Chinese grammar, and a dictionary of the same language, in 4 vols. 4to; the former printed at Serampore, the latter at Macao, and both difficult to be procured. M. Remusat has published at Paris an excellent grammar of that language. The manuscript dictionary of father Basile de Clémence was translated into French, and published at Paris, by M. de Guignes, under the patronage of the emperor Napoleon, in the year 1813, in one thick folio volume, to which a valuable supplement has been since added by M. de Chagnon, and Mr. Whittaker. Auxiliary means are at present wanting for those who are desirous of learning this curious idiom.

CHINA-WARE,* the finest and most beautiful of all the kinds of earthen-ware, and so called from China being the country which first supplied this material to the Dutch and English merchants. It is likewise called Porcelain, as some suppose, from the Portuguese porcelana, a cup or vessel; but Dr Whitaker suggests, that the name may have arisen from the tint of the early specimens brought to Europe, resembling the flower of the Pauville, a light pink.

China-ware was invented in the fourteenth century, and has been known in Europe for several hundred years. It was manufactured in the town of Tygel-wyrthan, near the coast of Chung-tsing, a little before the year 10,000, and has been made ever since. The Spaniards, in their attempts to manufacture it in Europe, have been very successful. The Chinese made red china-ware of two kinds: one, a semi-transparent, with a texture compact, dense, firm, hard, vitreous, and durable; semi-transparent, with a covering of white glass, clear, smooth, unaffected by all acids, excepting the fluoric, and sustaining unjured a sudden rise of temperature. In the properties of being semi-transparent and semi-vitrified, but in scarcely any of the preparatory processes and manipulations, this china-ware distinguished from good earthen-ware. Various articles for the use of the table and the toilet, are usually formed of China-ware, as also chemical utensils, retorts, alembics, crucibles, dishes, and many other articles indispensable in the laboratories.

Progress of the Manufacture.—The manufacture of porcelain by Europeans, did not commence till the beginning of the eighteenth century, although the knowledge of its value existed prior to the Christian era; for we find that Pompey's soldiers carried some from Pontus to Rome, B.C. 64. The existence of the manufacture of clay into vessels, in Britain, long prior to that date, is proved by the discovery of earthen-ware vessels, certainly not choice specimens of workmanship or taste, but adapted for purposes of domestic utility; and, if we allow any weight to the circumstance of different excavations in several pottery towns in Staffordshire, indicating a long abstraction of their contents for purposes of the manufacture, and also regard the fact that one of those towns has a name which plainly determines the practice of the art—Burslem-Bridgeford, the pot of great gold—some idea may be formed of the antiquity of the art, and that the Tygel-wyrthan, the workers of tygs, drinking vessels or cups, (not the makers of tiles, of which very few then were needed) were residents in the dis-

---

* This article has been written expressly for the present work, and contains an account of the latest improvements in the manufactory of chinaware.
trict, their offspring being still called Tunbridge—then we must admit that the manufacture was in operation in Staffordshire prior to the Saxons' gaining supreme power in the kingdom. In tracing the history of the practice of employing clay in the different kinds of ware, it is to be remarked that the earthy potter's materials, viz., the clay baked or baked in body, or clay material, the proportions of the component, being directed by caprice. The early specimens appear to have been vitrified, to preclude porosity and brittleness; their formation indicates finity in the manipulations, and a composition of not only the clay materials varied in quantities as their utility became more known. Many are to be seen in a museum at Burslem, where Mr Wood has arranged them in accordance with dates, or eras of fifty years each. Previous to the 17th century, there existed little knowledge of the advantages resulting from combination of clays; but after that period, some specimens, distinguished for beautiful shape, tasteful ornament, and durability, with the names Thomas Toft, and Thomas Sans, and the date 1650, were made of a compound of brick clay, and the aluminate or slate clay of the Burslem coal mines, and this compound was subsequently much improved in an enormous variety of ware called scorched ware or potted ware.

The process of covering the ware with a glaze by means of the combustion of common salt, causing the fusion of the silica and iron in the clay, had long existed on the continent; but it commenced in Staffordshire about 1689, in consequence of Mr Thomas Palmer, of Bagull, seeing an earthen vessel of his own manufacture, with the surface accidentally semi-vitrified, by the heat and salt of a boiler for pork pickle. The process, during many years, was practised on all coarse brown ware, and some other kinds, and is continued at Lambeth, Bristol, Church Gresley, and Chesterfield. The common brick clay, and excess of decomposed slate clay, with fine sand intermingled, by Mr William Miles of Hanley, produced white stone ware; and dusting the pulverised ores of lead and manganese over the surface in the first state, formed the brown stone ware. The combustibility of the lead promoted the fusion of the silica on the surface, and some employed manganese and salt. In Burslem, a different kind of ware was made by mixing the marl, where the coal busters, or crops out, with the finely pulverised millstone grit of the moorland ridge. This is the crouch ware, which, whether black or brown, was immense in quantity, and durable; and, at this day, the thin pieces, by vitreousness rendered semi-transparent, excite surprise that they failed to suggest the manufacture of porcelain. About 1600, the brothers Elers of Nuremberg, from the Chesterton brick clay, and the fine red clay of Bradwell and Brownhills, manufactured red porcelain; also a black ware; and it would seem, that this latter, now called Egyptian, was suggested by the appearance of some parts of the red ware, which contained excess of iron, being left of a dark colour when baked. We know not who first introduced the practice of mixing fine grit with Devonshire clay, and when at a certain heat, by adding salt for the purpose of glazing the surface, transformed crouch ware into the best stone ware, having all the essential qualities of the finest Japanese porcelain. Mr Astbury, of Shelton, by mimicking the idea, obtained employment under Messrs. Elers, and made himself acquainted with their peculiar processes. He afterwards manufactured white stone ware from the Shelton marl and Devonshire clay; he also made white dipped ware; and being required to visit London on business, a disease of his horse's eyes, at Dunstable, being cured by the powder of a calcined flint, he noticed its white appearance, adopted it among the materials used to wash his vessels; but, eloping, he mixed it with the Devonshire clay, to form the first white pottery or chalk body.

His son, Thomas Astbury, by mixing the marl of Fenton Calvert, instead of the Shelton marl with Devonshire clay, formed the first cream-coloured stone ware. During the period of Mr Astbury's improvement of the earthen-ware, the apprentices of a druggist in Saxony, having obliged one of those self-deluded persons who sought for the elixir vitae, was, in return, made acquainted with some of the processes employed for chemical purposes. The youth desisted his master to pursue his own vocation, but was brought back, and incertified, but not pledged with white clay required, and here he transmuted rocks into a ware, more valuable to his country than would have been the phaenomena he sought—the powder of projection, and the philosopher's stone, and for which he was enominated the Baron de Botscher. This is the Dresden china. This invention caused a great sensation in France and Prussia; and Reanumur, by indefatigable researches into the nature of the oriental and Dresden chinaware, supplied that information which raised the Sevres china to a degree of beauty and elegance, greatly surpassing all that had been previously manufactured. The elegant forms of the Chinese chinaware, the British manufacturers; and moulds in brass or very strong clay were made for the purpose of imitation. But the first knowledge of the subject in England was received through the medium of Ralph Daniel, of Cobridge, who left his home and went to Paris, where he was employed quickly as an expert thrower. Here he ascertained that all the molds used in the French manufacturies were of plaster of Paris, and his information caused the practice to be adopted by the English potters.

Mr William Littler, about 1750, commenced making a semi-porcelain ware, which he called china; and, in accomplishing his purpose, he expended his patrimony, the Burslem houses, Burslem. But his productions are every way very different from the chin which, about the same date, was made at Derby by the ingenious Mr Dewsbury, and which now continues in considerable demand. At Worcester, also, china of a superior quality is manufactured, without other aid than the genius and enterprise of the proprietors. And, in more recent times, the chin made at Coalport, Salop, has obtained much celebrity.

The combination of different clays with metallic oxides, iron, manganese, and lead, by Thomas Whieldon of Fenton, and others, produced tortoise-shell ware, and imitations of agate for knife-hafts, and snuff-boxes; and here Josiah Wedgwood made his first essays at improving the manufacture. But, previously, Thomas and John Wedgwood, of Burslem, carried forward the manufacture of white stone ware, salt-glazed, and formed into a great variety of ornamented utensils, to such an extent, as to realise a very large fortune for their descendants; and when they retired from business, they transferred it to the person who had married their niece, Josiah Wedgwood, who afterwards obtained so much celebrity for his improvements in the arts, and of whom an ample biographical notice will be given under the head, Wedgwood, Josiah. Mr Aaron Wedgwood, father of the above, and Josiah Wedgwood, by Mr W. Littler, adopted a mixture of fusible materials for glazing their ware, and which they applied by brushes to the surface, or by immersion, while the vessels were in the clay state; and this practice was becoming general, when, most opportunitly, Mr Enoch Booth of Tunsdale, about 1750, who was then making ware of a combination of the ma-
China-ware.

tive clays, carefully washed, and afterwards mixed with those from Devon and Dorset, and some ground frit,availed himself of Reunum’s glazes (see the old editions of the Handmaid to the Arts), and completely changed the modus operandi of the manufacture. His ware was baked once, and, after being carefully reduced and reheated, was baked again, the whole process being

merced carefully in the fluid mixture of the components, and when again baked received, from the tint, the appellation of cream-colour. This method is now general. Mrs Warburton, of Hotlane, Burslem, improved the quality of the glaze, and Josiah Wedgewood amplified the utility into the work, and thus formed what was the basis of his fortune—the very noted queen’s ware.

Mr J. Wedgewood first introduced into the components of one kind of earthenware, jasper, the sulphate of barytes, or chalk-stone, and this ware remains unsurpassed in its fabric, particularly for chemical utensils. This is his only addition to the materials of the manufacture. His employment of the most intelligent workmen was consequent on his commencing the imitation, in his Jasper, of the medallions, cameos, &.c. of the best artists.

The following is a description of the materials and processes of the manufacture of china and earthenware, in the present improved state of that art:—

Properties and Materials of different China and Earthen Wares.—The remark of Vaquelin, that “good pottery differs from inferior, much less in the number of its components, than in their being combined in a different manner, and from the specimens of the museum in the Royal Society, of the pet-tuntse and ka-o-lin of the Chinese potters, a Dr Sherard had supplied, suggested to Mr Cookworthy of Plymouth, the examination of the granen of Cornwall. He first announced to English potters, that the felspar (melting-spar, which, in the white granite of Cornwall, is combined with quartz and mica,) supplies the most essential component of the oriental china; then obtained a patent for its use in the manufacture, which right he transferred to Mr Champion of Bristol, who, falling in his attempts to manufacture earthenware imitated by clay, discovered, during its investigation, the patent, to some persons in Sinfordeshire, ever since known under the appellation of the New Hall Company.

We know not the name of the person who first introduced into the clay for china, a certain quantity of the earth of bones to all the semi-transparency, and named bone china; and also, of him who first employed ground graneous, (under the name of composition, supplied by the New Hall Company,) in that of the best earthenware, from its whitenss called chalky body. The ornamenting of ware by blue painting was next added to previous improvements. Mr Cookworthy had previously attempted a shining blue, which, however, was not equal to that of Wedgwood and Rimington to prepare blue, from either saffrons or cobalt ore; and the business is now of great importance and value. This was accompanied by the use of gold, which will bear the burnisher, first brought to perfection by Mr Hancock, of Etruria (yet alive, 1834); and who, subsequently invented the lustre, which was improved to imitate silver, by John Gardner, Stoke; and gold, by William Hennys, Burslem. And black printing was successfully practised by Sadler and Grier, Liverpool; W. Smith, and T. Radford, Hanley. John Turner, Lane End, produced stone china; and John Luceock (still alive) introduced blue printing, under glaze.

At Lane-End, in 1795, Mr Cheatham produced the pearl ware, named from being in white ware what the Jasper is in coloured. In 1800, Mr Turner, of the same town, produced the patent stone ware; a fine white porcelain that inspection of the specimens in the museum of the Royal Society, of the pet-tuntse and ka-o-lin, of the Chinese potters, Mr Winter, of Tunstale, made a boast of producing the only true porcelain of the potteries (certainly a soft kind). Mr Josiah Spode produced bone china of considerable excellence from 1800 till 1820, when his men were on an improvement entitled to special notice. Mr Ryan, F. S. A., discovered, in a desert lead mine, felspar in the two states which the Chinese call pet-tuntse and ka-o-lin, or rock and clay. After an offer of the spar to Messrs. Rose, of Coalport, (who denounced it as useless, though they have used it since,) Mr Ryan got it tried by Mr Spode, Stoke, and this person’s satisfaction with the result was so great, that he purchased a supply which is still in use. It is employed as a necessary part of matters there is every possibility of carrying the manufacture to a degree of excellence which will gratify the expectations of the most sanguine friends of science. The resources of the manufacturer have been greatly augmented by scientific research in recent times; and an almost infinite variety of Chinese china is produced, the manufacture of which shows that the earth teems with treasures calculated for the advancement of the art, and that her bounties will ever amply remunerate the labour of the patient inquirer. Of these, every one who aspires to the character of a scientific potter should avail himself, not knowing what fortunate combination of materials he may yet discover, or what improvement he may make in the art. It was by attention to the relative qualities of different substances that the early manufacturers succeeded in raising the art to its present state of excellence, and by a continuance of similar attention to science (which is still necessarily essential) the improvement of the art will be maintained to all time.
The splendour and whiteness of china depend mainly on the glaze; which is stated to be formed of the whitest rock which can be procured, commonly called kaolin, treated similarly to the others. To 100 pounds of weight, suffice 3 pounds of the powder of cheko, a saline frit, much like gypsum, or the effect is not perceptible. It is mixed with the same proportion of a ponder of the salt; these are formed into fluids having like specific gravity; and then and while the former is mixed with one of the various clays, or other suitable materials. The preparation of the clay is constantly in operation; and usually remains in the pits from ten to twenty years prior to being used. The mixture is then formed into broken pieces, before being calcined, and is not unfrequent, of one potter manufac-
turing his ware from clay first prepared by his grand-
father.

The kao-chie, a very expensive kind, has its name from its glutinous appearance, in which the pe-
turate, kaolin, known as sappho, (soap-stone, doubtless from its saponaceous quality,) washed from its impurities, is mixed with alumine, and calcined, is employed in water, and treated similarly to the others; and, in conse-
quence of this component, although its grain is very fine, and its delicacy and beauty extreme, when among the com-
ponent parts of the glaze—presenting opportunity for superior decoration by ornament,—the ware is brittle, defi-
cient in weight, and only by great attention properly
sabled.

The best Persian china, of Shiraz, is equal to that of China, in regard to its great beauty in a general view; it is, consequently, substituted for that frequently by the latter, and requires some judgment to distinguish it. Distinguished as not Indian, and the ware being of a higher material is tejar is obvious from its fracture presenting a fineness of grains as fine as any known in China, and also, because it will bear to be used as moulds for casts, and as vessels in which fluids may be boiled, or minerals melted.

The Dresden or Saxon china has some qualities which render it decidedly superior to the oriental. Its fracture certainly does not exhibit a granular texture, but a com-
pact, shining, uniform mass, resembling white enamel, proving that it is compounded of one kind of materials, which by fusion will cause its density, smoothness, and su-
perior lustre; and another infamous, whence result its beautiful white appearance, firmness, and solidity. These, however, are the qualities of the clay; the clays of some particulars, though, as to that of Shiraz, and the washing of the same, have the same effect, render it more firm and compact than those of China, and yet cheaper in the market. This clay is occasionally used in the bulb of the tooth, which is not friable, which is not fractured with wood or the hand, and not fusible by any heat employed in baking.

At Naples and Florence, beautiful china is made, ap-
proaching in excellence that of Japan and Canton. While at Berlin, Frankendal, Vienna, and other places in Ger-
many, china is made of the same materials as are used for the Dresden; but, by varying either, or both propor-
tions, as well as processes, they differ from each other, and also from that of Dresden.

The invention of French china manufacture is due to Reaumar; and establishments are formed at Paris, Ville-
ric, and other places. The ware is very close, neither hard nor soft so fine as that of Japan; but much like lump sugar; and excelling all the others of French manufacture in respect to the elegance, beauty, and finish of shape, beautifully coloured grounds, and magnificent gilt-

Reaumar's porcelain is manufactured of pulverized common glass, ochres, and a very fine white clay, of which the particles are of various sizes, or of vitreous and saponaceous fluxes.

Requisite minerals for the components of the best hard China, are sparingly supplied by nature; and, there-
fore, secures an additional value to the ware; while these which are employed in the several kinds of earthen-
ware, are not uncommon in most countries. Silica and alumine, whether mechanically or naturally combined, do
not vitrify together, although they more readily and fre-
quently combine than any other of the earths: it is sup-
posed, that, in these combinations, silica exercises the properties of an aggregate, and uniform in some particulars, though not strictly an alkaline. Silica, when pure, is trans-
parent, and, when calcined, loses much of its adhesive power, and the body is not vitrified, or in its vitrinated state, communicative to the ware hardness, firmness, and unalterable by baking. At 1200 degrees, it is just fusible, and at 1300 degrees, high; it, from 1471 Fahrenheit, or which fuses silver. When silica and alumine are properly combined in water, their reac-
tions have the strongest adhesive; and when hardened merely by evaporation into a paste, they resist decomposi-
tion by the atmosphere; and, when they have been vitrified, will bear to be moulded, and are not friable; they are, therefore, used in making the glaze, using the fluxes from the Sussex coast, and near Antrim, Ireland. The best for the purpose have a high fusible, app-
proximately 471 Fahrenheit, which is called flux. Among the fine fusible fluxes, form similar to those large ones used for lusters; next they are the common fluxes, which are whortom porousites, or red china clays, worked near Nagasaki, in Japan, in which, by mechanical power, they are abraded together, till the mass has the consistency of cream, with

a density of 32 oz. per ale pint. When again dried at 4688 Fahrenheit, 27 per cent is lost. The alumine is sup-
plied from four kinds of clay,—two from Biddulph, and the other two from the different parts of the country, the fracture is earthy, to the feel they are gresey, adhering to the tongue, a paste, and vitreous, very fine and very white, and plastic, and, though not easily fused, more fusible than porcelain clay. The names of blue, brown, black, and craking, are generally employed to designate these preparations. The blue has more force, with a certain quantity of flint, than any of the others; and, while contracting little, form toget-
er a white body, which is much more than the blue, yet supplies a very white ware which, in biscuit; but the sulphuric acid it contains causes great attention in the composition of the blue. It is prepared by a special process. When the flame is different, the black
will ensue. The black has carbonaceous particles admix-
tured, which, by baking, lose the sediment, and are not
pared as the craking, and white body. The blue is a white
ware; but, from its excess of alumine, so much contracts that it is very brittle. They are prepared in combina-
tion with a certain proportion of blue clay. As very accurate experiments determine that a vessel formed of any of the native clays alone, will contract, from evapo-
ration, till sufficiently dry for baking, at least one-tenth in dimension, there cannot be further reason desired, to prove that plus of alumine, which readily is bilious, prevents a vessel being durable and firm. The graven, or Cornish

granite, a natural mixture of quartz, mica, and felspar, is employed in large quantity. It is vitreous and coherent; but, when dried on small kilns similarly to the plaster of paris, it is subjected to contraction and separation. The quartz presents too great contraction of the mixture, the felspar, having 15 per cent of potash, renders the mixture too hard and more readable; but, when it is vitrified, it possesses the whiteness, and also, because it will bear to be used as moulds for casts, and as vessels in which fluids may be boiled, or minerals melted.

The Dresden or Saxon china has some qualities which render it decidedly superior to the oriental. Its fracture

...
recipes, which are given in centesimal proportions, may be implicitly relied upon.

To each 100 lbs. add 1 oz. of best cobalt blue, ground.

The above are only mixed together, to constitute the clay. Other china bodies have much of their substance fritted. This process is adopted to chemically combine all the principal components together, by subjecting them, during some time, to gradually-raised temperature; and which, by dissipating the aqueous, gaseous, carbonaceous, and other volatile ingredients, effects their complete fusion, and renders more readily obtainable all the properties of the several minerals in the compound. Wherefore, the fusible components must be in definite proportion to the others; and, unless this process was employed, there is a possibility of the high heats of the baking volatilizing the alkali before complete fusion ensues. The frit is ground (similar to flint) into an impalpable powder, in which state it is mixed with the other components that do not require to be fritted, in such proportions that there may be continued a state of tenacity to bear the manipulations of throwing, moulding, or pressing.

The four annexed recipes are in common use by the persons whose names are affixed to them:

1. Frit.—Cornish stone, fifty; bone ash, sixty; grind and mix for body.—Frit, seventy-five; dry flint, five; blue clay, twenty.—J. More.

2. Frit.—Cornish stone, forty; bone ash, forty; callet, twenty; grind and mix for body.—Frit, eighty; dry clay, twenty; Bake very highly.—J. Clavies.

3. Frit.—Cornish stone, ten; bone ash, twenty; flint, twenty-eight; callet, twenty-eight; white lead, twelve; salt, three; borax, six; blue clay, one; grind and mix for body.—Frit, forty; cornish clay, forty-eight; blue clay, twelve.—J. Pennington.

4. Frit.—Cornish stone, forty; bone, twenty-nine; callet, twenty-two; borax, nine; grind and mix for body.—Frit, forty-eight; cornish clay, thirty-eight; blue clay, fourteen.—W. March.

The constitution of these bodies intames a more dense and compact texture than the preceding; and the attempt itself is a most useful lesson in chemistry, when properly and steadily pursued.

The china now most esteemed for all the properties of the Japanese, and superior beauty of colour, has felspar among its components, in the proportions below:

Felspar 20 20 20 20 20 20 20 20 20
Cornish stone 30 30 30 30 30 30 30 30 30
Bone 40 40 40 40 40 40 40 40 40
Cornish stones 10 10 10 10 10 10 10 10 10

Stain with blue cals, as previously directed.

When such an excess of hone earth is present, as some of the recipes exhibit, there need not be any surprise that even the very excellent felspar-porcelain (to appearance), frequently fails on sudden rise of temperature.

Some china of this kind, very superior in quality, is made by part of the components being prepared in frit. The two recipes annexed, exhibit the components and their proportions:

1. Frit.—Felspar (greenish), seventy-five; borate of soda, twenty; muriate of ammonia, five. Body.—Frit, fifty; china clay, fifty; or, frit, fifty; china clay, thirty; bone, twenty.

2. Frit.—Felspar (greenish), sixty; borax, twenty-five; zinc, five; sal-ammoniac, ten. Body.—Frit, forty-five; China clay, forty; bone, fifteen: or, frit, thirty-five; china clay, thirty; bone, thirty.

A particular kind, called stone china, is compounded (mostly for jugs and toilet services) of the following components:

Cornish Stone 20 20 20 20 20 20 20 20 20
China Clay 20 20 20 20 20 20 20 20 20
Bone 20 20 20 20 20 20 20 20 20
Cornish Stone 10 10 10 10 10 10 10 10 10

The translucent china is formed by introducing ground cals from the melting furnace, in the proportion of twenty-eight to forty in twenty-eight of No. 1 or 8, carefully blended with the fluid together.

Bone China. That class of wares which undergo incipient vitrification, without any glaze on their surface. Of this species, the red and the cottage brown are compounded as below: the materials being well levigated, finely powdered, and carefully fired.

<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bone</td>
<td>20 20 20 20 20 20 20 20 20 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornish Stone</td>
<td>20 20 20 20 20 20 20 20 20 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China Clay</td>
<td>20 20 20 20 20 20 20 20 20 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flint</td>
<td>10 10 10 10 10 10 10 10 10 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Many flower pots and lustre jugs are formed of 3 and 4 red; and 4, 5, brown. Another kind of red is seen in the porous body, used for receptacles of water, butter, and wine, and called alcazar in Spain. These articles are baked in a very slow part of the oven; and, after being immersed in water till saturated, on any substance being placed therein, the cold caused by evaporation reduces the temperature of that substance to a most palatable state. The components stated as forming those used in Spain, are sixty parts of compact marl (Jameson 111, 194), and thirty-six and a half of decompounded common hornblende. But in Staffordshire, the following are the components:

Frit.
Indurated Marl (Fletcher's) 88 88 88 88 88 88 88 88 88 88
Brown or Blue Clay 5 5 5 5 5 5 5 5 5 5
Flint 5 5 5 5 5 5 5 5 5 5

The marl must be well weathered (several months exposed to the action of the atmosphere), and the fluid mixtures passed through a fourteen lawn; after which the other components are added. The articles are baked in the top of the oven when baking glazed.

The several shades of dreb are thus compounded:

<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurated Marl</td>
<td>33 32 24 24 24 24 24 24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornish Stone</td>
<td>32 24 16 16 16 16 16 16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China Clay</td>
<td>15 15 15 15 15 15 15 15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue Clay</td>
<td>21 21 21 21 21 21 21 21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown or Blue Clay</td>
<td>20 20 20 20 20 20 20 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Egyptian, best brown, or vitrified basalts, is formed of components:

<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Marl</td>
<td>33 32 24 24 24 24 24 24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornish Stone</td>
<td>32 24 16 16 16 16 16 16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China Clay</td>
<td>15 15 15 15 15 15 15 15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calamine Ocre</td>
<td>32 32 32 32 32 32 32 32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nastagias</td>
<td>21 21 21 21 21 21 21 21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Marl</td>
<td>20 20 20 20 20 20 20 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The pearl is formed of these components, and is baked in the first ring of the biscuit oven, carefully raised and cooled.

<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornish Stone</td>
<td>60 60 60 60 60 60 60 60 60 60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China Clay</td>
<td>40 40 40 40 40 40 40 40 40 40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground Flint Glass</td>
<td>5 5 5 5 5 5 5 5 5 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gr (1) Frit—Flint Glass, 76; Red Lead, 24; Zircon, 2.
(2) Frit—Do. 95; Do. 5; Do. 10; Nitre, 8; Flint, 6.
(3) Frit—Do. 80; Do. 20; Do. 10; Do. 10.
(4) Frit—Do. 70; Do. 20; Do. 10.

The Jasper is compounded either by frit, or without it; but the components require to be ground well together, before they are evaporated on the slip kiln.
The chemical usitatis body, so important to the students of ceramic technology, has not received much attention in the utility demands. The charge is enormous, high, compared with that for other wares; yet scarcely any is found to bear the raised temperature of a wind furnace. The components, (according to the recipes at present used) are:

<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornish Stone</td>
<td>58</td>
<td>32</td>
<td>19</td>
<td>19</td>
<td>25</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Caustic Stone</td>
<td>77</td>
<td>65</td>
<td>35</td>
<td>35</td>
<td>65</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Rose Earth</td>
<td>77</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Flint or Glass</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Blue Calc.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Or (1) Flint—Cornish Stone, 46; Greens, 20; Flint Glass, 3; Blue Calc., 3.
(2) Caustic Stone, 46; Caustic Stone, 20; Caustic Glass, 3; Blue Calc., 3.
(3) Caustic Stone, 46; Caustic Stone, 20; Caustic Glass, 3; Blue Calc., 3.
(4) Caustic Stone, 46; Caustic Stone, 20; Caustic Glass, 3; Blue Calc., 3.

The chemical usitatis body, so important to the students of ceramic technology, has not received much attention in the utility demands. The charge is enormous, high, compared with that for other wares; yet scarcely any is found to bear the raised temperature of a wind furnace. The components, (according to the recipes at present used) are:

<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Glass</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

To counteract the effects of the different chemical preparations on the vessels, ground biscuit china is mixed in the proportion of forty to fifty per cent, with the preceding bodies; but, the addition of six per cent, sulphate of bariesates, has recently been proved of the greatest utility.

Earthenware Bodies.—Some previous remarks intimate the want of scientific knowledge on this subject by the manufacturers. To prove that they were not without a good foundation, the following recipes are given from a MS. very recently written by the superintendent of a large manufactory.

1. Black clay, six barrows full; blue clay, four barrows full; crown, two barrows full; when in slip, add six china clay, two one-fourth stone, ten flint.
2. Black clay, three barrows full; brown clay, two barrows full; blue clay, one barrow full; corn stone, forty pounds. In slip, add one stone.
3. Blue clay, sixteen paiffils, twenty-four ounce to pint; China clay, four pauffils, twenty-four ounce to pint; flint, four paiffils, thirty-one ounce to pint.
4. Clay slip, fifty-four pints; china clay, eighteen pints; flint clay, sixteen pints.

In the manufacture of deft ware, a certain proportion of brick clay is mixed with the others, because the addition of oxide of iron among its components, by promoting the incipient vitreousness of the ware, more than compensates for the tint it communicates. Mauve gives these proportions: slate clay, fifty; blue clay, thirty; brick clay, twenty. The appellation deft ware, is usually applied to the kind which manufacturers call cream colour, and, from royal patronage, was named queen's ware. Since its first introduction, however, it has undergone very great changes; and a particular method of ornamenting it, has caused the adaptation of the body to the ornament, in blue printed ware.

The components of queen's ware, or cream colour, are the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Clay</td>
<td>36</td>
<td>30</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Black Clay</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Beige Clay</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Flint</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
</tbody>
</table>

Mr. Lakin's recipe is, blue clay, twenty-six; ground flint glass, twenty-six; flint, six; Lynn sand, twenty-six; bone earth, eight; composition, eight.

The Lynn sand, by its very fine grain, supercedes the expense of grinding and grading flints; and yet some of the manufacturers calcine it previous to its employment. The lime, by promoting the vitreousness of the mass, renders it more fusible, yet less refractory, and less porous; and hence these chalky bodies were formerly in much request, because less liable to crack. This certainly might be expected, as it is known that lime is sparingly soluble, and less liable to break from sudden rise of temperature. The Cambria clay, to be used pot and cake, is sufficiently calcined so as to be oven baked, as their excellence might have led us to expect, and only because of the disregard of chemical science by the parties who first used them. When this auxiliary is used it allows its proper share in the conducting of the processes, the Cambria clay will be found one of the most valuable components of British earthenware; yet obtainable at very moderate expense.

When proper attention is paid to the proportions of the several components, seldom does any failure occur; and then only in consequence of some mixture with them, of the manufacturer's was not aware of the use of, or the presence of, a quantity of flint was supplied, which had been ground with a chert that contained an extra quantity of carbonate of lime, and as this was not neutralized by an extra allowance of alumine, the regular heat of the biscuit baking fused most of the ware. Mr. Good, Burslem, had ware and saggars fused together, and the fireman was so astonished, that he ran away!

The greater the quantity of flint which can be used, the whiter is the ware; but it must be duly proportioned, else the second baking will cause it to crack; and, although the weights are determined for the slip makers, an endless variety of useless bodies from their hands, are used under the name of mer-

Defl. Podging.

The majentory of manufacturers are not yet convinced of the bad policy of indulging the caprice of dealers, who, hav-

Ing paid according to a certain scale of prices, will not rise before to that which is demanded, a fall for profit and for the sale of ware. Hence, cheapness of production is too much regarded, and the excellence of the ware injudiciously sacrificed to economy, in the use of certain components which cost less of themselves, and need less baking; though it scarcely bears the usage of the workhouseman and packers;—acids and hot water affect the glaze, crazing causes, and the article is deteriorated, and ultimately discarded. Now, this is no trifling affair, for the worthlessness of any kind of ware, has deprecatory effect, by the stigma on all from that district; and, in the censure it causes, all manufac-

In preparing what is called the body, or by the workmen, the clay, attention is indispensable on the part of the manufacturer, to ascertain that his slip-maker most carefully forms his several com-

ponents into liquids with water, till the proper density or eight per ale pint, is formed by adding material or water requisites, and an experiment of carelessness at this point, is in often the cause of serious loss. The first method of combin-

ing clays, was by placing them stratum over stratum, then exposing them to the action of the atmosphere, and then repeated working with the space, intermixing them, until they were much disintegrated. After they were continued exposed some time, portions were taken up, poured into stoves in water in a square hole, bricked on the sides, with a strong wooden Ridge-piece on one edge. This is called the bloo-

ing pan; and a bloomer is need, formed from a stout ald

N
PLANT, SAWING EDGE-WISE, the upper end having a cross-hand- 
le fixed, and the blade directed from about 
eight inches by two, in six by one. This is forcibly shovn 
plus with a handle; and, in pressing 
pressing down the handle, the whole mass is agitated 
in the water, and so loosened that the pyrites subside. 
the water is forced through a small aperture, 
upon a saw, or sun kiln, several feet square, a foot deep, 
and the bottom sprinkled with sand. The fluid is poured on at 
succecsively, and the water is evaporated as it is poured. 
the wheel is cut out with a space, and laid in a dump vault until 
used. Slip-making, is the process of preparing the clay for the 
pressures of the China and earthenware. The slip-
house is a long apartment, containing vats or arks for 
the various slips. The clay is placed in a long trough, 
eighteen to thirty feet long, three to five broad, 
and sixteen inches deep, in which large bricks, 
eighteen, two to three feet thick, and a like 
, is spread over the whole mass, and the 
the fluid is pumped out of this vat, upon 
the slip, in its course passing through the finest 
ass, from the fire, and the white mass is kept 
in a constant ebullition, until a considerable propor- 
tion of the water employed as the medium of the compon- 
ents, is evaporated, and the portion deposited on the 
surface, and from the solidity of portions cut out of different 
parts of the mass on the kiln, the slip-maker considers 
whether the mass is sufficiently dry, but not too dry, for properly 
the hand of the thrower, or the manipulations of the presser, 
the clay, and the several parts of the mass; and it is removed 
the kiln into an adjoining apartment, and the process of 
the word. Often, however, the potter wants a 
convenience, warm clay is taken by the workmen, after 
being only a few hours off the kiln, to the injury of the work- 
men as well as of the vessels; but, however the work 
this disadvantage, not resolutely opposing its occasional 
 Practice.

Throwing the ware is the first manipulation. Fitted 
into one nook or corner of the room, is a box, with a 
curved front, about four feet square. The thrower's (engine's) 
wheel is placed between the axis or, axis is vertically 
in a step, and is supported by a collar. On the upper 
end is firmly fixed the bed, a circular disc of wood, which, 
during a forward motion, causes the spiral movement of the 
the near-bottom, is a pulley, with grooves of varied 
diameters, to serve as a rack wheel, and for different 
the clay, clay calcined ochre, and oxides of nickel, 
and pass through a 12"s lamp.

2. Kilns (from the smit), pick, pulverise, 
and pass through a sieve, hair, or coarse lawn; and mix one 
pound of burned clay, for different 
The following are the components of Dips and Smears:

1. Brown, for jug necks. - Take and mix well twenty 
parts, serving for forty, the following mixture: Two 
parts of marl, two of clay, calcined ochre, and oxides of 
and pour as stated above.

2. Olive Green. - Two of burnt unglazed earthenware, mix 
one pound of ground saffres; evaporate, calcine, pulverise, 
and sift; then, in a quart of flinted slip, mix twelve 
ounces of the calx.

3. Black clay, twenty-eight; Cornish stone, fifty; plaster, 
twenty-five; blue clay, 2.

3. Ball clay, twenty-three; Cornish stone, twenty-seven; 
flint, twenty-seven; china clay, fifteen. Olive Orange Dip. - Mix one ounce of 
and mix four ounces of flinted slip.

Olive Green Dip. - Mix one ounce of saffre into a quart of 
yellow brick clay slip.

2. Ball clay, twenty-eight; Cornish stone, fifty; plaster, 
twenty-five; blue clay, 2.

3. Ball clay, twenty-three; Cornish stone, twenty-seven; 
flint, twenty-seven; china clay, fifteen. Olive Green Dip. - Mix one ounce of 
and mix four ounces of flinted slip.

4. Black, and mix four ounces of pure coaltar calx into three 
points of stoneware slip.

2. Ball clay, twenty-eight; Cornish stone, fifty; plaster, 
twenty-five; blue clay, 2.

3. Ball clay, twenty-three; Cornish stone, twenty-seven; 
flint, twenty-seven; china clay, fifteen. Olive Orange Dip. - Mix one ounce of 
and mix four ounces of flinted slip.

4. Black, and mix four ounces of pure coaltar calx into three 
points of stoneware slip.

2. Ball clay, twenty-eight; Cornish stone, fifty; plaster, 
twenty-five; blue clay, 2.

3. Ball clay, twenty-three; Cornish stone, twenty-seven; 
flint, twenty-seven; china clay, fifteen. Olive Green Dip. - Mix one ounce of 
and mix four ounces of flinted slip.

4. Black, and mix four ounces of pure coaltar calx into three 
points of stoneware slip.

2. Ball clay, twenty-eight; Cornish stone, fifty; plaster, 
twenty-five; blue clay, 2.

3. Ball clay, twenty-three; Cornish stone, twenty-seven; 
flint, twenty-seven; china clay, fifteen. Olive Green Dip. - Mix one ounce of 
and mix four ounces of flinted slip.

4. Black, and mix four ounces of pure coaltar calx into three 
points of stoneware slip.

2. Ball clay, twenty-eight; Cornish stone, fifty; plaster, 
twenty-five; blue clay, 2.

3. Ball clay, twenty-three; Cornish stone, twenty-seven; 
flint, twenty-seven; china clay, fifteen. Olive Green Dip. - Mix one ounce of 
and mix four ounces of flinted slip.

4. Black, and mix four ounces of pure coaltar calx into three 
points of stoneware slip.
spindle, on the upper edge of which is fixed a small wince, which is turned by a lad, while another forms his clay articles.

Modelling.—This manipulation demands judgment and to a certain extent a homogeneity of touch. It forms the
a correct model of the object, whether utensil or figure, and, when this is dry, one or several blocks are formed 
for the required manipulations.

Into a thick layer of clay around the block, space is left, into which is poured plaster of Paris, and left some time to harden. After this has set, the parts, either for the 
presser or for the required manipulations.

—The presser keeps all his moulds on shelves ranged in a room around a heated stove, which, by raising their temperature, promotes their action. He is, for his wood's nutritious qualities, and the convenience he has a number of moulds for each kind of vessel or utensil. He regards the size and strength of each article, and what varies according to purpose; and, after squeezing it in his hands, he heats it to a suitable size and thickness. Usually ten or more of these bats are prepared before proceeding to the next operation.

Taking the several parts of his mould, he covers it with a proper portion of the bat, and boises it on with damp sponge, afterwards with his hands, forcing it into all the parts, however angular they may be. With a moistened sponge he carefully smooths the inner surface, then trims off all extra portions from the edges, which he moistens with slip (unevaporated body), places all parts of the moll, then returns it to the form; and when the presser empties them, again fills them, and while they are drying, with proper tools he takes off all appearances of surplus clay from these articles, and applies whatever appendages are connected with his department.

Handling the Presser.—The central branch of the clay-man's manipulations, and regards fixing on vessels the handles, spouts, spits, and ornamental figures proper for them, in a proper manner, is the business of the presser; the handler having a number in his charge, ranged around the stove for use. But for common vessels, a furnish of clay is formed, and a clay clay, and of short form, as required. An iron cylinder is secured to a block fixed in the wall. Into this cylinder, at the bottom, is placed a piece of lead, perforated agreeably to the intended shape of the clay-length; and for tubes, it has a steel round pin firmly placed in the centre of the lead; a piston of iron is adapted to the cylinder at the end of a powerful screw, which works through a bar above, by a cross handle. Into this cylinder is put lumps of clay, and the force of the screw on the piston causes the pin to pass through the lead-piece, and it is received on a board, until all is thrown through and the lengths are left of short form, until ready for being baked biscuit.

Making of the Ware—Biscuit.—The potter's oven for biscuit is usually larger than that for glaze; and is, in form, a cylinder ten or twelve feet high, and from ten to fifteen feet in diameter, surmounted by a dome from three to five feet in height, in whose centre is an aperture about two feet in diameter. The firebricks used are made of the shale marl, carefully mixed with slate clay; and the exercise of judgment in this mixture is well compensated by the demand for more serviceable bricks. In erecting the oval shaped brickwork, the most care is taken, as the same mortar, but in a mixture of fire clay and slate sand with water, or China clay and a weak solution of borax in water. When the oven is well prepared, and all operations have proceeded as above, that the first baking of ware therin causes the whole interior of the clay to withstand the strain of the compact火烧, precluding any admission of air into the interior except through the mouths; which, and also the bags or flues, are carefully examined. And, also the furnaces are replenished with air from the bottom, and by sound tried whether fit for further processes, and when so, placed in the biscuit oven; and they are carefully examined, and by sound tried whether fit for further processes, and when so, placed in the biscuit oven; and so on, till they are taken out lightly injured, yet sound; and, as lumps, or thirds, when defective, yet sound in structure. All cracked articles are rejected.

The baking continues for about twenty-five hours, and the temperature of the oven is brought up to about five hundred degrees, that is, the oven to be lower than is absolutely proper for the men to bear while drawing, and again setting in. The earthenware, in its various forms, is of various shapes, for the use of the china, a resemblance: to statue marblie, devoid of any lustre on its surface; but, when of a good body, and excel-
lent workmanship, as vases, busts, figures, and models, all edges and footing remain as sharp and clear as in fine sculpture. There is great probability that a sight of the biscuit china, suggested to Mr. G. Cumberland, of Bristol, the idea of manufacturing tiles of a body of clay and ground silica; all edges and tooling remain as sharp and clear as in fine sculpture. The thin fabric of most vessels, as well as the components of the body, will not allow the fluid glaze to be applied while they are in the clay state, as the water would cause the shapes to alter, and either sink beneath its own weight, or bilge out and burst. English china, as at present compounded, if attempted to be formed by once baking; would not contract in the body as not to appropriate all the glaze which would be in riddles on the surface. And this will apply to any china whose components of the body greatly differ from those of the glaze. When the most ready employment of felspar in body and glaze becomes generally known, then will English china, probably, be made at one baking.

Ornamenting biscuit ware is accomplished by painting and printing, with the distinction of blue, because that color was first employed in the pitch, selected as most other colors are used. Blue painting, or biscuit painting, is now practised on only very common earthenware; and in rude patterns, traced by camel-hair pencils, on the surface of teawares and jugs.

The colours for this manipulation are thus prepared:

Brown.—(Fruit.)

Red Brown, 9 or 5; frit, 91 or 92.

Yellow Calx, 9 or 5; frit, 91 or 92.

White Lead, 9 or 5; frit, 91 or 92.

Glass, 9 or 5; frit, 91 or 92.

Oxide of Iron, 9 or 5; frit, 91 or 92.

Sap, Potash and Alumina, 9 or 5; frit, 91 or 92.

Blue printing is the name for the manipulations of taking impressions (in colours, blue, green, pink, and brown,) from copper-plates engraved in a style peculiar to the artists of the pottery districts; and of sizes varied to the different vessels, some being very strong and large, similar to that used for beautiful copper-plate paper for engraving embellishments; usually with cast-iron cheeks and rollers, and without coppers fixed in the press. The press was held by his thumb and finger protected by a thick slip of leather, and cleans his plate from the scaling colour with a stuffed leather bag. The name of printers or engravers is lowered by the quantity of the calx.

Blue printing, or biscuit, crude antiquity, 9 or 5; manganese, 18; and blue calx, 9; calcine and grind well together for use.

Black.—Red lead, 90; antimony, 25; manganese, 15; calcine, then grind with blue calx, 90; oxide of tin, 5; and calcine for use.

Mulberry.—Manganese, 54; blue calx, 26; nitre, 14; bo- rax, 6; calcine over-purified nitre; then grind well with glass, 26; frit, 10; for use.

The colour is well mixed on a very hot iron plate, into a fluid, called technically an oil, prepared thus: over a slow fire, in a vessel kept loosely covered, for two hours boil one pint of water, one ounce of pure rape oil, and two ounces of capvis balsam, and boil two hours longer. When a little cooled, (to 160°) add, of amber oil of turpentine, one pint. Then add a little of the oil, resume the boiling, and continue forty-five to seventy-five minutes longer. The strength of the oil is increased, if more is wanted. Some printers prefer to the latter ingredients, one ounce of oil of tar, and one ounce of balsam of sulphur, very cooled, introduced, else the whole will be spoiled by congealing.

The printer places his plate on the stove, rubs in the colour, with a broad paint knife, without reference to the excess, and then with his boss cleans the plain sides, and places it on the bed of his press; he next brushes the sheet of tinsam paper over with a solution of soft soap and water, puts it on the plate, rolls it between the rollers, and the instant the return of the press leaves it dry by the hot plate, he carefully takes it off, and examines that the impression is a good one, and that the colour properly adheres. Thus he proceeds till his quantity is taken off. Messrs. Machin & Potts, Liverpool, have the security of a patent, of engraved rollers for the purpose, instead of plates. Their machinery is, at present, not exhibited to strangers; but the suggestion seems taken from calico-printing, with which branch Mr Potts was some years connected.

A cutter (a little girl, training up for the next manipulation,) takes the impression, cuts away all the white paper, then separates the impression into its parts, which she places in the order most readily facilitating their application to the ware. A transfer, with considerable tact and judgment, places on a sheet of paste the several parts in their proper arrangement; and then, with a rubber of flannel, six to sixteen inches long, and firmly rolled and tied together, with the ends fastened, rubs the paste over and over, with much force, often resting one end in the right arm-pit, until it cannot again be taken off. The paste adheres perfectly, and the fibre of the slub of the colour in the oil, and when the task is completed, each vessel is taken off the paste. If the process is not well placed and immersed in water, and with soft soap and a brush the paper is washed off, and leaves in the ware only the mineral colour, and a little of the oily medium. The ware is kept in a heated room to evaporate much of the water imbibed in washing off the paper, which is requisite to prepare it for the fluid glaze; and also, is heated to a red heat, to harden on the colour, and volatilize the oily particles, else the glaze would not adhere.

Baking china in a earthenware, glazed. — The porous nature of vessels baked only biscuit, would allow many fluids to permeate, which being an inconvenience, while it facilitates the impression by decomposition of the engraved, or of an impermeable covering, is provided for in a glaze; and this has been attempted to be effected by several different processes.

When common pottery was manufactured in Staffordshire, the glaze and ware was shaken from a bag, on the outside, in the clay state, and afterwards manganese was mixed with it. Glazing with salt was the next improvement; then oil glaze, and, finally, a patent and sugar glaze. For some years, only raw glazes were used; their components only being mixed, without fritting, prior to grinding; but, after the additional improvement in the manufacture adopted to make glass and vitreous colours, suggested the practice of fritting the components, and the necessary expediency of the glaze to be adapted to those of the body, which is varied according to the judgment of the manufacturer. Some, allow of expansion and contraction depends on the density and compactness of the body, which must be carefully regarded, or
the glaze which appears fine on one body, will seem defective, and craze on another; the temperature requisite for fusion of its components, may be lower than will bring the surface of the ware into a suitable state for combining therewith, and consequently, they would intumesce, be devoid of lustre, craze, and scale off; or, it might be higher than the body will sustain, which being too much contracted, the glaze might lie in streaks; or, it might waver, and being rendered more fusible, by the alkaline components, more fusible, at a higher temperature than biscuit baking, the whole might sink into one vitrified mass, as too often occurs.

The china glazes have these raw components:

<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornish Stone</td>
<td>23</td>
<td>35</td>
<td>25</td>
<td>23</td>
<td>15</td>
<td>19</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Red Lead</td>
<td>22</td>
<td>28</td>
<td>29</td>
<td>23</td>
<td>15</td>
<td>19</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Bauxa</td>
<td>10</td>
<td>18</td>
<td>3</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Flint</td>
<td>17</td>
<td>17</td>
<td>12</td>
<td>10</td>
<td>18</td>
<td>30</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td>Glass</td>
<td>19</td>
<td>17</td>
<td>12</td>
<td>10</td>
<td>18</td>
<td>30</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td>Tin Oxides</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Blue Calks</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

These are substitutes for felspar, as raw glazes:

<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornish Stone</td>
<td>40</td>
<td>28</td>
<td>29</td>
<td>23</td>
<td>16</td>
<td>30</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Glass</td>
<td>23</td>
<td>29</td>
<td>26</td>
<td>23</td>
<td>15</td>
<td>19</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Flint</td>
<td>20</td>
<td>29</td>
<td>23</td>
<td>15</td>
<td>19</td>
<td>30</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Bauxa</td>
<td>22</td>
<td>28</td>
<td>29</td>
<td>23</td>
<td>15</td>
<td>19</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Red Lead</td>
<td>22</td>
<td>28</td>
<td>29</td>
<td>23</td>
<td>15</td>
<td>19</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Tin Oxides</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Blue Calks</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>White Earth</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>

When borax is very expressive, this is often substituted: sulphuric acid weighs of nitre and flowers of sulphur to heat, till all sulphurous acid gas is dissipated; then pour on an iron plate, and, when cold, take off the greasy scum, and then into a vitrified mass.

These are the fritted glazes, in proper succession:

1. Flint. — Flett, 54; lead, 17; glass, 17; nitre, 9; borax, 3; Glaze, Flett, 50; lead, 20; glass, 22; flett, 8.

2. Flint. — Flett, 55; lead, 17; glass, 17; nitre, 9; borax, 3; Glaze, Flett, 50; lead, 20; glass, 22; flett, 8.

3. Flint. — Flett, 56; lead, 17; glass, 17; borax, 22; Glaze, Flett, 50; lead, 20; glass, 22; flett, 8.

4. Flint. — Flett, 57; lead, 17; glass, 17; borax, 22; Glaze, Flett, 50; lead, 20; glass, 22; flett, 8.

5. Flint. — Flett, 58; lead, 17; glass, 17; borax, 22; Glaze, Flett, 50; lead, 20; glass, 22; flett, 8.

6. Flint. — Flett, 59; lead, 17; glass, 17; borax, 22; Glaze, Flett, 50; lead, 20; glass, 22; flett, 8.

The fritted glazes have the folloiving components:

1. Flint. — Glass, 69; latharge, 18; nitre, 8; arsenic, 4; blue calk, 1; Glaze. — For printed. White lead, 54; Cornish stone, 26; flett, 14; flett, t. Flow with rock salt, and pearl ashes.—For enameled. Latharge, 55; stone, 23; flett, 15; flett, 6.

2. Flint. — Glass, 70; latharge, 22; nitre, 4; arsenic, 4; blue calk, 1; Glaze. — For printed. Flett, 12; flett, 20; Cornish stone, 23; latharge, 55; Colour.—For printed. Flint, 19; Cornish stone, 55; white lead, 48; Mocha. Flett, 13; flett, 11; Cornish stone, 23; latharge, 55; Cream colour. Flett, 30; crown glass, 20; flett, 50; glass, 30.

3. Flint. — Flett, 87; borax, 13; Glass, 84; red lead, 8; flett, 10; Glaze, for emalay. Flett, 22; Cornish stone, 25; white lead, 26; blue calk, 1.

4. Flint. — Red lead, 26; glass, 65; arsenic, 5; nitre, 5; blue calk, 1; Glaze. — For lustreware. Lead, 14; flett, 50; borax, 23; nitre, 12; blue calk, 1.—Glass. Printed. Flett, 80; white lead, 26.

5. Flint. — Glass, 69; white lead, 7; blue calk, 1; also, Glass, 68; red lead, 27; arsenic, 5; then grind No. 1. 20, No. 5, 56, for printed teases or jugs; or 15, for flatware.

—Glaze. Fritt mass, 16; Cornish stone, 27; flint, 10; white lead, 47.

6. Flint. — Glass, 52; red lead, 18; arsenic, 12; nitre, 12; borax, 5; blue calk, 1; Glaze. Fritt, 20; white lead, 50; stone, 24; flint, 17; Glass, Flett, 50; lead, 20; glass, 22; flett, 8.

The coloured glazes have these components:

Block.—1. Shining. Calamine flinted slip, 60; red lead, 40; mix calx, 50; good managanese, 14; grind together.

Or, X, 1. —Glaze. Fritt, 60; managanese, 50; red lead, 10; grind together.

Brown.—1. Raw glaze, managanese, (No. 1), 33; fritt glaze (No. 3), 67, for printing.

2. Raw glaze, managanese, (No. 1), 67; fritt glaze, (No. 3), 33; for jug necks.

3. In brown, red lead, 5; flett, 5; red lead, 62.

Manganese, 2, will make this black.

Green Fritt.—1. White lead, 65; flint, 37; blue calk, 9; copper calx, 1; Glaze. Frett, 15; No. 2, raw glaze, 85.

Fritt. — White lead, 33; copper calx, 25; glass, 17; flint, 22; Glaze.

—Glaze. Frett, 26; No. 4, fritt glaze, 74; for desert ware. Or, do, 40; for printed. Or, do, 40; for edging.

Yellow.—1. Yellow calx, 14; latharge, 14; fritt glaze, (3) 72; do, 20; raw glaze, (3) 90.

The components of a glaze should, by chemical affinity, adapted to fuse together, and flow equally, (not in streaks on one part, and without lustre on another,) readily combining with those of the body, without affecting the colouration of the vessel, during the baking; and when cold, present an opaque covering of cream colour; but for ornamental wares, china or earthen, the glaze must appear clear, free from specks, or bubbles, resemble velvet in softness to the eye, resist acids and alkalies, and bear sudden rise of temperature. They also must mix with water, to the denseness and resemblance of thick cream, but not thicker than be, on the water being imbued by the ware, a thick coating, which when dry, will not be softened, or glazed in the saggers, without a portion rubbing off. The fritt glaze is ground to an impalpable powder; and then mixed with those compounds which are used raw, in the same manner as raw glazes are mixed,—by a hand-mill, not unlike a circular washing machine, and then this is set in a pugged or glazed, to prevent the more ponderable components precipitating, and the deficiency leaving almost a mere wash for use, and constant stirring kept up; and there is a certain quantity of common salt, for raw glazes, and of mucilaginous acid for fritt glazes, mixed therewith, to preserve the density of the mixture; the dry powders receives from each other, the article, which he imparts, and by a peculiar movement of his hands causes all the surface to be equally thin.
CHINA-WARE.

covered; he then places it on a board, on the points of
which it is fixed and suspended. After it is well dry it is
placed in saucers for glaze baking.

The dipper vessels are of modern white, are placed
with burning gaseous and by stilts, triangles, rings, pegs,
cockspurs, kept asunder, to prevent their adherence when
the glaze being poured on to them all is poured on to the
glazes and body to be properly annealed. The temperature is a
white heat of all within the oven; and when the tiles indicate
course, and then put in. The time is quickly
shortened, and the whole is left to cool, ready for the ware-
house.

Emallement of glazed ware.—This includes black print-
ing, lettering, and enamelling.

Black printing is the term for applying impressions to
glazed ware, and is done, as a rule, with black, or gold
inks.
The copper-plates are engraved in a style differing from
those employed in blue printing; and the colours are
different; a black plate is used for black printing.
The following are the components of the colours:

Silver,—1. Copper calx, 20; flux, (1) 89.
2. Copper calx 25; flux, (*) 75.
3. Calcined borax, 40; calcinedumber, 35; blue calx, 9.

Do. do. 25; flux, 75; glaze.
The green, purple, and pink, are the enamel colours
mixed a little more, with flux. (1) Instead of using paper
for taking off impressions, the black printer employs glue
bats, prepared in this manner:—A definite quantity of
boiled glue is soaked well some hours in water; in this
next part, add the heat; the colour is commu-
porated during four hours; afterwards it is poured out on
large well-glazed flat dishes, to the thickness of one-eighth
of an inch. The glue-bat is then cut into small pieces, technically called papers, corresponding in size to the
pieces of the plate to be printed. The paper is first
impalpable powder, well in a saucer, with a lock of carded
cotton, well dried. He, with resin, fixes his plate to a
wooden frame, and then rubs into the frame of his paper
(a mixture of cold-drawn lined oil. and oil of turpentine,
or Barbadoes tar), and, with much pressure, the glue paper
abstracts the oil out of the engraving, and being immediate-
ly laid carefully on the ware, previously wiped very clean,
the oil, by a gentle pressure, adheres; he then with a
sponges cleans the paper, and leaves it to dry, while he
applies the powdered colour, by the cotton to the oiled
design. With a series of papers he proceeds successively till his design is quite finished; the engravings are then
commencing with the vessels first printed, with silk rags he
leans off all superfluous colour from the design, and
wipes all the other parts clean from whatever might be likely to
 adhere to the glaze while being baked in the muffle.
Lustrad ware.—The body is usually formed of common
brick clay, 60, and blue clay and black mull, 20 each,
hunged well, and properly lawn'd; fired biscuit, and then
covered with the brown glaze, No. 4.

The components for the lustres are thus combined:—

Geld.—In nitro-muriatic acid, sufficient, dissolve
Balsam of sulphur, 60; spirits of turpentine, 40.

Drop the acid solution in while stirring the medium; and
wash it in with the best turpentine only. 1 ounce of
malted makes 32 of lustre.

Persian gold lustre.—In fat oil on a tile, placed on a
hot black, with an addition of gold, and then con-

Balsam of sulphur, 60; spirits of turpentine, 40.

Drop the acid solution in while stirring the medium; and
wash it in with the best turpentine only. 1 ounce of
gold makes 32 of lustre.

Gold.—The composition of the plate is combined by

Balsam of sulphur, 60; spirits of turpentine, 40.

Drop the acid solution in while stirring the medium; and
wash it in with the best turpentine only. 1 ounce of
gold makes 32 of lustre.

The composition of the plate is combined by

Balsam of sulphur, 60; spirits of turpentine, 40.

Drop the acid solution in while stirring the medium; and
wash it in with the best turpentine only. 1 ounce of
gold makes 32 of lustre.

The composition of the plate is combined by

Balsam of sulphur, 60; spirits of turpentine, 40.

Drop the acid solution in while stirring the medium; and
wash it in with the best turpentine only. 1 ounce of
gold makes 32 of lustre.

The composition of the plate is combined by

Balsam of sulphur, 60; spirits of turpentine, 40.

Drop the acid solution in while stirring the medium; and
wash it in with the best turpentine only. 1 ounce of
gold makes 32 of lustre.

The composition of the plate is combined by

Balsam of sulphur, 60; spirits of turpentine, 40.

Drop the acid solution in while stirring the medium; and
wash it in with the best turpentine only. 1 ounce of
gold makes 32 of lustre.

The composition of the plate is combined by

Balsam of sulphur, 60; spirits of turpentine, 40.

Drop the acid solution in while stirring the medium; and
wash it in with the best turpentine only. 1 ounce of
gold makes 32 of lustre.

The composition of the plate is combined by

Balsam of sulphur, 60; spirits of turpentine, 40.

Drop the acid solution in while stirring the medium; and
wash it in with the best turpentine only. 1 ounce of
gold makes 32 of lustre.

The composition of the plate is combined by

Balsam of sulphur, 60; spirits of turpentine, 40.

Drop the acid solution in while stirring the medium; and
wash it in with the best turpentine only. 1 ounce of
gold makes 32 of lustre.
tion of caruncle pustules) ground with a sixth part of mercury in the evening, and the pleasant smell of the artist.

Ground lying is frequently adopted prior to gliding; and, in application of it, he works upon the different parts, and red lead, as a fluid, the artist lays on even all the proper parts of the ware, by a pencil of suitable size. He then with a little gum applies to the surface a gilded enamel, with one-tenth additional flux; and carefully adjusts the coating, so that all the parts may be equally coated, which is then baked in the muffle, and consequently glided.

CHIO; called by the ancients Chios. See Scio.

CHIPPeway; a town in Upper Canada, on the Chippeway or Welland, two miles N.W. of Niagara falls, ten S. Queenstown. This place is famous for a victory gained by the Chippeway over the American troops over the British, July 5, 1814.

CHIPPeway; a river of the United States in the North-West Territory, which runs S.W. into the Mississippi; lon. 92° W.; lat. 43° 49' N.; length about 500 miles.

CHIPPeways; Indians, in the North-West Territory, on the Chippeway, in Michigan Territory, and in Canada on the Utawas. Number, according to Pike, 11,177; 2049 warriors. See Indiens.

CHIQUITOS; a province of S. America, in Buenos Ayres, inhabited, in 1732, by seven Indian nations, each composed of about 500 families. The country is mountainous and marshy; but the more fertile soils produce a variety of fruits without culture. The varilla is common, and a kind of cocoa is found, whose fruit is more like a melon than a cocoanut. It lies to the south of Mexico.

CHIRAGRA (Greek; from χέρι, the hand, and γράφειν, a seizure); that species of arthritis, or gout, which attacks the joints of the hand (the wrist and knuckles) and hinders their motions. It gradually deprives the hands of their flexibility, and bends the fingers, distorts them, and impedes their action, by the accumulation of a calcareous matter around the sinews, which finally bendums and stiffens the joints.

CHIROGRAPH. See Charter.

CHIROLOGY; the language of the fingers, or the art of making one's self understood by means of the hands and fingers. It is an important means of communication for the deaf and dumb.

CHIVALRY (from the Greek, or PALMISTRY; the pretended art of prognosticating by the lines of the hand. Its adherents maintain, that human inclinations, faults, and virtues are designated in an infallible manner by the lines which divine Providence has originally drawn in the hands of all men. Traces of chivalry are found even in the works of Aristotle, who asserts, for instance, that it is a sign of a long life if one or two lines run across the whole hand. The chiroancers quote some passages of the Bible to prove that their art is founded on the divine decrees, as the following:—4 And it shall be for a sign unto thee upon thine hand, and for a memorial between thine eyes" (Exodus xii. 9); and, “He sealeth up the hand of every man, that all men may know his work” (Job xxxvii. 7). In the middle ages, chiroancy was cultivated; and, in the present age, the French chiroancr machine Lenormand found, as she states, some eminent adepts in Paris, and in her travels to the different European congresses. The books in which chiroancy is explained and taught are numerous; and, in order to give dignity to the art, it has been connected with astrology. The Gipsies are at present the principal professors of chiroancy, and people who have no faith in the art not unfrequently amuse themselves with their predications.

CHIRON; son of Saturn and Philira. Saturn assumed the shape of a horse, in this amoe, to deceive his wife Rhea. The shape of Chiron, therefore, was half that of a man, half of a horse. In point of fact, Chiron was one of the people called Creatures. He was celebrated throughout all Greece for his wisdom and accomplishmants; and the greatest princes and heroes of the time—Bacchus, Jason, Hercules, Achilles, Esclapius, Nestor, Theseus, Palamedes, Ulysses, Castor, and Pollux, &c.—were invited to him for education. Besides the other branches in which generations of men were instructed at that time, they learned from him music and medicine. He was particularly skilled in surgery. When Hercules drove the Centaurs from mount Pelion, they took refuge with Chiron, in Malae; but their enemy pursued them even into this retreat, and unfortunately wounded his old tenery, which was directed against the arrow, the operation of the poison, in which the arrow had been dipped, rendered remedies useless; and Chiron suffered the severest torments. The gods, at his prayer, put an end to his life, though his nature was immortal by reason of his descent from Saturn. After his death, he was placed among the stars, and became the constellation Sagittarius.

CHIRONOMY (χιρονομία, Greek; from χεριόν, the hand, and νυμαί, a rule); the science which treats of the rules of gesticulation, which is a part of pantomime. The ancient orators recognised the importance of gestures. It is a peculiar method of gesticulation, and it relates to a discourse. See Gilbert Austin’s Chironomia, or a Treatise on Rhetorical Delivery, London, 1806.

CHIVALRY (from the French chevalier, a horseman; in German, Ritter, which signifies likewise a rider on horseback). Poets still sometimes use chivalry for chivalry; but this word is generally employed to signify a certain institution of the middle ages. The age of chivalry is the heroic age of the Teutonic-Hebrew tribes, corresponding to the age of the Grecian heroes. This heroic period of a nation may be compared to the youth of an individual; and we find, therefore, nations, in this stage of their progress, distinguished by the virtues, follies, and errors, to which the youth of individuals is most prone—thirst for glory, enthusiasm, pride, indescribable and indefinite aspirations after something beyond the realities of life, strong faith in virtue and intellectual greatness, together with much vanity and credulity. Chivalry, in the perfection of its glory and its eccentricity, existed only among the German tribes, or those which were conquered by and mingled with them, and whose institutions and civilization were impremated with the Teutonic spirit. Therefore we find chivalry never fully developed in Italy, because the Teutonic spirit was not so strongly marked in the institutions of that country, as it found a civilization already established, of too settled a character to be materially affected by its influence. We do not find much of the chivalric spirit in Greece, nor among the Schyov- nic tribes, except some traces among the Boheinnans and the Poles, who had caught a portion of it from the Germans. Among the Swedes, though a genuine Teutonic tribe, chivalry never struck deep root; but this is to be ascribed to their remote situation, and to the circumstance that they early directed their attention to navigation and naval warfare, which, in many ways, were unfavourable to the growth of the chivalric spirit; adorning, for instance, comparatively little opportunity for that display of courage and accomplishment in the eyes of admiring multitudes, or in the adventurous quests of the single knight, which formed so striking a feature of the chivalric age. A climate, which gives the chivalric spirit is gone. The famous passage in Burke’s Reflections is familiar to every one; but the man who coolly investigates the character of past times, and compares them with the present, will hardly come to the conclusion that our age is deficient in any of the qualities which constituted the glory of
the age of chivalry. Their strength is the same; their direction only is changed. Is it courage which has departed? The soldier, who steadily marches up to the jaws of a battery, can hardly be considered less brave than the knights of former days, who carried their bodies in steel to meet far less formidable means of destruction. The late wars in Europe abound with displays of valor which may be compared with any re-
corded in history or romance. In the battle of Dresden, the emperor Napoleon (as Oldenburg relates in his account of Napoleon's campaign in Saxony), being seated before the Prima gate, and seeing the artillery-
ists in a redoubt shrink from serving the cannon, be-
came so agitated that he was not fit to be pre-
sented himself, turned to his old guard, and said, "Show them how Frenchmen behave in battle;" when some of the soldiers addressed immediately sprang upon the redoubt, and marched up and down, in full view of the enemy, till they were shot. Of chivalric self-sacrifice, we can hardly find a more
striking instance than that of a Prussian officer of the
corps of colonel Schill (q. v.), who, when his comrades were condemned to death at Wesel, by a French court-martial, for a military expedition in contrav-
ention of the existing peace, refused the pardon which was offered him alone by Napoleon, and prefer-
ed to die with his fellow soldiers. A German historian, speaking of the enthusiastic self-devotion which crowded the plains of Palestine with the thousands of European chivalry, eager to shed their blood for the tomb of their Saviour? We say the same spirit in our days has chosen a nobler direction: the adventurers who expose themselves to every peril in the cause of sci-
cence and human improvement, the Humboldts, Clap-
pertons, Burckhards, display equal heroism in a
worthier cause. We would not govern ourselves by so narrow a theory of utility as to refuse to acknow-
ledge what was really great and sublime in the spirit of chivalry, but we cannot admit that the virtues of the chivalric age have vanished, because they now appear with less show and gorgeousness.

To explain the nature and origin of chivalry, we must consider the character of the ancient German tribes. The warlike spirit was common to them with other barbarous nations; but there were certain traits in their character peculiarly their own. Among these was their esteem for women. This is dwelt upon by Tacitus, and is sufficiently apparent from the early native German historians. This regard for the female sex was diffused by them through every country into which they penetrated, with the same uniformity and distinc-
tion in the forms in which it developed itself. In France, it became that refined gallantry, for which the
nation has been so long conspicuous; in Spain, it assumed a more romantic and glowing character, display-
ing much of the fire of Oriental feeling; in Germany itself, it became faithful and tender attachment to the wedded wife. Undoubtedly the Christian religion assisted in developing this feeling of es-
tem for the female sex in those times, particularly by the adoration of the Virgin, which was taught as a part of it. The constant reverence of this denied image of chastity and female purity must have had a great effect. We do not conceive, however, that the elevated condition of women can be referred entirely to the Christian religion, as we see that it has not produced this effect in the instance of na-
tions who have had no opportunity of imbibing the 'Teutonic virtues' as an article of faith. It is some
repose that this feature of this religion, to which we have attributed so much efficacy, (namely the birth of the
being whom they worship from a virgin,) and yet keep their women in a very degraded condition. We may be told, in answer to our claim of the peculiar regard for the female as a characteristic of the Teu-
tonic tribes, that women were held in high esteem by the Romans. It is true that virtuous mothers were treated with great regard by the Romans, and the history of no nation affords more numerous in-
stances of female nobleness; but this esteem was rendered to them, not as females, but as the faith-
ful companions and patriotic mothers of citizens. It had somewhat of a political cast. But this was not the case with the Germans. There is another trait of the German character, which deserves to be con-
ceived in this connexion, which is very apparent in their literature, and the lives of many individu-
als; we mean that indefatigable thirst for something
superior to that, which the present generation have
related in their own work, which hardly admits of translation, which has produced among them at the same time so much excellence and so much extravagance. These three traits of the Teutonic race, their warlike spirit, their esteem for women, and their indefatigable thirst for superhuman greatness, together with the influence of the feudal system and of the Roman Catholic religion, afford an explanation of the spirit of chivalry—an institution which, to many observers, appears like an isolated point in history, and leaves them in doubt whether to despise it as foolish, or admire it as sublime. The feudal system, the Christian and Teutonic tribes into masses, the members of which were united, indeed, by some political ties, but had little of that intimate connexion which bound
men together in the communities of antiquity, and has produced like effects in our own and a few pre-
ceding ages. They still preserved, in a great mea-
sure, the independence of barbarians. There was, however, one strong bond of union, which gave con-
sistency to the whole aggregate; we mean the Ro-
man Catholic religion, which has lost much of its
connecting power, in proportion as other ties, chiefly those of a common civilization, have gained strength. The influence of this religion was of great service to mankind during the ages of ignorance and violence, by giving coherency to the links of the social chain, which were continually in danger of parting. To this cause is to be ascribed the great uniformity of character which prevailed during the ages of chivalry. The feudal system, besides, enabled the gentry to live on the labours of the oppressed peasants, without the
necessity of providing for their own support, and to indulge the love of adventures incident to their war-
like and ambitious character. If we now combine the characteristics which we have been considering we have the warlike spirit, the lofty and exalted idea of
an undeniable thirst for glory, connected with feudal independence, elevation above the drudgery of daily toil, and a uniformity of character and purpose, in-
spired by the influence of a common religion—we
obtain a tolerable view of the chivalric character. This character had not yet only, degenerated itself in the age of Charlemagne. The courage exhibited by the warriors of his age was rather the courage of in-
dividuals in bodies. The independence, the individu-
ality of character, which distinguished the errant
 knight who sought far and wide for adventures to be achieved by his single arm, was the growth of a lat-
er period. The use of the war-horse, which formed
so essential an instrument of the son of chivalry, was not common among the Germans until the time of their wars with the Huns. They were indeed ac-
quainted with it before, and Tacitus mentions it in his account of the Alamans. However, we can
not recognize that feature of this religion, to which we have attributed so much efficacy, among them till the period we have mentioned. After it was introduced, cavalry was considered among them, as among all nations in the early stages of their progress, much superior to infantry, which was, in fact, despised, until the successes of the Swedes demonstrated its superiority. In the eleventh century,
Knighthood had become an established and well-defined institution, but it was not till the fourteenth century that its honours were confined exclusively to the nobility (q. v.). The crusades gave a more religious turn to the spirit of chivalry, and made the knights of all Christian nations known to each other, so that a great uniformity is thenceforward to be perceived among them through the whole range of chivalric orders of knights, the knights of St John, the templars, the Teutonic knights, &c. The whole establishment of knighthood assumed continually a more formal character, and, degenerating, like every human institution, sank at last into Quixotic extravagance. The chivalric spirit of feudal times, however, being deep-rooted, produced one of the most splendid and sublime epics, the "Nikonenitieth" (q. v.). By the intercourse with the East, which grew up during the crusades, fairs, and all the wondrous enchantment, were introduced into the chivalric or chivalric poets. It is probable, however, that there existed something of the same kind before the influence of the East was felt; for instance, the stories of the enchanter Merlin. Chivalric poetry, in our opinion, begins, as Schlegel has shown, with the mythological cycles of King Arthur's realm. The most celebrated of these is that of Charlemagne and his paladins, his twelve peers, which remained the poetical foundation of chivalric poetry for many centuries. The cycus of Amadis (q. v.), which belongs, perhaps, exclusively to Spain, does not rest on any historical ground. For further information see the article CHIVALRY, in the supplement to the Encyclopaedia Britannica, written by Sir Walter Scott, which contains many interesting facts, though the writer does not investigate very deeply the spirit of the institution. The article Chevalerie, in the Encyclopédie Moderne, is full of valuable information, and Professor Lalande's Histoire de la Chevalerie is a work. The author Harold should not be forgotten. See also Heeren's Essay on the Influence of the Crusades, translated into French from the German; Busching's Vorlesungen uber Ritterzeit und Ritterweisen, Leipzig, 1823, 2 vols.; Mémoires sur l'ancienne Chevalerie, par L'Académie des Arts de Saint-Palaye, Paris, 1856, 2 vols., with engravings; and last, but not least, Don Quixote. See also the article Tournament, and the other articles in this work connected with this subject.

CHLORIC ACID. See Chlorine.

CHLORIDE OF NITROGEN. See Chlorine.

CHLORINE. The discovery of this gas was made in 1770, by Scheele, and named by its discoverer, dephlogisticated marine acid. The term dephlogisticated had exactly the same import as that of oxygenated, soon afterwards introduced by Lavoisier. From its peculiar yellowish-green colour, the appellation of chlorine (from χλωρίς, green) has been given to it. Chlorine gas is obtained by the action of muriatic acid on the peroxide of manganese. The most convenient method of preparing it is by mixing concentrated muriatic acid, contained in a glass flask, with half its weight of finely-powdered peroxide of manganese. On the application of a moderate heat, the gas is evolved and escapes. So the chemical symbol is Cl. The gas is given off from glass bottles, filled with warm water. In order to comprehend the theory of this process, it must be premised that muriatic acid consists of chlorine and hydrogen. The peroxide of manganese is composed of manganese and oxygen. When these compounds react on another one another, the peroxide of manganese gives up a portion of its oxygen to the hydrogen of the muriatic acid, in consequence of which water is generated, and chlorine (the other ingredient in muriatic acid) is liberated. The method which is employed in the arts, and which is the most economical, is the following:—Three parts of common salt (muriate of soda) are intimately mingled with one of the peroxide of manganese, and to this mixture two parts of sulphuric acid, diluted with an equal weight of water, are then added. By the action of sulphuric acid on the muriate of soda, muriatic acid is generated, which, when mingled with the peroxide of manganese; so that, instead of adding muriatic acid directly to the manganese, the materials for forming it are employed. Chlorine is gaseous under a common atmospheric pressure. It is twice and a half heavier than atmospheric air, or its specific gravity is 2·5. The gas has a yellowish-green
CHLORINE.

colour. Of all the gases, it is the most insupportable in its action on the lungs. When pure, it occasions immediate death if an animal is immersed in it; and even when largely diluted with common air, it cannot be expired with safety. It occasions a severe sense of stricture at the breast, which renders it impossible to make a full inspiration. This sensation continues for a considerable time after it has been inspired, and has often produced a permanently injurious effect. When thoroughly dried, by exposure to fused chloride of calcium, it suffers no change, though cooled to 40°. When prepared over water, however, so as to contain a quantity of aqueous vapour, it condenses on the side of the vessel even at a temperature of 40°; and, if surrounded by snow or ice, it shoots into acicular crystals of a bright yellow colour, and sometimes two inches in length, which remain attached to the sides of the vessel. This solid is a hydrate of chlorine, and, when heated to 50°, it melts into a yellowish oily fluid. Chlorine is absorbed by water, in a quantity which increases as the temperature diminishes. At 50°, the water takes up about twice its volume. The solution has a yellowish-green colour, and its odour is that of the gas itself. Its taste is rather styptic than sour, and the liquid, like the gas, has a dehydrating and destroying effect on vegetable colours. Hence it may be employed in bleaching. It is not changed by a boiling temperature. Solution of chlorine is decomposed, however, by exposure to the solar light; the chlorine attracts hydrogen from the water, forming muriatic acid, which remains dissolved, and pure oxygen is discharged. Chlorine gas supports the combustion of a number of inflammable substances. A lighted taper burns in it, though feebly, with a red flame; phosphorus takes fire when immersed in it; and a number of the metals, as antimony, arsenic, copper, and others, if introduced into it in leaves or filings, burn spontaneously. Potassium and sodium burn vividly in it. In these cases, the inflammable or metallic substances are believed simply to unite with the chlorine: Chlorine combines with many of these bases in more than one proportion. When in one proportion, the compound is called a chloride; when in two, a bi-chloride, or a deuto-chloride, &c. Whenever a metallic chloride, which is soluble in water, is thrown into that fluid, it is conceived to be instantly converted into a muriate; the water present is decomposed, its oxygen goes to the metallic base, and its hydrogen to the chlorine, and a muriate of an alkali, earth, or metallic oxide, is formed. The salt, which, when dry, is a chloride of sodium: it is no salt, containing neither acid nor alkali, but, whenever it is dissolved in water, it is immediately transformed into a salt; the sodium attracts oxygen and becomes soda, and the chlorine takes hydrogen and becomes muriatic acid, and muriate of soda exists in the solution. When any of the compounds of chlorine, with inflammable substances or metals, are subjected to the action of a galvanic apparatus sufficiently powerful to decompose them, the chlorine is always evolved at the positive pole of the battery, and the base at the negative pole. In this respect, and in its power of supporting combustion, chlorine is analogous to oxygen. One of the most important chemical properties of chlorine is displayed in its action on the vegetable colours. Many of them it entirely destroys; and even those which are the most deep and permanent, such as the colour of beetroot, or the purplish tint, and the yellow, brown or yellow. This agency is exerted by it, both in its gaseous and its liquid form. The presence of water is, however, necessary to this. Hence, when the gas destroys colour, it must, probably, be enabled so to do by the hygroscopic water it contains. It is accordingly found, that, when freed from this, it does not destroy the colour of dry litmus paper. The destruction of colour appears to owe to the combination of the oxygen of the water present to the colouring matter: the chlorine attracts the hydrogen of the water to form muriatic acid, and the evolved oxygen unites with the colouring matter, and, by changing its constitution, alters its relation to light, so that the tint disappears. Berthollet applied the agency of chlorine to the process of bleaching, and with such success as to have entirely changed the manipulations of that art. The method of using it has been successively improved. It consisted, at first, in subjecting the thread or cloth to the action of the chlorine itself; but this has been found equally produced, and the strength and texture were sometimes injured. It was then applied, condensed by water, and in a certain state of dilution. The thread, or cloth, was prepared as in the old method of bleaching, by boiling first in water, and then in alkaline lye; it was then immersed in the diluted chlorine: this alternate application of alkali and chlorine was continued until the colour was discharged. The offensive, suffocating odour of the gas rendered this mode of using it, however, scarcely practicable; the odour was found to be removed by condensing the chlorine by a method which is now universally employed. In this method, the chlorine, by decomposing water, and causing oxygen to be imparted to the colouring matter, weakens or discharges the colour, and the colouring matter appears to be rendered more soluble in the alkaline solution, alternately applied, and of course more easily extracted by its action. More lately, a compound of chlorine and lime has been employed, prepared by exposing slaked lime to chlorine gas: the gas is quickly absorbed, and the chloride of lime, as it is called, being dissolved in water, forms the bleaching liquor now commonly employed, and which possesses many advantages. In using it, the coloured cloth is first steeped in warm water to clean it, and is then repeatedly washed with a solution of caustic potash, so diluted that it cannot injure the texture of the cloth, and which is thrown upon it by a pump; the cloth is then washed in a solution of lime, again washed, acted on by a boiling lye as before, and again steeped in the solution; and these operations are performed alternately several times. The cloth is lastly immersed in very dilute sulphuric acid, which gives it its permanent advantage, after it is washed and dried. Chloride of magnesia has been substituted, with great advantage, for that of lime, in whitening cloth for calico printing; the cloth, when lime is used, retains a little of it, which, in the subsequent operation of clearing by immersion in weak sulphuric acid, forms sulphate of lime, which remains, and affects the colours when it is dried; while the sulphate of magnesia is so soluble, that it is entirely removed. Chloride of alumine has been employed to discharge the colour of the Turkey-red dye, which resists the action of other chlorides, and is only discharged by chlorine gas, by an operation very injurious to the workmen. Another important application of chlorine gas is that of destroying or neutralizing contagion. Acid vapours, sulphuric acid in particular, under the form of the fumes of burning sulphur, had often been employed for that purpose; but chlorine, first of all, and in the different compound gases that contain the elements of vegetable and animal matter, and which may be supposed to constitute noxious effluvium, is superior to any other agent, and is now universally employed for the purges of migration. It is the only agent that admits of partial relief in cases of asphyxia from subhuredet hydro-
Oxygen, that chlorine, united with hydrogen, forms an important compound, called muriatic, or hydrochloric acid gas. (See Muriatic Acid). With oxygen, it gives rise to four distinct compounds, which are remarkable for the feeble attraction of the two constituent elements, notwithstanding the strong affinity of oxygen and chlorine for most elementary substances. These compounds are never met with in nature. Indeed, they cannot be formed by the direct combination of their constituent parts, and their decomposition is effected by the slightest causes. Notwithstanding this, their union is always regulated by the law of definite proportions, as appears from the following tabular view, illustrative of their composition.

<table>
<thead>
<tr>
<th>Compound</th>
<th>Chlorine</th>
<th>Oxygen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorous</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>Peroxide of chlorine</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>Chloric acid</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td>Perchloric acid</td>
<td>36</td>
<td>56</td>
</tr>
</tbody>
</table>

Chlorine forms, along with nitrogen, one of the most explosive compounds yet known, and was the cause of serious accidents to M. Dulong, its discoverer, and afterwards to Sir H. Davy. The chloride of nitrogen is formed from the action of chlorine on some salts of ammonia, chlorine and nitrogen being incapable of uniting, when presented to each other in their gaseous form. Its formation is owing to the decomposition of ammonia (a compound of hydrogen and nitrogen) by chlorine. The hydrogen of the ammonia unites with chlorine, and forms muriatic acid; while the nitrogen of the ammonia, being presented in its nascent state to chlorine, dissolved in the solution, enters into combination with it. The chloride of nitrogen has a specific gravity of 1.635; it does not congeal by the intense cold produced by a mixture of snow and salt. At a temperature between 200° and 212° it explodes; and mere contact with most substances of a combustible nature causes detonation at common temperatures. The products of the explosion are chlorine and nitrogen. Three distinct compounds of chlorine and carbon have of late been made known by Faraday; but for an account of the chlorides of sulphur and phosphorus, and the chloro-carbonic acid gas, the reader is referred to the larger treatises on chemistry, it being incompatible with the plan of the present work to enter into those details which are not connected with the useful arts, or which are not absolutely necessary in order to afford a correct idea of the mode of reasoning and general theory of the science.

* A letter of M. Dauvergne to M. Gay-Lussac, in the Ann de Chimie, recently published, states the effect of chlorine as an antitode of hydrocyanic acid. A cat, to which two drops of hydrocyanic acid were given through the tracheal gland, was affected most violently by the poison. While it was effectually in this condition, some chlorine was put into its mouth, and, one hour after, she was able to make a few trotting steps; the next morning the animal was perfectly well. Chlorine has also been lately states to be a useful medicine, in public journals, that the French physicians have found chlorine very effectual in preserving from the plague, if put on the linen, &c.

the sake of the physical effect, but also of the moral effect which it has on the enemy. This swiftness, however, must be attained gradually, increasing as the distance diminishes. The charge commences with a short trot; a long trot follows; at the distance of 150 paces, this is increased to a gallop; and 50 paces from the enemy, the horse must be put to his speed. A choc, whether successful or not, is of short duration.

CHOCOLATE. See Cocoa.

CHOC/TAWS, or FLAT-HEADS; a tribe of Indians, residing between the Mississippi and the Tombigbee, partly in Alabama, but mostly in Mississippi. Their territory is bound on the north and northwest by that of the Chickasaws. The country has a fertile soil, and is traversed by the upper waters of the Yazoo, Big Black, and Pearl rivers. Their number is estimated at about 20,000 or 25,000. They are a hardy, intrepid, and ingenious race, and have made, within the last twenty years, great advances in agriculture and other arts of civilized life. They raise cotton, and manufacture it into cloth for their ordinary use, and often appear well clad in garments of their own making. In 1818, the American board of foreign missions established a mission among the Indians at Ellicott, on the Yell Bush, about 17 miles from the Yazoo; and, since that period, eight other similar establishments have been formed. See Indians.

CHOCZIM (Chotschin); an important frontier fortress of Russia, on the right bank of the Dniester, opposite to Kumietz, in Bessarabia, with 25,000 inhabitants and a considerable trade. The whole of the people are entirely employed in furnishing supplies for the army. The Turks caused Choczm to be regularly fortified, in 1718, by French engineers; but it was taken by the Russians in 1739, 1799, and 1788. As the Truth, in Europe, is, at present, the boundary of the two empires, the capture of Choczm renders it of great importance as an arsenal and place of rendezvous.

CHODOWIECKI, Daniel Nicholas, a painter and engraver, was born at Dantzic, 1726, and received from his father, in his leisure hours, his first instruction in miniature painting, which he practised with great assiduity, in order to support his mother, after the death of his father. His first trial excited the astonishment of connoisseurs. A little engraving, the Play at Dice, in 1756, particularly attracted the attention of the academy of Berlin. During the seven years' war, he engraved various subjects connected with it; among others, the Russian Prisoners at Berlin, which was engraved by him. The fate of happy Calas gave him an affecting subject for a picture, which, at the desire of all who saw it, he engraved on copper. The impressions of the year 1767 are particularly esteemed. Almost all the plates to Lavater's Physiognomical Fragments are from his designs. He engraved several of them himself. At last, scarcely a book appeared in Prussia, for which he did not engrave at least a vignette. The number of his engravings is more than 3000; but we must observe, that he was in the habit of making changes in his plates, after a number of copies had been struck off, so that all the copies of the same plate are not entirely alike. He must be considered the founder of a new art in Germany—that of representing modern figures. He died, Feb. 1, 1801, at Berlin, where he was director of the academy of arts. He was universally esteemed for his integrity.

CHOIR. See男孩子.

CHORISTERS sing. In some old churches, the seats of the choristers, and other parts of the choir, are ornamented with admirable carved work. See Architectures.

CHOLERA (Celsus derives it from χόλος and πάθος, literally, a flow of bile, and Τράγικαν from χόλος and
CHOLERA.

Cholera. or diarrhoea cholerae; felicitous pus- 
vie; a genus of disease arranged by Cullen in the class nervesce and order spasmi. It is a purging and vomiting of bile, attended with anxiety, painful gripings, spasms of the abdominal muscles, and those of the calves of the legs. There are two species of this genus, viz. cholera acutenis and cholera curantium, in both seasons, without any manifest cause. 2. Cholera oc-
cidentalis, which occurs after the use of food that di-
gests slowly and irritates. In warm climates, it is met with at all seasons of the year, and its occurrence is very frequent; but in England, and other cold cli-
mates, it is not in the months of summer, particularly in the month of August; and the vio-

lence of the disease has usually been greater in pro-
portion to the intensestness of the heat. It usually 
comes on with soreness, pain, distension, and flau-

tency in the stomach and intestines, succeeded quickly 
by a severe and frequent vomiting, and purging of 
bilious matter, heat, thirst, a hurried respiration, and 
frequent but weak and fluttering pulse. When the 
disease is not violent, these symptoms, after continu-
ing for a day or two, cease gradually, leaving the patient in a debilitated and exhausted state; but 
where the disease proceeds with much violence, great 
delirium ensues, the patient is tormented by clafing 
sweats, considerable anxiety, a hurried and short re-
spiration, and hiccoughs, with a sinking and irregu-
larity of the pulse, which quickly terminate in death 
—an event that not unfrequently happens within the 
space of twenty-four hours. The appearances gene-

really observed on dissection, are, a quantity of billli-
matter in the prima vie; the ducts of the liver re-

laxed and distended. Several of the viscera have 
been found, in some cases, displaced, probably by the 
violent vomiting. In the early period of the disease, 
when the strength is not much exhausted, the object is, 
to lessen the irritation, and facilitate the discharge 
of the bile, by tepid demulcent liquids, frequently ad-
ministered. It will likewise be useful to procure a 
determination to the surface, by fomentations of the 
abdomen, by the foot bath or even the warm bath. 
But where the symptoms are urgent, and the patient 
appears rapidly sinking from the continued vomiting, 
violent pain, &c., it is necessary to give opium freely, 
but in a small bulk, from one to three grains, or even 
more, in a table spoonful of linseed infusion, or with an 
effervescing saline draught, which must be repeat-
ed at short intervals, perhaps every hour, till relief be 
attained. Sometimes, where the stomach cannot 
be got to retain the opium, it has answered in the 
form of oyster; or a liniment containing it may be 
rubbed into the abdomen; or a blister, applied over 
the stomach, may lessen the irritability of that organ. 
Afterwards the bile may be allowed to evacuate it-
self downwards; or mild aperients, or clysters, given, 
if necessary, to promote its discharge. When the 
urgent symptoms are relieved, the strength must be 
restored by gentle tonics, as the aromatic bitters, 
calumba, and the like, with a light, nutritious diet: 
strong toast and water is the best drink, or a little 
burnt brandy may be added, if therein much lan-
guor. Exposure to cold must be carefully avoided. 
The abdomen and the feet, particularly, must be kept 
warm, and great attention is necessary to regulate the 
bowels, and procure a regular discharge of bile, lest 
a relapse should happen. It will also be proper to 
keep off the impregnation of the atmosphere, for sure give pain at any part, because inflammation in the 
prima vie is very liable to supervene, often in an 
insidious manner. Should that be the case, leeches, 
blistering the part, and other suitable means, must 
be promptly resorted to.

Cholera Asphyxia, Cholera Maligna, Cholera Epidemica, Epidemic.

CHOLERA FEVER. All these names have been ap-
p lied to a formidable disease, which is now, for the 
first time, known to be extensively epidemic in the 
world, and whose origin and ravages will be reckon-
ed among the most distinguishing events of the pre-
 sent century. This disease is in its principal symp-
toms the same as in the other forms of English Cholera (see the previous article), yet many persons have 
confounded them. In Hindustan, spasmodic cholera has 
probably always existed as a comparatively mild 
climatic disease, affecting at certain seasons of the 
year a small number of individuals in various parts 
of the country. There is no evidence of field that the 
Indian cholera ever bore the epidemic character, 
or was entitled to rank with pestilential scourges of 
the worst description till the beginning of August, 
1817, when it suddenly broke out with unprece-
dented malignity.

Commencing among the inhabitants of Jessore, a 
town one hundred miles N. E. of Calcutta, in less 
than a month it travelled along the course of the river 
to that city, having desolated the intervening villages. 
Before the expiration of August, the native popula-
tion of Calcutta were attacked, and early in Septem-
ber the disease was also manifested among the Euro-
peans. The Indians generally suffered, and the popula-
cion was raged with extreme violence, extending its destruc-
tive influence across Bengal, from Sylhet to Cuttack; 
and towards the interior, from the mouth of the Gau-
nes to its confluence with the Jumna, a space includ-
ing four hundred and fifty square miles.

Leaving Bengal, the disease retired for some time to 
the western bank of the Ganges and Jumna. In its 
most malignant form it appeared at Benares, where 
in two months fifteen thousand persons perished. At 
Allahabad forty or fifty died daily. To other local-
ties situated on either bank the disease soon spread, 
and the mortality was equally great. In the district 
of Gorakhpore, thirty thousand were carried off in a 
month. Then suffered in succession Lucknow, Cawn-
pore, Delhi, Agra, Muttra, Meerat, and Bareilly.

Between the 6th and 7th of November, the epide-
ic had reached the grand army, which on the ap-
proach of the Pundaree-war, had been concentrat-
ed at Jubbulpore, Mundeliah, and Saugar, under the 
command of the marquis of Hastings. It consisted 
of ten thousand troops, and eighty thousand follow-
ers. To the different divisions of this force the 
cholera proved more fatally effective than could 
the same or any other effect, for twelve days nearly nine thousand men had fallen to rise no more. At this time the thermometer 
ranged from 90° to 100° Fareheit. The heat was 
moist and suffocating, and the atmosphere a dead 
calm. The progress of the cholera in the centre di-
vision of the army, was as follows,—After creeping 
sinisterly for a few days among the lower classes of 
the camp followers, it seemed instantaneously to gain 
fresh vigour, breaking out with irresistible force in 
every direction. Previous to the 14th, it had 
overspread the camp, sparing neither age nor sex 
in the indiscriminate violence of its attack. The old 
and the young, the European and the native, fighting 
men and camp followers were alike selected, and all 
equally sunk within its death-grasp. From the 14th to 
the 20th, the mortality had become so extensive 
that the stoutest hearts were yielding to despair. 
The general said neither prayers, nor hopes for medical officers, night and day at their posts, were 
no longer able to administer to the numerous sick 
who continued to pour in from every quarter. At this 
time the scene was strikingly contrasted to what it 
had been a few days before. The noise and bustle 
already existing from the presence of a multitude of 
human beings, had nearly subsided into stillness.
Nothing was to be seen in motion, save a solitary individual, here and there anxiously hurrying from one division of the camp to another to inquire after the fate of his companions. Nothing was to be heard but the groans of the dying, or the wailing for the dead. The natives, perceiving the only hope of safety in flight, left the town, and for forty leagued south-eastward of the gulf of Bengal; and in 1819 it reached the kingdom of Arracan. From Arracan it extended itself into Siam, and after destroying 40,000 in Baku, the capital of that kingdom, it passed into the peninsula of Malacca.

In October it entered the Islands of Sumatra and Penang; Java and Borneo afterwards suffered; Canton was attacked in 1820, and at Pekin its mortality was so frightful, that the government was obliged to have the dead interred at their own expense. From China it passed to the Philippine and Spice islands. Thus, in little more than two years, did it traverse a vast expanse of territory, and enter the province of Jaffus, which is opposite to Palamcottah, it penetrated into the capital of Ceylon, which is situated in the very centre of the island. About the same period the Mauritius was attacked; and on the 14th of January, 1820, it appeared at the town of St. Denis, in the late of Bourbon, which is only seven leagues from the capital of the Mauritius. In July, 1821, it betrayed itself at Muscat, on the southern extremity of the Arabian peninsula. The neighbouring islands of Ormus and Kishme, in the mouth of the Persian gulf, were shortly afterwards infected; by August, it had ascended along the eastern coast of Arabia, as far as the island of Bahrein; and not long after, it entered Bassorah, on the northern extremity of the Persian gulf. Opposite the little island of Ormus is the port of Bender-Abassi, in Persia, the principal seaport in which the Persians conduct commerce with British India. Canton sailed from the same port on its way to India, and passed with so much velocity, that the bazaars were closed, and the dead left unburied. Those, who escaped its first onset, abandoned their houses, and sought for safety in flight. Shirm, which is about 100 leagues north-west of Bender-Abassi, manifested symptoms of the pestilence in September, and during the first nine days, 4,500 persons perished. Yard afterwards suffered, and by the time the disease had reached Isphahan, the cold season had far advanced, so that its severity was much lessened, and it soon wholly disappeared. On the recommencement of spring, however, it developed itself afresh, and spreading from Isphahan, where it had wintered, round the contiguous Persian provinces, it visited in succession Kerman, Shah, Casmir, Khom, Casbin, and Tauris, following, as it invariably did, whether in Asia or Europe, the principal roads. From the northern extremity of Asia the Taurisians, 4,800 perished in the short space of twenty-five days, when it left the town, and travelled on through Khaz, Erivan, and Karak, to Erzeroum on the southern shore of the Black sea. The prince royal of Persia had driven the Turkish army into this town, in the winter of 1820, and therefore of the population fell before it. It was soon after this that the Taurisians, 4,800, perished in the short space of twenty-five days, when it left the town, and travelled on through Khaz, Erivan, and Karak, to Erzeroum on the southern shore of the Black sea.
CHOLERA.

banks of the Volga, making tributary to its power the populous towns of Saratoff, Penza, Samara, and Kazan. Kazan it reached on the 5th of September, and on the 26th of the same month its symptoms were first detected in Moscow. The town was immediately divided into forty-seven compartments, which were separated from each other by curtains. In ten temporary hospitals were erected, and count Zakreski, the minister of interior, was appointed by the Emperor to superintend these protective arrangements. The emperor himself visited the town when the disease was at its height, and when he left to go to Tver, by substituting for a committee of eight days, a man as an example of obedience to the sanitary laws. During the first ten days of October, 747 died; from the 10th to the 20th, 958 perished; and from the 20th to the 31st, 1,284 sunk under the disease. At first the mortality was as great as nineteen-tenths; it afterwards diminished to seven-eighths, five-sixths, three-fourths, one half, and ultimately to one-third. During even the winter months, which had been hitherto a complete specific against its progress, when all the rivers were covered with ice, it carried on its work of death; but the number who were infected gradually decreased, and the mortality provincially came to an end.

Having now travelled so far north, it was almost universally expected that the cholera would have soon reached Petersburg, and from thence have extended to the shores of the Baltic; but the capital, at this time escaped, and the disease, taking an almost opposite direction, accompanied the Russians into Poland. During the revolution of July, in 1830, a body of troops were ordered out of the province of Koursk, in the country of the Cossacks, which was then infected, to march against the Poles. These troops, in their passage through Podolia, and Volhynia, took with them the disease along their entire line of march. The towns of Astrag, Zaslaf, and Luck were infected; and a few leagues from this latter place the disease passed the Bug, and entered Poland. Lublin was attacked towards the end of March, 1831; by the 1st of April, the hospitals of Siedlec were filled with Russians labouring under the malady; ten days afterwards it was discovered among the wounded at Praga, which is separated from Warsaw only by the Vistula; and on the 14th it entered the capital of Poland. According to the central committee of health, from 100 to 150 died during that month, and every 1,000 persons perishing according to the Berlin Gazette, during thirteen days, ending on the 5th of May, there had been between the town and the camp, 2,580 sick, of whom 1,110 died, and 1,278 still remained under treatment. On the 25th of May, it appeared at Riga, and by the 28th, it had reached Danzig in Prussia, Bredy and Lemberg in Austria. On the 29th of June the disease entered Petersburg; early in August it invaded Hungary, and by the beginning of September it entered Germany. In Nov., 1831, it reached Sunderland in England, and afterwards spread over the whole island, but was more particularly fatal in Scotland. In March, 1832, it broke out at Paris, where upwards of 20,000 fell a sacrifice to it in a short time. In June 1832 it appeared at Quebec in Canada, and has since spread over the whole American continent.

1. Symptoms of Cholera in India. The disease generally made its attack in the night, or towards morning, with vomiting so excessive that the whole contents of the stomach appeared to be discharged; and, nearly at the same time, the bowels were copiously emplued, as though all the solids matters in the intestinal canal were evacuated. In some cases a watery purging preceded the vomiting by some hours; but they more frequently occurred simultaneously. After the first copious discharge, the patient experienced a distressing feeling of exhaustion and faintness, with ringing in the ears and giddiness. The subsequent discharges from the stomach, and those from the bowels, did not differ from each other in appearance, so that no attempt was made to distinguish them. They were much tinged by medicines or other ingesta: they were generally watery, colourless, and odorous, and resembled in appearance barley-broth, or more frequently rice-water. Sometimes they were like milk, occasionally yellowish, greenish, like muddy water or yellowish greenish froth, as the term vomitious, arbitrarily termed, which consisted of albuminous flakes floating in serum, or discharges of pure serum, were of the most frequent occurrence. The dejections sometimes took place without effort or uneasiness, but occasionally very forcibly, with simultaneous vomiting, spasm, and sinking of the pulse. This violent action of the alimentary canal was not of long continuance, the powers of the system being unable to support it; hence the vomiting and purging generally ceased some hours before death; but, in some cases, a discharge of serum took place from the rectum, on any movement of the body, till that part closed. In most cases it was a day or two before the commencement of this affection of the intestinal tube, but, in others, previously to it, spasmodic contractions of the muscles of the fingers and toes were felt; and these affections gradually extended along the limbs to the trunk. The spasms were imperfectly clonic or convulsive, with frequent relaxations, were attended with great pain, and left, for some days afterwards, a degree of stiffness in the affected muscles. The pulse was from the first small, weak, and accelerated; and, after a certain interval, but especially on the accession of spasms or severe vomiting, it sank suddenly, so as to be specifically lost in the external parts. The length of time during which a patient lived in this pulseless state was remarkable. In a case related by doctor Kellett, the pulse was gone within three hours from the attack; yet the man lived twenty-two hours in that state. On the cessation of spasm and vomiting, and sometimes apparently from the exhibition of remedies, the pulse returned in the extremities for a short time, and again ceased. The skin was cold from the commencement of the disease, and, as it advanced, became gradually colder, and was covered either with a profuse sweat or a clammy moisture. The state of its circulation was usually accompanied by a hectic temperature, denoted by the following circumstances: leeches would not draw blood from it; blisters and other vesicants would not act; and even the mineral acids and boiling water produced no effect; and some patients were not even sensible of their application. In Europeans, the colour of the surface was often livid; the lips and nails presented a blue tint; and the skin of the feet and hands became corrugated, and exhibited a sicken appearance, as if from long immersion in hot water. With these symptoms coexisted violent pain of the intestines, with a sensation of writhing and twisting there; heat which the sufferer compared to a fire consuming his entrails; excessive thirst; anxiety, with inexpressible uneasiness about the precordia; hiccup; vomit; and, notwithstanding the actual coldness of the surface, and even of internal parts which are accessible to the touch (the tongue for instance) sense of heat which the patient incessantly to throw off the bed-clothes. The breathing was much affected, being performed either more slowly than usual (sometimes, for instance, in the advanced stage, only at the rate of seven respirations in a minute), or the inspirations were short and sudden, with a forcible spasm of the diaphragm; the voice being feeble, hol-
low, house, and interrupted. The eyes were sunk in their orbits; the cornea flaccid, the conjunctive
frequently suffused with blood; the features of the
face collapsed; and the whole countenance wore a
cadaverous aspect. The secretions (those of the skin
and membranes) were generally increased. The
functions of the mind were undisturbed almost to
the very last moment of existence. The approach
of recovery was denoted by the rising of the pulse,
the return of heat to the surface, inclination to natu-
ral sleep, diminution or cessation of vomiting, purg-
ing, delirium, and death. The interval, the appear-
ance of bilious stools, urine, and saliva.*

Regarding the above as a picture of the general type of a disease
rather variable in character, we shall proceed to re-
late the more striking deviations from the ordinary
form which were observed in India.† Instead of the
exceedingly sunk state, there was a marked excite-
ment, with a hot and dry skin, and a pulse of con-
siderable force, in several instances throughout great
part of the course of the disease.‡ This, in some cases,
aroised from the early exhibition of stimulants; but in
others it appeared to be an essential part of the dis-
or the epidemic. The rapidity of the fall of the patient's
early to treatment; and hence many of them having
been subdued without the occurrence of sinking or
debility, it was a matter of doubt whether this de-
scription of disorder really belonged to the epidemic;
but that it did so was placed beyond all question by some
of the more protracted cases. Death occurred into
the ordinary low form. The most fatal variety of the
disease was denoted by the slightness of the commo-
tion in the system; there was no vomiting; hardly
any purging; perhaps there were only one or two
stools, with no perceptible spasms; no pain of any
kind; a mortal coldness, with arrest of the circula-
tion coming on from the beginning, and the patient
dying without a struggle within three or four hours.
Several instances were heard of, at Hoobly and other
places, of natives being struck with the disease
while walking in the open air, and who, having
fallen down, reached a little, complained of vert-
tigo, desiness, and blindness, and expired in a
few minutes. Mr Scott informs us that this most
deadly form of the disease frequently manifested it-
self in local epidemic visitations, which were often
observed in India, all the cases occurring at the same
time in a given district partaking of the same pecu-
liarities. If we make a classification of the dis-
ease, as first described, is that which has been most frequen-
tly observed. In fatal cases, its duration varies from
eight to four hours; whilst in those which terminate
favourably (a result often apparently due to early
medical assistance), the patient may be restored to
perfect convalescence in a period ranging from twenty-
four to twenty-eight hours. But, in many cases,
considerable disturbance of the system intervenes be-
 tween the period of collapse and restoration to health;
or this disturbance may itself cause death. The
Indian reporters mention two forms of this disorder.
In the one, with some excitement in the system, the
bowels continue to discharge, for many days, first
brown and watery, then dark, black, and pitchy stools,
sometimes with blood, and with peculiar pains in the
bowels, particularly in the rectum. The other, a
distinct febrile form, we shall describe in the language
of the Bengal Report:—"The fever, which almost
invariably attended this second stage of the disease
(in Europeans), partook much of the nature of the
common bilious attacks of these latitudes. There
was a hot, dry skin, a foul, deeply furrowed tongue,
parched mouth, thirst, sick stomach, restlessness,
and extreme watchfulness, anxiety, shortness of
breath, with delirium, stupor, and other marked affec-
tions of the brain. Generally, when the disorder proved
fatal in this stage, the tongue, from being cream-
coloured, became brown, and sometimes black; hard,
and more deeply furrowed; the teeth and lips were
covered with a scum; the state of the skin varied,
chills alternately with heats; the pulse became ex-
tremely quick, weak, and tremulous; hiccough,
catching of the breath, great restlessness and deep
moaning succeeded; and the patient soon sunk, in-
coherent and insensible, under the debilitating effects
of low nervous fever, and frequent, dark, tarry,
alvine discharges." A consecutive fever, similar to this,
we learn from doctors Russell and Barry, is of more
frequent occurrence in Russia than in India. The fol-
lowing description of it we owe to these gentlemen:
"After the blue, cold period has lasted from twelve
to twenty-four hours, seldom longer, the patient
upwards, the pulse and external heat begin gradually to
return; headache is complained of, with noise in the
ears; the tongue becomes more loaded, redder at the
tip and edges, and also drier. High-coloured urine is
passed with pain and in small quantities; the
pupil is often dilated; soreness is felt on pressure
over the liver, stomach, and belly; bleeding from the
lance or leeches is required. Ice to the head gives
great relief. In short, the patient is labouring under
a continued fever, not to be distinguished from ordi-
nary fever. A profuse critical perspiration may
come on from the second or third day, and leave the
sufferer convalescent; but much more frequently the
quickness of pulse and heat of skin continue; the
tongue becomes brown and parched; the eyes are suffused
and drowsy; there is a dull flush, with stupor
and heaviness, about the countenance, much re-
sembling typhus; dark sordes collect about the lips
and teeth; sometimes the patient is pale, squallid,
and low, with the pulse and heat below natural; but,
with the typhus stupor, delirium supervenes, and
death takes place from the fourth to the eighth day,
or even later, in the very individual, too, whom the
most assiduous attention had barely saved in the first
or cold stage; or if cured by a sudden accession of
pressure; we have said the same of the spasms and
danger of cholera fever, a most intelligent physi-
cian, doctor Reimer, of the merchant hospital, in-
forms us, that of twenty cases treated under his own
eye, who fell victims to the disease, seven died in the
cold stage, and thirteen in the consecutive fever.*

The same gentlemen state, as the result of their ob-
servations, that the following are the points of differ-
ence between the European epidemic and that of In-
dia:—"First, the evacuations, both upwards and
downwards, seem to have been much more profuse
and un governable in the Indian than in the present
cholera, though the characters of the evacuations are
precisely the same. Secondly, restoration to health
from the cold stage, without passing through consecu-
tive fever of any kind, was by far more frequent in
India than here (St Petersburg); nor did the con-
secutive fever there assume a typhoid type.† Thirdly,
* Scott's Reports on the Epidemic Cholera; Anderson on
Cholera (E. M. and S. Journal, vol. xv, p. 232); Christie on
Cholera in Calcutta, (Medical Times and Gazette, English-
man's Mag, No 1; and the Westminster Review, No 30.
† Madras Reports p. 25

* Report of doctors Russell and Barry to C. C. Greville,
esquire, published, among other papers, by authority of his
majesty's most honourable privy council.
† If we consider the symptoms as attributed to this consecu-
tive fever by doctors Russell and Barry, with those quot-
ed from the Bengal Reports, the difference between this
epidemic and the Spanish epidemic, is this: the former strikes
frequently, the latter seldom; the first is a general disease,
striking: the epithet typhoid seems almost equally applica-
tble to both. Varieties were observed in the disease as it
the proportion of deaths in the cold stage, compared with those in the hot, was far greater in India, according to doctor Russell's experience, than here.

Fourthly, the number of medical men and hospital attendants attacked with cholera during the present epidemic amount to the same of those employed, and to other classes of society, has been beyond all comparison greater here than in India under similar circumstances.”

Doctor Keir, of Moscow, gives the following description of the consecutive or secondary morbid state:— "A second ordeal now begins, sometimes several days after the first, but fatal, though more slowly so, than the first; this is probably the effect of the morbid changes which have been induced during the first period of the disease. The appearance of the complaint is now entirely changed, so much that one who had not seen the patient during the first, or been told of the symptoms, could not possibly know that he was suffering from the epidemic.

I have observed the disease in this, second period, to assume four forms: the first an inflammatory, or rather sub-inflammatory state of the stomach and bowels, most frequently the latter, sometimes only noticed; the second, inflammatory irritation of the lungs, leading to the typical symptoms of the disease, viz: expectoration and fever, appearing as a critical metastasis of the disease; the third, bilious or bilo-nervous fever, with suppression of the parotid glands—in one case, with auxiliary suppressing bubo, towards the end of the fever, an inflammatory irritation of the lungs took place, ending in vomica; and the fourth, a congestive sub-inflammatory state of the brain and spinal chord. This last, as was natural to expect from the nature and seat of the affection, proved by far the most dangerous and most frequently fatal form of the second period: it appeared generally before the purging, vomiting, and cramps had been relieved, and the external heat in some degree restored; the patient complained of pain in the back, between the shoulder-blades, or in some other part of the spine, sometimes along its whole tract: he appeared sleepy to such a degree that at first I was disposed to attribute this state, in part at least, to the effects of the opium given in the first period.

But I was soon convinced that the cause of this symptom, and of another strongly characteristic of this form of the disease, namely, the filling of the vessels of the sclerotic with red blood, was a congestive state of the brain and spinal chord. This striking symptom at first began to show itself in the inferior part of the globe of the eyes; it gradually increased, and, little by little, reached the upper part, while the eyes turned upwards, exposing the lower part gorged with blood. This state of the patient generally ended in a complete coma, and proved fatal a few hours afterwards.”

Besides the various and appalling symptoms which indicate general derangement of the action of the solids, there are appearances in the blood drawn during the collapsed stage, showing that the fluids feel the influence of this formidable disease. These appearances are very uniformly expressed by the terms dark, black, or tarry, in regard to colour, and by thick,ropy, serous, or semi-coagulated, in respect to consistence. This change in the condition of the circulating fluid is fully proved to be in the ratio of the duration of the disease, and the time seemed to be nearly or altogether natural, and more or less rapidly assuming a morbid state as the malady advances. This condition was less conspicuous in cases of cholera ushered in by symptoms of excitement, than where the collapsed state of the system had occurred early, and in certain rare cases it was not observable at all, and the blood flowed freely from the vein; but the reverse was the fact, both with respect to its condition and the manner of its flowing from the arm, in an immense majority of instances.

In general, after a certain quantity of dark, thick blood had been drawn, its colour became lighter, its consistence less thick, and the circulation revived such appearances always affording grounds for a proportionately favourable prognosis.

There is some discrepancy in the accounts transmitted to us of the mode in which this diseased blood coagulates. In some instances, the serum, the coagulum, is clear, while in others it is yellow and imperfect. Reporters are unanimous in declaring it deficient in serum, and destitute of the buoyant coat. The latter is occasionally observed in cases attended with reaction, in which the blood is not black and thick.* The discharges from patients suffering under this disease are subjected to experiment by doctor Christie. The secretion consists of two substances, the one a transparent serous fluid, the other an opaque, white coagulum; the former perfectly soluble in cold water, the latter quite insoluble. These matters being submitted to the action of reagents, the fluid part was found to be pure serum, and the coagulated portion fibrin. The secretion, therefore, as the author remarks, has a composition similar to that of the blood deprived of its colouring matter; but the serum is in much larger proportion to the fibrin.

11. Character of the Epidemic as it appeared in Britain.—Were we to attempt a definition of epidemic cholera, as it appeared in Britain, the following, would comprise its distinctive symptoms:—After watery diarrhoea, or other generally slight indisposition, vomiting and purging of a white or colourless fluid, violent cramps, great prostration and collapse; the blood becomes thick, colourless, and is sometimes quite insensible. These being submitted to the action of reagents, the fluid part was found to be pure serum, and the coagulated portion fibrin. The secretion, therefore, as the author remarks, has a composition similar to that of the blood deprived of its colouring matter; but the serum is in much larger proportion to the fibrin.

1. Symptoms of the Incipient Stage. In an immense majority of instances, diarrhoea was the prominent symptom of this stage. Langueur and languidness, and occasionally nausea and vertigo, coexisted with the process of diarrhoea, and sometimes certain of these symptoms may have appeared without it; but its occurrence was so common, that there were few cases in which it had not preceded the more formid-
able symptoms. On examining the discharges, shortly after the occurrence of the diarrhoea, they were observed to be faecal and bilious; but they subsequently bore the serous character of those which occurred in the preceding stage, and disappeared in a few hours. The sweat, if any, was profuse and cold; the hands, wrists, and fingers sometimes became ice-cold; the pulmonic and superficial respiration were passed copiously and without much grating; while the feeling of debility which attended them was great. The natural tendency of this purging was to pass into the choleric stage; but the transition has frequently occurred shortly after some diuretic error, either as to quantity or quality of food, or after the exposure to cold. The commencement of the purging sometimes preceded by several days the accession of the choleric stage, and occasionally only by eight or ten hours; but forty-eight hours was its mean duration, calculated from a great number of instances.

2. Symptoms of the Cold or Choleric Stage.—First Period. As in India, the attack in Britain, in a great majority of instances, generally commenced from two to four o'clock in the morning. The patient felt an uneasiness of the stomach, occasionally amounting to pain, to which speedily succeeded vomiting of the choleric type. The tongue was now white, coated, distended, which, in almost all the cases occurred, a purging of the same fluid, the fœcal contents of the canal having been previously expelled. The vomiting was rarely full and effectual, consisting rather of apparently unsatisfactory retchings than of a full discharge of the contents of the stomach; the contents were expelled forcibly, as if squirted from a large syringe. The discharges from the bowels were occasionally scanty, but much more frequently they took place copiously and forcibly. Simultaneously with the vomiting, or not unfrequently before this symptom occurred, cramps took place; and the agony which attended them constituted great part of the sufferings of the patient, who incessantly entreated that friction might be applied to the parts they affected. The pulse was feeble and frequent; the skin, in point of heat, below the healthy standard; the countenance shrunk, and, if not livid, pallid; and the respiration hurried, if not checked, as it frequent ly was, by spasm of the diaphragm and intercostal muscles. The circulation sunk remarkably, and sometimes appeared momentarily to cease, on every accession of severe vomiting or spasm.—Second Per iod. During this stage, the symptoms varied from about eight to twelve hours; the vomiting and spasms then either totally subsided or recur red at much longer intervals, and the patient sunk into a state of extreme collapse. The pulse at the wrist was scarcely or not at all perceptible; the surface was generally moist and cold, excepting as heat was imparted from without, for the instant that the hands or other parts were exposed, they became of an icy coldness; blueness, if it existed at all,—but it was by no means a uniform symptom,—was now conspicuous on the face and hands, which last had the shrunk and sodden appearance so generally desc ribed; the tongue was moist, and, if not actually cold, at least cooler than natural; and the voice of that mangled huskiness and feebleness which strikes the ear so peculiarly. In this condition there was little suffering, excepting from the sense of weight and oppression at the pericardium, of which the patient complained much; for even should spasms occur, they were now too feeble to excite much pain; the respiration was slow; the conjunctiva, especially in their inferior hemisphere, were frequently injected with dark-coloured blood; and the insensibility of the stomach was so great that whatever the stomach had received might be given and retained without the organ, being apparently more sensible of their presence than if it were a lifeless pouch. The urine was suspended throughout the whole course of the choleric stage.

3. Symptoms of the Febrile Stage. The preceding stage, in most cases, made a very gradual transition into the febrile one. After the patient remained in the collapsed state, probably for a considerably longer time than the preceding stage, a decided degree of warmth was found returning to the surface and the pulse proportionately developed, being very perceptible at the wrist, generally about eighty, and soft; the vessels of the conjunctiva gradually became distended with blood; or if those of the inferior hemi sphere were so during the stage of collapse, the distension now diffused itself over the whole membrane; the patient, who, on his attention being roused, was perfectly sensible, complained of severe pain in the head, of a sense of giddiness, and that the light distressed his eyes. The tongue in this early stage was clean and moist; the bowels were generally acted upon by medicine, and the discharges were feeculent, and, though somewhat clayey, contained a proportion of bile; but the urinary secretion was sometimes either not restored, or was considerably deficient for a day or two after the establishment of fever. In the progress of the fever, the tongue became more torpid, and the breath became more and more injected; the intellect more and more torpid, though still the patient could be roused to answer questions, and even to make one or two sensible remarks on his condition; but the instant the conversation concerned any eye, they were turned up in the orbit, and exposing through the half-closed eyelids the red scler otons, and the patient was in a state of profound stupor; the urinary secretion was now established, and the urine, which at first was dark-coloured and cloudy, was now limpid and pale; the alvine discharges were darker coloured than at first; and throughout the disease there was a deficiency of vascular action and of temperature. However flushed the countenance appeared,—and it was often very considerably so,—the temperature of the surface was below the healthy standard. Typhoid is not an inappropriate designation of the condition here described; but an individual who had once watched the progress of such a case, would run no risk of confounding it with typhus,—the deficiency of vascular and caloric power; the peculiar vascularity of the eye; the absence of subsitus and muttering delirium (for though delirium occasionally occurs during night, the expression of the eye in such instances, much more one of torpor than of irregularity), would be the marks by which he would discriminate the two affections. The duration of such a febrile stage was from a week to ten days. Its termination was, in a considerable majority of instances, fatal. In another form, and one which supervened on a minor degree of collapse than the preceding, the symptoms do not differ from those described above, excepting that there are indications of greater excitement,—more warmth of surface, and more force and frequency of pulse. Depletion could be more freely practised, and it was altogether a more manageable form of disease. The mildest and most tractable type of the febrile stage was denoted by symptoms of general but moderate excitement, with epigastric pain on pressure, headache and giddi ness; the tongue being at the same time either clean with a disposition to become dry and glazed, or slight ly white and furried; the skin warm; the pulse free and forcible; the urine highly coloured, and the thirst considerable. In such a case there is little or no confusion of thought or delirium, and the eyes are not injected. We need scarcely remark that examples of this mild and tractable type of the febrile stage occurred after a choleric stage in which the symptoms of the preceding stage had been inconsiderable, in which the urinary secretion had not been suspended, or which had not always been attended with vomiting—a symptom occasionally wanting in slight cases.
4. Prognosis. The danger of the disease was, in all cases, to be estimated from the degree of collapse attending the cold or choleric stage. In India, it was the exception rather than the rule that cases in which vomiting were the most violent were by no means fraught with most peril, and the same held true in many instances in Britain. Whether we are to dread a fatal result in the cold or the excited stage, the intensity and duration of the collapse in the former of these stages, are the measure of the danger; for if the patient die in this stage, he dies of collapse; and if he survive it, and pass into the state of fever, the character of this fever is malignant and dangerous in proportion to the same collapse.

5. Diagnosis. From ordinary cholera the cold stage is to be distinguished, by the peculiar character of the discharges, and by the degree of collapse and its early occurrence. Cases have been adverted to, which, at least in the choleric stage, could not be discriminated from ordinary cholera, excepting, perhaps, from their taking place at a season of the year when ordinary cholera is never observed; but it may be remarked that no one would infer the existence of the epidemic from such cases, though he might be disposed to acknowledge that they belonged to it, if cases less equivocal were simultaneously prevalent, and especially if they originated under the circumstances mentioned in the preceding pages. Nothing has been taken of sporadic cases which occurred in several parts of the kingdom. These cases were generally fatal as cases of cholera, and, probably on this account, attracted attention and were reported; and hence what we should consider the experimentum cruce by which their essential alliance to the epidemic, as it manifested itself in this country, or difference from it, can alone be proved,—the intervention, or otherwise, of fever, between the cold stage and recovery,—is necessarily wanting. We have been favoured, by a gentleman of high character and attainments, with a report of two cases, regarded, at the time they occurred, as aggravated cases of the ordinary disease: both took place in the interior, under circumstances in which there was not the slightest ground to suspect contagion, and previously to there being any suspicion of the existence of the epidemic. In one of these cases, there is unquestionably, a considerable resemblance to the choleric stage of the epidemic; but no fever supervened. The symptoms of the other shall be given in the words of the writer:—’The total, or nearly total suspension of the secretion by the kidneys; the watery vomiting, the fluidity of the bowels; the shrunk, and corrugated state of the skin on the hands and feet, and the blueness of his nails, persuade me that his disease was of the true spasmodic type. In him, moreover, a slow fever succeeded the original symptoms, and long retarded his recovery.’

We would not attempt to discriminate between such a case as this and examples of the epidemic, believing their character to be identical. This case occurred in the beginning of July, 1831. There is a certain form of the febrile stage,—that which supervenes on a choleric stage, attended with extreme collapse,—which the deficiency of the temperature and the circulation, the congested state of the conjunctiva from the very commencement of the fever, and the peculiar torpor of the intellect, would enable the observer to discriminate from any fever which we are in the habit of witnessing in this country, provided he saw the disease in its worst state. The real difficulty is, in the majority of instances, the diagnosis can only be correctly drawn by coupling the preceding history of the case with the existence of fever and with its character.

6. Appearances presented on Dissection. The external appearance of the body is so much resembling that which has been noticed during life, that the solids are shrunk, the surface is livid, the skin of the hands and feet is corrugated, the nails are blue, and the fingers often rigidly contracted. There is no evidence of any unwhont tendancy to putrefaction, nor any characteristic factor from the abdominal cavity. In the head are found marks of congestion, and even occasionally of extravasation. Such appearances were not of uniform occurrence in the dissections performed in Hindostan; but they were found very constantly in those made by Doctor Davy, in Ceylon; and Doctor Keir, of Moscow, discovered in the Russian disease the blood-vessels of the brain and its membranes more or less turgid with blood, particularly towards the base, with a fluid effused into its convolutions, and more or less of serum in the lateral ventricles. In the thorax, the pleura and pericardium are found, as the serous membranes generally are in this disease, perfectly healthy, with the exception, occasionally, of an unusual dryness. The lungs are sometimes in a natural state, but more frequently gorged with dark-coloured blood, so as to resemble liver or spleen; or they have been found collapsed on each side, a state imitated in the abdomen by the intestines. This latter appearance Doctor Pollock, of the fifty-third regiment, explained by supposing gas to be extracted within the cavity of the pleura; but the thorax having been opened in such cases under water, and no air having been found, Mr Scot is disposed to ascribe it to a contractile power exerted by the viscera, sufficient to overcome the atmospheric pressure. Both sides of the heart are in general distended with dark blood, and the bronchi are frequently filled with mucus. In the abdomen, the vessels of the liver are often much congested, and pour forth blood copiously when incisions are made into the organ; but this congestion is not uniformly found; the gall-bladder is turgid with black bile, and its ducts are sometimes constricted and impermeable, though occasionally in an opposite state. The peritoneum is often quite healthy, but the portion investing the alimentary canal is in a gangrenous state, being exceedingly loaded state of its blood-vessels. This congestion is sometimes so great as to give the appearance of gangrene; but by drawing the finger over the surface, innumerable small veils may be found running in every direction, as in a preparation made with nicotine, with the same facility of collodi- sion and firm. This portion of the peritoneum, however, occasionally bears marks of actual inflammation, especially if the patient has lingered long before death. It then presents a thickened appearance externally, and its colour varies from a pale vermillion, through all the deeper shades, to a dark purplish hue; the former being chiefly remarkable on the surface of the duodenum and jejunum, the latter on the ileum, where it terminates in the cæcum. At other times, the whole alimentary tube, instead of this congested state, presents a blanched appearance both internally and externally. The omentum is sometimes healthy; at others, it presents the same appearance of extreme vascularity as the peritoneal surface of the alimentary canal. The following appearances are discovered on laying open the stomach and intestinal tube. A white, opaque, and viscid substance is found under the serous membrane of the stomach, that is, over the mucous membrane; and in many cases it is so abundant in the intestines as completely to fill parts of them of a greater or less extent. The stomach and portions of the intestine are filled with a transparent or turbid serous fluid, and frequently the viscid matter men-
tioned above is found intimately mixed with the se-
rouous fluid, or floating in it in the form of flakes. The
mucous membrane, except when inflamed, which it
not unfrequently is, has an unnatural whiteness, is of-
fteen soft and pulpy, and in general—especially in the
stomach and small intestines—can be easily de-
\in the bowels, the last thing, in that lining the
bronchi. In one case only in India was the state of the
spinous narrow examined; and in that, strong
indications of inflammation were detected in its sheath;
the case, however, was in some degree a mixed one.
But Doctor Keir found, at Moscow, the blood-vessels of the
vertebral column and spinal chord more or less loaded with blood, which was sometimes effused
between its arachnoid and dura mater; partial soft-
ening of the substance of the spinal chord was some-
times met with, and marks of inflammatory conges-
tion in the larger nerves were detected.* The dis-
sese, however, was not generally confined to those results corresponding with those obtained elsewhere.
In the head, venous congestion of the brain and its
membranes has been the most uniform and prominent appearance. Serum has been found in the ventricles of the brain and at its base; but in many cases this has been in small quantity, not exceeding that fre-
ently observed after diseases in which no affection of the encephalon was supposed to exist. In some
cases, especially those in which death took place in a
protracted stage, but occasionally in a rapid disease, fibrinous depositions existed between the membranes. In
such cases the lungs have been found loaded with blood, although in some many cases the engorgement was in the posterior part, and pro-
bably resulted from position. These organs were gen-
erally crepitating, and free from structural change.
Softness or fauableness of the heart has been noticed in
several instances, and both its cavities, and the vena
cava and coronary vein, have been distended with
dark-coloured blood. In the abdomen, the liver has been
found gorged; but occasionally its condition was normal. The gall-bladder was generally distend-
ed, and the ducts were constricted, so that the viscus could not be emptied by pressure; but in some cases they were pervious, and the bile has been found generally distended; but in several instances, the vena portae and mesenteric veins have constituted an
exception to this rule, having been found empty. Vascularity and pulpiness of the mucous lining of the
stomach have been frequently noticed; but the for-
mer has often been slight in degree, and observers
have felt disposed occasionally to attribute it to the
exhibition of mustard or other stimulants; whilst the
latter has by no means been invariably found. The
lining of the intestines has been found in many parts
vascular and pulpy; but these appearances are not
invariable, both lesions having been found wanting,
and the pulminess more frequently than the vascu-
larly. The peculiar secretion has generally been found in
the intestines. The kidneys have been observed to
partake of the general congestion of the venous system. The bladder has generally been found con-
tracted, and either empty or containing a small
quantity of urine. No softening or other disease of the
spinal narrow, a little venous congestion excepted,
was discovered in the examinations of this organ made
here.
7. Nature of the Disease. Many writers of great
talent have endeavoured to trace all the phenomena
of the choleric stage, to a change in one part of the
system. But there is little accordance among medi-
cal writers as to the particular change, or changes, in the phenomena of the disease are presumed to originate;
for the nervous system generally, the ganglionic por-
tion of it exclusively, the blood itself, and the lining of the digestive canal, have each found advocates
equal in ability to plead their cause.† The diversity
of these views is of the intrinsic nature of the sub-
ject; and probably, also, since they have all emanat-
ed from observing and ingenious men, an evidence
of the variable nature of the disease; each reasoner
being, perhaps, influenced by that portion of the ge-
neral phenomena of the epidemic which predominat-
ed in the cases it was his lot most frequently to wit-
ness. Their partial nature, too, may be in a consid-
erable degree ascribed to the unfortunate influence of the
expression proximate cause, as a substitute for the
more comprehensive term essence or nature of the dis-
ease, on medical reasoning. Even those who affect
the use of an equivalent term do not consider the
phenomena, are yet insensibly influenced by the words they
employ. Amidst the crowd of phenomena present-
ied to their notice in certain maladies, they often as-
sume, on very insufficient grounds, that some one fact is the original of all others; and this they invest with
the title of proximate cause. If the facts related re-
specting epidemic cholera are compared with the ex-
planations offered of them, it will be found that each
medical reasoner has attributed the commencement of the phenomena of the disease to an affection of
some part of the frame, which affection unquestion-
ably exists in a very great number of cases. To neither is the priority nor with that priority of
time which can warrant us in concluding that it was the
cause of all the other symptoms. It seems a ra-
tional supposition that the remote cause of a disease
may act, in some instances, first on one, in others on
another part of the system, from some local weakness
or peculiarity of individual constitution, or from some
specialty in the mode of application of the cause; and
yet that the disease shall retain in each case such a
resemblance to a common type as shall prove its
identity. It is likewise supposable that the remote
cause may make a simultaneous attack on more than
one organ, the disease taking the form of a
Corpuscular disease, such as fever, appear to furnish examples of both these cases. The real philosophy of medicine seems to consist in ascertaining the actual state of the system
of which symptoms are the signs; and if we can pro-
ceed, through the medium of these signs and post
mortem appearances, to one sole change in one organ,
the treatment is simplified, and science and art are
gainers. But there are diseases—and this seems to be one of them—in which we meet with a variety and
complexity of pathological conditions, all of impor-
tance, and all to be kept in view in their treatment.
It is true, that in these conditions, some may arise from
others, according to known physiological laws, as
dark-coloured blood from impeded respiration, and it
is right thus to explain them when possible; but
the uniform endeavour to trace all to one primary change,
or rather, as is more frequently done, to assume one
change to be the ultimate, and all other pathological
states to be but emanations from it, is not only unphilo-
osophical, but is too apt to tinge our practice with un
erior partiality. Whilst we deem that no one writer has

* Madras Report, pp. 29, 34. Anderson on Cholera Mor-
hus (Edinburgh Medical and Surgical Journal, vol. xvi.
Christie on Cholera (p. 47). Annals, Diseases of Indi a
vaccination and gun-shot. Account of the Appearances after Death, observed at Moscow, drawn up by Doctor Keir.

† These are doctor Kennedy and Mr Orton for the first,
Mr Bell for the second, Mr Annlesley and others for the third, and Mr Christie, with Roche and other French
writers, for the last.
attained, either by inferences drawn from symptoms, appearances after death, or both, a knowledge of the affection of any one organ in cholera which can be properly termed a proximate cause whence all the other phenomena arise; or acquired precise ideas respecting the secondary or secondary causes and those organs which manifestly participate in the disorder; it is gratifying to acknowledge that their labours have thrown much light on the condition of many parts, and that very great practical good has resulted from the information thus obtained. That the nervous system generally, and especially the ganglionic and sympathetic nerves, are affected, is manifest from many symptoms; but whether this affection arises from a direct impression of the remote cause of the disease on these organs, or from irritation propagated from the alimentary canal along the ganglionic nerves to the spine, we are ignorant. Doctor Keir's able researches have shown that, in some fatal cases, inflammation of a portion of this system has existed; but its precise pathological condition in cases which terminate favourably, remains yet to be ascertained; and it must be remarked, too, that, in fatal cases, this inflammation has not been always of the ulcerative character. According to this view, an affection of the system is very remarkable; but here, too, we must feel some doubt whether the feebleness or almost complete arrest of the heart's action is a primary effect of the cause of the disease, or, as suggested by Mr Bell, arises from the affection of the ganglionic system; or, again, whether it results, through the medium of this system, from the condition of the alimentary canal. Is the dark appearance of the blood to be explained by the feebleness of the action of the right ventricle, as a consequence of which but little blood is transmitted through the lungs and exposed to the influence of the air? Are the symptoms observed to this view, which is suggested with diffidence, the imperfectness of the respiratory process will arise from the same cause as in congenital malformation of the heart, such as the persistence after birth of the aorta bile or the aorta arising from both ventricles, in which a very small proportion of the whole mass of blood is oxidised. This hypothesis explains readily the dark appearance of the blood, its accumulation in the great veins of the viscera, the coldness and lividity of the skin, and the imperfectness of the respiratory process, which has been so ably illustrated by Doctor Davy. This gentleman was the first to show that the air expired by us contains about 0.008 per cent, more carbonic acid than wholesome air; and that this is the case even when the breathing is full, free, and rapid. The explanation offered is confirmed by an observation of Mr Ellis, in his experiments on respiration, that "as the circulation declined, so likewise did the emission of carbon, and, consequently, the production of caronic acid." The thickened consistence of the blood receives a ready explanation from the loss of its serous part by the abundant discharge from the inner intestinal surface. There are two morbid conditions of the lining of the digestive canal. In one it is in a state of manifest inflammation; in the other it is white and pulpy, and easily detached from the subjacent coat. Is this latter condition the result of a disorganizing inflammation which has itself passed away? or must we be content to describe the action which has produced it by the very term inflammation? The state of the ganglionic system of vessels is that of the function of nutrition? This is a question rather of general pathology than one connected solely with this disease; but it is one as yet undetermined. The affection of the alimentary canal is essential and primary, if any part of the disease is so; and it were vain to attempt to trace it to a morbid condition of any other organ or system of organs. The general sus-
pension of secretion, which is complete only when the collapse is extreme, appears to result from the disorder of those systems, the nervous and vascular, on which this important function depends. The apparent anomaly presented by the continuance of the alimentary function, amidst the general suspension of secretion, is well explained by Mr Bell's distinction between this function and exudation or exhalation.* That the whole series of phenomena results from the action of a morbid poison on the body, there can be no doubt; but as yet, as in the case of fevers, we are ignorant of precisely the nature of this morbid change effected by it in the organs or systems; and it is to be feared that till more accurate ideas are attained respecting the pathology of fever in general, this ignorance will remain. In the febrile stage, we would remark, there are indications by no means equivocal of inflammatory affection of the brain, and occasionally of other organs, the analogy to fevers in general being in this respect preserved. Were we to judge solely from what we have ourselves observed of the commencement of the disease, we should consider the alimentary canal to be the part of the frame which first felt the influence of the morbid affection, if we regard the condition of the nervous and vascular systems much too intense in degree to be merely sympathetic of the state of the stomach and bowels. Many cases, moreover, reported from abroad, particularly from India, lead to the opinion that in various instances the nervous system is primarily affected.

8. Proportionate Mortality. The mortality during the early prevalence of the epidemic in India in 1817 and 1818 was very great; but, either from the abatement of the intensity of the disease, or from the improvement of the method of treatment adopted by the medical profession, the mortality of the nervous and vascular systems much too intense in degree to be merely sympathetic of the state of the stomach and bowels. Many cases, moreover, reported from abroad, particularly from India, lead to the opinion that in various instances the nervous system is primarily affected.

* Treatise on Cholera Asphyxia, pp. 56, 57.
out of ninety.* In taking these estimates into consideration, we must always recollect, however, that, in epidemics, there is often a very wide difference in the gravity of the disease at different points or in different years,—indeed, sometimes at nearly the same point on different days. In this case, we may have lost of an extremely small loss in proportion to the number attacked, long experience does not permit us to doubt that in such a case the type of the disease has been very mild. The ravages of the disease in civil life, amid a comparatively unorganized population, where properly employed, do not always render aid to the sufferers, furnish a considerable contrast to this statement from the British army, and strongly confirm the opinion expressed of the importance of early treatment in a manner so rapid in its course, and in which the efforts of nature are so important. At Bushire, in the Persian gulf, we learn from Moreau de Jonnes, that in 1821 a sixth part of the inhabitants perished; and at Bassora, in the same year, Mr Rich informs us that eighteen thousand died, of whom fourteen thousand perished within a fortnight. The number attacked in Moscow from September, 1850, to January, 1851, is estimated at some sixty per cent, or 4,385, or fifty-four per cent.† In the small town of Redislische, of eight hundred sick, we learn from Doctor Relmann, that seven hundred died in one week. The greatest success which has attended the treatment of the disease in the Russian empire, occurred in the town of Orenburg, the number attacked being 3,500, of whom 866 perished, or about twenty-four and one-tenth per cent., a result creditable to the vigilance of the Russian government, and to the skill and care of the medical men employed. The treatment adopted was that of bleeding, calomel, opium, warm box, and friction.‡ In Scotland about one-half or one-third of those attacked perished, and nearly the same was the case in England. In Ireland the mortality was small compared to the number of cases reported.

9. Treatment. While the cholera was only partially known in Britain, and while yet the medical practitioners of this country were inexperienced regarding it, violent differences of opinions existed as to its contagious or non-contagious nature. The disputes on this subject, however, have now nearly subsided, and the great majority of medical men are now persuaded, that the disease is epidemic, and not contagious. In its earlier stage, the disease had hitherto been discovered; although the alleged remedies laid before the public have been numerous and varied. Without entering into the multifarious receipts of different practitioners, we shall here confine ourselves to the mode of treatment adopted by Dr Moreau Narbonne in the Belfast hospital, as being among the most successful that has come under our observation,—the mortality in that hospital having kept below twenty-five in every 100 cases. It may be stated, at the same time, that the treatment here adopted differed not in its essential characteristics from that recommended by many eminent physicians.

* In the great majority of instances," says Dr M'Cormac in his pamphlet on cholera (London, 1832), "cholera commences with purging—first, the fecal matters contained in the intestinal canal are quickly discharged—then, a clear, yellowish fluid, interspersed with foeculi, resembling pale whey, or rice water, is profusely passed afterwards. Vomiting will begin along with the purging or subsequently—first,

the contents of the stomach are cast off, and then, a fluid precisely the same as that discharged from the intestines, comes away afterwards. In a few rare cases, either vomiting or purging, or both, will be absent; in this case, there will be great sickness, pericardial op- pression, with distension of the face, and a sense of cold in the face and head; the cramps generally come on when the vomiting and purging have existed for some time,—frequently, they commence all three together. After a time, the purging and vomiting will cease, whether medicine be given or not, the system becoming exhausted, without having been drained of its serum; the cramps also cease in the same manner. Shortly after these disappear spontaneously, the blood ceases to circulate on the surface and in the extremities—cold sweats bedew the skin—a mortal coldness invades the frame, and death soon closes the scene. This is the common, but not the universal order in which the symptoms proceed.

"It is of the utmost importance to arrest the purging and vomiting with the least delay; for the fluid discharges are the serum of the blood, and cause weakness and death, as if the blood itself were drawn away from the system. When seen soon after, which was, as they often were, within a short time, a gallon or more of this fluid, which, not long before, was circulating as part of the living blood. This discharge will not cease of itself; it continues till it brings the patient to the verge of death. It is almost the same, as if so much blood drained from one person in general. However, I found that in a case in which an individual attacked with cholera most of all, the diarhoea always appears to go on to the production of collapse and death, unless medical aid be interposed. The reader will then see the necessity of losing no time; and he will, therefore, wonder when I tell him, that I do not wait till the discharges and the cramps have made the patient cold and blue, but commence without the loss of a moment, to give the most powerful medicines. These medicines, powerful as they are, cannot be productive of the least injury; but neglected, or inefficiently treated cholera, surely leads to death. The following is the mode of treatment which I follow, specifically laid down:—"

* Bombay Reports, p. 68, &c.
† Memoir of doctor Lodder, physician to the emperor at St Petersburg, dated January, 1831, and read at the academy of medicine at Paris.
‡ Substance of a report published by the supreme medical board of Russia.
CHOLERA.

ing, and cramps; yet hardly have they been bled and swallowed their medicine, when all these symptoms vanished, sleep came on, and the patients have awakened after some hours, weak but well. In most instances, however, the medicine prescribed to be repeated the symptoms will continue in a much diminished form; at others, the disease will make efforts to reappear, after the stimulus has been exhausted. In both cases, the repetition of the medicine will produce the desired results.

In some very weak, aged, or broken down persons the system has rallied for a moment, and then sunk; in this last case, medicine ceases to be of use—nature is exhausted—the leverage of life is broken. We must never, however, presume this to be the case, beforehand, but continue our efforts, till death itself bid us cease. Some constitutions appear so irritable, that the vomiting will continue for days with intermissions, causing much annoyance to the poor patient. In these cases, I find mustard sinapisms or blisters, applied to the stomach, and occasionally warm baths, opium in some form, and a little wine negus at intervals, with some soup or tea, having bread sopped in it, such patients do not relapse. During suppression, some patients complain much of a difficulty in making water. These will require, in many cases, the use of the catheter, abdominal friction, stupes and warm baths; mild opiates will generally be necessary in addition. With these remedies, this troublesome affection commonly clears off. Sometimes their bowels do not relapse with the mouth, but affect the mouth. In this case, port-wine gargles, the warm bath, careful nourishment, and opiates, will soon cause this symptom to disappear. Every patient has invariably recovered, whose mouth has been affected; and although I never try to produce this result by mercury, as some practitioners recommend, I do not find the recovery in the least retarded by it. Such a trifling and occasional inconvenience in the employment of so admirable a remedy, when the result is the salvation of human life, and a complete victory over a formidable and malignant disease, is not to be regarded for a moment. The patients will sometimes be troubled with griping pains in the stomach and intestines, during their convalescence; but wine and opium, and now and then a warm bath, quickly disperse them. If the bowels should prove costive, from ten to thirty grains of the compound powder of jalap may be given, or from half an ounce to an ounce of castor oil, with a little pepper, in mint-water and twenty drops of laudanum. Sometimes I make the attendants administer a simple enema or injection of gruel with or without castor oil; for I have more than once seen the use of purgatives bring back the serious purging of the complaint, to the great danger and practice of the patient. Indeed, during the prevalence of cholera, purgatives should be very carefully dealt with, when it is necessary to use them. They are almost always improper, when purging actually exists—as for common salts and other saline purgatives, they should not be touched. In two fatal cases, which occurred in private practice, castor oil in the one case, and castor oil and salts in the other, were most improperly taken by the patients, when they felt the disease coming on them. And I may here be permitted to remark, that very many lives indeed, might be saved, by people calling in instant advice, when affected with unusual purging, whether during night or day.

I never found it of any use to bleed the patients in collapse, even so far as it is practicable to do so. The patient in most instances is cold, and requires to be supported with the warm-air bath, a simple counter-irritation, consisting of a few half hoops, the end ones of iron, stayed together by longitudinal braces. A solid piece of wood is adapted to one end, pierced with a hole, through which a curved tin tube, four inches in diameter, proceeds, and which serves to transmit the heated current of air, impelled upwards by the flame of some spirits of wine, held in a tin container supported by a rod on which it slides. By the use of this apparatus, the patient may be well heated in from ten to twenty minutes. The same object, however, is readily effected by bladders or bottles filled with warm water—pillow-cases, containing each a few pounds of warm water, hot bricks wrapped up in flannel or other cloths. The heat of the bottles may be tempered in the same manner. As soon as the process for heating is put in operation, the patient must receive a scrape of calomel, two grains of opium, and a dram of laudanum, mixed with spirits and hot water; an injection composed of half a pint of starch or gruel at blood heat, and containing a dram of laudanum, is to be given at the same time. Men and women may commonly receive these doses; but they must be lessened for weak persons and children, as already stated. When the patient's body is well heated, let it be carefully rubbed, using, if at hand, the following rubment, which is also proper during the cramps, viz.:

Common spirits, a pint; Tincture of Spanish flies, two drachms; Common vinegar; Strong vinegar, or water of ammonia, an ounce; Spirits of turpentine, two ounces. Mix.

I do not, however, place very much confidence in the rectifications of hand-written and printed books in question: the other medicines are matters of much more importance; but, if there be plenty of help, it is as well not to omit either. Let mouthfuls of mulled wine negus, white-wine whey, or good punch, be given at intervals, during the collapse. If, after four hours, the pulse and heat have not returned, let ten or twenty grains of calomel, and a proportionate quantity of opium, and the opiate injection, be repeated; and every four hours afterwards, five grains of calomel and a grain of opium, so long as life remains or till the patient recover. If, however, the extremities continue cold and blue, and the nose, tongue and chin keep cold likewise—if the patient try to keep his hands constantly out of the clothes, and fall into a dull, nearly insensible state, from which it is difficult to rouse him, little hope can be entertained of his recovery. But, as I have said before, we should never relax using all our genuine means, and our patient still lives, the system continues insensible to the action of the strongest stimuli, in what ever quantities—it seems, indeed, to make no difference whether they are given or not. The young and comparatively vigorous, are, in general, most apt to recover from collapse. Collapse will sometimes set in before the pulse is extinguished; and, with the better classes, the pulse will often continue to the last, in a very subdued state, however. We must be as careful not to overdose as to underdose; but the preceding directions are, I think, sufficiently explicit on this point: they contain the substance of my own practice; and I am in no instance prepared to suppose that I had exceeded in this respect, although the contrary was at first the case. If the patient recover from collapse, the pulse will begin to beat freely—a natural heat will return to the surface—the eye will grow bright—the patient will become cheerful, and talk—the natural dejections will be resumed—a warm perspiration will flow over the surface, and there will be a craving for food. The constitution, however, will sometimes rally for a moment—the pulse will return; but in a short time, the awakened powers die away, in a state of sleep, and the patient becomes complete. Even when the hopes of a perfect recovery may be safely indulged in, constant caution must never cease for a mo-
ment; I have seen apparently slight imprudence in exposure, diet, or exertion, bring on a relapse more than once, ending in two instances fatally. But the best way to manage with regard to collapse, is to prevent any one from falling into it; and I have the best reasons for knowing that the treatment already laid down, will, in almost every case, not only prevent collapse, but certainly cure the disease, when taken in an early stage. The exceptions have been already pointed out, but early treatment affords the best chance; and I have seen many cases wherein nothing but the earliest and most energetic treatment could have saved the patient's life.

The consequence from cholera, must be of a light, nourishing nature; by degrees, the patient will be able to digest strong food. At first, a little arrow root, rice milk, papado, or bread soaked in tea, weak soups and bread, will be best; after a few days, the patient will be able to take a little meat. The strength must be kept up with moderate portions of wine or punch. Some patients will recover their strength almost immediately; others will be days, and even weeks, in getting round. In general, however, when the disease is early and properly treated, and the subject of ordinary strength, the recovery is very prompt. If secondary fever should supervene, which is more frequently the case after collapse, the treatment is the same as that followed in ordinary fevers, the principal indication in general being to keep up the strength with wine and other stimulants.

CHOLESTERIC ACID; a French name for the acid formed by the union of nitric acid and the fatty matter of the human biliary calculi.

CHOLESTERINE. See Calculus.

CHOLAMB (Greek χωλαμβις, the iambus; also called skaxon, from σκαξω, to halt; or cerasus Hippocastanum, because the earliest Hippokastan of Ephesus made use of it, or perhaps invented it). The choliambus is an iambic trimeter, the last foot of which, instead of being an iambus, is a trochee or spondee, which gives it a lame motion, as, for instance, Martial 1, i, epig. 3—

Cur in theatrum, Cato severe, venisti? An idae tantum veneris, cæreis?

We perceive, from the construction of the choliambus, that it may be applied with advantage to produce a comic effect. The Germans have happily imitated this way, as well as the others, to all other ancient metres. An instance of a German choliambus is:

Der Choliamb scheint ein Vers für Kunstleichter.

CHOLULA; a town of Mexico, in Puebla; sixty miles E. of Mexico; lat. 19° 2' N.; lon. 98° 8' W.; population 16,000. It was formerly a city of Anahuac, containing, in the time of Cortes, according to his account, 40,000 houses, independent of the adjoining villages or suburbs, which he computed as at many more. It is commerce centre in manufactures of cotton, gums, and plates of clay; and it was much famed for its jewellers and potteries. With respect to religion, it may be said that Cholula was the Rome of Anahuac. The surprising multitude of temples, of which Cortes mentions that he counted more than 400, and, in particular, the great temple erected upon an artificial mountain, which is still existing, drew to it innumerable pilgrims. This temple, which is the most ancient and celebrated of all the Mexican religious monuments, is 164 feet in perpendicular height, and, at the base, it measures, on each side, 1450 feet; it is a hill, and appears to have been constructed exactly in the direction of the four cardinal points. It is built in alternate layers of clay and bricks, and is supposed to have been used both as a temple and a tomb.

CHORAL (derived from chorus); a term applied to vocal music, consisting of a combination of different melodies, and intended to be performed by a plurality of singers to each part; as choræ anthem, choræ service. In Germany, this term is applied to the music of hymns, in the composition of which the Germans are so much distinguished.

CHORD (from the Greek χορδα, an intestine), in modern music; a combination of two or more sounds according to the laws of harmony. The word chord is often used in counterpart; as fundamental chord, accidental chord, or equivalent chord, without the art of dancing by signs, as singing is represented by notes. It points out the part to be performed by every dancer—the various motions which belong to the various parts of the music, the position of the feet, the arms, and the body, &c. The degree of swiftness with which every motion is to be performed may be thus indicated, by which all become as intelligible to the dancer, as a piece of music to the musician. Drawings to assist the tactician, by designating the position, motion, and evolution of troops, have also been called chorographical drawings.

CHORIAMBUS, in metre; a foot composed of a trochee and an iambus. See Rhythm.

CHOROGRAPHY; the description of a single district, in contradistinction to geography (the description of the earth). The art of drawing maps of particular districts is also called chorography.

CHORUS, in the drama. This was, originally, a troop of singers and dancers, intended to heighten the pomp and solemnity of festivals. This, without doubt, was at first the purpose of tragedy and comedy, of which the chorus was originally the chief part, in fact, the basis. In the sequel, it is true, the chorus became only an accessory part. During the most flourishing period of Attic tragedy, the chorus was a troop of male and female personages, who, during the whole representation, were bystanders or spectators of the action, never quitting the stage. In the intervals of the action, the chorus chanted songs, which related to the subject of the performance, and were intended either to augment the impression, or to express the feeling of the audience on the course of the action. Sometimes it even took part in the performance, and observations on the personages, by advice, consolation, exhortation, or dissuasion. It usually represented a part, generally the oldest portion of the people, where the action happened, sometimes the counsellors of the king, &c.

The chorus was an indispensable part of the representation. In the beginning, it consisted of a great number of persons, sometimes as many as fifty; but the number was afterwards limited to fifteen. The exhibition of a chorus was in Athens an honourable civil charge, and was called chorogy. The leader or chief of a chorus was called ephoraphos, who spoke in the name of the rest, when the chorus participated in the action. Sometimes the chorus was divided into two parts, who sang alternately. The divisions of the chorus were not stationary, but moved from one side of the stage to the other; from which circumstance the names of the parts of verse which they recited, such as prooche, trisilabo, were derived. But it cannot be determined in what manner the chorus sung. It is probable that it was in a sort of solemn recitative, and that their melodies, if we may call them so, consisted in unisons and octaves, and were very simple. They were also accompanied by instrumental music. With the representation of the ancient tragedy, the chorus was omitted. Some traguc-
CHOSROES

The name was properly applied to the royalty of the right bank of the Loire, in Bretagne, Anjou, and Maine. The principal theatre of the war formed nearly a square, the angles of which are the cities of Nantes, Angers, Mayenne, and Rennes; but the excursions sometimes extended to the coast, to the city of L'Orient. The origin of the word Chouans is not known. Some derive it from the name of the sons of a blacksmith, who first excited the insurrection in this quarter; others from a corruption of the word chat-huant (screech-owl). According to the latter, there was a horde of smugglers, who, before the revolution, secretly exported salt from Bretagne into the neighbouring provinces, and whose signal was the cry of the scavenging corvus corax. The revolution put an end to these men, most of whom had no other resource. Accustomed to a vagabond life, they wandered through the country, committing depredations, and were gradually joined by others of a similar character. The old mill and pilage were the chief objects of these wretches, which they afterwards turned to the Vendeans (see Vendée) in defence of monar-

CHOUANS, in French revolution; the insurgents on the right and left banks of the Loire. The name is derived from the Loire, in Bretagne, Anjou, and Maine. The principal theatre of the war formed nearly a square, the angles of which are the cities of Nantes, Angers, Mayenne, and Rennes; but the excursions sometimes extended to the coast, to the city of L'Orient. The origin of the word Chouans is not known. Some derive it from the name of the sons of a blacksmith, who first excited the insurrection in this quarter; others from a corruption of the word chat-huant (screech-owl). According to the latter, there was a horde of smugglers, who, before the revolution, secretly exported salt from Bretagne into the neighbouring provinces, and whose signal was the cry of the scavenging corvus corax. The revolution put an end to these men, most of whom had no other resource. Accustomed to a vagabond life, they wandered through the country, committing depredations, and were gradually joined by others of a similar character. The old mill and pilage were the chief objects of these wretches, which they afterwards turned to.

CHOURS, in music, in its general sense, denotes a composition of two, three, four, or more parts, each of which is intended to be sung by a plurality of voices, usually performed by singers, and not by instrumentalists. These choirs are adapted to express the joy, admiration, grief, adoration, &c., of a multitude, and sometimes produce much effect, but are very difficult for the composer.

CHOSROES I., king of Persia, succeeded to the throne of his father, Cusraw, in 420, and reigned in the East, and his virtues obtained him the titles of the Magnanimous and the Just. At his accession to the crown, Persia was involved in a war with Justinian, to whom Chosroes granted a perpetual peace, on the payment of a large sum of money. But, in 540, Chosroes invaded Syria, laid Antioch in ashes, and returned home laden with spoils. After several other victorious expeditions, he invaded India and Arabia, renewed the war with Justin, the successor of Justinian, whom he compelled to solicit a truce, but was, soon after, driven back across the Euphrates by Tiberius, the emperor, and the Romans took up their winter quarters in the Persian provinces. Chosroes died in 579. His love of justice sometimes led him to acts of cruelty; but he encouraged the arts, founded academies, and made a considerable proficency in philosophy himself. His reputation obtained him a visit from seven sages of Greece, who still adhered to the pagan religion; and, in a treaty with Justinian, he required that they should be exempt from the penalties enacted against those who continued to favour paganism. Persian historians ascribe to him the completion of the grand wall of Jabcouge and Langage, extending from Derbent along the Persian frontiers.

CHOSROES II., grandson to the preceding, ascended the throne in 590, and carried his arms into Judea, Libya, and Egypt, and made himself master of Carthage. In 617, he reduced Heraclius, the Roman emperor, to solicit a peace, which he refused to grant, except on condition of his renouncing the crucified God, and worshiping the sun. Heraclius, deriving courage from despair, penetrated into the Persian empire, and pillaged and burned the palace of Chosroes, who was de-throned by his own son, and cast into prison. The King, receiving the tidings of eighteen of his sons, and suffering great indignity. His sufferings were terminated by his death, in 628.

CHOUANS, in the French revolution; the insurgents on the right and left banks of the Loire. The name was properly applied to the royalty of the right bank of the Loire, in Bretagne, Anjou, and Maine. The principal theatre of the war formed nearly a square, the angles of which are the cities of Nantes, Angers, Mayenne, and Rennes; but the excursions sometimes extended to the coast, to the city of L'Orient. The origin of the word Chouans is not known. Some derive it from the name of the sons of a blacksmith, who first excited the insurrection in this quarter; others from a corruption of the word chat-huant (screech-owl). According to the latter, there was a horde of smugglers, who, before the revolution, secretly exported salt from Bretagne into the neighbouring provinces, and whose signal was the cry of the scavenging corvus corax. The revolution put an end to these men, most of whom had no other resource. Accustomed to a vagabond life, they wandered through the country, committing depredations, and were gradually joined by others of a similar character. The old mill and pilage were the chief objects of these wretches, which they afterwards turned to
ed as being of a handsome, manly stature and coun-
tenance. Among the existing representations of
Christ, the most ancient is in a basso-relievo of marble,
on a sarcophagus, of the second or third century, in
the Vatican. Christ is there exhibited as a young man,
with flowing, neck long, Roman features, flowing and
slightly curled hair, wearing a robe, and seated upon a
curule chair. In the same place, there is
another Christ, of the fourth century, with an oval
face, Oriental features, parted hair, and a short,
straight beard. This representation was the model
which the Byzantines and Italian painters followed
until the time of Michael Angelo and Raphael. Since
the sixteenth century, the Italian school has generally
taken the heads of Jupiter and Apollo as the models for the pictures of Christ. Different nations
have given his image their own characteristic fea-
tures. The head of Christ has become the highest
point of the art of painting among Christian nations;
and men of the greatest genius have laboured to im-
body their conceptions of his divinity, the union of
the different virtues of his character, his meekness
and firmness, and the full perfection of his Godlike
nature. Two of the Saviour by Titian, Leonardo da Vinci, Raphael, and Titian among the
sublimest productions of modern art. Christ's head
is, for the modern artist, what the head of Jupiter
or Apollo was for the ancient, with this difference,
however, that it has become more especially the ideal
of the painter, whilst the others principally furnished
subjects for the genius of the sculptor; and this cir-
cumstance shows the difference in the character of the
two periods of art, which must, of course, be most
apparent in their highest productions. Some of the most elevated expressions of the countenance of the
Saviour, e. g. the glowing love of his divine soul,
cannot be well represented by marble. There exist,
however, excellent statues of Christ. The two
best of modern times are that of Thorwalden at
Copenhagen, and that of Dannecker at Stuttgart.

CHRIST-CHURCH COLLEGE. See Oxford.

CHRIST'S HOSPITAL. (generally known by the
name of Blue coat school), the title having reference
to the costume of the children educated there); a
school in London, founded by Edward VI., for
supporting poor orphans. At the same time St Barthol-
omew's hospital was founded, for the wounded and
diseased, and Bridewell was assigned as a place of
correction for vagabonds. He was the first
mathematical school with it. There are generally
from 1000 to 1200 boys and girls at this establish-
ment, receiving instruction, board, and clothing. The
great hall at Christ's hospital is remarkable for some
very fine pictures.

CHRISTIAN I., king of Denmark, born at Co-
benhavn, 1481, was educated with little care.
While yet a youth, his violent character led him into
great extravagances. King John, his father, punish-
ed him severely, but in vain. In 1507, he was called
to Bergen, to suppress some seditions movements,
where he conceived a violent passion for a young
Dutch woman, named Dyveke, whose mother kept
an inn. Dyveke became the mistress of Christian,
who allowed her, and particularly her mother, an
unlimited influence over him. He was viceroy in Nor-
way, until the declining health of his father recalled
him to Copenhagen. After he had ascended the
throne, he married, in 1515, Isabella, sister of Charles
V. He afterwards remonstrated with Henry VIII.
of England, on account of the piracies committed by
the English ships, renewed the treaties which had
been made with the grand-duke of Moscow, and en-
deavoured to form a league for the defence of com-
merce. The hopes which this conduct excited among his subjects were soon annihilated by the hor-
rible scenes caused by the death of Dyveke. The re-
lations of Torbern Oxen, governor of the castle of Co-
benhavn, were accused of having poisoned her.
Oxe acknowledged a former passion for her, and the
king ordered him to be beheaded. Several other ex-
ceptions spread horror through the whole kingdom.
Christian, however, maintained his nobility, and prom-
ised the victors of the battle the nuggets and the
monos and the passamity against their oppressions. In
1516, a papal legate arrived in the North, in order

to dispose of indulgences. Christian received him,
hoping that he might be useful to him in Sweden, in
order to obtain the means of avenging himself against
him. The Swedes were divided into several parties. Cus-
tavus Trolle, archbishop of Upsal, a sworn enemy of
Stenon Sture, administrator of the kingdom, had
secretly united himself with Christian; but the Swe-
dish states protected Sture, dismissed Trolle, and caus-
ed his castle to be demolished. The nuncio, who ar-
ived during these events in Sweden, was gained
over by Sture, discovered to him the plans of Christian,
and justified the Swedes to the pope against the
charges of Trolle. Christian finally arrived at Stock-
holm. In 1518, for the sake of an interview with the
administrator, receiving, for his own security, six
hostages from the Swedish king. The hostages, among whom was Gustavus Vasa, arrived at the
Danish fleet, the faithless monarch treated them as
prisoners, and returned to Denmark. He appeared
in Sweden, in 1520, in the middle of winter, at the
head of an army. The Swedes were baten at Boge-
aard, Jan. 19, and Sture was mortally wounded. The
Danes pursued their advantage. Trolle presided
over the assembly of the states-general at Upsal,
and proposed to them to acknowledge Christian
for their king. Although many were disinclined to the
union, they were, nevertheless, obliged to submit to it. A general council was then called, and
Crafft hastened to profit by it. The capitall, to which the widow of the administrator had repaired, offered
some resistance. As soon as the sea was open, Christian
appeared with his fleet before Stockholm, which did
not surrender to him. The summer was passing
away; his provisions were nearly exhausted; his
wounds murmured. At last, he resolved to send
Swedish messengers to the inhabitants. His promis-
ised, aided by famine, effected what his arms had not
been able to accomplish. The gates were opened to
him. He promised to maintain the liberty of Sweden,
and to free the nation from feudalism. He and his
army marched into Sweden. Towards the end of Octo-
ber, demanded from the bishops and senators an act acknowledging him as their here-
ditary king, and caused himself to be crowned, two
days after, by Trolle. He bestowed the honor of
knightly only on foreigners, and declared that he
would confer this dignity on no Swedish subject, be-
cause he had conquered the country by force of arms.
In spite of the general consternation, he ordered pub-
lic rejoicings, during which he knew how to gain
the favour of the multitude. He determined to strengthen the royal authority in Sweden, and to effect his pur-
pose by the annihilation of the first families. He
ordered that, though, as a prince, he might forget the
past, he ought to extirpate the heretics, in obedience to the
commands of the Pope. Accordingly, Trolle de-
manded the punishment of the heretics; the king ap-
pointed commissioners before whom the accused ap-
peared. Christina, the widow of the administrator
was among them. To vindicate her husband's memo-
ry, she produced the decree of the senate passed in
1517. Christian had caused it to be erased from
it list of proscriptions. The accus-
ed were declared guilty, and ninety-four victims
CHRISTIANITY

were executed in the presence of the king. These bloody scenes continued in the capital as well as in the provinces. Christian justified himself by the public declaration, that they were necessary for the tranquillity of the kingdom. He then returned to Denmark. He now purposed to garrison all the cities, and committed the same cruelties in Denmark. He soon after went to the Netherlands, to request the assistance of Charles V. against Frederic, duke of Holstein, his uncle, and against the inhabitants of Lubeck, who were always ready to assize, as we have seen. On his return to Copenhagen, he found all Sweden in arms. Singloek’s tyranny had excited a general revolt. Christian gave him the archbishopric of Lund, but soon after caused him to be burnt alive, in order to appease the Pope, who had sent a legate to Denmark, to examine into the murder of the Bishops at Stockholm. In order to reconcile the Pope, he altered every thing in the laws which favoured Lutheranism, for which he had previously shown much inclination. Meanwhile Gustavus Vasa escaped from prison, and raised his standard against the Danes. The states-general, assembled in Stockholm, declared that Christian had become the sovereign of Sweden. The garrisons of Stockholm revolted on account of the want of pay. Christian, aspersated by these events, ordered the Danish governors to execute all the rebels. This measure hastened his ruin. Norby still held Stockholm, Culmar, and Abo, three places which were considered as the keys of the kingdom; but he was soon harried by the inhabitants of Lubeck, who even made an attack upon the coasts of Denmark. Christian, to revenge himself, commenced negotiations with the duke of Holstein, but they were soon interrupted by his own violence. Meanwhile, he published two edicts restricting the privileges of the clergy, and extending the rights of the patrician. They contained many wise laws, which are still in force, but mixed with others which caused general discontent. The nation complained of the debasement of the currency, and the insupportable burden of the taxes. The bishops and senators of Jutland, perceiving the disposition of the people, formed the plan of revolting against the king. About the end of 1522, they renounced their allegiance, declared Christian to have forfeited his rights, and offered the crown to Frederic, duke of Holstein. The King, who suspected their designs, summoned the nobility of Jutland to Callundborg, in Zealand; and as none obeyed the call, he summoned them anew in 1523, to Aarhus, in Jutland, whither he repaired himself. His arrival compelled the conspirators to hasten the execution of their plans. They assembled in Viborg, and adopted two acts; by one of which they deposed the king, and by the other invited Frederic to take possession of the throne. A civil war was on the point of breaking out, when Christian abandoned his kingdom. In April, 1523, he left Denmark, and took the queen, his children, his treasures, and the archives of the kingdom, on board the fleet. A storm dispersed his ships, threw him upon the coast of Norway, and, after the greatest dangers, he reached Veere, in Zealand. Charles V. contented himself with writing to forbid Frederic, the nobility of Jutland, and the city of Lubeck, to act against Christian. The latter laid, meanwhile, raised an army and crossed a fleet, and landed in Zealand. Christian, in Norway, in 1531. But his troops suffered new losses. Being attacked in his camp by the Danish and Hanseatic fleet, he shut himself up in the city, and his vessels became a prey to the flames. Deprived of all resources, he signed a treaty with the Danish generals, who finally granted him a safe conduct, permitting him to repair in the Danish fleet, to Copenhagen, for the purpose of a personal interview with Frederic. In July, 1532, he arrived before Copenhagen. But Frederic rejected the treaty, and the senate ordered the imprisonment of Christian. He was accordingly conveyed to the castle of Sonderburgh, in the island of Alsen, where he lived a miserable life in a society, at first, of a dwarf, and afterwards of an old invalid, in a tower, the door of which was walled up. A stone table is still shown, around the edge of which is a line worn by the hand of Christian, whose sole exercise consisted in walking round it, with his hand resting on the surface. He was totally abandoned. When Christian III. ascended the throne, in 1543, his condition was improved, by virtue of a treaty with Charles V. He lived, from 1546, at Callundborg, with a fixed income, and died at this place, Jan. 24, 1559. His wife, Christina, a professor of Lutheranism, faithfully shared his misfortunes until her death, in 1526. He had three children—John, who died at Ratisbon in 1532, at the age of thirteen years; Dorothy, who married Frederic, the elector palatine; and Christina, who married Francis Sforza, duke of Milan, and after his death, Francis, duke of Lorraing, who died. He always remembered that Christian’s cruelty was, in some degree, owing to the insolence of the nobility, whose arrogance he was determined to repress.

CHRISTIANIA; capital of the kingdom of Norway, seat of government, and the place where the Storting (Norwegian parliament) meet; long. 10° 49 E.; lat. 59° 53’ 40” N. It contains 1500 houses, and 11,404 inhabitants, is situated in the diocese of Christiania, or Aggerhus, on the northern end of the bay of Christianssand, in a district where gardening is much pursued. Besides the suburbs, it contains Christiania Proper, built by King Christian IV., in 1689, on a regular plan, the old city, or Opio, and the citadel, Aggerhus, which was demolished in 1815. Among the principal buildings are the royal palace, the new council-house, and the exchange. Since 1811, a University (Fredriken) has been established here, with a philological seminary, a botanical garden, an observatory, a library, collections of various kinds, eighteen professors, and 200 students. Christiania also contains a military school, a bank, a commercial institute, an alm factory, &c. It has much trade, chiefly in lumber and iron. Its harbour is excellent. The value of the lumber annually exported is at $10,000,000. It contains thirteen sawing-mills, which furnish annually twenty millions of planks.

CHRISTIANITY; the religion instituted by Jesus Christ. Christianity, as it now exists in our minds, has received, from the influence of the priesthood, of national character, of the spirit of the time, and the thousand ways in which it has been brought into contact with politics and science, a quantity of impure additions, which we should first separate, in order to understand what it is in reality. There could be no better means of attaining a correct understanding of it, than to investigate, historically, the religious principles which Jesus himself professed, exhibited in his life, and laboured to introduce into the world, if the investigator could avoid giving the colouring of his own views to his explanation of the records of the origin of Christianity. But the most honest inquirers have not entirely succeeded in so doing. Some of the Christian theologians of the present age—less divided, in some countries, for instance in Germany, by the spirit of creeds and sects, than by the difference of scientific methods and philosophical speculations—dispute respecting the principle that constitutes the basis of the religion of Christ, which, in other respects, has been unanimously adopted. (See the articles Religion, Revelation, Ration-
alism, and Supernaturalism.) This principle appears, by its effect upon the numerous nations, differing so greatly in intellectual character and cultivation, which received Christianity at first, to have been a universalism, adapted to the whole human race, and of a divine, all-inclusive, which, when it has been believed in a living God, the Creator of all things, and, so far, had just views of the source of religion. The Greeks, besides developing the principle of the beautiful in their works of art, had laid the foundation of valuable sciences applicable to the business of life. The Romans had established the principles of law and political administration, and proved their value by experience. These scattered elements of moral and intellectual cultivation, insufficient, in their disunited state, to bring about the true happiness and moral perfection of man in his social and individual capacity, were refined, perfected, and combined by Christianity, through the law of a pure benevolence, the highest aim of which is that of rendering men good and happy, like God, and which finds, in the idea of a kingdom of heaven upon earth, announced and realized by Christ, all the means of fulfilling the extreme wants of a religious character which was wanting to these nations—a religious character to the science of Greece, moral elevation to the legislative spirit of Rome, liberty and light to the devotion of the Jews—and, by inculcating the precept of universal love of mankind, raised the narrow spirit of patriotism in the exterior nations, to increasing religiosity. Thus the endeavours of ancient times after moral perfection were directed and concentrated by Christianity, which supplied, at the same time, a motive for diffusing more widely that light and those advantages which mystery and the spirit of castes had formerly withheld from the multitude. It conveyed the highest ideas, the most important truths and principles, the purest laws of moral life, to all ranks; it proved the possibility of perfect virtue, through the example of its Founder; it laid the foundation for the peace of the world, through the doctrine of the reconciliation of men with God and with each other; and, directing their minds and hearts towards Jesus, the Author and Finisher of their faith, the crucified, arisen, and glorified Mediator between heaven and earth, it taught them to discern the benevolent connection of the future life with the present. The historic facts, the preparations of Moham medanism, afforded the materials from which Christians formed their conceptions of the character and tendency of their religion.

The first community of the followers of Jesus was formed at Jerusalem, soon after the death of their Master. Another, at Antioch, in Syria, first assumed (about 62) the name of Christians, which had originally been given to them by their adversaries, as a term of reproach; and the travels of the apostles spread Christianity through the provinces of the Roman empire. Palestine, Syria, Tarsus, Greece, the islands of the Mediterranean, Italy, and the northern coast of Africa, as early as the first century, contained societies of Christians. Their ecclesiastical discipline was simple, and conformable to their humble condition, and they continued to acquire strength amidst all kinds of oppression. (See Persecutions.) At the end of the second century, Christianity was found in all the provinces, and, at the end of the third century, almost one half of the inhabitants of the Roman empire, and of several neighbouring countries, professed this belief. The endeavour to preserve a unity of faith (see Orthodoxy) and of church discipline, caused much dispute among the different opinions (see Heresies and Sects), and led to the establishment of an ecclesiastical tyranny, notwithstanding the oppressions which the first Christians had experienced from a similar institution—the Jewish priesthood. At the beginning of the fourth century, when the Christians obtained toleration by means of Constantine the Great, and, soon after, the superiority in the Roman empire, the bishops exercised the power of an archbishop; the first council (see Nice), 325, by instituting a creed binding on all Christians. Upon this foundation, the later councils (q. v.), assisted by those writers who are honoured by the church as its fathers and teachers (see Fathers of the Church), Jerome, Augustine, Ambrose, &c., created the edifice of the orthodox system; while the superior portion of the ecclesiastics, who were now transformed into priests, and elevated above the laity as a privileged, sacred order (see Clergy and Priests), were enabled, partly by their increasing authority in matters of church discipline, partly by the belief, which they had encouraged, that certain traditions from the apostles were inherited by them only (see Traditions), to preserve the prerogatives at first granted them out of love and gratitude, but afterwards much extended by themselves, and to make themselves gradually masters of the church. (See Bishops, Patriarchate, Popes, and Greeks.) The system was approved by the favour of the emperors (see Theodosius the Great) (with slight interruptions in the reign of Julian and some of his successors), by the increased splendour and various ceremonies of divine worship (see Mass, Saints, Relics, Iconostats), by the decline of classical learning, and the increasing negligence of philosophy. In this form, appealing to the senses more than to the understanding, Christianity, which had been introduced among the Goths in the fourth century, was spread among the other Teutonic nations in the west, and north of Europe, and subjected to its power, during the seventh and eighth centuries, the rude warriors who founded new kingdoms on the ruins of the Western Empire, while it was losing ground, in Asia and Africa, before the encroachments of the Saracens, by whose rigorous measures hundreds of thousands of Christians were converted to Mohammedanism, the heretical sects which had been disowned by the orthodox church (see Jacobites, Copts, Armenians, Maronites, Nestorians) being almost the only Christians who maintained themselves in the East. During this progress of Mohammedanism, which, in Europe, extended only to Spain and Sicily, the Roman Popes (see Popes and Gregory VII), who were advancing systematically to ecclesiastical superiority in the west of Europe, gained more in the north, and, soon after, in the east of this quarter of the world, by the conversion of the Slavonic and Scandinavian nations (from the ninth to the twelfth century), than they had lost in other regions. For the Mohammedans had chiefly overrun the territory of the eastern church (see Greek Church), which had been, since the fifth century, no longer one with the Western (Latin) church, and had, by degrees, become entirely separate from it. In the tenth century, it received some new adherents, by the conversion of the Russians, who are now its most powerful support. But the crusaders, who were led, partly by religious enthusiasm, partly by the desire of conquest and adventure (1096—1150), to attempt the recovery of the holy sepulchre, gained the new kingdom of Jerusalem, not for the Greek emperor, but for themselves and the papal hierarchy. (See Crusades.) The confusion which this finally unsuccessful undertaking introduced into the civil and domestic affairs of the western nations, gave the church a favourable opportunity of increasing its most general, and converting its pretensions to universal monarchy. But contrary to the wishes and expectations of the rulers of
the church, the remains of ancient heresies (see Manichæans, Paulicians) were introduced into the West, through the increased intercourse of nations, and by the returning crusaders, and new and more liberal ideas were adapted to the popular and philosophical spirit of examination of some schoolmen (see Abelard, Arnold of Brescia), and the indignation excited by the corruptions of the clergy. These kindled an opposition among all the societies and sects against the Roman hierarchy. (See Cauchon, Albigenses, Waldenses; see also the multiplication of ecclesiastical orders (q. v.), particularly the Franciscans and Dominicans, for the care of souls and the instruction of the people, which had been neglected by the secular priests, did not remedy the evil, because they laboured, in general, more actively to promote the interests of the church and the papacy, than to remove superstition and ignorance; and bold speculations, which would not yield to their persuasion, were still less likely to be extirpated by the power of the inquisition (q. v.), which armed itself with fire and sword. The great difference of the Church from an ancient religion, which was founded, from the religion of Jesus Christ, the insufficiency of what the church taught to the religious wants of the human mind and heart, were apparent to many, partly from their knowledge of the spirit of Jesus, derived from the Bible, which was already studied, in secret, by curious readers, in spite of the prohibitions of the church, and partly from the bold eloquence of single teachers and chiefs of sects. Ecclesiastical orders also desired to pursue their own course (see Knights Templars, Franciscans); offended princes forgot the great services of the papal power in promoting the cultivation of nations in the first centuries of the middle ages; and the popes themselves made little effort to reform or conceal the corruption of their court and of the clergy. They even afforded the scandalous spectacle of a schism in the church (see Schism, Popes, and Antipope), which was distracted, after 1378, for more than 30 years, by the quarrels between two candidates, who both asserted their right to the papal chair. This dispute was settled only by the decrees of the council of Constance (1414—1418), which were very unfavourable to the papal power. The doctrines of the English Wickliffe (q. v.) and of John Hus (q. v.) were subjected to a papal condemnation; and the revolt of the adherents of the Bohemian reformer (see Huss, Hussites), who was burnt at Constance on account of similar doctrines, was extorted from the council of Bale (1432—43) certain compacta, which, being firmly maintained, proved to the friends of a reformation in the head and members of the church (proposed, but without success, at the council of Bale), what a firm and united opposition to the abuses of the Roman church might be able to effect. We refer the reader to the article Reformation, and the articles relating to it, for a history of the causes, progress, and consequences of this great event. But that this great change in the church has revived primitive Christianity in the spirit of its founder, the most zealous Protestants will not assert, any more than the reflecting Catholic will deny the necessity of such a reform, and the real merits of Protestantism in promoting it. (See Trent, Council of, Roman Catholic Church, and Protestantism.)

The forms under which Christianity appears, in our days, are very different. The example of the south of Europe proves how easily this religion naturalizes itself, but, also, how much it loses, under the influence of such an example, the spiritual grandeur, the moral power and pure spirit of its original character. Protestantism removed from the northern nations many of the burdens with which the predominance of the earthly nature had oppressed the spirit of religion. By opening the Bible to all, it aroused the spirit of inquiry, but also gave rise to an immense variety of sects, springing from the different views and interpretations of the Gospel, and from the study of the sacred volume. The present moral and political condition of Christian Europe, though affected by so many influences foreign to religion, bears the stamp of a cultivation springing from Christianity, and this has been impressed upon its colonies in distant lands, among which the United States of North America alone have advanced to the principle of universal toleration. But if we look among our contemporaries for Christianity as it dwelt and operated in Christ, we shall find it pure in no nation and in no religious party; but we perceive its features in the conduct of the enlightened and pious among all nations, who love Christ, and are penetrated with his Spirit. How Christianity will develop itself in North America, where all sects are tolerated, what will be the result of this immense variety of opinions and creeds, is, as yet, a matter of speculation. The general principles of the Gospel, however, have so much in common, that they may still be considered as forming one great family among the principal divisions of the Christian world. Whether this will be true after a considerable time has elapsed, is at least doubtful, as the Unitarians and Trinitarians seem to be taking essentially different directions.

CHRISTIANS; the general name of the followers of Christ. See Christianity.

CHRISTIANS; the name of a denomination, in the United States, adopted to express their renunciation of all sectarianism. They have become numerous in all parts of the country, the number of their churches, in 1827, being estimated at about 1000. Each church is an independent body; they recognize no creed, no authority in matters of doctrine: the Scriptures, which every individual must interpret for himself, are their only rule of faith; admission to the church is obtained by a simple profession of belief in Christianity: speculative belief they treat as of little importance, compared with virtue of character. In New England, they separated principally from the Calvinistic Baptists; in the Southern States, from the Methodists, and Baptists. They are called the Disciplinarians. There was, therefore, at first, a great diversity of opinion and practice among them, each church retaining some of the peculiarities of the sects from which it proceeded. In New England, the churches were established on the principle of close communion, which was soon abandoned. In the South and West, they were Pedobaptists, but have since become Baptists. Nearly all were, at first, Trinitarians: but the doctrine of the Trinity, and its concomitant doctrines, are now universally rejected by them. To maintain a connexion between the different churches, one or more conferences are formed in each state, consisting of members delegated from each church. In 1827, there were twenty-three of these conferences, which again form, by delegation, the United States General Christian Conference. They have several periodical works (Christian Herald, Portsmouth, New Hampshire; Gospel Luminary, New York; Christian Messenger, Kentucky), but no theological seminary, considering that whoever understands the gospel may teach it. They consider Christ as the Son of God, miraculously conceived, whose death was a ratification of the new covenant, not a prophet of the old. See, above all, the simplicity of the power or energy of God, exerted in converting the wicked and strengthening the good.

CHRISTIANS OF ST THOMAS; the name of a
sect of Christians on the coast of Malabar, in the East Indies, to which region the apostle St Thomas is said to have carried the gospel. They belong to those Christians who, in the year 499, united to form a Syrian and Chaldaic church in Central and Eastern Asia, and are, like them, Nestorians. (See Syrian Church.) They have, however, retained, more strongly than the latter, the features of their descent from the earliest Christian communities. Like them, they still celebrate the agapes, or love-feasts, portion maimids from the property of the church, and provide for their poor. Their notions respecting the Last Supper open the doors of the Protestants, but, in celebrating it, they use bread with salt and oil. At the time of baptism, they anoint the body of the infant with oil. These two ceremonies, together with the consecration of priests, are the only sacraments which they acknowledge. Their priests are distinguished by the tonsure, are allowed to marry, and were, until the 16th century, under a Nestorian patriarch at Babylon, now at Mosul, from whom they received their bishop, and upon whom they are also dependent for the consecration of their priests. Their churches contain, except the cross, no symbols nor pictures. Their liturgy is similar to Syrian, and they use the same liturgical books. When the Portuguese occupied the East Indies, the Roman Catholic clergy endeavoured to subject the Christians of Saint Thomas to the government of the pope. The archbishop of Goa succeeded, in 1559, in persuading them to submit, and form a part of his diocese. They were obliged to renounce the Nestorian faith, adopt a few Catholic ceremonies, and obey a Jesuit, who became a bishop. But, after the Portuguese were supplanted by the Dutch on the coast of Malabar, this union of the Christians of Saint Thomas with the Roman church ceased, and they returned to their old sect. At present, they are, under the British government, free from any ecclesiastical restraint, and form among themselves a kind of spiritual republic, under a bishop chosen by themselves, and in which the priests and elders administer justice, using excommunication as a means of punishment. In their political relations to the natives, they belong to the class of Nāzīr, or nobility of the second rank, are allowed to ride on elephants, and to carry on commerce and agriculture, instead of practising mechanical trades, like the lower classes. Travellers describe them as very ignorant, but, at the same time, very sociable.

CHRISTIANAND; a government and bishopric of Norway, occupying the S. W. part of the country. The population of this division of the kingdom is estimated at 134,000; square miles, 14,800. Though one of the most fertile parts of the country, the grain produced is not adequate to the consumption of the inhabitants, and grain is therefore one of the chief imports. The inhabitants are principally employed in the fisheries and in cutting trees. Timber forms the chief article of their export.—The capital is also called Christiansand, and is situated on the S. coast. Three streets are broad and straight, and the houses have extensive gardens. It is considered as the fourth town in the kingdom. It contains about 6,000 inhabitants. Its harbour is one of the best in Norway. It derives some support from the trade in timber, but depends chiefly on the repair of vessels which put in there to seek shelter. The old town, strongly fortified, with good ramparts and the tower of Lützen, is said to be 1,632 years old. In 1742, the states-general appointed guardians to the queen Christina, but six years old. These were the five highest officers of the crown, who were instructed, at the same time, with the administration of the kingdom. The education of Christina was continued by the plan of Gustavus Adolphus. Endowed with a lively imagination, a good memory, and uncommon intelligence, she made the most rapid progress. She learned the ancient languages, history, geography, politics, and renowned the pleasures of her age in order to devote herself entirely to study. She already betrayed those peculiarities which characterized her whole life, and which were, perhaps, as much the consequence of her education as of her natural disposition. She did not like to appear in the female dress, made long journeys on foot or on horseback, and delighted in the fatigues and dangers of the chase. She continued resolutely to try the moods of the court, alternately treating those who surrounded her with the greatest familiarity and with haughtiness or commanding dignity. She honoured the chancellor Oxenstiern as a father, and learned from him the art of governing. She soon showed in the assembly of the states, a majority of understanding which astonished her guardians. In 1642, the states-general proposed to her to take the administration into her own hands; but she excused herself on the ground of her youth. Only two years after, she took upon herself the government. A great talent for business was displayed first, with great pomp, distinguished her first steps. She terminated the war with Denmark, begun in 1644, and obtained several provinces by the treaty concluded at Bromsebro, in 1645. She then, contrary to the advice of Oxenstiern, who hoped to gain, by the continuance of the war, still greater advantages for Sweden, laboured to re-establish peace in Germany, in order to be able to devote herself uninterrupted to the sciences and the arts of peace. Christina was fitted, by her talents and the circumstances in which she was placed, to play the most distinguished part in the North of Europe, and, for some time, seemed destined to the charms of her lofty station. On many occasions she maintained the dignity of her crown and the honour of her country. France, Spain, Holland, and England sought her friendship. She promoted commerce by wise legislation, and patronized the learned and literary institutions. The nation was devoted to her, and rejoiced to see the daughter of Gustavus at the head of the government, surrounded by generals and statesmen formed by that great prince. It was the universal wish that the queen should choose a husband; but her love of independence rendered her averse to such a connexion. Among the princes who sued for her hand, her cousin, Charles Gustavus of Deuxponts, was distinguished for his intelligence, noble character, and extensive knowledge. She declined his offer, but induced the states-general, in 1749, to designate him for her successor. In 1650, she ceased her civil career, and was crowned, with great pomp, and with the title of king. From that time, a striking change in her conduct was perceptible. She neglected her ancient ministers, and listened to the advice of ambitious favourites. Intrigues and base passions succeeded to her former noble and useful views. The public treasure was squandered in extravagance profusion. Distinctions were conferred upon
CHRISTINA—CHRISTMAS.

the undeserving, and jealousy produced murmurs, complaints, and factions. In this state of confusion, the queen declared her intention of abdicating the crown. The old ministers, honouring the memory of Gustavus Adolphus, remonstrated in the strongest terms, and, above all, Oxenstiern expressed himself with such violence that the queen recoiled from her resolution. She now grasped with more firmness the reins of government, and dissipated, for a time, the clouds which had darkened her throne. She occupied herself again with study, bought paintings, medals, manuscripts, books, maintained a correspondence with many persons, and was, at times, even to her court. Deschartes, Gratiol, Salmasius, Bochart, Hetet, Chevreau, Naude, Vossius, Conring, Meibon, appeared in Stockholm, and the queen conversed familiarly with them on literary and philosophical subjects. Among the literary amusements which she united with serious studies, was the Grecian dance, which she caused to be exhibited by Meibon (q. v.) and Naude. But new troubles occurred; and the conspiracy of Messenius threatened not only the favourites of the queen, but the queen herself. Christina, who loved whatever was uncommon, resumed her determination to resign the crown.

In 1654, at the age of twenty-nine, she assembled the states-general at Upsal, and, in their presence, laid aside the insignia of royalty, to surrender them into the hands of prince Charles Gustavus. She reserved to herself a certain income, entire independence, and full power over her suite and household. A few days after, she left Sweden, and went through Denmark and Germany to Brussels, where she made a public entry, and remained for some time. There she made a secret profession of the Catholic religion, which she afterwards publicly confirmed in Inspruck—a step which excited great astonishment, and of the causes of which nothing certain is known. Christina went from Inspruck to Rome, which she entered on horseback, in the costume of an Amazon, with great pomp. When the pope Alexander VII. confirmed her, she adopted the surname of Alessandra. She visited the monuments of the city, and attentively examined every thing which could awaken historical recollections. In 1656, she visited France, and remained at Fontainebleau, at Compiègne, where the court was then held, and at Paris. Her dress and manners produced an unfavourable impression, but her talents and knowledge were greatly admired. She offered to mediate between France and Spain; but Mazarin declined the offer, and succeeded in accelerating her departure from France under various pretenses. In the following year, she returned. This second residence in France was rendered remarkable by the execution of her grand equerry, Mounaldesch, who had enjoyed her entire confidence, but whom she accused of treason. This act of vengeance, though defended by Leibnitz, is a stain on the memory of Christina. The French court testified its displeasure, and two months passed before the queen showed herself publicly in Paris. In 1658, she returned to Rome, where she received very unpleasing news from Sweden. Her revenue was not transmitted to her, and nobody would make her advances. Alexander VII. relieved her from this embarrassment by a pension of 12,000 scudi (dollars). After the death of Charles Gustavus in 1660, she conceived a wish to return to Sweden, under pretence of wishing to arrange her private affairs; but it was soon perceived that she had other views. As the crown-prince was very young, she declared, that, in case of his death, she should lay claim to the throne. This project was unavailing, as her son was proclaimed king, and the church of Sweden, under pretence of wishing to arrange her private affairs; but it was soon perceived that she had other views. As the crown-prince was very young, she declared, that, in case of his death, she should lay claim to the throne. This project was unavailing, as her son was proclaimed king, and the country was left to the guidance of his tutor, the Viscount of Yxkulla. The court was now in despair; the queen grasped the reins of government with greater firmness than ever, and determined to abdicate. She soon found that her abdication was not desired; this induced her to abandon Stockholm. She visited Sweden a second time in 1666, but returned to Hamburg without reaching the capital, having heard that the public exercise of her religion would not be allowed her. About this time, she aspired to the Polish crown, but the Poles took no notice of her pretensions. She now returned to Sweden, where she passed the remainder of her life, at Rome, in the cultivation of the arts and sciences. She founded an academy, collected valuable manuscripts, medals and paintings, and died, after having experienced many vexations, April 19, 1689. She was interred in the church of St. Peter, and a poppy wreath, denominated aument, to her with a long inscription. She had asked only for these few words: Visit Christina annos LXXXIII. Her principal heir was the cardinal Azzo- lini, her intendant. Her library was bought by pope Alexander VIII., who placed 900 manuscripts of this collection in the Vatican, and gave the remainder of the books to his family. Odetschalchi, the nephew of Innocent XI., purchased the paintings and antiquities. The duke of Orleans, regent of France, bought a part of the paintings for 90,000 scudi, in 1722. The value of these collections may be learned from the catalogue which give a description of them, namely, Havercamp's 'Numismata Regnum Christinae,' and the Museum Odeschalcum.

The life of Christina presents a series of inconsistencies and contradictions; we see, on one side, magnanimity, frankness, mildness; on the other, vanity, severity, revenge, and dissimulation. Her knowledge of the world, her acuteness and penetration, did not preserve her from visionary projects, from the dreams of alchemy and astrology, and other illusions. She left some small works, in which her character and manner of thinking are perceptible, and which, for the most part, are contained in Archenheim's Memoirs of this princess (1741, 4 vols. 4to.). The authenticity of the letters which appeared in 1762, under her name, is not proved.

CHRISTMAS, the feast of Christ's birth, was, according to many critics, not celebrated in the first centuries of the Christian church, as the Christian usage, in general, was, to celebrate the death of remarkable persons rather than their birth. The death of the martyr Stephen, and the massacre of the innocents at Bethlehem, had been already long celebrated, when, perhaps in opposition to the doctrine of the Manicheans respecting the birth of the Saviour, a feast was established in the church, in the 4th century. In the 5th century, the Western church ordered it to be celebrated for ever on the day of the old Roman feast of the birth of Sol, on the 25th of December, though no information respecting the day of Christ's birth existed. In the East, Christmas was celebrated on the 6th of January. From the gospel of St. Luke, it was known that Christ was born during the night, and therefore divine service was performed in the night of Dec. 24—25, from which circumstance Christmas is called, in German, Weihnachten, i. e. Holy or Consacrated Night. The feasts of the martyr Stephen and the evangelist St John were united with it, and a feast of three days' continuance was thus formed. In the ecclesiastical year, this festival gives name to a period extending from the first Sunday of Advent to the feast of Epiphany, Jan. 6. Some say that Christmas has been borrowed from the Persians, who celebrated it on the 26th of December. In the Eastern church, three masses are performed—one at midnight, one at daybreak, and one in the morning. In the Greek and Roman churches, the manger, the holy family, &c., are sometimes represented at large. Some convents in Rome, chiefly the French, are in the habit of engaging large numbers of people by such exhibitions. The church of England ce-
lebates this feast, as do the great body of European Protestants. In the United States, it is little regarded, except by the Episcopalians. The custom of making presents on Christmas-eve, is derived from an old Roman custom, the Saturnalia, which was practiced in ancient Rome in the birth of Sol, or, in Germany, on the occasion of some feast peculiar to that country (at least the Repricht seems to have had such an origin); but it has become consecrated by ages, and contributes a great deal to make this festival an interesting event to emigrants from both Europe and America. It pervades most, pervading all the classes and relations of society. In German churches, sermons are delivered on Christmas-eve for the benefit of children, who attend, carrying each a little taper. In the Catholic church, the officium pastorum is sung, in which a chorus of children respond to the priest.

CHRISTOPHE, Henri, King of Hayti, was born Oct. 6, 1767, in the island of Grenada, as stated by some, but, as others say, in that of St Christopher. According to the latter account, he was carried to St Domingo, at the age of twelve, sold as a slave, and eventually purchased by the overseer, for an inscription headed, a cook, which looking he exercised at the Cape. Others relate that, after having served in the American war, he went to St Domingo, and was employed on the plantation of Limonade, in the capacity of an overseer, wherein he displayed his characteristic severity. From the commencement of the rebellion, he quickly perceived the blacks had he decided part in favour of independence, and signalled himself by his energy, boldness and activity, in many bloody engagements. Toussaint-Louverture, the acknowledged chief of the blacks, at length gave him the commission of brigadier-general, and employed him to suppress an insurrection headed by his nephew Moyse. This object was speedily accomplished by Christophe, who made himself master of the person of Moyse, and succeeded him as governor of the province of the North. The execution of Moyse excited new troubles at the Cape, which the activity and intrepidity of Christophe completely suppressed. He commanded there in 1802, when Leclerc arrived with a French army, destined for the subjugation of the Negroes. Most of them, deceived by the promises of Leclerc, at first gave way to his designs, but Dessalines and Christophe resisted the French, and, after much negotiation, the war was determined by the British, who were in alliance with the blacks. Christophe was compelled to make his peace, but resumed arms again upon the perilous seizure of the person of Toussaint. The climate aided the heroic efforts of Dessalines and Christophe, and, at the close of 1805, there was no longer a French force in Hayti,—for the island was now denominated by the insurgent chiefs. During the short-lived government of Dessalines, Christophe was general-in-chief of the Haytian army; and, being the senior officer, and most distinguished among the blacks, possessed, of course, powerful claims to succeed him in authority. But the popularity of Petion in the South balanced that of Christophe in the North. In February, 1807, an assembly convened at the Cape appointed Christophe president for life of the state of Hayti; and, about the same time, a republic was organized at Port-au-Prince, with Petion at its head. A civil war between the chief officers ensued, but did not prevent Christophe from taking judicious measures to establish public order in the territory he governed. He organized the administration, the tribunals, the marine, and the army, made suitable regulations for the encouragement of agriculture, commerce, and other branches of industry among his people, and, by his energy, attained the most flattering results. Of his military force was placed on a respectable footing, and his finances were brought into a flourishing condition. He constructed fortifications, and was enabled to set the French at defiance. Following the example of Napoleon, whom he imitated, he abolished the republican forms, March 29, 1811, and was proclaimed king of Hayti, June 22, 1811. He was crowned Emperor on December 8, 1812. I. The dignity and title were made hereditary in his family; a hereditary nobility was created, to give lustre and strength to the new institutions, with an appropriate order of knighthood; and, to complete the imitation of feudal sovereignties, he was solemnly crowned at the Cape, June 22, 1811, with ceremonies customary in Europe. He also sought to perpetuate his name by the compilation of the Code Henri—a digest founded upon the Code Napoleon, but not servilely copied. On the contrary, it was judiciously adapted to the situation of Hayti. In 1813, some cases of defection occurred among his subjects, which tended to exasperate the violent and suspicious temper of Christophe, and prompted him to impolitic acts of cruelty. In 1814, he and Petion suspended hostilities, not by a formal agreement, but, as it were, by tacit consent. For several years in the course of his reign, he was enabled to regain their authority in the island gave a new turn to the policy of Christophe's government. He constantly refused to hear any proposition from the ex-colonists, short of an acknowledgment of the unqualified independence of the island; and he adopted the most decided measures to counteract the attempts made by France. But the military power of the republic was in process of being restored. He, against aggression, he multiplied, through the agency of the press, writings calculated to render the views of the ex-colonists odious, and to maintain the spirit of independence among the emancipated blacks. To further the same object, he conceived, and, at one period, seriously set about effecting, the plan of substituting the English language in the island in place of the French; his intercourse with the English and American merchants having communicated to him a partiality for their language. This project entered into a system of general education, which he devised for the Haytians. Things continued to proceed in this way until the death of Petion, in 1818, and the accession of Boyer. Discontents had increased, meanwhile, among the subjects of Christophe, who contrasted the mild and easy rule of Boyer with the iron despotism under which they groaned; and the army itself was ripe for a change. A civil war, among the insurgents of St Marc, which mutinied in a body, killed the governor of the town, and sent a deputation to Boyer, signifying their desire to join the republic. Boyer hastily assembled a force of 15,000 men, and marched to the support of the insurgent garrison. At this time, Christophe was confined, by illness, in his fortified palace of Sans Souci, where he commonly resided. The insurrection soon spread to the Cape, where Richard, duc de Marmalande, and one of the first dignitaries of the kingdom proclaimed the abolition of royalty at the head of the troops. The elite of Christophe's army, composing his guard of about 1500 men, continued faithful to him for a while, but, when marched up to oppose the insurgents from the Cape, joined with the latter in demanding the deposition of Christophe. Perceiving his case to be desperate, and resolved not to gratify the insurgents by becoming their prisoner, Christophe shot himself with a pistol, October 8, 1820. His corpse remained exposed several days on the highway, and his eldest son was massacred; but Boyer protected his widow and daughters from injury, and enabled them to retire to Europe in the possession of a competent fortune. A large treasure was found in fort Henri, which Christophe had amassed from the customs on merchandise. His palace was dismantled by the populace, who seemed to take pleasure in de-
facing what had cost them so much toil to construct. Thus ended a reign, from which the friends of the blacks anticipated much, and with justice. Christopher's policy was probably better calculated than that of Petion and Boyer to advance the prosperity of Hayti, since he never benefited under him, and declined under the latter; but, his government being purely a military despotism, in which he himself was every thing, and the wishes of his people were totally disregarded, the administration degenerated into a system of tyranny which proved insupportable.

(All Noir., 1821; Franklin's History; Mably, Hist. d'Hayti.)

CHRISTOPHER, duke of Wurtemberg, one of the wisest rulers mentioned in history, was born in 1515. His youth was a constant scene of adversity. When he was but four years old, the confederated Swabian cities expelled his father, the duke of Wurtemberg, from his dominions, and sold the dukedom to Austria. Christopher was brought to Vienna, and was hardly saved by his tutor, Tyfferni, from the hands of the Turks, when that city was besieged by Solyman. He was a second time preserved from captivity, by the sudden death of Charles V., when Christopher intended to bury his person and his claims on Wurtemberg in a Spanish convent. Christopher had been conveyed almost to the frontiers of Spain, when he fled, and safely reached Bavaria, the duke of which was his uncle, and, together with Philip of Hesse, now commenced a war against Austria, to reconquer the country. He was received on Wurtemberg. Francis I. supplied them with money to carry on the contest. The battle of Laufen, in 1534, restored the father of Christopher to the government of Wurtemberg. Christopher himself, whom his father disliked, went into the French service. After eight years, he was recalled. In 1550, his father died; but he could not consider himself securely possessed of the dukedom until 1552, when he immediately began to devote himself in every way to the improvement of his subjects. He re-established the Lutheran religion, which had been prohibited in the interregnum, and, in so doing, gratified the wishes of his subjects. But he did not appropriate the possessions of convents, and other ecclesiastical establishments, to himself, as so many or most of the Protestant princes did, but formed of them a great fund, called the Wurtembergian church property, to be used for supplying the wants of the church, and for other benevolent purposes. The Wurtembergian cloister schools, for the education of young clergymen, and the great theological seminary at Tubingen, are his work. He improved the schools so, that education in Wurtemberg, even at the present time, is, perhaps, in a more flourishing state than in any other part of the world. He extended the liberties of his subjects, and established a civil code, which still exists. At the same time, he was continually attentive to the state of Europe. The fate of Protestantism in Germany was a subject in which he took great interest. He had an interview with Catharine of Medicis and the Guises, in order to alleviate the fate of the Huguenots, and contributed much to the religious peace at Augsburg in 1555. He endeavoured to unite the Protestant princes of Germany, and was intrusted with many highly honourable commissions by the empire. He ruled eighteen years, and died in December, 1568; but lives still in the remembrance of the people of Wurttemberg, who regard him as the model of a ruler. J. C. Pfister has well described the life of Christopher.

CHRISTOPER, St.; a saint whose name and worship are celebrated, but whose history is little known. It is supposed to have been a native of Syria or Cilicia, and received the crown of martyrdom, in Asia Minor, about the middle of the third century. Relics of him are found in several places, principally in Spain. The Eastern church celebrates his festival on the 9th of May; the Western, on the 25th of July. His intercession was particularly sought in the time of the plague. Christophel, or Christoper, was the bearer of Christ. He is represented as a giant, bearing the child Jesus upon his shoulders through the sea, which refers to a legend of this saint. The St Christopher of Hennag is one of the finest pictures in the gallery of Boissere (q. v.).

CHRISTOPHER, Sr. (commonly called St. Kallat); an island in the West Indies, belonging to Great Britain, discovered by Columbus in 1493, about fifteen miles in length, and, in general, about four in breadth, but towards the eastern extremity not more than three. Between that part and the rest of the island is a strip of land three miles in length, which does not measure half a mile across. This island contains 43,726 acres, of which about 17,000 acres are appropriated to the growth of sugar, and 4000 to pasturage. As sugar is the only commodity of any consequence that is raised, except the necessary articles for living, it is to the cultivation of the crop that nearly one half of the whole island is set aside for cultivation. The interior part of the country consists, indeed, of many rugged precipices and barren mountains. Of these the loftiest is mount Eyre (evidently an extinguished volcano), which rises 3711 feet in perpendicular height from the sea. The general average produce of sugar for a series of years was 16,000 hogsheads of sixteen cwt., which, as one half only of the whole cane land, or 8500 acres, is annually cut (the remainder being young canes), gives nearly two hundredhogsheads of sixteencwt. per acre for the whole of the land in ripe canes. This island is divided into nine parishes, and contains four towns and hamlets, viz. Basseterre, the present capital, as it was formerly that of the French, containing about 900 houses, Sandy Point, Old Road and Deep Bay. Of these, the two first are ports of entry, established by law. The fortifications consist of Charles Fort and Brimstone Hill, both near Sandy Point, three batteries at Basseterre, one at Fig-tree Bay, another at Palmetoo Point, and some smaller ones of no great importance. Population, in 1823—4, according to Humboldt, 23,000, of whom 3500 were free persons, and 19,500 slaves. Official value of imports and exports:

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1809</td>
<td>£266,064</td>
<td>132,845</td>
</tr>
<tr>
<td>1810</td>
<td>253,611</td>
<td>89,362</td>
</tr>
<tr>
<td>Lon. 62° 49' W.; lat. 17° 19' N.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CHROMATIE, of ORON, or CHROMESEN-STEIN, is a mineral substance of very considerable interest, as affording one of the most beautiful and durable pigments in the arts. It is found disseminated in grains and imperfectly crystallized masses, occasionally in regular octahedral crystals, its primary form, of a black colour, a shining and somewhat metallic lustre. It scratches glass, is opaque, and has a specific gravity of 4.03. According to Vaquelin, that of France consists of 43 chromic acid, 34.7 oxide of iron, 20.3 alumine, silex 2. But chemists, at the present day, consider the chrome in this mineral in the state of an oxide, and not of an acid; accordingly the mineral is now more correctly denominated fereicron, or Chrome. It is found in great abundance in Maryland, at the Bare hills, near Baltimore, and is contained in a slateitic or serpentinite rock. It also occurs in small quantities at numerous other places in the United States, and has many localities in other countries.

CHROMATIC, in music; one of the three ancient genera—diatonic, chromatic and enharmonic.
The word chromatic has been adopted, as it is believed, because the Greeks were in the habit of designating this genus by characters of various colours, or, as some say, because the chromatic genus is a mean between the other two, as colour is a mean between white and black (this seems to be a very poor explanation). The term is used also for those semitones, varieties and embellishments of the diatonic, thus producing an effect similar to that of colouring. In modern music, the word chromatic simply means a succession of semitones, ascending or descending.

Thus the expressions chromatic semitones (the interval which is found between any given note and that same note sharp or lowered by a flat), chromatic scale, chromatic modulation, are in terms use.

CHROME; the name of a metal, which, combined with oxygen so as to be in the state of an acid, was discovered by Vauquelin, in an ore of lead from Siberia. This metal has since been found combined with iron in America, and at Unst, one of the Shetland isles. It appears also to be the colouring principle of the emerald and the ruby, and has received its name from its property of assuming brilliant colours in the combinations into which it enters. Chrome, which is said to be very rare, melts in very small quantities, owing to its powerful attraction for oxygen, may be obtained by mixing the oxide of chrome with charcoal, and exposing the mixture to the most intense heat of a smith's forge. It is brittle, of a grayish-white colour, and very infusible. Its specific gravity is 5-9. Chrome unites with oxygen in three proportions, forming two oxides and one acid. The protioxide-is of a green colour, exceedingly infusible by itself, but with borax, or vitreous substances, it melts, and communicates to them a beautiful emerald-green colour. The protioxide is employed at the manufacture of Sevres, in France, to give a fine deep-green to the enamels of porcelain. It is applied without a flux, and melted with the enamel. Chromic acid, however, is the most important of the compounds formed by this metal along with oxygen. It is usually prepared for chemical purposes by mixing solutions of nitrate of barytes and chromate of potash, and digesting the chromate of barytes that is formed in dilute sulphuric acid. This abstracts the barytes, and the chromic acid is procured, by evaporation, in crystals of a fine ruby-red colour. It is very soluble in water, has a sour, metallic, taste, and is one of the characters of a strong acid. It combines with the alkalies to form very soluble and very impure chromates, many of which have very rich colours. The alkaline chromates are soluble and crystallizable. They are of a yellow or red colour, the neutral chromates being commonly yellow, and the bi-chromates, red or deep orange. The best known of these is the bi-chromate of potash, which is one of the most splendid, and, at the same time, one of the most useful salts. The manner in which it is formed is as follows:—Chromate of iron, or rather ferruginous oxide of chrome, reduced to fine powder, is mixed with half its weight of nitrate of potash, and heated strongly for an hour or two in crucibles. The resulting masses are then repeatedly digested with water, and the coloured liquids, which are slightly alkaline, saturated with nitric acid, and concentrated by evaporation, till no more crystals of nitre can be obtained from them. The yellow liquid, being now set aside for a week or two, deposits a copious crop of crystals, whose form is that of a four-sided prism, terminated by dihedral summits. Their colour is an intense lemon-yellow, with a slight shade of orange, 100 parts of water at 0° dissolves about forty-eight parts; but boiling water dissolves almost any quantity. Its solution in water decomposes most of the metallic salts; those of mercury, of a fine red; copper and iron, of a reddish brown; silver, dark red, and lead, of a beautiful yellow colour, now much used as a pigment, under the name of chrome yellow.

Chrome yellow is largely manufactured in the United States, at Baltimore, near which place is found one of the most remarkable deposits of this use of chrome in the world. The process consists in adding a solution of acetate of lead (or sugar of lead) to the rough solution of chromate of potash, from which the nitrate of potash has been just separated by crystallization. The acetate of lead is added as long as any sediment falls. The liquor is then filtered, and a yellow precipitate left on the filters, dried for sale.

CHROMIC ACID. See Chrome. Chronicon. (from chron(e) time; a term applied to diseases which are of long duration, and mostly without fever. It is used in opposition to the term acute, which is applied both to a pungent pain, and to a disease which is attended with violent symptoms, terminates in a few days, and is attended with danger. On the other hand, a chronic disease is slow in its progress, and not so generally dangerous. CHRONICLE, strictly speaking, is a history digested according to the order of chronicles, or events, in this sense, it differs but little from annals. The term is mostly used in reference to the old histories of nations, written when they were comparatively rude. Chronicles belong to the sources of history, and many have been handed down from early ages; for instance, the two books of the Chronicles of the Hebrews, which belong to the Old Testament. With many nations, such chronicles were written under the authority of government; and priests, being the only men of learning among uncultivated tribes, were entrusted with this office. In the early Christian ages, also, clergy men were generally the authors of the chronicles e.g., Eusebius, bishop of Cesarea, collected from other historical works his Chronicle of ancient history. Hieronymus of Stridon translated it into Latin, in the fourth century, and others continued it. Many historical works of the Byzantines (q. v.) are also chronicles. We might mention, likewise, the Alexandrine chronicle (Chronicon Paschale), published by Du Fresne; also the chronicles written by monks, particularly by the diligent Benedictines, in the middle ages, some of which embraced the whole history of the world, from its beginning to their own time (as the Chronicle of Regino, of Otto of Freisingen, &c.); other historical chronicles of a certain period (as Lulli- prand's History of his Time, from 891 to 946), or of a single nation (as the History of the Franks, by Gregory of Tours; that of the Lombards, by Paulus Diaconus; the English Chronicles, by Stow, &c.), or the history of single provinces, cities, and institutions (as the Chronicle of the Abbey of St Denis; the Chronicle of Cologne); also the history of individuals (as Eginhard's History of Charlemagne), and of single events. They have been published partly in large collections (for instance, Scriptores Rerum Germanicarum), and, until the 13th and 14th centuries, were mostly written in Latin. Of many of them the authors are not known. In this case, they are called after the place where they were written or where they were found.

These chronicles bear the impress of their time, displaying the ignorance and credulity of their authors, as well as their religions and moral reflections. We must admit, in their favour, however, that they are not filled with political disputations and superficial reasoning, of which modern histories afford so many instances. The chronicles of the middle ages were not written with the purpose of supporting certain principles, but generally give simple facts;
CHRONODISTICH
and
CHRONOBERYL.

on account of which they are preferable, as historical records, to many modern works. Of course, they do not equal in value the result of the deep researches of a Gibbon or a Niebuhr. Young men, in search of historical knowledge, ought to apply themselves particularly to those sources, and not trust so much to the writers who drew from them; and we can say, from experience, that they would find them very interesting reading. (For information respecting the chronicles of the middle ages, we would refer the reader to the treatises by Roiser, in Latin, and by Lete, in English; which latter is entitled
-Evii (1798), and the directories of Freher and Adehn.
Chronicle is also often used as the title of newspapers. The most important of these is the London Morning Chronicle, an excellent paper of the whig party. See Newspaper.

CHRONODISTICH, CHRONOGRAM; a verse in which certain of the letters used signify Roman numerals, and indicate the year in which the event happened to which the verse relates; e.g., reges ConCeDant paCem, where CCDCM make the number 1800. It is little used at present.

CHRONOLOGY (composed of χρόνος, time, and 
λόγος, discourse or account), which relates to the ordering time (see Time), distinguishing its several constituent parts, such as centuries, years, &c., by appropriate marks and characters, and adjusting these parts, in an orderly manner, to past transactions, by means of eras, epochs and cycles, for the illustration of history. The principal means for marking the divisions of time are afforded by the motions of the heavenly bodies, particularly the sun and the moon, which produce the natural division of time into years, months, and days. The necessities of life, requiring still smaller and more precise divisions of time (which can be measured only by artificial means), gave rise to time by hours, minutes, and seconds. This division of time is called the artificial. Even in the natural division, however, there is something arbitrary, as it depends solely on the will what point in the motions of the heavenly bodies shall be taken as the point of beginning; for example, in the annual rotation of the earth, whether we shall take the longest day of summer or the shortest day of winter. The first lawgivers, therefore, fixed the civil beginning and end of the month, day and year, and, at the same time also, the smaller divisions of these larger portions of time. From this separation of the natural and artificial or civil division of time arises a division of time into mathematical, astronomical and historical. Astronomical chronology determines the duration of the natural portions of time by the revolutions of the heavenly bodies; historical chronology treats of the civil divisions of time, of the methods of reckoning time among different nations, of ancient periods or remarkable epochs, &c. It is obvious that each of these divisions of chronology requires the assistance of the others. All historical chronology is grounded on the astronomical, which cannot determine the duration of the periods of time without the aid of the civil division. Mathematicians and astronomers determine the natural periods of time as they are indicated by the motions of the sun and moon. It is left to legislators to determine by law on what day the year shall begin, how many days shall constitute a month, how many a week, &c. This civil regulation must of necessity be made in the calendar, or almanac. Thus far must astronomical chronology be connected with historical but the latter only can teach us the divisions adopted by different people. Historical chronology explains, 1. the form of the year among different nations, as it is regulated by lawgivers, founders of religions, and other founders of civil society; 2. those events which are selected by different nations as eras, that is, as points from which they begin their reckoning; e.g., the Yugs of the Hindoos, the era of Nabonassar, the era of the Seleucidae, among the Chaldeans, Syrians, Persians, Egyptians; the creation of the world, among the Jews; the first Olympiad, among the Greeks; the building of Rome and the consular era, among the Romans; the Hegira, or flight of Mohammed, among the Mohammedans, &c. As so many different eras render the reckoning of time difficult, if, 3dly, selects a form of the year among the people of other nations, and by which it arranges the history of all nations and times. The European chronologist and historian must refer the eras and years of all people to those used in modern Europe. Mathematical and astronomical chronology is taught in the manuals of astronomy. Among these may be mentioned the Astronomie of Lallemand (vol. 1. p. 270, 2d ed.) The Manual of Astronomical and Technical Chronology (from the sources) of D.L. Icleler (vol. 1, Berlin, 1825, vol. 1, 1826) is an excellent work. See also—Hales' Analysis of Chronology; Usher's Annals; Blair's Chronology, and Playfair's Chronology. The most an era to works on the subject is the de Verifier les Dates, by the Benedictines of St. Maur.

CHRONOMETER; a time-piece of a peculiar construction, at present much employed by navigators in determining the longitude at sea. In general, chronometers are much larger than common watches, and are hung in gimbals, in boxes six or eight inches square; but there are also many pocket chronometers which, externally, have all the appearance of the better sort of pocket watches, and internally differ from these only in the construction of the balance. The balance and the pendulum are the principal agents in regulating the rate of going in a common watch, being to this what the pendulum is to a common clock; and this spring, in the former, like the pendulum in the latter, is subject to expansions and contractions under different degrees of heat and cold, which, of course, affect the speed or rate of the machine; and the methods of correcting this inaccuracy mark the difference between the watch and chronometer. These are very numerous. (See Horology.) All the lines of packets between the United States and Europe have chronometers. See Clockwork.

An instrument under the name of chronometer is also used for the accurate measurement of time. Two sorts have been invented for different purposes. The first supplies the motion of a conductor, or irregularly beats time. In this point, the reader may consult doctor Smith's Harmonies, p. 210. See Metronome.

CHRYALIS. See Papio. 

CHRYSSEIS. See Achiler. 

CHRYSPUPUS, a Stoic philosopher of Cilicia, distinguished for his skill in disputing. He was the principal opposer of the Epicureans, and is said to have written 700 different works, mostly of a dialectical character; but of these no complete work is extant. He died, at a great age, about 205 years. B. C.

CHYSOBERYL, (sometimes called eumophane, and, by the jewellers, Oriental chrysolite) was for a long time, only known as occurring in semi-transparent, rounded pieces, in the alluvial deposits of beds of rivers. Thus, in Brazil, it was found along with the diamond and topaz, and
with rubies and sapphires in Ceylon. Distinct crystals were afterwards brought from Siberia, but their original situation still remains unknown. It is now known to exist, in beautifully distinct crystals, at two places in the United States—at Hadham (Conn.) and Saratoga (Conn.). These crystals are found in cavities, in a granitic rock. The form of the crystal is, for the most part, a rectangular prism, and a low six-sided table (with re-entering angles) formed by the crossing of three prismatic crystals. Chrysoberyl scratches quartz; is of an olive-green colour, and transparency is low. The hardness is 8, that of quartz, 7.5. Its specific gravity is 3.754. It is composed of alumine 65.66, glaucine 16.00, silex 5.93, proteoxide of iron 4.73, and oxide of titanium 2.66.

**CHRYSOLITE**; a greenish, yellowish or brownish stone, sometimes transparent, sometimes only translucent, which possesses the power of double refraction in a high degree. It is composed of silex and magnesia. The chrysolite employed in the arts comes chiefly from the Levant, and is sometimes used in jewellery, but is not highly esteemed. Werner thinks that the yellow chrysolite of the ancients is the most transparent.

**CHRYSOLORAS, Emanual;** a distinguished Greek of Constantinople, born about the middle of the 14th century, the first who, in modern times, translated Greek literature into Italy. The emperor John Palæologus sent him, in 1391, to Italy and England, to ask for assistance against the Turks. Having thus become known in Italy, he returned there, about the year 1395, and was appointed professor of Greek literature at Florence. He remained about three years in Florence, where he collected around him a great number of scholars, of all ages and ranks, and excited universal enthusiasm as much by his dignity, and the grace of his voice, as by the extent of his learning. From his school proceeded Leonardo Bruno, Poggio, Francis Philibinus, and other distinguished revivers of classical studies. He afterwards taught with equal success in Milan, whence the Greek emperor Manuel, who, in 1400, had come to Italy, sent him to Pavia, Venice, and lastly to Rome. Pope Gregory XII. employed him in public affairs, and sent him, with others, to the council of Constance, where he died in 1415. He should not be confounded with his nephew and companion in Italy, John Chrysoloras.

**St. Gregory of Nazianzus;** a celebrated father of the church. born in Antioch, in the year 344. Secundus, his father, had the command of the imperial troops in Syria. In those times, eloquence was still the means of obtaining the highest honours in Greece. Chrysostom studied this art, with Libanius, the most famous orator of his time, and soon excelled his master. After having studied philosophy with Andragathius, he devoted himself to the Holy Scriptures, and determined upon quitting the world, and on consecrating his life to God in the deserts of Syria. At the age of 20, he conducted a legal case with extraordinary success; but he soon retired from public life, and, by fasting and penance, endeavoured to obtain the mastery of his passions. He remained three years in Antioch. He was united, by the ties of an intimate friendship, with Basil, Theodore afterwards bishop of Mopsuestia, and with Maximus, subsequently bishop of Seleucia. Theodore, being advanced to the episcopal dignity, Chrysostom wrote two beautiful exhortations, in order to recall him to his duty. The bishops of the provinces had determined on electing him or Basil his bishop; but Chrysostom fled, and concealed himself; consequently Basil was elected, who complained, however, much of his friend's withdrawal. Chrysostom defended himself in his beautiful work on the office of priests. He was then only 26 years old.

In 374, he retired to the anchorities who dwelt on the mountains in the vicinity of Antioch. He described the life which he led with them in the following manner. They lived in huts which they raised in the crevices of the rock, or at midnight. After having recited psalms and hymns in common, each, in his separate cell, is occupied in reading the Holy Scriptures, or in copying books. Then they proceed to church, and, after mass, return quietly to their habitations. They wear the garb of the ancients, and their punishment is bread and salt; some add oil to it, and the invalids vegetables. After meals, they rest a few moments, and then return to their usual occupations. They till the ground, fell wood, make baskets and clothes, and wash the feet of travellers. Their bed is a mat spread on the ground; their dress consists of skins, or cloths made of the hair of goats and camels. They go barefooted, have no property, and never pronounce the words *mine* and *thine*. Undisturbed peace dwells in their habitations, and a cheerfulness scarcely known in the world. After four years, Chrysostom quitted these hermitages to seek a still greater seclusion. He dwelt in a cavern, where he remained two years without lying down. His penance and wakefulness, together with the dampness of his abode, threw him into a severe illness, which forced him to return to Antioch (381).

In the same year he was appointed deacon by the bishop of Antioch, and, in 386, consecrated priest. He was chosen vicar by the same dignitary, and commissioned to preach the word of God to the people. Till then, the bishops only had instructed the people in the gospel. His eloquence attracted Jews, heathens, and heretics. He was, says Sozomenes, the ornament of his church, and of all Christendom, as fast, when the Emperor Arcadius determined, in 397, to place him in the Episcopal see of Constantinople. To prevent the inhabitants of Antioch from opposing his intentions, the Emperor caused him to be secretly conveyed to Constantinople, where Theophilus, patriarch of Alexandria, ordained him. He commenced his official labours by limiting the expenses of his house, founded and supported many hospitals, improved the morals of the clergy, and converted a number of heathens and heretics. He gave so generously to the poor, that he was universally called *John the almsgiver*. He conceived himself to attendances on the emperor, Heredit bishops of Rome, and provincial conferences to the Goths, to the Scythians, and to Persia and Palestine. His eloquence twice prevented an insurrection.

In 399, Chrysostom held a council in Constantinople, at which several Asiatic bishops were deposed as guilty of simony. Severin, Bishop of Gallata, in Syria, dared to attack Chrysostom from the pulpitt, and to stir up the people against him; but his charges were rejected as calumnies. Chrysostom had two dangerous enemies—the empress Eudoxia, whose injustice and extortion gave cause to many complaints, and Theophilus, patriarch of Alexandria, who was jealous of his influence. The latter assembled several bishops at Chalcodon, who were to investigate the complaints made against Chrysostom. But he refused to appear, alleging that they had acted against the laws of the church; and, on his part, assembled forty bishops at Constantinople. His enemies, however, pursued him for the utmost ruin. He was invited upon his removal, was determined upon, and sanctioned by Arcadius, who banished him from the country. Chrysostom quitted the city secretly, that he might not be prevented by his adherents, and purposely retiring to Bithynia; but the people threatened a revolt. In the following night, he gave general alarm. In this appearance, Arcadius recalled his orders, and Eudoxia herself invited Chry-
The people accompanied him triumphantly to the city, his enemies fled, and peace was restored, but only for a short time. A feast, attended with many heathen ceremonies, for the consecration of a statue, given him, was arranged and the church bishop, who publicly exclaimed against it; and Eudoxia, violently incensed, recalled the prelates devoted to her will, and Chrysostom was condemned, although forty bishops declared themselves in his favour. Arcadius ordered the soldiers to force him from the church, which was closed and stoned with blood. Pope Innocent I. and the emperor Honorius declared themselves in favour of Chrysostom, but Arcadius refused to assemble the council, on which the others insisted, and commanded Chrysostom peremptorily to retire to the place of his banishment. He obeyed, and was conveyed to Nice, in Bithynia (404). Soon after his departure, the church and the palace where the senate used to assemble became a prey to the flames. Many works of art were lost in this conflagration, which the emperor attributed to the friends of Chrysostom. The Isaurians and Huns laid waste the empire. Chrysostom retired to Europe, and was eventually declared the invincible. Eudoxia died soon after Chrysostom's banishment, after having fixed upon the little Armenian town Cucusus, in the wilds of Taurus, for his abode. Exsated by sickness, deprivations, and the fatigues of his journey, he arrived there, and continued his spiritual labours. He went missionary to Persia and Phoenicia, and wrote seventeen letters to Olympia, all of which are moral dissertations. He likewise addressed to her his work entitled, "None can injure him who does not injure himself." All Christendom beheld the pious sufferer with love and admiration; at which the emperor, exasperated, commanded him to be conveyed to the shores of the Pontus Euxinus, to the town of Pityont, situated on its most distant borders. The officers who had him in charge obliged the old man to perform his journey on foot, with his head uncovered, in the burning heat of the sun; but he fell a prey to exhaustion. In Comana, in Pontus, he was brought to the oratory of the martyr St Basil. He put on white garments, received the eucharist, uttered a fervent prayer, which he closed, as usual, with the words "Praise be to God for all things," crossed himself, and expired (407), sixty-three years old. His body was interred at the site of St. Basil, but, in consequence of the latter being solemnly to Constantinople, and there interred in the church of the apostles, in the sepulchre of the emperor. At a later period, his remains were placed in the Vatican at Rome. The Greek church celebrates his feast on the 13th of November, the Roman on the 29th of January.

The name of Chrysostom (golden-mouthed) was assigned to him, after his death, to express the eloquence which he possessed in so much greater a degree than the other fathers of the church. He never repays himself, and is always original. The vivacity and power of his imagination, the force of his logic, his power of arousing the passions, the beauty and accuracy of his comparisons, the neatness and purity of his style, his clearness and sublimity, place him on a level with the most celebrated Greek authors; the Christian Church has not a more accomplished orator. The most accurate Greek edition of his works is that of Henry Saville (1816, 9 vols. fol.); the most complete Greek and Latin, is that of Montfaucon (Paris, 13 vols., ed. Professor Neander, at Berlin, has written a biography of this father of the Church, or rather a history of him and his time, but so far as Basle, his highly esteemed work, full of the important results of the deep researches of his learned author.

CHUBB, Thomas; a writer in humble life, who obtained great temporary distinction as a controversialist. He was born at East Hadham, near Salisbury, and was instructed only in reading, writing, and accounts. He was apprenticed to a glover, but, at length, became journeyman to one Draper, who employed his leisure in the acquisition of knowledge, from the best English books which he could procure. In 1715, he published The Supremacy of the Father asserted, &c., the perspicuity and argumentative skill of which obtained for it much notice. Of course, a production possessing a part of the merits of the cloister, not pass without reply, and a controversial warfare commenced, which lasted as long as his life. In 1739, he offered to the world his thoughts on a variety of topics, moral and theological, in thirty-four tracts, collected in a 4to volume, of which book Pope, in a letter to Gay, speaks with great respect. Various publications followed, e.g., A Discourse concerning Reason, The true Gospel of Jesus Christ asserted, Inquiry into the Ground and Foundation of Religion, &c., which manifest his disposition to question many points of orthodoxy. He, however, adhered to the tenets of the establishment. In 1754, he was appointed an instructor to mankind, and regularly attended public worship at his parish church until his death. Chubb seems never to have sought to emerge from the humble condition in which fortune had placed him, although he met with some powerful patrons. He died at East Hadham, in February, 1747, aged 80 years.

CHULUCANAS; the name of an ancient ruined city of Peru, on the ridge of the Cordilleras, at the height of 8943 feet above the level of the sea, and on the Paramo of Chulucanas, between the Indian villages of Ayavaca and Guancatamba. Humboldt says, that the great causey of the Incas, lined with freestone—one of the most useful and stupendous works ever executed by man, and which may be compared with the finest Roman roads—is still in good preservation, between Chulucanas, Guamaní and Saguine; and Francisco Corea found it perfect in two other places, and states that it yields in nothing to the most magnificent European road. It runs from Quito, through Cuzco, to La Plata, or from the equator to 20° of S. latitude. On the summit of the Andes, wherever this road passes, ruins of great buildings are everywhere seen. Humboldt counted nine in less than half a degree of latitude; and Pedro de Cleen de Lenczewski, in 1641, described seven which he saw in the province of Los Canares. They are now called by the Peruvians, palacios of the Incas, but were probably only fortifications to secure the conquests of Quito and Chile.

CHUQUISACA, or LA PLATA; a city of South America, and capital of Bolivia; lat. 12° 40' S.; lon. 69° 46' W.; population, 18,000. The inhabitants consist of Indians and Spaniards. It stands on a plain, enveloped by eminences, which defend it from all winds. The temperature of the air, in summer, is very mild; nor is there any considerable difference throughout the year. The houses have one story besides the ground floor. They are covered with tiles, and are very roomy and convenient, with delightful gardens, planted with European fruit-trees; but water is so scarce as hardly to supply the necessary purposes of life, and is brought from the several public fountains dispersed in the city. The houses have the name of La Plata from its being built near silver mines. It was erected into a bishopric in 1551, the place having then the title of city, and, in 1608, was raised to an archbishopric. The cathedral is large, of good architecture, and finely adorned with paintings and gilding; it is also a university, dedicated to St Francis Xavier, the chairs of which are filled indifferently with secular
church.—Church. 229

clergy or laymen; but the rector was formerly always
a Jesuit.

church. See Coire.

Church is, in the widest sense of the word, the
collective body of those who declare themselves to be
followers of Christ. In this sense, the founder of
the church is Jesus Christ himself; for, though his fol-
lowers did not separate themselves from the communi-
ty of the synagogue until after his death, yet he had,
by preaching a doctrine essentially different from
Judaism, and by collecting disciples and friends
around him, laid the foundation of a new religious
body. Moreover, he ordered his disciples, at the time
of his departure from the world, to go forth and
preach the gospel through the earth. In the first six
centuries, two religious ceremonies, by which his followers
were to be distinguished. These circumstances, many
have thought, must be taken as indicating his inten-
tion to found a church. Judaism, too, may be con-
sidered as having paved the way for the establishment
of a Christian church or organized religious commu-

But the word church is not so often taken in the
sense just described as in a much narrower one, in
which it signifies a body of Christians, which differs
in doctrines, constitution, and usages from the remain-
ing bodies. From the 12th century, the Catholic and
Orthodox Christians were separated from the Latin Christians,
or Christians of the West; and thus originated the
difference between the Greek Catholic church, whose
chief is the patriarch of Constantinople, and the
Roman Catholic church, whose chief is the Romish
bishop, or the pope. In the 16th century, the re-
formation caused another division in the Western
church, one part of its members seceding from the
government of the Romish see, and adopting different
doctrines from those professed by the rest. Thus
arose the difference between the Catholic and Pro-
testant churches. It might reasonably be asked,
whether some Protestant sects do not differ from each
other as much as from the Catholic church; for in-
stance, the Quakers from the English Episcopal
church. But, for the purpose of this article, it is
sufficient that, in the common use of language, they
are all called Protestants. There is, moreover, one
point which distinguishes all Protestant sects, or the
whole Protestant church, from the two Catholic ones,
namely, that the Protestants declare the Bible their
only ground of belief, and permit it to be freely read
and examined into.

In a third sense, the word church is sometimes used
for the Christian community of a country, e.g.,
the French church, Italian church, &c.

In a fourth sense, this word signifies the building
in which Christians assemble for the worship of God.
The Christians of the 1st century worshipped in pri-

date houses, or in the open air, in remote places,
because they were not acknowledged by the state,
and were often persecuted. It was not till the 3rd
century, that they could venture to give more pub-
licity to their service, and to build churches. Since
the 4th century, the churches have become large and
magnificent edifices. Such were erected by Con-
stantine and, more particularly, by Theodosius and
Justinian. Many heathen temples, also were chang-
ed into Christian churches. In the middle ages,
many splendid edifices were erected for the perform-
ance of divine service, which, in loftiness and gran-
deur, were never surpassed. Some of the most fa-
mous are: the basilicas at St Peter's, at Rome;
Notre Dame, at Paris; St Stephen's, at Vienna;
the church of Isaac, at St Petersburg; the musters at
Strasbourg and Cologne; and St Paul's church, in
London. (See Cathedrals.) Excepting the last
mentioned edifice, Protestantism has produced no

very splendid church. In fact, the Protestants, in
the construction of their places of worship, seem to
have had a particular objection to the accommoda-
tion of the hearers, particularly in Britain and Amer-

ica. This fact is easily explained from the circum-
stance that they do not celebrate, in their churches,
divine service, in the sense in which the Catholics
use the phrase, but chiefly meet to hear the Bible ex-
plained to them, and to be instructed in their duties;
on account of which the churches of a large portion
of Protestants are often, or even usually called meet-

ing-houses, and their sermons discourses.

In New England, the word church is used to de-
note the members of a religious society, who have
made a public profession of the Christian religion,
in contradistinction to the other individuals belonging
to the same religious society, who have not made
such a profession.

There are various derivations of the word church,
which, of course, has the same origin with the Ger-
man Kirche, and the Scottish Kirk. Some derive it
from the Greek κυριακή, from κύριος, lord, a house
appropriated for the service of the Lord. Others
think the German word is a translation of the Latin
cella, in which case it would be derived from κυριακή,
to elect, and imply the idea of the elect people of
God.

CHURCH OF ENGLAND. See England, Church of.

CHURCH OF SCOTLAND. See Scotland, Church of.

CHURCH, GREEK. See Greek Church.

CHURCH, LATIN, OR WESTERN. See Roman Cats-
olic Church.

CHURCH, ROMAN CATHOLIC. See Roman
Catholic Church.

CHURCH, FATHERS OF THE (patres ecclesiae);
teachers and writers of the ancient church, who
brou-
gished after the time of the apostles and apostolic


Pathers (the immediate disciples of the apostles),
from the second to the sixth century. This name is also
sometimes given to the teachers and writers of the
following centuries, down to the schoolmen, who be-
gin with the twelfth century. A large number of
their writings have been preserved, and have been
published by modern scholars. The knowledge of
their lives and their works constitutes a particular
science, called patrologia. The fathers of the church
introduced the Greek and Roman learning into Christi-

an treats, and many of them were as able
as they were learned. Most of the earlier fathers
of the church, before their conversion to Christianity,
were rhetoricians or advocates, which accounts for
several peculiarities, as well in their method of dispu-
ting as in their style. The object of their writings is
to defend the Christian religion and the Christian
community, refute the Jews, pagans, and heretics, ex-
plain the Holy Scriptures, set forth the doctrines of
their faith, and the rules of their morality, also the his-
tory of Christianity and the Christian church, and impart
instruction to the people. The contents of these
writings, therefore, are apologetic, exegetic, dogmati-
cal, moral, historical, polemical, or ascetical. The fa-
thers of the church are divided into two chief classes,
Latin and Greek. The most celebrated among the
Greek fathers are Clement of Alexandria, the first who
philosophized on Christianity; Origen, distinguished
for his homilies and his apologetic and exegetic writ-
ings; Eusebius, who wrote the first history of Chris-
tianity; Athanasius, who had a decided influence upon
the formation of the Christian dogmas; and Chrysos-
tom, the most admired of the ancient Christian orators.
The most distinguished among the Latin fathers are
Tertullian, a writer of great originality; Augustine, a
man of a peculiar and vehement mind, the oracle of the


Western church; Ambrose, distinguished as a Christian orator; and Jerome, the learned and pious, in explaining the Holy Scriptures, whose efforts, however, contributed much to awaken in the West an admiration for the remuneration of the world and the celibacy of priests. The fathers of the church are now very much studied by the German Protestants, and many parts of their works have been translated. We do not hesitate to say that they are too little studied in Britain, containing, as they do great stores of knowledge relating to the early history of Christianity, and elucidating its character.

The work of doctor Neander, Denkwürdigkeiten aus der Geschichte des christentums und des christlichen Lebens (1794), in which great portions of the writings of the fathers, affords abundant evidence of their value.

**CHURCH MUSIC.** See Music, Sacred.

**CHURCH, STATES OF THE:** the pope's dominions in Italy. They originated with the grant of Pepin, king of the Franks, in 754, which bestowed on Stephen II., bishop of Rome, some districts, which the Lombards, against whom Stephen II. solicited Pepin's assistance, had taken from the exarchate. Charlemagne confirmed this grant in 774, and, in return, received the title of Roman emperor from Leo III., in 800. The popes of the line of Louis and his successors, Charles, begins with Leo IV., and Henry II., the genuineness of which the papal chamberlain, Marino Marini, has lately (Rome, 1822) endeavoured to establish, are the only proofs of these grants of Pepin and Charlemagne to the popes. The temporal power of the popes over the States of the Church, or the dominion of St Peter, is founded on these documents, of which there only exists a copy, received of the papal chamberlin Cinzio, toward the end of the 13th century. The wise policy of the popes, in conferring favours on the Normans in Lower Italy, secured to them, in these vassals, staunch protectors of the holy see. The structure of the papal power was fully completed in 1075, under Gregory VII. The crusades contributed more to promote the views of the popes in the commencement than in the sequel. The dominions of Mathilda (q. v.) were added to the States of the Church, and the popes maintained possession of them against all the claims of the German emperors. The temporal chair removed, at various periods, the neighbour belonging to the house of Hohenstaufen, by raising the house of Anjou to the throne of Naples, in the year 1265. The tyranny of the heads of the church, added to their corrupt life, at last provoked the Romans to opposition, and the popes were obliged to temporize. The pope from 1265 to 1303, Urban IV., whom Clement VI. bought of Joanna, queen of Naples and countess of Provence, in 1348. As the choice of the popes made under the influence of the king of France seldom or never obtained the assent of the Romans and Germans, antipopes were elected by the latter, and the welfare of the church, as well as of the state, suffered by their mutual hostilities. The return of the popes to Rome was favourable to the aggrandizement of their power, although the German councils often expressed themselves in bold and independent language. Julius II. added Bologna to the papal dominions in 1513, and Ancona in 1532. The Venetians were obliged to cede Ravenna. Ferrara was wrested from Modena in 1598, and Urbino was bequeathed to the papal chair, in 1626, by its last duke, Francis Maria, of the house of Rover. At the same time, the popes lost a great part of their temporal and spiritual influence, to the diminution of which the rapid progress of the reformation from the year 1517; greatly contributed. The wise administration of Sixtus V. restored internal order towards the end of the 16th century; but the extravagance and family partialities of his successors created fresh disorder. Clement XIV. was forced to abolish the order of the Jesuits, in 1773. Subsequently, Naples renounced her feudal obligations on the Tyrrhenian coast, and even the journey of Pius VI. to Vienna, in 1782 could not prevent the great changes which Joseph II. was making in the ecclesiastical affairs of his kingdom. After the successes of the French in Italy, the pope was forced to cede Tolentino, Feb. 13, 1797, to cede Avignon to France, and Rome, magnus, Bologna, and Ferrara to the Cisalpine republic. An insurrection in Rome against the French, Dec. 28, 1797, caused the occupation of the city, Feb. 10, 1798, and the annexation of the States of the Church to the French republic, when the pope died in France.

The victories of the Russians and Austrians in Italy favoured the election of Pope Pius VII., March 14, 1800, who, under the protection of Austrian troops, took possession of Rome. By the concordat concluded, in 1801, with the first consul of the French republic, the pope again lost a great part of his temporal power. In 1807, the Holy father was urged to introduce the Code Napoleon, and to declare war against Britain. He refused; and, on the 3d of April, France was declared to be at war with the pope, and the provinces of Ancona, Urbino, Macerata, and Cremerno were added to the kingdom of Italy. In 1815, Pius VII. took possession of the territories of the papal states. The Apennines were all that remained to the pope. (See the correspondence of Pius VII. with Napoleon, in Stand-\'in's Historical Archives of the States of the Church, 1 vol., 1815.) Feb. 2, 1808, a French corps of 8000 men entered Rome; the remainder of the papal states were added to France, and a pension of 2,000,000 of francs settled on the pope, whose ecclesiastical power was to continue. The decree of May 17, 1809, at length put an end to the ecclesiastical state. The pope was detained in France until the events of 1814 again permitted him to take possession of his states. See Pius VII.

The States of the Church (Stato della Chiesa)—17,185 square miles, with 2,400,000 inhabitants, occupying ninety towns, 212 market-places, and 3,500 villages—are situated in the centre of Italy, between Lombardy, Tuscany, Naples, and the Tuscan and Adriatic seas. The Apennines (which include the summits of the Apennine mountains, 2,460,000, all the peaks in 7,872 ft., high) traverse the country from N.W. to S.E. The rivers are small, with the exception of the Po (which touches the northern boundary, and forms the marshes of Comacchio) and its branches. The most considerable is the Tiber, navigable from Pergola. Pope Leo X., (Genoese, 1715, 1811) and Pius VIII. (cardinal Castiglione) succeeded him. The revenue is estimated at twelve millions, and the national debt at 200 millions of florins. There is a standing army of 9,000 men. The navy consists of two frigates and a few small vessels. The emperor of Austria has the right to garrison the capital of Ferrara. Internal tranquillity is not yet restored. In 1816 the States of the Church, with the exception of Rome, Tivoli, and Subiaco, which are under the immediate administration of the pope, were divided into seventeen delegations, which, when under the government of cardinals, are called regations. Protestants, Greeks, and Jews are tolerated. The religious orders and the Jesuits have been re-established, as was also, in 1826, the university of Urbino. This fertile country is not very well governed. It produces all kinds of corn, the finest fruits, such as oranges, lemons, figs, dates, &c.; a great quantity of oil, good wines, and mulberries, &c. The hills are covered with thick forests; the finest marble is found here; and there are, likewise, traces of various metals; but these advantages are not sufficiently estimated. Mining is not known; agriculture is neglected; but the
treading of cattle and sheep is more carefully attended to. Manufactures are limited to Rome, Bologna, Ancona, and Norcia. In 1824, 3630 vessels entered the five ports, Rome, Civita Vecchia, Anzio, Termino, and Ancona, of which 1032 belonged to the principal countries of Europe. The fair of Sinigaglia is much frequented.

CHURCH, Benjamin, who distinguished himself in the Indian wars of New England, was born at Duxbury, Massachusetts, in 1639. He was one of the most active and indefatigable opponents of the Indian king Philip, and was once the near relation of his life, while in pursuit of him. He commanded the party which killed Philip, in August, 1676. In 1704, the spirit of the old warrior was roused by the burning of Deerfield, and he immediately rode 70 miles on horseback, to tender his services to governor Dudley. The offer being accepted, he undertook an expedition against the eastern shore of New England, and inflicted considerable injury upon the French and Indians. The rupture of a blood-vessel, occasioned by a fall from his horse, put an end to his life, Jan. 17, 1718, in the 78th year of his age. He published a narrative of his services in 1686; and left a character of great integrity and piety.

CHURCHILL, Charles, a poet and satirist of great temporary fame, was the son of the curate of St John's, Westminster, in which parish he was born, in 1731. He was educated at Westminster school, but made so bad a use of his time, that he was refused admission at the university of Oxford, from his want of classical knowledge. He accordingly returned to school, but soon closed his education by an imprudent marriage with a young lady in the neighbourhood. He, however, studied in private, and was at length admitted into holy orders by the bishop of London, and received a Welsh curacy of £30 a year. In order to increase this scanty income, he engaged in the sale of cider, but, being little adapted for trade, soon became insolvent. Returning to London, on the death of his father, he obtained his curacy; but, owing to the smallness of his income, and, most likely, to his fondness for theatrical amusements and the company of the wits of the day, he was soon overwhelmed with debt. A composition with his creditors being effectuated by the humane mediation of doctor Lloyd, the second master of Westminster school, he began to think of seriously exercising the talents which he was conscious he did possess, at first by a play, called the Rosciad, a poem, published first in March, 1761, without a name, he examined the excellences and defects of the actors in the two houses in London, with equal spirit, judgment and vivacity. The language and versification too, although sometimes careless and unequal, were far superior to the ordinary strain of current poetry in strength and energy, and the entire production bore the stamp of no common talents. The celebrity of this poem was very great, and the players very weakly increased it by the impatience with which they resent their censures. Pamphlets abounded on both sides of the question; and the author justified himself in a new satire, entitled the Apology, in which the profession of a player was treated with humorous contempt. These works made him many enemies, for which he cared very little, as they brought him the far more dangerous intimacy and applause of the men of wit and pleasure about the town. A course of dissipation and intemperance followed, which excited much animadversion, and elicited from him his next satire, entitled Night. The Cock-lane impostor, also, formed a topic for his muse, and he hesitated not to satirize doctor Johnson, in a piece entitled the Gobemouch, the next fell in with the national ill humour against the Scots, which originated in the political occurrences of the commencement of the reign of George III. By his Prophecy of Famine, a Scotch pastoral, being a most acrimonious, yet strongly-drawn caricature of Scottish disadvantages. This poem was received with great avidity, and he immediately took that rank as a political satirist, which he long maintained, at the expense of calumny and decorum, and to the deterioration of both his poetical and moral character. Of the latter, indeed, he now became utterly careless; and, dropping the clerical habit, he parted from his wife, and even distinguished himself in the fashionable art of seduction. But now a party writer by profession, he cultivated an acquaintance with Mr Wilkes, and employed his pen assiduously in the cause of opposition, and for his own emolument. Besides the works already mentioned, he published, within three or four years, an Epistle to Hogarth, the Conference, the Duelist, the Author, Gotham, the Candidate, the Times, Independence, and the Journey. Most of these pieces contain detached pictures, which display a vigorous fancy and forcible sentiments, expressed with great occasional energy. In versification, Churchill avowedly imitated Dryden; and when he writes with care, he occasionally exemplifies his favourite model; but he wrote too hastily, not to injure his composition by prosaic lines, and he frequently passed off his carelessness for design. Towards the end of the year 1764, he was seized with a fever, and died on the 4th of November, the same year, at the age of thirty-four.

The following sporting, yet just and vigorous estimate of Churchill, we extract from Blackwood's magazine for June, 1828. "—Churchill was a poor, low, unprincipled, vicious, coarse creature, with smartness that sometimes was almost strength; and what to us must in such a person always be a mystery, he had a command over the English language, as far as his mind enabled him to get in it, which made everything he said tell, far beyond its native worth or power, and has secured him no contemptible place among English satirists. His style certainly is pure and idiomatic. He was the terror of pimps and players, and his ghost probably haunted Garrick, although it was hardly worth its while to come up for such a purpose. Let a thing be but well executed,—poor, paltry, and pitiful, as in its own nature it may be,—and it lasts. It is so with the Rosciad. The splendour of that farthing candle burned bright during Garrick's life,—not only illuminating the theatre, but a little further, and long after his decease, it continued to glimmer away very respectfully; and we have heard elderly gentlemen within these twenty years, (one of them lived in Ludlow) belonging to the school whose day was just wearing out, quote the Rosciad by scores; lines in it are still recognized when they meet the ear or the eye; and possibly the entire affair may never be, from beginning to end, utterly forgotten as long as there are theatres.

"That Davies has a very pretty wife," was reckoned one of the severest and happiest lines ever written, and "ex un disco omnes." Oh dear! but a little wit goes a long way in this stupid world. Then Churchill had much rancour, and a large spleen, which is always in an inverse ratio to the size of the heart. This gave him spirit for a spurt. But he had no bottom. He was also a coward; and, like a coward, liked to brighten the feeble into fits of fear. Had Hogarth, instead of caricaturing him, drawn him by a right-handed face, or lunged in the kidneys,—John Bee is our authority for saying that Hogarth could spar a bit,—Churchill had been cowed, and hit his nail and pen in insolent malice. Why Dr Johnson, whom he libelled as Pomposo, did not break his bones, we cannot conjecture; perhaps because the scape was a parson: and Samuel had such a respect
for the Church, that he would not even inflict personal clausment on a blackguard who had once preached
from an Episcopalian pulpit. Yet we believe he could be a
little carried away. Churchill and his lady were probably not
bore carrying the threat into execution, because he had attacked
Scotland. Some of the lines in his Pro-
phesy of famine, about the poverty of Scotland, are
well turned; but the satire is common-place; and
the first pleasure of surprise arising from the
image—images from natural history always please—

"Where half-starved spiders feed on half-starved flies,"
it is felt that such grotesque exaggerations are easy,
for once pitch the key, and all the rest of the mon-
tonous strain, called satire, follows of course.
Severe as was the state of starvation in which Scotland then
pined, the poorest cotter that dug in ditch was better,
because more honestly fed, on meal and water, with
no milk, and little salt, than this hungry knave bick-
ing his bill in taverns—to day feasting on ortolans,
yesterday tearing tripe, and to-morrow evening an
empty tureen; but still, on Saturday and Sunday
alike, no better than a thief. Scotland must have
been very stupid in those days, not to have settled
the hash of such a scribbler—for, after all, he was not
much better; and had he lived now, we would have
raged him in a single number, and made him for
life a dummy. Happy son of his father, andloff at 16
for intelligence, so why let him play a similar
part—put himself into Churchill's shoes—publish a
satire on Scotland—and await a month or six weeks
for the result. We will so scourage his posteriors with
the original of the pretty picture of the Scotch thistle
on the cover of the magazine, that he shall not be able
to take his seat among the satirists, though with a
seven-fold shield of diaculum-plaster. Tarring and
feathering would be a joke to our pastime—to have
no resting-place for the sole of your foot must be very
wearisome indeed; but oh! worse, many million
minutes, to have chairs, and soffs, and ottomans, pressed
upon you in all parties, in parlour and dining-room,
and yet not to dare to sit down for one moment, in
fear of perishing of prickles! The very corpse of such
a culprit would need to be laid out on its face. Such,
as a satirist, and he was nothing else, was Churchill."

CHURCHILL. Joiny, duke of Marlborough, a
distinguished and statesman, and the son of
Sir Winston Churchill, and was born at Ashe, in
Devonshire, in 1650. He received his education at
home, under a clergyman, from whom he derived little
instruct; but imbibed a strong attachment for
the church of England. At the age of twelve, he
was taken to court, and became page to the duke of
York, and, at sixteen, received from him a pair of
colours. The first engagement at which he was
present was the siege of Tangier, which he seems to have
decided him in his choice of a profession. On his return,
he remained for some time about the court, and,
boosting being laudable, was a great favourite with the
ladies, and became a handsome youth. In Cleveland, in particular, was much attached to him,
and presented him with £5,000, with which he pur-
chased a life annuity. In 1672, he accompanied the
duke of Monmouth, as captain of grenadiers, when
the duke went with a body of auxiliaries to the con-
centration, to assist the French against the Dutch. He
there found under the great Turenne, with whom he went
by the name of the handsame Englishman.
At the siege of Maestricht, he distinguished himself so
highly as to obtain the public thanks of the king of
France. On his return to England, he was made
lieutenant-colonel; also gentleman of the bedchamber
and master of the robes to the duke of York,
whom, in 1679, he accompanied to the Netherlands,
and afterwards, in 1680, to Scotland, where he was
much noticed by those who wished to pay their court
to the duke. In 1680, he had a regiment of dragoons
presented to him, and married Miss Sarah Jennings,
and a lady of beauty and fashion, who was the favor-
ity of the prince, afterwards Queen Anne. By this
union he materially strengthened his interest at court
his lady proving a valuable helpermate in all his
schemes for advancement. In 1682, he was ship-
recked, with the duke of York, in their passage to
Scotland, but managed to save the Duke and the duchess,
who returned to the duke's regard, who used every effort to save
him, while many persons of quality perished. In
the same year, through the interest of his master, he
obtained the title of baron of Eyemouth, and a
colony in the guards. On the accession of James II., he was
sent ambassador to France, and, soon after his return,
was created baron Churchill of Sandridge, and,
the same year, suppressed the rebellion of the duke
of Monmouth. During the remainder of this reign,
he acted with great prudence and a strict attention to
his own interest, and, on the arrival of the prince
of Orange, joined him at Aixmantes, with the duke
of Graham, and some other officers. His conduct in
this affair has been severely censured as ungrateful;
but his own apology (and there is no reason to dis-
pute it) was his attachment to the Protestant cause,
and the dictates of his conscience. On the accession
of William and Mary, in 1689, he was appointed for
his action in 1682, by the earldom of Marlborough,
and appointed commander-in-chief of the English
army in the Low Countries. The following year, he
served in Ireland, where he reduced Cork, and other
places. In 1699, he experienced a great reverse in
his sudden dismissal from all his employments, fol-
lowed by his commitment to the Tower for the charge
of high treason. He soon obtained his release; but
the evidence against him was never legally produced,
and the author of the accusations, then a prisoner,
being convicted of perjury, he was entirely acquitted.
By the publication of Mr Macpherson's state-papers,
however, it appears that the suspicions were not alto-
gether without foundation, and that a correspondence
probably existed between the earl of Marlborough and
Lord Godolphin, having for its object the resto-
ration of the banished king. However this may have
been, during the life of queen Mary, the earl seems
to have retired to his country seat, Chequers, and his
cousins, exerted great influence over the princess
Anne, which circumstance, perhaps, prevented his
intrigues from being strictly examined.
On the death of queen Mary, he was made a privy
councillor, and appointed governor to the young
prince of Orange; and, in 1700, was created
by King William commander-in-chief of the English
forces in Holland, and also ambassador plenipotenti-
ary to the States-General. Still greater honors
awaited him on the accession of queen Anne, in
1702, when he was created captain-general of all the
forces at home and abroad, and sent plenipotentiary
to the Hague, where he maintained a court there,
carried on by the States. In the campaign of the same year,
he took several strong towns, among which was Lieve,
for which he received the thanks of both houses, and
was created duke of Marlborough, with a pension
granted, by the queen, for his life; and, moreover,
carried a motion for the augmentation of the forces
at home, and abroad, by taking 10,000 foreign soldiers into
British pay. The famous battle of Hochstadt, or Blenheim,
was fought on the 2d of August, 1704, between the
allied army, commanded by the duke of Marlborough
and prince Eugene, and the French and Bavarians,
headed by marshal Tallard and the elector of Bav-
aria. The victory was complete; Tallard was taken
prisoner, and the electorate of Bavaria became the
prize of the conquerors. The nation testified its gre-
tude to the duke by the gifts of the honour of Woodstock and hundred of Wotton, and erected a palace for him, one of the finest seats in the kingdom. Medals were struck in honour of the event, which Addison also celebrated in his poem of the Campaign. After the next campaign, which was inactive, he visited the Duke of York, and his brother, his Lordship, the Duke of Marlborough, and his conciliating manner, great prudence, and perfect command of himself, contributed to render him as successful in his negotiations as in the field. The new emperor, Joseph, invested him with the title of prince of the empire, which was accompanied by a prominent seat in the Austrian Ministry. On the victory of Ramillies, a bill was passed to settle his honours upon the male and female issue of his daughters. He next visited the German courts in the alliance, and waited upon Charles XII. of Sweden, then in Saxony. His reception was cold and reserved, yet he had sufficient penetration to perceive that the king would not interfere with the allied powers. In the campaign of 1707, his antagonist was the famous duke de Vendome, over whom he gained no advantage. He was also disappointed in his endeavours to raise the confederacy into more activity. On his return, he found the queen out of favour with the queen; and though he was received with the usual attentions, yet it was evident his popularity at court was on the decline. In 1708, in conjunction with prince Eugene, he gained the battle of Oudenard, and pushed the victory so far, that the French king entered into a negotiation for peace, which was of no effect. In 1709, he defeated marshal Villars at Malplaquet; but this action was attended with great slaughter on both sides, the allies losing 18,000 men, which loss was but ill repaid by the capture of Mons. The prevalence of the tories in England rendered the French war unpopular, and the conciliating and prosecution of Sacheverell created a sensation unfavourable to its continuance. On the next visit of the duke to England, he found that the duchess, by her great arrogance, had so disgusted the queen that a total breach had ensued; and though he was still received with public honours, he could by no means boast of his former influence. Early in 1710, he returned to the army, and with prince Eugene, gained another victory over Villars, and took the towns of Donay, Aire, and St Venant. During his absence, a new ministry was chosen, composed of men hostile to him and his views, and, on his return, he was informed that he was required to resign; but he would not do, and dissembling his intentions, again repaired to the field, and signalized himself by the capture of Bouchain. Finding that he would not resign his command, it was taken from him; and a prosecution was even commenced against him for applying the public money to private purposes. Distrusted by this gross ingratitude, he repaired to the Low Countries, where he was received with the greatest honour. He returned a short time before the queen's death, and, on the accession of George I., was restored to favour and reinstated in the supreme military command. The last public transaction in which he took a part was the defeat of the rebellion, in 1715, in which his advice was taken. Retiring from all public employments, his mental faculties gradually decayed, and falling into second childhood, he died at Windsor Lodge, in 1722, in the 73d year of his age, leaving four daughters, who married into the nobility. He was rather a man of solid sense than of genius, and was gifted with great coolness and self-possession. He was not even moderately conversant in literature, but as well versed in all country arts, that he always acquitted himself with honour in the delicate negotiations in which he was employed. His proficiency in the graces is said by lord Chesterfield to have been the chief cause of these successes. But his fame rests chiefly upon his military talents, of which he gave most illustrious proofs. As regards his morals, he seems to have been much gilded by interest; and it does not appear that he ever ceased to be a favorite with his imputed vices. His restoration to the place of his ambition; yet it does not appear that he ever made an unjust use of his ascendancy. His political enemy, the celebrated earl of Peterborough, pronounced his eulogy in these words: "He was so great a man that I have forgotten his faults"—a sentence which, upon the whole, tolerably well conveys the judgment of posterity. His duchess has been almost equally celebrated for her boundless ambition and avarice. She died in 1744, having amassed immense riches. She presented Mr Hooke with £5000 to write a book, entitled An Account of the Conduct of the Dowager Duchess of Marlborough. She also gave Lord Mallet to write the life of the duke! In 1788, a selection of curious papers was published by lord Hailes, under the title of The Opinions of Sarah Duchess of Marlborough. The duchess was the Atossa in Pope's Satire on Women.

CHURCH-YARD. See Burying-Places and Cemetery.

CHYLE. See Chyume.

CHYME, in animal economy. In the process of digestion, the food is subjected to a temperature usually above 90° of Fahrenheit. It is mixed with the gastric juice, a liquor secreted by the glands of the stomach, and is made to undergo a moderate and alternate pressure, by the contraction of the stomach itself. It is thus converted into a soft, uniform mass, of a grayish colour, in which the previous texture or nature of the aliment can be no longer distinguished. The chyme, as this pulpy mass into which the food in the stomach is resolved is termed, passes by the pylorus into the intestinal canal, where it is mixed with the pancreatic juice and the bile, and is still exposed to the same temperature and alternate pressure. The thinner parts of it are absorbed by the slender tubes termed the lacteals. The liquor thus absorbed is of a white color, and enters the blood-vessels of the mesentery, and is at length conveyed by the thoracic duct in the blood. This part of the process is termed chylification, and the white liquor thus formed, chyle. It is an opaque, milky fluid, mild to the taste. By standing for some time, one part of it congeals; another portion is congealed by heat. The chyle, after mixing with the lymph conveyed by the absorbent vessels, is received into the blood, which has returned from the extreme vessels, before this passes to the heart. All traces of it are very soon lost in the blood, as it mixes perfectly with that fluid. It is probably certain that its nature is not immediately completely altered. The blood passing from the heart is conveyed to the lungs, where it circulates over a very extensive surface presented to the atmospheric air, with the intervention of a very thin membrane, which does not prevent their mutual action. During this circulation, the blood loses the considerable quantity of carbon, part of which, it is probable, is derived from the imperfectly assimilated chyle, as this originating in part from vegetable matter, must contain carbon in larger proportion than even the blood itself.

CIBBER, Colley, a dramatic writer and actor, was born in London, 1671, served under the duke of
CIBBER—CICERO.

Devonshire, in the revolution which placed the prince of Orange on the throne, and then made his appearance at Drury-lane theatre. He was not at first very successful; but at length, the talent which he displayed, the character of Cibber being that of the Quaker Bache or Bachelor of Congress, brought him into notice. In 1685, appeared his first comedy, Love's last Shift, which met with great success. In this piece, he played the part of Novelly, a fashionablelop. This character is found in most of his pieces, and in the representation the world. His dramatic celebrity is founded chiefly on the Careless Husband, which even obtained the approbation of his declared enemy, Pope. This piece is, indeed, without novelty in the characters, and without invention in the plot, but it is a good picture of the manners and fashions of the time. His comedy, the Nourjor, an imitation of Tartuffe, adapted to English manners, appeared in 1717, and was directed against the Jacobites. It was very successful, and procured him a pension from the court, but drew upon him many enemies, whose number he increased by his conduct as a member of the literary public. In 1711, his appointment as poet-laureate, 1730, gave full play to the raillery of his enemies. Cibber had the good sense to join in the laugh against his own verses, and thus to disarm them. Pope, however, did not cease to ridicule him on every opportunity. In 1750, he quitting the stage, published the Apology for the Life of Colley Cibber, &c., written with spirit, and candour, and containing many entertaining anecdotes and judicious remarks. He died in 1757.

CIBBER, THEOPHILUS, son of the subject of the preceding article, was born in 1703, and embraced the profession of an actor. With respect to personal appearance, nature had been less favourable to him than to his father; but his intelligence and vivacity in his performances compensated for his deficiencies, and he would have been successful on the stage if his extravagance had not continually involved him in difficulties. He was engaged, 1757, to play at a Dublin theatre, but was shipwrecked on his passage, and drowned. The Biography of English and Irish Poets, which appeared under his name, was from the pen of Robert Shiels, a Scotman, who purchased for 10 guineas, the right of prefixing to the work the name of Cibber, then in prison for debt.—Cibber's wife, the Hon. Susanna Maria, born 1716, was one of the best actresses on the English stage. She was sister of the celebrated doctor Arne (composer of Rule Britannia), who taught her music, and introduced her in one of his operas, at the Haymarket theatre. In 1734, she married Theophillus Cibber, but was soon after separated from him. She subsequently made her appearance in tragedy. Her beauty and her talents gained her universal admiration. She died in 1766.

CIBORIUM; originally, a drinking-vessel made from an Egyptian plant. In the Roman Church, it is the vessel in which the consecrated host (the venerable) is withheld.

CICADA. See Grasshopper.

CICERO, MARCUS TULLIUS. This celebrated Roman was born in the year of Rome 647 (106 B.C.), at Arpinum. His family belonged to the order of equites, but had always kept themselves aloof from public business and office. His father, who lived in retirement, devoted to science, was the friend of the first citizens of the republic. Amongst this number was the celebrated orator Crassus, who himself attended to the education of the young Cicero and his brother Quintus, selected teachers for them, and directed them to useful studies. The perusal of the Greek authors, together with poetical oratory and philosophy, occupied the first years of Cicero's youth. He wrote a great deal in Greek. His versification was good, but his poetical merits on the whole, only moderate. His destination was, to be the first orator of Rome. In his youth, he made one campaign under Sulla, in the Marisc war. After his return, he availed himself of the instabilities of the Orators, his celebrated orator Molo, and employed several years in acquiring the knowledge requisite for an orator. He witnessed the barbarities of Marius and Clunus, and the proscriptions of Sulla, after which the exhausted, blood-stained republic remained unstirred. At this critical period Cicero, at that age twenty-six, endowed with knowledge and genius, appeared before the tribunals, at first in civil suits, afterwards in a criminal process, in which he defended Roscius Amerius, who was accused of particide by Chrysogonus, a freedman of Sulla. He conducted this defence with courage, confuted the accusers, and obliged the judges to acquit the accused. After this brilliant display, he remained a year in Rome, and undertook another suit. His conduct, in both instances, must have displeased the dictator. But his debilitated health obliged him to travel; and he went on a tour, which was still the perpetuation of science. Here he resided in the house of an academician, was visited by the philosophers of all the schools, and profited by the instruction of the masters of oratory. Thus he passed six months with his friend Atticus, in the enjoyment of literary pursuits. His initiation into the mysteries was considered to have taken place at this time. He also undertook a journey to Asia, and remained some time at Rhodes, where he likewise visited the most distinguished orators, and partook in their exercises. On his return to Rome, his displays of eloquence proved the value of his Grecian instruction. Among others, he defended the celebrated actor Roscius, his friend, and master in the art of elocution. At last, at the age of thirty, he engaged in public business. He became questor of Sicily, during the prevalence of a great scarcity at Rome, and managed to convey a large quantity of corn from Thence to the capital, though it was difficult for him so to do without exciting the displeasure of the Sicilians. He afterwards returned to Rome, and appeared as an orator, defending the causes of private individuals, merely for the sake of fame. It was an honourable day for Cicero, when the ambassadors from Sicily appeared before him, with the report of his deeds. Cicero conducted their suit against their governor Verres. He showed himself worthy of the confidence of an oppressed people, and appeared against this powerful robber, after having himself collected proofs of his crimes in Sicily. He was opposed by the celebrated Hortensius. The crimes of Verres are painted in the liveliest colours in his immortal speeches. Seven are preserved, but only two of them were delivered. Hortensius was struck dumb by the force of truth, and Verres went into voluntary exile. After this suit, Cicero was elected to the office of edile. Though possessed of only a moderate fortune, he managed it with liberal generosity, to gain the affections of the people whilst he held this office. But, for the execution of his plans, he was likewise in need of the friendship of the great, to obtain which he joined the party of Pompey, the head of the nobility and the first citizens of Rome. He became his panegyrist and most zealous adherent.

Catiline at that time began to plan his conspiracy against the republic. He was accused of extortion in his government of Africa, and Cicero was on the point of undertaking his defence, when they became rivals, being both candidates for the consulship. Cicero's merit prevailed over Catiline's intrigues and the envy of his enemies. He was chosen consul unanimously; and now commences the most splen-
did period of his political life. He succeeded in de-
feating the conspiracy of Catiline (q. v.). At the
same time, he conducted a private suit, in a masterly
speech defending Murena, consul elect for the ensu-
ing year, against the accusations of the stole Cato.
After Catiline’s fall, the Romans greeted Cicero as the
champion of almost liberty. But he could not tolerate
the factional tribunes; he would not consent to his rendering an account of his
administration; and, on retiring from the consulate,
Cicero was only able to pronounce the celebrated oath “I swear that I have saved the republic.”
Cæsar was always his opponent, and Pompey feared
in a certain man almost for liberty; for, as much to be reconcilable to the triumvirs.
Cicero saw his credit gradually decreas-
ing, and even his safety threatened. He there-
fore occupied himself more than ever with science,
worshiped by Cicero’s prose, Greek, and composed a Latin poem on the same subject, in three
books. At last the storm broke out.
Cicera, Cicero’s enemy, caused a law to be renewed, declar-
ing every one guilty of treason, who commanded the
execution of a Roman citizen before the people had
condemned him. The illustrious ex-consul put upon
mourning, and appeared, accompanied by the equites
and patricians, demanding the protection of the people. Clodius, at the head of armed
adherents, insulted them repently, and ventured even to besiege the senate. Cicero, upon this, went
into voluntary exile, travelled through Italy, and ul-
timately took refuge in Thessalonica, with Blanesus.
Clodius, in the mean time, procured new decrees, in
consequence of which Cicero’s country-seats were torn
down, and a temple of freedom built on the site of
his house at Rome. Cicero’s wife and children were
exposed to ill treatment.
Whilst the accounts of these occurrences drove the
unhappy Cicero to the brink of despair, a change favourable to him was preparing in Rome. The
audacity of Clodius became equally insupportable to all. Pompey en-
couraged Cicero’s friends to get him recalled to Rome.
The senate declared that it would not attend to any
business until the decree which ordered his banish-
ment was revoked. Through the zeal of the consul
Lentulus, and at the proposition of several tribunes, the
decease of recall passed the assembly of the peo-
ple, in the following year, in spite of a bloody tumult,
in which Cicero’s brother Quintus was dangerously
wounded. In this honourable manner Cicero re-
turned, after many years’ absence, and the as-
ssembled senate received him at the gates of the
city, and his entry resembled a triumph. The republic
undertook the charge of rebuilding his houses. From
this period, a new epoch commences in Cicero’s life.
His republican zeal diminished in proportion as his
attachment to Pompey increased, whom he declared
his benefactor. Clodius opposed with arms the rebuil-
ding of Cicero’s houses, and often attacked him per-
sonally. Milo repelled his attacks, and accused him, at
the same time, before the tribunal. Rome became fre-
cently a field of battle. Cicero, meanwhile, passed
several years with little public employment, occu-
pied with his rhetorical works. To oblige Pom-
pey, he defended Vatinus and Gabinus, two citi-
gens of bad character, who had shown themselves his implacable enemies. At the age of fifty-four,
he entered the college of the augurs. The death
of the turbulent Clodius, who was slain by Milo,
delivered him from his most dangerous opponents.
He defended the perpetrator of this act, who was
his friend and avenger, in a beautiful speech; but
the presence of Pompey’s soldiers, and the tumult of
the friends of Clodius, confused him whilst deliver-
ing his oration, and for this reason he was not
what he was. Cicero conducted a war, whilst in
this office, with good success, repulsed the Parthians,
and was greeted by the soldiers with the title of im-
perator. But he was not allowed the honour of a
triumph. As soon as his term of office had expired
he returned to Rome, which was threatened with
serious disturbances, owing to the rupture between
Cæsar and Pompey. Dreading the horrors of a civil
war, he anticipated it in vain; when Cæsar advanced towards Rome, and Pompey was
forced to fly with the consuls and the senate. Cicero,
not anticipating this sudden approach of Cæsar, was
still in Italy. Cæsar saw him at Formiss, but was
not able to gain him over, for a thought crossed
that the policy of Cæsar was likely to prevail, and
although his son-in-law, Dolabella, was one of
Cæsar’s confidants, he was prompted by his sense of
honour to return to Pompey. After the battle of
Pharsalia and the flight of Pompey, he refused to
take the command of some troops who had remained
at Dyrrhachium, but returned to Italy, which was
ruled by Cæsar’s representative, Antony. This
return was attended with several unpleasant circum-
stances, until the conqueror wrote to him, and soon
after received him graciously.
Cicero now devoted himself entirely to literature
and philosophy. He had been divorced from his wife
Terentia, to enable him to marry a beautiful and rich
heiress, whose guardian he was. But the pecuniary
considerations which induced him to take this step
could never prevail on him to flatter power: on the
contrary, he purposely kept aloof, and ridiculed the
flatterers of Cæsar, priding himself on his panegyric
of Cato. But his disassociation was overcome by the
libertiny of Cæsar, when he pardoned Marcellus.
Eupurpurea by this act of favour, which restored
him to his friend Pompey, Cicero broke silence, and delivered a
famous oration, which contained as much instruction as
emotion, after the manner of the Philippics. Soon
after, he spoke in defence of Ligarius, and Cæsar, relenting, gave up his purpose of condemning the accused to death. Cicero
now regained a part of his former consideration,
when the death of his daughter Tullia occurred, and
affected him very painfully. The assassination of
Cæsar opened a new career to the orator. He hoped
to regain great political influence. The conspirators
shared with him the honour of an enterprise in which
no part had been assigned him; and the less he had
contributed to it himself, the more anxious was he to justify the deed, and pursue the advantages which it
offered. In this turbulent year, Cicero found leisure for
literary occupations, and, among other labours, completed his
work De Gloria, which was lost as late as the four-
teenth century. He determined on going to Greece,
where he could live in safety; but he soon returned to
Rome, and composed those admirable orations against
Antony, which are known to us by the name of
Philippics, and which are equally distinguished for
elegance and patriotism. His implacable enmity to-
wards Antony induced him to favour young Octavius,
although the pretended moderation of the latter did
not deceive him. With him originated all the gentic
resolutions of the senate in favour of the
war which the consuls and the young Cæsar were
conducting, in the name of the republic, against
Antony. Octavius having possessed himself of the
consulate, and formed an alliance with Antony and
Lepidus, after the death of the tribune the power of
the senatorial party yielded to the hands of the triumvirs.
Cicero, who had always spared Octavius, and even proposed to Brutus to be recon-
cluded with him, was at first convinced that liberty
was at an end. At Tusculum, whither he had retired
from Rome, he learned from his messenger that
name, at Antony’s demand, had been added to the list
of the proscribed. He repaired, in a state of indecision,
to the sea-coast, and embarked. Contrary winds drove him back to the shore. At the request of his slaves, he embarked a second time, but soon returned again to await his fate at his country-seat near Forum, where he sought safety, and even con- trary, which I have more than once saved." His slaves, seeing the neighbourhood already disturbed by the soldiers of the triumvirs, endeavoured to convey him away in a litter, but soon discovered the murderers at their heels. They prepared for combat; but Cicero, who felt that death was inevitable, ordered them to make no resistance, but to rest his head before Popilius, the commander of the murderers, who had once been saved by his eloquence, and suffered death more courageously than he had borne misfortune. He died in his sixty-fourth year, A. U. C. 711 (B. C. 43). His head and hands were, by the orders of Antonius, affixed to the same rostrum from which the orator, as Livy says, had poured forth eloquence unequalled by any human voice. Cicero merited the character which Augustus gave him in these words: "He was a good citizen, who loved his country sincerely." He was (particularly considering the spirit of his times) a virtuous man, for his faults were only weaknesses of character, not vices, and he always pur- sued good for its own sake, or (what if a fault, is easily forgiven) for the sake of fame. His heart was open, unreserved; his words were true, and from his feelings, to patriotism, friendship, gratitude, and love of science.

Cicero's eloquence has always remained a model. After the revival of learning, he was the most ad- mired of the ancient writers; and the purity and elegance of his style will always place him in the first rank of Roman classics. The style of his philo- sophical writings, without oratorical ostentation, breathes the pure Attic elegance which some of his contemporaries wished also to see in his orations. The orator is seen, however, in his prolix and com- paratively unanimated dialogues. His philosophical works, the principal part of the contents of which is taken from the Greek, and which combine academic and stoic doctrines and principles, possess very un- equal interest for us. Thus, for example, his work De Natura Deorum is, for us, only a collection of erro- eros, as the French say, and represents in the superiorities of the Athenian school: his work De Finibus Bonorum et Malorum likewise belongs to this some- what dry, dogmatic philosophy. On the other hand, his works on practical morals have maintained their full value. The book De Officiis is to this day the finest piece of virtue, inspired to a pure human wisdom. The pleasures of friendship and old age have like- wise been excellently set forth in Cicero's De Amicitia and De Senectute. Of his political work De Republica, a considerable part was brought to light by Maio, and published in Rome in 1825. Cicero wrote the six books De Rep. in his fifty-fourth year. In these he endeavoured to show by what policy, what resources, and what morals, Rome had obtained the dominion of the world. Steinacker published these fragments at Leipzig, in 1823. Vellinam translated and explained them (Paris, 1823). The work has also been translated in the United States (New York, 1829). Professor Gust. Munnich, in Cracow, gives an account of the Sarmatic copy of Cicero De Rep., which, in 1581, was in the possession of a Volhynian nobileman, and has since disappeared, in his work, M. Tulli Ciceronis Libri De Republica notiti. Codices Sarmat. (Gottingen, 1777). In Cracow I have also discovered this copy in his work De Perfecto Senator. Cicero's works De Divinatione and De Legibus are instructive monuments of antiquity. The same philosophical spirit is evident in all his orontorical treatises, partic- ularly in the most important of them, De Oratore, although this contains as little of utility for us as the Charis Oratorius, Topice, De Partitione Oratoria, &c. The most interesting of all Cicero's works, for posterity, are his Epitome familiaris and Ad Atticum, which gives a concise and exact account of the state of the republic than any of his other works, and dis- play most strongly the characteristic traits of the author. They are translated, in a masterly style, by Wieland. The life of Cicero was written, of old, by Plutarch, and has been also, in modern times, by Middleton and Morin. In the publications and ex- planation of his works, Paulus and Alitus Manutius Lambinus, the two Gruter, the two Gronovii, &c., have distinguished themselves. We possess late ed- itions of his entire works, by J. A. Ernesti, Beck and Schuta. Cicero's life, interesting on many accounts, is particularly so to the historical politician, as show- ing the consequences of the deplorable state of the Roman republic, in the case of so distinguished an individual, as well as the impossibility of preserving its liberty. Cato, Cicero, and some others, were worthy of having lived in a better age of the republic, to the corruption of which they fell martyrs.—In 1828 appeared a highly important work, edited by Maio (q. v.), Classicorum Academ e Vaticanis Codicis Editorum: Tomus I et II, curante Angelo Maio, Vaticanis Bibliothecae Prefecto. Rome, Typis Vaticanis, MDCCLXXII. it contains the 'most of all the fragments of Cicero's orations which have been discovered by Maio, Niebuhr and Peyron.

CICERONE; the title of the person who, in Italy, and particularly in Rome, shows and explains to strangers curiosities and antiquities. The talka- tiveness of such persons has procured them the name cicereone, in jocular allusion to Cicero. A good cicereone must possess extensive and accurate information; and several distinguished archaeologists have pursued this business, as it gives them an opportunity, while serving others, to make repeated examinations of the works of art, and thus to become continually more familiar with them. Signore Nibbi is the most distinguished cicereone. He explains antiquities on the spot, in Rome, in a very interesting manner.

CICISBEO; a name given, since the 17th century, in Italy, to the professed gallant of a married lady. It is the habit of forming the construction of the name cicereone, for the husband, from the day of marriage, to associ- ate with his wife in his own house only. In society, or places of public amusement, she is accompanied by the cisisbeone, who even attends at her toilet, to re- ceive her command for the day. This custom is the more extensively practiced, from the jealousy of the Italian, who seems to change his character completely after marriage. Father Barri has made the Cicisbeata the subject of a moral work, and divides it into larga and strutta; the first kind he thinks pardonable, but the latter he regards with repug- nance. This custom is much on the decline in Italy.

CICUTA. The cicuta, or common hemlock (conium maculatum), is a plant indigenous in most temperate climates, and is found commonly along walls and fences, and about old ruins and buildings. It is an annual plant, of four or five feet in height, having very fine double pinnate leaves, of a pale-green colour, and bearing flowers of a greenish-white, in large, flat heads. It was first introduced in medicine, together with other vegetables of the same kind, by baron Storck of Vienne. The most common form in which it is administered, is the extractum, from which Storck used this copy in his work De Perfecto Senator. Cicero's works De Divinatione and De Legibus are instructive monuments of antiquity. The same philosophical spirit is evident in all his orontorical treatises, partic- ularly in the most important of them, De Oratore,
into a soft poutice, form an excellent application for painful sores and ulcers; and the same leaves, dried and rubbed fine, make, when mixed with cerate or lard, a capital ointment for irritate sores, with which a poutice does not agree.

CID. Don Rodrigo (Ruy) Diaz, count of Bivar, surpassed Gormaz. In 1091, the model of the heroic virtues of his age, and the flower of Spanish chivalry, styled by his enemies (the ambassadors of the Moorish kings) el mio Cid (my lord), and by his king and countrymen Campeador (hero without an equal), continues to live in the poetry of his country. We are not the first to comment on his life by the play of the great Corneille. Rodrigo loved and was beloved by Ximene, daughter of Lomozo, count of Gormaz, who, with Diego, the father of Rodrigo, excelled all the knights at the court of Ferdinand I. of Castile. The envy of Gormaz at Diego's superior estimation at court produced a dispute between the two, which led to a duel. Gormaz vanquished the old Diego, and, insult being added to this disgrace, Diego demanded from his son the blood of the offender. In the contest between honour and love, the former prevailed in the breast of the youth, and Rodrigo, joining his daughter and a mistress, could no longer listen to the voice of love: it became necessary for her to demand vengeance on the object of her affections, and Rodrigo would willingly have rushed to the combat, if by so doing he could have alleviated the torments of a lucrated heart. But no champion was found to meet the young hero; and nothing but the discharge of the important duties which devolved upon him could preserve him from sinking under his despair. Five Moorish kings appeared in Castile: devastation and death accompanied their progress. Rodrigo, who was not yet twenty years of age, threw himself upon his noble horse Palencia, and, at the head of his vassals, went to meet the enemy, who soon ceased to be the terror of the country. The young hero sent the five captive kings to Ferrandiz, who, as a reward for his bravery, gave him Ximene, and united those whom the decrees of fate seemed to have separated forever. They were married in Valencia. Ferdinand afterwards added Galicia, Leon and Oviedo to Castile, and posterty calls him the Great; but it was Rodrigo who gained him the name. A quarrel having arisen between Ferdinand and king Ramiro of Aragon concerning the possession of Calahorra, the latter challenged a single combat, which was pointed for his substitute the knight Martin Gonzalez. Ferdinand chose the Cid for his champion, and, by his means, obtained Calahorra. Ferdinand, in his will, divided his dominions among his sons; to Sancho he gave Castile, to Alfonso he gave Leon and Oviedo, and to Garcia, Galicia, together with the conquered part of Portugal. This division caused a war between the brothers, in which Sancho was victorious: this success was owing to the Cid, to whom he had given the command of his forces. Alfonso was taken prisoner, Garcia brought ruin upon himself by his own impudence, and it remained only to overcome the obstinate resistance of Zamora, where Sancho's sister Urraca ruled. Before the walls of this city Sancho was assassinated, and Alfonso, who, eight months before, was vanquished by the Cid, was called to the throne. It is related, in the ballads, that the Cid read the oath of homage, and the war which was the source of the kingdom of Castile, before the new king, on account of the murder of Sancho, with such impressive solemnity, that Alfonso shuddered, but was also offended. It is certain that he spared nothing to gain over the Cid.

The story of this warrior requires a critical examination, especially what relates to his marriage. According to history, Alfonso married him to donna Ximene, his niece (in 1074); and consequently it seems we must consider him twice married. Join von Muller, the German historian, supposes that the daughter of the proud Gormaz may have been his first Ximene. However that may be, it is certain that the Cid was rewarded with the important services which he rendered to his king, often experiencing the constancy of royal favour. A man like him, of strict integrity and virtue, of an inflexible and lofty spirit, who despised an effeminate life, was not fitted for courts. His true friend and brother in arms, Alfaro his son, and his child, went through the world. The gravity of his countenance excited respect and reverence; his retired life afforded room for the slanders of the courtiers; and he was exposed to frequent reproaches. But, in times of necessity, his assistance was again sought, and he was too generous to remember past offences. The king finally took from him all that he had given him, wife and treasures; but, from slume or fear, he afterwards restored Ximene. Disgraced, plundered, forced to depend on himself alone, Rodrigo was now happier and greater than before. Ever true to his country, and to his religion, he raised an army by the reputation of his name, and to subdue the Moors. In the midst of his career of conquest, he hastened to the assistance of his king, who was hard pressed by Joseph, the founder of Morocco; but the only return of his generosity was new ingratitude. He therefore departed by night, with his most trusted followers, and, forsaken and ill provided, fled from the king. He, however, remained true to himself, and fortune to him. His magnanimity again overcame the king. Permission was given to all to join the forces of the Cid, who still maintained the cause of Spain, and always with distinguished success. Alfonso declared aloud, in the presence of the cortousiers, "This Cid serves me much better than you," and could no longer be prevented from visiting him. From this time, he was never estranged from him, although he unintentionally promoted the machinations of his enemies. Two brothers, counts of Carrion, had resolved by a marriage with the daughters of the Cid, to obtain possession of his wealth. The king himself promoted their suit, and the Cid yielded to his wishes. With donna Elvira and donna Sol, they received likewise the great treasures which the arms of the Cid had won. But it appeared to them that the Cid, remaining with the Moors, in a wild and trackless desert, they stripped the garments from the persons of the ladies, bound and bent them till pain choked their cries, and departed with the money. A trusty servant, whom the Cid had sent after them, delivered the ladies from their wretched situation, and the vile deed was brought to light. The Cid demanded justice. Alfonso summoned all the vassals of Leon and Castile to a high court of justice at the city of Toledo. The Cid demanded the restoration of his treasures, and opportunity to take vengeance for the insult, by a combat between the counts of Carrion and the champions whom he should name. They sought to avoid the combat, but the king insisted on it. With ill-concealed fear, they rode to the lists; the knights of the Cid overcame both them and their uncle; their dishonoured lives were spared. The last exploit of the Cid was the capture of Valencia, in 1094, after which he died. Valencia, in the seventy fourth year of his age (1099). What this hero won, and for many years defended, the united power of Leon and Castile was scarcely able to preserve against the encroachments of the infeudos. His widow, therefore, went with the dead body of the hero to Castile. He was buried at the convent of St Peter of Gaudena,
a tomb which was honoured by emperors and kings. There rests the noble Ximene, and under the trees before the convent lies the faithful horse Babieca.

The adventures of the Cid, particularly his punishment and return are the subjects of the oldest Castilian romantic epic. The war was at the beginning of the sixteenth century, collected by Fernando del Castillo, and, in 1614, again published by Pedro de Florcz in the Romanceria General. There has also been published a collection by Escolar—Historia del muy noble y valeroso Caballero el Cid Ruy Diaz, en Romanceria (Lisbon, 1615; Seville, 1829). A great number have been published in the Collection of the best Ancient Spanish Historical, Chivalrous and Moorish Poems, by Depping (Altenburg and Leipzig, 1817). There are, in all, above a hundred of these ballads extant. Herder in his beautiful Cid (The Cid of 1782) made a very good translation of these ballads (probably some of the collection of Escolar). John von Muller has written the life of the Cid (in the eighth volume of his works) from Spanish sources, mostly from an old chronicle printed in Risco's Historia del Cid (Madrid, 1792).

Whatever the ballads and chronicles have conveyed to us of the history of the Cid, is collected in the Chronicle of the Cid, from the Spanish, by Robert Southey (London, 1808, 4to).

CIDER; a liquor made from the juice of apples. The quality of this popular beverage depends principally on the following particulars, viz. 1. Kind of fruit; 2. Condition of the fruit when ground; 3. Manner of grinding and pressing; 4. Method of conducting the requisite fermentation, and precautions to be taken against its excess.

1. The characteristics of a good cider apple (according to Mr Buel of Albany) are, a red skin, yellow and often tough and fibrous pulp, astrignency, dryness, and ripeness at the cider-making season. Mr Knight, a famous English horticulturist, asserts, that, "when the wind and pulp are green, the cider will always be thin, weak, and colourless; and when these are deeply tinged with yellow, it will, however manufactured, or in whatever soil the fruit may have grown, always have a pressing strength and richness." It is observed by Crocker, in his tract on The Art of making and managing Cider, that the most certain indications of the ripeness of apples are the fragrance of their smell, and their spontaneously dropping from the trees. When they are in this state of maturity, in a dry day, the limbs may, he says, be slightly shaken, and partly disburdened of their golden store; thus taking such apples only as are ripe, and leaving the unripe longer on the trees, that they may also acquire a due degree of maturity. Mr Buel observes, that "the only artificial criterion employed to ascertain the quality of an apple for cider, is the specific gravity of its must, or unfermented juice; or the weight compared with that of water." This, says Knight, indicates, with very considerable accuracy, the strength of the future cider. Its weight and consequent value are supposed to be increased in the proportion of the sugar contained in the juice.

2. Cider-making. The apples must be gathered while they are still green, and pressed into cider when they have attained full maturity, and before it begins to decay. The indications of ripeness we have above stated. Each kind of apple should be manufactured separately, and, at least, those kinds only should be mixed or each ripen about the same time. Mr Buel says, "The apples are pressed, and the juice be gathered when dry, in a cleanly manner, spread in an airy, covered situation, if practicable, for a time, to induce an evaporation of aqueous matter, which will increase the strength and flavour of the liquor, and be separated from rotten fruit, and every kind of filth, before they are ground." 3. Grinding, &c. The apples should be reduced, by the mill, as nearly as possible to a uniform mass, in which the rind and seeds are scarcely discoverable, and the pomace should be exposed to the air. Knight ascertained, by experiments, that, by exposing the rinds, the second ferment of fermentation was induced for a few hours, the specific gravity of the juice increased from 1,064 to 1,078; and, from the experiment being repeated in a closed vessel with atmospheric air, he ascertained the accession to oxygen, which, according to Lavoisier, constitutes sixty-four per cent. of sugar. For fine cider, he recommends that the fruit be ground and pressed imperiously, and that the pulp be then exposed twenty-four hours to the air, being spread and once or twice turned, to facilitate the absorption of oxygen; that it be then ground again, and the expressed juice be added to it before it is again pressed. A grater cider-mill was invented by J. R. Newell, of Boston, at an exhibition of the Massachusetts agricultural society in the autumn of 1828, for which he received a premium of twelve dollars. It is thus described by the committee who awarded the premium: "It has a wooden cylinder, upon the surface of which nails are fixed; the heads are sharp upon the edges, and project above the cylinder about one eighth of an inch. The apples are filled into a hopper placed over the cylinder, and led into a narrow cavity at the upper side of it. The cylinder is mounted on a high frame, its axes being placed in composition boxes. A rapid revolution is produced by connecting it with a horse-mill by belts, the bands being changed to a figure according to the greater or less, the cylinder is either ground, or not pressed, or not expressed. It performed well in the presence of the committee, and grated a barrel of russet apples in one minute thirty-four seconds." 4. Fermentation. The vinous fermentation commences and terminates at different periods, according to the condition and quality of the fruit, and the state of the weather. According to Knight, the best criterion to judge of the proper moment to rock off (or draw the liquor from the scum and sediment), will be the brightness of the liquor which takes place after the discharge of fixed air has ceased, and a thick crust is collected on the surface. The clear liquor should then be drawn off into another cask. If it remains bright and quiet, nothing more need be done to it till the succeeding spring; but if a scum collects on the surface, it must immediately be racked off again, as this would produce bad effects if suffered to sink.

Among the precautions used to prevent excessive fermentation is stemming, which is fuming the cask with burning sulphur. This is done by burning a rag impregnated with sulphur in the cask in which the liquor is to be decanted, after it has been partly filled, and rolling it, so as to incorporate the liquor with the gas. A bottle of French brandy, or half a gallon of

CIDER.
CIGAR—CIMBRI

cutler-blindly, added to a barrel, is likewise recom-
mended, to be added as a vinous fermenta-
tion is completed.

CIGAR. See Tobacco, and Cedar.

ancient

awkwardly,

studied

are

which

of

piers,

Cignani,

by

rence

in

lines

evil.

several

Forli,

sent

to

the

name

masters.

Of

pupils,

and

the

inhabitants.

passing

Fresno, at Bologna, in ovals supported by angels, and

in the saloon of the Farnese palace, where he re-

presented Francis I. of France touching for the king's

evil. At Parma, in the ducal garden, he painted

a number of allegories, and a number of historic sub-
terse each other on a blue, green, or yellow

ground, according to the effect which he had in

view. He had no idea of linear and aerial perspec-
tive. His paintings are, properly speaking, only

rouchechiches; the finished effects, which he con-

tributed to the infancy of the art, are compensated

for by beauties of a high order—a grand style, accu-

rate drawing, natural expression, noble grouping, and

a fine disposition of his drapery. His best paintings

are in the church of Santa Maria Novella in Flo-

rence, and in the Sacro Convento, at Assisi. He is

said to have died in 1300. He may be considered the

link between the ancient and modern schools of

painting. Cimabue was equally successful in paint-

ing on glass and in fresco. He was also a distin-

guished architect. He prepared the way for Mas-

sacio, Pietro, Perugino, Giovanni Bellino, Leonardo

da Vinci, Titian, Michael Angelo, and Raphael. See

Italian Art.

CIMAROSA, DOMENICO, a composer, born at

Naples, in 1755, received his first musical instruc-
tion from Sacchini, entered the conversatory of Loretto,

where he imbibed the principles of the school of Du-

rante, and studied with great assiduity. He soon

displayed his superiority in the Sacrificio di Abramo,

the Olympiade, and other compositions. At the age

of twenty-five he had already gained the applause

of the principal theatres of Italy. He was invited to

Vienna, where he began to receive contracts for operas,

and was ordered to Naples, where he composed an operon

to several German courts to compose heroic and

comic operas. In the latter, he particularly distin-
guished himself by the novelty, warmth, humour, and

fulness of his ideas, and by a thorough acquaint-

ance with stage effect. Among his 120 operas, the

most celebrated are, Penelope, Gli Orizzi e Carri-

ag, and Artaserse, among the opera serie; and among

the opera buffe, L'Italina in Londra, L'Amor costan-

e, Il pittore Carigino, and many others. His comic operon

Il Mrimonio segreto excited general enthusi-

asm, and received the signal honour of being per-

formed twice on the same evening, at the desire of

the emperor Leopold. From Vienna he went to Na-

ples, and became involved there in the revolutionary

commotions. He died at Venice, in 1801, from the

effects of the ill-treatment which he had been sub-

jected to in prison. His bust, by Canova, was plac-

ed in the Pantheon at Rome, in 1816, at the side of

those of Sacchini and Paisiello.

CIMBRI, or CIMMERIANS, were the first Ger-

man tribe known to the Greeks. Their acquain-
tance with them was acquired soon after the Trojan

war, when the Cimbrn sailed forth out of their

dwellings in Tauris and European Tartary, and en-
teretl Asia Minor. At that time, the Scythes were

forced to give way to the Massagetae, and retire from

the east of the Caspian sea towards the coun-
	ry of the Cimbrt to the west. This tribe now split

into parties on the question whether they should

comply with the wishes of their kings, and oppose

the strangers with arms, or, as another party advis-

ed, emigrate. The dispute was decided by a battle,

in which the royal party was overcome. After

the dead had been buried on the shores of the Ty-

ras (Dniester), where Herodotus saw their sepul-

chres, the vanquished party fled to the north and

east side of the Pontus, and entered Asia, where they

became known to the Greeks; the other party with-

drew to the Vistula, and even beyond it. The

Greeks retained no knowledge of these Cimmerians

but the tradition that they had proceeded to the

north-west. On this account, the Greeks, when

they remade these tribes, considered the

migrations of that quarter Cimmerian; and, for the

same reason, the name of Cimbrica or Cimmeria was given to

the Danish peninsula. Homer was acquainted with
a tradition, according to which the Cimmerians were to be found among the wild inhabitants of the caves round the Avernus; and Pythoos took a race which had been driven from the Cimmerian peninsula for CIMON. the Romans, and made themselves formidable to the Romans. 114 B. C. They were already masters of a part of the eastern Alps, in the present Carniol, Istri, &c., and had estab-
lished themselves in Dalmatia and Illyria, along the coast, immense bodies of barbarians suddenly made their appearance, who overcame the consul Papirius Carbo in the country now called Soria; but, instead of entering Italy, they proceeded to the north, and, soon after, jointly with the Tigurians, entered the territory of the Allobroges. The Romans sent two armed, commanded by the consuls L. Carius and M. Aurelius Scarpus, to oppose them, but both were defeated; the former by the Tigurians, the latter by the Cimmerians. Even in this field of war, the victors did not enter Italy, but overran Gaul with three bodies, consisting of Teutones, Cimbri, and Ambroes. Two new armies with the consul C. Manlius and the pro-consul Q. Servilius Capio hastened to oppose them, were likewise defeated, beyond the Rhone. The latter, it is said, caused 80,000, to be killed. Whilst Rome placed her last hope in Maris, the barbarians overran the other western countries of Europe. Gaul suffered severely, but the Iberians and Belgians resisted the invaders. Upon this, they resolved to descend into Italy. The Teutones and Ambroes were to enter on the western side of the Alps, the Cimbri and Tigurians on the east. After Maris had waited the approach of the first during three entire years, and had accustomed his troops to their appearance, he routed them completely (102 B. C.), in two days—on the first day the Ambroes, on the second the Teutones—at Aix, in Provence. The Cimbri, on the other hand, who had driven back the consul Catullus on the Adige, and had spread themselves along the Po, demanded land of the Romans, but were totally routed by Ma-
ris at Vercelli, 101 B. C. After this period, the Cimbri and Teutones disappear from history. A part of them is said to have joined the Advatici. These are the Advatici. At a later pe-
riod, the Romans recognised the Cimbri to be a Ger-
man nation. For a long time, deceived by their ap-
appearance, they took them for Celts. The Celtic ex-
terior of the Cimbri may be explained by their conn-
nection and mixture with the Celts on their march from the Danube and the Carpathian mountains.

Cimon, son of Miltiades and Hegesipyle, daugh-
ter of a Thracian prince, Olorus, was, according to Plutarch, educated in a very negligent manner, and inculcated in every species of excess. In the Persian war, he began to make himself known. When Themistocles proposed to abandon the city and take refuge in the ships, in order to carry on the war by sea, Cimon, in company with several other young men, ascended the citadel, deposited the bridle of his horse in the temple, and took from the wall one of the shields, with which he went down to the fleet. He displayed great courage in the battle of Salamis, and attracted the attention of Aristides, who attach-
ed himself to him, as he considered him fit to counteract the dangerous influence of Themistocles. When the Athenians, in concert with the other Greeks, sent a fleet to Asia for the purpose of delivering their colonies from the Persians, and made Cimon commander-in-chief of the fleet, Aristides and Cimon the chief command; and the return of Aristides to Athens. soon after, left Cimon at

the head of the whole naval force of Greece. He dis-
tinguished himself by his splendid achievements in Thrace, defeated the Persians on the banks of the Strymon, and made Cimon commander-in-chief of the country. He conquered the island of Scyros, and the island of Aegina, which were addicted to piracy, and founded an Athenian colony there. Here he found the remains of Theseus, and transported them to Athens, where a temple was then built, for the first time, to this hero. He next subdued all the cities on the coast of Asia Minor, and went against the Persian fleet which lay at the mouth of the Eurymedon. The Persians, al-
though superior in number, did not dare to abide an engagement, but sailed up the river, to place them selves under the protection of their land-forces. Cim-
on pursued and attacked them, and took or destroy-
ed more than 200 of their ships. He then landed, and entirely defeated their army. These two vic-
tories, achieved in one day (B. C. 469), delivered Greece from the Persians. Cimon returned to Athens, in the embellishment of which he employed the spoils which he had taken. He removed the walls from his native city, and planted therein 5000 colonists. He chartered a vessel, the Aethiopis, for the purpose of going to India, and sailed thither, and made a voyage westward to America, and sailed westward to America, and sailed eastward with the wind, and was a drifter for a long time. On his return he died. Cimon was the founder of the Cimonidae.
that the whole power of Lacedemon would be turned against them. They recalled Cimon, who concluded a peace, but, at the same time, to afford employment to the restless spirit of the Athenians, undertook an expedition against Egypt and Cyrrhus. He sailed against Cyrrhus with 25 ships, where he lost 60 to Egypt. With the remainder he defeated the Persian fleet and army on the Phoenician coast (450). The peace of Cimon (B. C. 449), of which Isocrates, Demosthenes, Diotimus, and Plutarch speak, but which Thucydides does not mention, proved false in the end. Those records were destroyed by the report of a treaty which was not concluded. In 449, Cimon besieged the city of Citium, but died before it was taken, and after his death the Athenians retired. Athens lost in him, one of her most distinguished citizens. The popular party, which he had opposed, now gained the superiority.

CINALOA, a province on the west side of Mexico, comprehended under the intendency of Sonora, lying between New Biscay and the gulf of California; 300 miles long, and 150 broad. The air is pure and healthy, the land good and fertile, producing abundance of wheat, barley, rice, and cotton. The natives are robust and warlike, and were with difficulty brought to submit to the Spaniards. They make use of bows with poisoned arrows, clubs of red-wood, and bucklers. Population, 60,000.

CINALOA, or Sr FELIPE Y Sr JAGO; a town of Mexico, in a province of the same name, 650 miles N. W. Mexico; lon. 106° 40' W.; lat. 26° 25' N.; population, 9,500.

CINCHONA. See Bark, Peruvian.

CINCNATI, (the Cincluentae); a society established by the officers of the revolutionary army of America, in 1783, to perpetuate their friendship, and to raise a fund for relieving the widows and orphans of those who had fallen during the war. The name of Cincluentae (q. v.) was adopted, as emblematic of the civic character of the American army. The honours of the society were to be hereditary in the eldest male line of the original members, and, in default of male issue, in the collateral male line. This association excited the fears of the republicans in America, and, among them, of Franklin: they saw in it the germ of a future aristocracy. At the first general meeting of the order, at Philadelphia, 1784, some members were discharged, and fifteen expelled; and the society was suspended. At present, there are seven state societies, which hold a general meeting by delegates triennially. The badge of the society is a bald eagle suspended by a blue ribbon edged with white, emblematic of the union of France and America. On the breast of the eagle, Cinclusinus is receiving the military emblems from the three senators; the implements of husbandry are seen in the back-ground; round the whole, Omnia requirat servare rerum publicam. On the reverse, Fame is crowning Cinclusinus with a wreath, inscribed Felix maximus, with other emblems; round the whole, Societas Cincluentarum, Instituta A. D. 1783.

CINCINNATI, a city of the state of Ohio, in Hamilton county, on the north bank of the river Ohio; 20 miles above the mouth of the Great Miami, 132 miles above Louisville; lon. 83° 27' W.; popula-
tion, in 1805, 750; in 1810, 2,940; in 1820, 9,648; and in 1829, 24,148. Cincinnati was first laid out in 1788, and began to flourish after the year 1794, since which time its growth in population, wealth, and trade has been exceedingly rapid. It is a great em-

on the first and partly on the second bank of the river the upper part being elevated 50 or 60 feet above the lower. The central part of the town is very compact and a great portion of the houses are handsomely built of brick. The principal public buildings and institutions in 1829, were a court-house, a jail; the medical college, the Cincinnati college, an hospital, a museum, a city library, the apprentices' library, three market-
houses, five insurance companies, twenty-three places of public worship, five classical schools, and forty-seven common schools. There were, during the same period, two daily newspapers, two semi-weekly, and five weekly, besides other periodical publications. In 1826, there belonged to the city twenty-eight cler-
gymen, thirty-four attorneys, and thirty-five physicians. The number of students in the medical college, in 1825, was eighty-two. The Cincinnati college was incorporated in 1819. Cincinnati is a place of great trade and extensive manufactures. The exports, of which the most considerable articles are flour and pork, amounted, in 1826, to 1,063,560 dollars; and the imports, in the same year, to 2,528,590 dollars. A considerable portion of the imports is brought here for re-exportation. There are about fifteen extensive forty manufacturing establishments, some of which are on a very extensive scale; and their works are, to a great extent, moved by steam power. The whole value of the manufactures, in all the depart-
ments, was estimated, in 1828, at 1,860,000 dollars. The market of Cincinnati are abundantly supplied with various kinds of provisions, which are furnished at a low price. Cincinnati has recently acquired some notoriety in Britain, as having been the resi-
dence of Mrs Trollope, the caustic limer of American manners.

CINCIUS, LUCIUS QUINCTIUS, a patrician belonging to the earliest period of the Roman republic, equally distinguished by heroism, magnanimity, contentment, and disinterestedness, was chosen consul 460 B. C. The messengers charged with the information of his election found him at the plough in the fields. He accepted the office, and only re-
gretted that his little farm would be neglected. He behaved, while in the consulship, disinterestedly and honourably, but refused it when it was offered to him the following year, and afterwards received the dic-
torship for six months, to terminate the unhappy war with the Etruscans. He was again found at his plough. He immediately joined and assisted the consul M. Tullius, surprised the enemies during the night, made prisoners of all their army, and divided the booty amongst his soldiers, only retaining for himself a golden crown, which his army had presented to him to express their gratitude. After having celebrated a triumph, he resigned his office, which he had held only during sixteen days, and returned to his rural retirement. At an advanced age, he was again elected dictator to restrain the power of Scaurus Maius, a dangerous and turbulent man; he proposed the most effectual arrangements, and, after the principal mutineer had been killed by a certain Albinus, dispersed his adherents. Thus Cin-
cinus was twice the deliverer of his country, which revered him as a father.

CINNA, LUCIUS CORNELIUS, an adherent of Ma-
rius, who, when Sylla had made himself absolute by the prescription of Marius, obtained the consulship, and accused Sylla, who was just going as proconsul to Asia, of mal-administration. Sylla thought it not ad-
visable to take notice of this complaint. When Cin-
nas afterwards wished to carry by force a new law in the face of the Senate, they were both battle-struck. Cinna, in the forum between his party and the party of the senate, at the head of which stood Octavius, the other consul. Cinna and his party were conquered,
and, with a loss of 10,000 men, were driven from the city. He flew to the allies, collected thirty le-
gerions, called the proscripted to his support, and, among these Marius, made himself master of Rome, and assented to the plan of Marius to put to death his· enemies and to revindicate the conquest of the people. This massacre continued for five days. The follow-
ing year, he, together with Marius, arbitrarily assum-
ed the consulship. Sylla now appeared, and Cinna wished to march against him, but his soldiers refused, and put him to death.

CINNA, a grandson of Pompey, was at the head of a conspiracy against Augustus, who generously forgave him, and even transferred to him the consulsip. Cinna was, therefore, devoted to the emperor, till his death, with inviolable fidelity.

CINNABAR. See Mercury.

CINNAMON is the under branches of a tree of the bay tribe (laurus cinnamomum), which is chiefly found in the island of Ceylon, but which grows in Malabar, and other parts of the East Indies. This tree attains the height of twenty or thirty feet. Its leaves are oval, each from four to six inches long, and from one to two inches wide. The principal parts of the flower stand on slender footstalks, and are of a pale-yellow colour; and the fruit is shaped somewhat like an acorn. There are two principal seasons of the year, in which the Ceylonese enter their woods for the pur-
purpose of barking the cinnamon-trees. The first of these is in April, and the last in November; the former being that in which the great crop is obtained. In this operation, the branches of three years' growth are cut down, and the outside pellicle of the bark is scraped away. The twigs are then ripped up lengthwise with a knife, and the bark is gradually loosened, till it can be entirely taken off. It is then cut into slices, and, on being exposed to the sun, curls up in drying. The smaller pieces, or quills, as they are called, are inserted into the larger ones, and these are afterwards tied into bundles. Cinnamon is examined and arranged according to its quality, by persons who, for this purpose, are obliged to taste and chew it. This is a very troublesome and disagreeable office, few persons being unable to hold out more than two or three days successively, as the cinnamon deprives the tongue and lips of all the mus-
cus with which they are covered. After this exami-
nation, the bundles are made up to the length of about four feet, and weight about twenty and a half pounds each. From the roots of the trees numerous off-sets shoot up. These, when they have attained the height of about ten feet, are cut down and barked, being then about the thickness of a common walking stick. The cinnamon which they yield is much finer than any other. A Frenchman, bound, in 1782, from the island of Bourbon to Cape Francois, in St Domin-
go, and having on board various Oriental productions, the cinnamon-tree among the rest, was taken by ad-
n'irical Rodney, who presented the trees to the reas-
s of Jamaica; and from this parent stock, different parts of that island were afterwards supplied. In Cey-
lon, the cinnamon-trees are said to be so common as to be used for fuel and other domestic purposes. The
smell of cinnamon, particularly of the thinnest pieces, is delightfully fragrant, and its taste pungent and aromatic, with considerable sweetness and astringen-
cy. If infused in boiling water, in a covered vessel, it gives out much of its grateful flavour, and forms an agreeable liquid. An oil is extracted from cinnamon, which is heavier than water. This is prepared in Ceylon, and almost wholly from the small and broken pieces. It is made, however, in such small quantity, that the oil of cinnamon is generally prepared for it; and
indeed, the cassia bark is often substituted for cinnamon, to which it has considerable resemblance, although in its qualities it is much weaker, and though it is im-
mediately distinguishable by its slimy taste. The virtues of cinnamon are not confined to the bark. The leaves, the fruit and the root, all yield oil of consider-
sable value. That from the fruit is highly fra-
grant; and that from the stem and root, could be opu-
cently made into candles, for the sole use of the king.

CINO DA PISTOIA; an Italian juris-consult and poet; born in 1370, at Pistoia, of the family of Shibliudi, or Shibliuti. His proper name was Giulione, which the Florentines changed to Guittinone, and then abbreviated to Cino. He finished his studies at Bologna, and subsequently acted as judge in Pistoia till 1307, when the civil war, known by the name of the contest between the Neri and Bichi, ob-
ligated him to flee. He first took refuge with a friend on the borders of Lombardy, who also belonged to the party of the Bichi, and whose daughter Selvaggia, had gained his affection; but her death soon followed. Cino then travelled through Lom-
bardy and France, and remained some time at Paris, but returned to Italy before 1314; for in that year he published, at Bologna, his commentary on the Jus-
tinian, which was printed in Florence by Mandini, and which excited universal admiration on account of its extent and the difficulty of the subject. In con-
sequence of this, he received the diploma of doctor of law. Several universities were anxious to secure his services. He lived three years at Treviso, and still longer at Padua, where the celebrated Bartolo was his scholiar. It is doubtful whether, as some assert, he actu-
ally instructed at Bologna, Sienna, and even at Paris; but he certainly was professor, in 1334, at the univer-
sity of Florence. He taught the civil law. Petrarca and Boccaccio were not his scholars, as it has been supposed, for Cino died in 1366, whereas the former was born in 1304; and Petrarca was not born till 1303, and therefore Cino died before his birth. His poems, the principal subject of which is the above-mentioned Selvaggia, were first published at Rome, in 1558, by Pilli. They afterwards appear-
ed in Venice, increased by a second volume, which, however, was not considered genuine. The most complete edition is that of Ciampi (Florence, 1812, sec. 4to.), and the best edition is that of Guittoncino, which was the last in the house of Cino.

CINQRE PORTS; eight seaports of England, on the coasts of Kent and Sussex—Dover, Sandwich, Hastings, Helle, Romney, Winchelsea, Rye, and Scar-
ford. They were originally only five, the three latter having been declared ports subsequent to the first in-
sitution. They are under a lord warden, and are endowed with considerable privileges. Though the above-mentioned cities have long since lost their im-
portance, their harbours being filled with mud, so as not to admit men-of-war, most of their privileges con-
tinue, as does the office of the warden, a mere sine-
cure of £2000 annual income.

CIPHERS are the signs for numbers. (q. v.) They are either borrowed signs as letters, with which, for in-
stance, the Greeks and several tribes of the north of
Europe designated their numbers; or peculiar char-
acters, as the Roman and modern or Arabic ones. As the decimal system must be considered one of the
grandest inventions of man, we must also acknow-
ledge the system of numbers which we now use to be a
proof of extraordinary genius and a deep, philoso-
phical mind; and it cannot be doubted, that our progress in mathematical science, above all others, would have been impeded without the Arabic ciphers, which, in fact, are indispensable to the great calcula-
tions which occur daily in modern astronomy. The
CIPHER—CIRCE.

213
ciphers, such as they are at present, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, did not attain their present character till a very late period. We have them from the Arabsians, who, according to Abulpharraguus (Dynast. i. p. 16), say that they received the invention from the Indians. According to a recent discovery of professor Seyfearth of Leipzig, in Turin, on a papyrus manuscript, it seems probable that the Egyptians were acquainted with the present system of writing ciphers, at least in his principles. As early as the ninth century, ciphers were used, though seldom, in France. Not until the eleventh century did their use become, in any degree, common in Europe. According to de Matthais, the Roman cipriani are derived from the ciphers used by the Egyptians, and after them the Romans, annually drove into their temples, in order to express their divisions of time. Probably the oldest trace of Roman ciphers is that in the inscription upon the colonia rostrata. Cipher is also the name given to various methods of writing in secret characters, chiefly used by the correspondence of diplomatic agents with their courts. (See Cryptography and Deciphering.) A kind of monogram, in which the initial letters of the Latin and family names of a person are entwined with each other, has the same name.

On the 7th of July, 1864, a painter and engraver, born at Pistola, in 1752, died at London in 1785. His teacher is not known, but it is certain that Correggio was his model. At the age of eighteen, he went to Rome, to perfect himself in his art. His talents soon gained him reputation. Some Englishmen, who were there at the time, went to Paris to visit him. He was one of the first fellows of the royal academy, instituted in 1769. His drawing is correct, his heads have grace and loveliness, his colouring is harmonious, and the general impression of his compositions is charming. For Aristocles Orlando Furioso he executed a number of copperplate illustrations, in which he displays all the beauty of his genius. Many fine engravings of Bartolozzi are from the designs of Cipriani.

CIRCASSIA; a country of Asia on the north side of the Caucasus, extending along the Black to the Caspian sea. The inhabitants call themselves Adige; by the Turks and Tartars they are called Tcherkas (i.e. highway robbers); by the Arabs, Menalik; by the Ossetes, likewise a nation dwelling on mount Caucasus, they are called Kasnési. They inhabit the three districts of Great Kabarda, Little Kabarda and 3. Besen, on the greater Laba, which flows into the Kuban; 4. Temirogi on the Schagwasscha; 5. Abbasia, chiefly on the river Pechahul; 6. Bsedach, in the lower districts of the Rhusch; 7. Hadukul; 8. Bchana. This powerful and warlike nation might become extremely formidable, if, instead of being subject to numerous little princes, it were united under one head. The most important of the Circassian branches of the Kuban are the Temirogi: they inhabit more than forty fortified villages, and can send 2000 men into the field. The Schagacci, below the Russian fortress Anzersk, have a prince, who formerly maintained vessels on the Black sea. The Kabarda Circassians, a half-civilized nation, inhabit a fertile country on the northern frontier of the Terek, and are distinguished from all the other nations of the Caucasus by their beauty. The men are of lolly stature, regular features, and unequalled in the use of the sabre. The woman have delicate figures, light complexions, dark hair, regular features, and full bosoms. They are considered the principal ornaments of the Turkish harems. The Circassian prince or nobleman, that is, every one who does not serve, and possesses a horse, is constantly armed with a dagger and pistols, and seldom leaves his house without his sabre and quiver. A helmet and a coat of mail cover his head and his breast. Kabarda furnishes 1500 noblemen, or udéentés, and 10,000 peasants, or serving-men, capable of bearing arms. But the princes of Kabarda destroy each other by constant hostilities. The soil of Kabarda is excellent for agriculture; but the winter is severe, and the warm season not of long duration. The inhabitants neglect the gifts of nature, viz. the mines, from which they might extract the most useful metals, such as iron and copper, for the manufacture of their weapons. A great part of their wealth consists in goats, sheep, oxen, and horses. They sell wool and wools. Their horses are distinguished for beauty, strength, and fleetness. They burn a mark on young horses, and, if the mark be not renewed, it is worthy of notice. The subject is the property of the prince; although he cannot be sold, he is compelled to perform all personal services, but pays no taxes. The nobleman maintains order among the people, and serves the prince in war. The latter keeps an open table, and all those who own herds contribute to it. Marriages are concluded with reference to riches and birth. Immediately after the birth of a princely child, it is taken from the parental house, and its education confided to a nobleman. The boys are instructed in hunting, plundering, and fighting; the girls in embroidery, singing, weaving, and dancing. There is a law of hospitality among the Circassians, called kwnadi: the life of the host is responsible for its observance to the stranger on whom it has been conferred. If a murder is committed, the relations of the deceased take the life of the murderer: no money can indemnify them. Formerly, these people were Christians. At present, they are Mohammdans, but by no means zealous observers of the precepts of the Koran. After the downfall of the Chzaarae empire, the Circassians appear to have been subject to the Arabians, Tartars, and Persians, Likewise, to the Georgians. Towards the end of the sixteenth century, they became vassals to the Russians. The czar Ivan Wasilievitch, in 1566, sent a small army, under general Daschkow, to the aid of Temurik, a Circassian prince; but, after the death of Ivan, the Russian court neglected them, and, in 2000, they were compelled to pay tribute to the khans of the Crimea, until, tired of the ill-treatment of their officers, they took up arms, and overcame an army of 30,000 men. At present, Tcherkassaa, (Circassia) contain 31,785 square miles, and 550,000 inhabitants.

CIRCE; a powerful sorceress; according to some, the daughter of Sol and Persets, one of the Oceanides; according to others, of Hyperion and Astorepe; the sister of Ates and Pasiphae. She lived in a valley situated in an island on the western coast of Italy. Her palace was built of shining stones, in an open place, surrounded by tame lions and wolves. Her employment was weaving; and, during her work, she amused herself with singing; her servants were four mountain and river nymphs. Ulysses, in his wanderings, landed on her island, and sent out Eurylochus with a party to explore the country. They arrived at the palace of Circe, who gave them food and wine, and with her magic wand changed them into swine. Eurylochus only, by cautiously abstaining from the magical potion, escaped the transformation, and informed Ulysses of the event. He immediately procured him a chariot and horses, and thenceforward received him with the courtesy of a free companion. On the way, Mercury met him, informed him how to conduct himself before the sorceress, and gave him the plant called moly, as a means of delivering his companions. Thus armed, he appeared before Circe, who, imagination had no effect upon him. Following Mercury's advice, he then revealed himself with his drawn sword threatening her with death, and compelled her to bind herself by an oath to do
CIRCLE—CIRCULATING MEDIUM.

given to the divisions of the country traversed an- 
ually by the judges of the supreme court of the 
United States, for the purpose of trying causes 
which fall within the jurisdiction of the national 
courts.

CIRCULAR INSTRUMENT. See Reflecting 
Circles.

CIRCULAR MOTION. A body in motion, 
which is continually impelled by some power towards 
a fixed point out of its original direction, is oblig- 
ed to describe a curvilinear path round this 
point. A stone, shung round by a string moves in 
a circle, because it is drawn toward the land in 
every moment, and tends to come after the 
world round the earth, because it gravitates towards 
the earth, and is thus drawn from the rectilinear direction, 
which it would otherwise pursue. In such cases, the 
point to which the body constantly tends, is called 
the centre of the forces, the force itself, by which it 
is impelled, is called the centripetal force; that by 
which it strives to fly from the centre is called the 
centrifugal force, and the motion which is produced 
by these two forces, the circular motion. All the 
planets in the solar system are carried round the sun, 
and the satellites round their planets, by these forces. 
(See CENTRAL FORCES.)

CIRCULAR PARIS (NAPIER'S RULE FOR). A rule 
invented by Baron Napier of Merchiston near Edin-
burgh, for the solution of all cases of right-angled 
spherical triangles, eminent for its comprehensiveness 
and utility in extensive surveys, navigation, and prac-
tical astronomy. See Trigonomentry.

CIRCULAR SAILING. See Navigation.

CIRCULAR SAWS. See Saw Mill.

CIRCULATING MEDIUM. The expression cir-
culating medium is now much more frequently 
used than formerly. It means the medium of ex-
changes and values, whether this medium be gold 
or silver coin, paper, or any other article, as oxen, 
tobacco, iron, slaves, usually employed in any place 
as the measure of the values of other articles, and is 
thus of a more comprehensive signification than the 
term money, which, though it applies to gold and sil-
ver coin, paper currency, and some other of the vari-
ous articles used for the above purpose, does not 
comprehend them all, since oxen, which have, by 
some nations, at some periods, been adopted as the 
measure of the comparative values of articles of com-
merce, would hardly be considered as coming under 
the denomination of money. It is hardly possible to 
imagine a people to be without a circulating medium 
of some description; and, accordingly, we find all 
the tribes of savages hitherto discovered referring to 
some article in estimating the value of the various 
commodities which compose their capital. Captain 
Franklin says, the Kree Indians use beaver skins 
as their medium, and estimate the value of things by 
a certain number of their skins. The people of Vir-
ginia, in the earlier periods of their colonial history, 
estimated value by pounds of tobacco. In some 
parts of Africa, a species of small shells, called the 
meina, are the currency. But from the earliest times, the precious metals, where they could be 
had, have been preferred for this purpose, because 
their weight, fineness, and, consequently, value, 
could be more accurately ascertained than those of 
any other article, and thus comprise a sufficient value 
in a small compass and weight to be a convenient

him no injury, and deliver his companions. Ulysses 
reunited with her a whole year, and had by her 
two sons—Adrius, or Agrim, and Latimus. Before 
his departure, she told him that, in order to secure a 
 safe return to his country, he must visit the infernal 
regions, and ask advice of Thesius.

CIRCLE (Latin circulus); a plane figure com-
prehended under a single line which returns into itself, 
having a point in the middle, from which all the lines 
drawn to its circumference are equal. This point is 
called the centre, and these lines the radii. Al-
though, properly speaking, it is the space included 
within the periphery or circumference, yet, in the pop-
ularity of the word circle is frequently used for the 
periphery alone. From the geometrical definition 
of the circle, it appears that its magnitude is 
dependent upon the magnitude of its radius or 
itself, i.e., a line which touches two points of the 
circumference, and passes at the same time, 
through the centre, or, which is the same thing, a 
line equal to twice the length of the radius. The 
surface of the circle is equal to the product of the 
circumference and half the radius. If there existed 
a rational proportion, that is, a proportion to be 
expressed in whole numbers, of the surface of the cir-

cle to a square, there would, at the same time, 
a rational proportion between the diameter and the 
circumference. 

But, from geometrical reasons, no rational proportion of the diameter to the 
circumference is possible; it can be expressed only by 
approximation. However, the proportion thus obtained is 
quite as accurate as is necessary for any purpose 
in the applied mathematics. Yet there have always 
been instances, and some of a very late date, of men 
labouring long and intensely in searching for the 
square equal to the surface of the circle, and who of-
ten believed that they had actually solved the 
problem. Very recently the newspapers were full of such 
a solution by a boy in England. In the approximate 
proportion, if the diameter is called 1, the circumfer-
ence will be equal to 3-1415926535 . . . . Francis 
Vieta obtained the proportion to this number of 
gures. Afterwards it was further determined by 
Adrianus Romanus to 15, by Ludolphus of Cologne 
often improperly or purposely called Ludolphus von 
Keulen) to 32 (from him it is often called the Ludolphic number), by 
Sharp to 72, by Machin to 100, by Lagny to 126, 
and lastly, in an Oxford manuscript, it was obtained 
up to 156 decimals. Archimedes first estimated the 
proportion of the diameter to the circumference to be 
as nearly as 3-1415926535; subsequently, it was 
found that the number must be 3-1415926535, or 
113 or 355, or as 1 to 3-1415929, which is correct 
to 6 decimals, and sufficiently accurate for most 
uses. Every circle is divided into 360 degrees, and 
by its arcs all angles are measured. The circle, there-
fore, is one of the most important geometrical 
figures, and an accurate division of it is requisite for measur-
ing the angles under which distant objects appear 
(upon which surveying, astronomical observations, &c. 
rest)—a very desirable object, for which many prizes 
have been offered by learned societies. See Degree.

Circle, in logic; the fault of an argument that 
supposes the principle it should prove, and after-
wards proves the principle by the thing which it 
seemed to have proved. The same fault takes place 
in definitions, when a idea is defined by others 
which suppose the knowledge of the first. Arguing 
in a circle is a fault into which men are very liable to 
fall in the second order of arguments.

CIRCUITS; in England, divisions of the king-

dom appointed for the judges to pass through twice 
in the course of a year for the purpose of administer-
ing justice to the several counties. The counties of 
England are divided into six circuits, and two judges 
go on each circuit. In America, the same name is 

CIRCULATING MEDIUM.

There has rarely, if ever, been an instance of a government issuing paper money, and redeeming it punctually, and to its full nominal amount. Innumerable instances of this sort of imposition were made by the American colonies before the establishment of the independence of the United States; and, during the war of independence, the country was infested with what was called continental money, which was never redeemed. Russia and Austria have this species of currency in circulation, always depreciated, as is usual with such money. Formerly, the sovereigns of Europe had a practice of debasing the current coin, when they wished to levy a tax in disguise, so as to make the copper, with which they alloyed the silver, pass as of the value of silver. But in modern times, instead of debasing the coin, the usual resort is to a government bank or to government paper. Government paper, issued as the ordinary currency, usually proves to be a bubble. And it may be taken for a general rule, that no currency is safe which is not of an intrinsic value, or is not based upon capital sincerely pledged to its redemption. The question then recurs, why the government may not pledge a certain amount of capital for the redemption of its paper. The reason is, that this capital must be managed, and a vast deal of skill and economy is requisite in managing a redeemable species of paper currency, and as all governments and a government are the least thrifty and economical. Besides, the government will ruin the credit of its own paper by excessive issues in its exigencies in times of war, when the effects of a destruction of its credit are the most disastrous. The government, therefore, ought never to trust itself to be a banker, or to issue paper money, except in desperate circumstances or pressing exigencies, when no other measure can be resorted to, and when what would otherwise be wrong and dishonest is excused for the sake of preventing the greatest national calamities.

The public, therefore, are entitled to demand that government paper shall be redeemable at any time to the intrinsic value of the gold and silver contained therein, or to the value of the currency issuing bank, or to the paper of another government. The latter case only is properly within the province of government paper, the profession of which is simply to circulate as a medium of exchange.

But we see other kinds of currency, which apparently answer the purpose of a circulating medium, and which have very little value. A small piece of paper, not worth intrinsically one farthing, passes for many pounds; and this sometimes leads people into the notion that a given number of pounds has not an essential quality in the public currency. But we must look at what is printed or written on this paper, to learn why it passes for currency. It bears a promise that the holder shall be entitled to a certain number of pounds; of course, a certain quantity of gold and silver, of a certain fineness. If this promise be valid, and be kept, then the real medium is gold and silver, though this gold and silver may be locked up in a bank. But it may be said, that there is not, in the banks, where bank paper circulates, and, perhaps, not in the community, more than one pound in silver or gold for four pounds promised in the paper in circulation. How then can four pounds of paper be redeemed by one of silver? This is very easy. One holder of a paper pound demands the silver at the bank, and passes it off, or keeps it in his purse. Now if the bank can induce this person, or the one to whom he passes it, to give it again, that is, to loan it to them, or to take something in exchange for it, they can then, with the same silver pound, redeem the second paper one, and so on. Thus a bank that has capital, and a good credit, will be always able to reclaim and use the same specie successively to redeem its paper, and, if it be skilfully conducted, it will always be able to command it as fast as its bills can be collected and presented for payment. A community, therefore, which only uses specie and redeemable paper as currency, has, to all practical purposes, a specie medium. The paper is, in short, so much specie, for all practical purposes, for it will command gold and silver. Here, then, is evidently an advantage gained; for, if a bank, by putting one pound in its vaults, can loan out four pounds on interest, it makes a great income on its capital, while the community loses nothing but gains, rather, for this paper is much more convenient for transportation, and equally convenient in all other respects. It is a great object in every community to gain this advantage, arising from multiplication of money. Individuals, if not prohibited by the laws, will soon issue their paper, and demand its acceptance in payment of the public; and thus the public will be defrauded. On the other hand, the government often makes the bubble by the issue of paper money, or promises of payment never to be fulfilled.
CIRCULATION and The objec-

tion and diseases the naturalized

distress; they were a tax, for the banks

which allows them to consider the privilege

of supplying the currency. As long as the government
does not bear oppressive upon this species of
monopoly, by attempting to levy an excessive tax
for the privilege, and thus discouraging it, a liberal
income may be derived from the substitution of pro-
mises on paper, instead of gold and silver, for the
ordinary purposes of circulation and exchange, and,
at the same time, such guarantees may be provided
as to prevent abuse and fraud and render this cur-
reney as safe as that of specie.

CIRCULATION OF THE BLOOD. See Phys-
ology.

CIRCUMCISION, the custom prevailing among
several Eastern nations of cutting off the prepuce of
the virile member. The most ancient nation among
whom this custom prevailed was the Egyptians; and
we find it still among the aborigines of Egypt, even
among the Christian Copts (q. v.), and the Abyssin-
ians (q. v.), who profess Christianity, and other Afri-
can nations, who seem to have received it, like the
Aborigines of America, from the Jews. The Jews perform
this ancient ceremony, by which the descendants of
Abraham were to be distinguished from other nations,
as a rite instituted by God, on the eighth day after
the birth. The circumcised person is, as it were,
naturalized by this ceremony, or introduced among
the people of God. Moses found it among the na-
tion, and confirmed it. The Mohammedan circumcision
is probably an ancient Ishmaelite custom, which
the Ishmaelites and the Israelites received from their
common father, Abraham. The Koran of Moham-
ed did not introduce circumcision; it was already
in use among his nation, and was introduced by them,
with Islamism, as a sacred rite, into all countries
where their religion was received. The original ob-
ject of this custom was probably the promotion of
cleanliness, which is doubly necessary among the in-
habitants of hot countries, for the prevention of many
diseases; but it is a mistake to suppose that it in-
creases fertility. There is also a kind of circumcision,
or excision, performed on the female sex. In Egypt, Mohammedan maidens are often circumcised;
and the Abyssinians circumcise both sexes. The
word circumcision is often used in the Old Testament
to denote the Israelites.

Circumcision is also the name of a feast, celebrated
on the first of January, in commemoration of the
circumcision of our Saviour. The day was anciently
celebrated as a fast, in opposition to the customs of
the pagans, who feasted on it in honour of the god
Juno.

CIRCUMNAVIGATORS. Magellan, a Portu-
guese, was the first of those intrepid men, who, fol-
loving in the path of Columbus, traversed the ocean
from the east to the west, and, pursuing this direc-
tion, at last returned to their country. He circum-
avigated the world in 1519—21. In his passage through
the straits of Magellan, or round Cape Horn, into
the southern seas, he was followed by the Span-
iards (Fuchs, Mendi
d, Quiros, and others down
to Malaspina), by the French (Bougainville, La Pey-
rouse, q. v., others, down to Freycinet, q. v.), by the
Dutch (Sahin, Heemskerck, Hertog, Tasman, Rogge-
wein), by Englishmen (Cock, Deschneff to Krusenstern, and Otto von Kotzebue, q. v.), and, lastly, by North Americans. The Eng-
lish, as was to have been expected, have made the
most numerous and important voyages round the

world. Fifty years after Cabot, Hugh Willoughby
(1553) reached Nova Zembla, on his northern expe-
dition. All attempts since made to enter the Pacific
or to explore a northwestern passage have been fruitless. See Expedition, and North Pole.

But the eleven voyages to the north-east and north-
west by Frobisher, Gilbert, Davis, Weymouth (1591),
and several other navigators, were important from
the discoveries of new lands and productive fisheries,
to which they led. Sir Francis Drake made a voyage round the earth. Cavendish, Chadley and Hawkins followed their great predecessors to the south, but less successfully. Amongst the bold nav-
igators who undertook great expeditions in the
seventeenth century, Hudson, Baffin, Dampier, Hal-
ley and Woods Rogers, were distinguished by the
importance of their discoveries. Woods Rogers pro-
gressed to 62° 53' S., and the Russian captain Bel-
lingshausen to 70° in the year 1820. (Rogers brought Alexander Selkirk, the reputed Crusoe, home with him.) Thirty years after Rogers, lord Anson
(1741—44) made a voyage round the world. With
him commences a great era in the discoveries in
the South seas, embracing the entire Polynesia. Then
followed the voyages of discovery by Carteret and
Walls (1767). The voyages of Cook, beginning in
1770, made a new era in circumnavigation. At last,
Vancouver made voyages to the northward, and
acquainted the north-western coast of America.

See Kotzebue, Otto von; Krusenstern, and Voyages.

The latest Voy. autour du Monde is that of captain
Duperrn, in the Coquille, made by command of
Louis XVIII., in 1825—29 (six vols. 4to, with an

CIRCUMVALLATION, or LINE OF CIRCUM-
VALLATION, in military affairs, implies a fortifica-
tion of earth, consisting of a parapet and trench,
made round the town intended to be besieged, as
any molestation is apprehended from parties of
the enemy which may march to relieve the place.

CIRCUS, among the Romans; an oblong build-
ing without a roof, in which public chariot-races and
exhibitions of pugilism and wrestling took place.
It was rectangular, except that one short side formed
a half circle; the entrance was at the opposite end.
Within, on each side of the entrance, were six ar-
cades of stone, partly covered with seats. Within
another circle, the spectators, rising gradually one above
another, like steps, and resting on strong arches.
At the foot of the seats there was a broad ditch,
called curras, to prevent the wild beasts from leaping
among the spectators. Within was another space
(arena), covered with sand, where the games were
exhibited. This space was divided lengthwise into
two parts by a wall (spina), twelve feet thick and
six high, adorned with little temples, altars, statues,
obelisks, pyramids, and conical towers. Of these
last (metae) there were three at each end, which served
as goals, round which the circuits were made. By
the first meta, opposite the curved end of the circus,
there were seven other pillars, with oval balls (ova)
or their summits. One of these balls was taken
down for every circuit. On the outside, the circus
was surrounded with colonnades, galleries, shops,
and public places. The largest of these buildings
in Rome, the circus maximus, was situated in the
eleventh district of the city, which was thence some-
times called circus maximus, and on the spot where
Romulus exhibited the games at the first, there were
covered with colossi, of which the Sabine
and Titus Flavius Priscus project
ed the plan of this building, and some of the wealthy
senators completed it. The ludi magni were
celebrated in it. Dionysius of Halicarnassus gives its
length at 5331 feet and the breadth at 2187 feet.
According to Pliny, it was capable of containing 200,000, and according to Aurelius Victor, 385,000 spectators. Julius Caesar enlarged and ornamented it. In 1808, the French army burned, and in 1812, Napoleonic forces under Moreau pulled down. Trajan rebuilt it, and Constantine made further additions to it. At present, but few vestiges of it remain. The circus of Caracalla, in the first district of the city, is in the best preservation. See Hippodrome.

Circus games of the (so called from the circus particularly the circus maximus, where they were exhibited). Romulus celebrated similar games in honour of Neptune. Afterwards, by the mutual rivalry of the ediles, their splendour was increased. Under the emperors, they attained the greatest magnificence. The principal games of the circus were the ludi Romani or magni, called, also, from an epithet of Cybele, megaleses, which were celebrated from the 4th to the 14th of September, in honour of the great gods, so called. The passion of the people for these shows appears from the cry with which they addressed their rulers—paeam et circenae, (bread and the games!) A splendid procession, or pompa, opened the festival. The images of the great gods were carried to the temple of Jupiter, on the Capito-line mount; the procession moved from this temple through the forum and the street called Velabrum to the circus maximus. The chief magistrate led the procession. Before him was carried the image of the winged goddess of Fortune. (Fortuna alata.) Then came the images of Jupiter, Juno, Minerva, Nep- tune, Ceres, Apollo, Diana; after the death of Ju-lius Caesar, his image was introduced, and in later times, perhaps, those of the deified emperors also. These images were in splendid covered chariots, drawn by horses or mules, stags, camels, elephants, also sometimes by lions, panthers or tigers. After the pompous procession of gods followed rows of boys, who had lost either father or mother, and who led the horses to be used in the races. After these followed the sons of the patricians, from fifteen to sixteen years of age, armed, part on horseback, part on foot. After these came the magistrates of the city and the senate. The sons of knights, on horseback and on foot, brought up the rear. Then followed the chariots and horses designed for the races, and the different atelates, as pugilists, were also, naked, except a covering about the loins. In this procession were included the dancers, youths and boys, arranged in rows, according to their age. They wore violet-coloured garments, with brass belts, and carried swords and short spears. The men wore hel-mets. Each of these was preceded by a man who led the windings of the dance. The musicians fol-lowed, including a number of persons dressed like Sileni and Satyrs, who, with large wreaths of flowers in their hands, exhibited various sportive dances, with a company of musicians behind them. To this exhibition of wild, unrestrained joy, succeeded the religious pomp. First came the Comitii—boys whom the priest employed in the sacrifices, —then the ser-vants who took part in it; after these the haruspices, with their knives, and the butchers, who led the victims to the altar; the different orders of the priests, with their servants; first, the high priest (pontifex maximus), and the other pontifices; then the flamines, then the augurs, the guindeemiviri with the Sybilline books, the vestal virgins, then the remaining inferior orders of priests, accord-ing to their rank. The images of gods brought up on horseback, also, were in rows, exhibiting the treasures, the spoils of war. In the circus, the procession went round once in a circle, and the sacrifices were then performed. The specta-tors took their places, the music struck up, and the games commenced. These were,—1. Races with horses and chariots. These were so honourable, that men of the highest rank engaged in them. The whole race, and each of the competitors were divided into four parties, consisted of twenty-four courses, and each course of seven circuits, making about seven miles. Each party performed six courses, three in the forenoon and three in the afternoon. The char-iots were very light, and commonly had two or four horses abreast, attached to them. 2. The gymnastic contests. 3. The Trojan games, prize contests on horseback, which Æneas was said to have first instituted, and Julius Caesar revived. 4. The combats with wild beasts, in which beasts fought with beasts or with men (criminals or volunteers). The expense of these games was often enormous. Pompey, in his second consulship, brought forward 500 lions at one combat of wild beasts, which, with eighteen elephants, were slain in five days. 5. Representations of naval engagements (naumachies), for which purpose the circus could be let under water.

CISALPINIC REPUBLIC. After the battle of Lodi (May 10, 1796), Bonaparte, on the 20th of May, proclaimed the freedom of Lombardy, and formed of it the Transpadane republic; at the same time, Bo-logna and Ferrara were erected into the Cisalpine republic, to which Modena and Reggio were soon after added. On February 18th, 1797, the province of Tolentino, the pope ceded Bologna and Ferrara, together with Romagna, and the province of Mesola, to the French; the latter were also added to the Cis-alpine republic. This republic received its constitution March 17th, 1797, and was united with the Transpadane, under the name of the Cispadine repub-lic. By this name the emperor of Germany recognized it as an independent power, at the peace of Cam-po-Formio (October 17th). It comprised Austrian Lombardy, together with the Mantuan and the Venetian provinces, Bergamo, Brescia, Crema, Verona and Rovigo, the duchy of Modena, the principality of Massa and Carrara, and the three ecclesiastical delegations—Bologna, Ferrara with Mesola, and Romagna. October 22d, in the same year, the Valte-line or Veltlin, Worms and Cleves, belonging to the Grisons, were added; so that the new republic, which was divided into ten departments, comprised 16,337 square miles, had about 2,400,000 inhabitants. The legislative body, composed of a council of eighty elders, together with another council of 160 members, and the directory (directoriun), held their sessions in Milan. The army (French troops in the pay of the republic) amounted to 20,000 men. In March, 1797, it was more closely associated with France by a defensive and offensive alliance, and a commercial treaty. On the renewal of the war between Austria and France, in March 1799, it was dismembered, for a short time, by the successes of the Austrians and Russians, but soon restored by Bon-aparte's victory at Marengo (June 14th, 1800). The republic then received a deliberative body (con-sulta) of fifty, and an executive council (governo) of nine members. On the 6th of September, it was enlarged by the addition of the Novarese and Tor-lonese, and, at the peace of Lunéville (February 9th, 1801), was again acknowledged by Austria. January 25th, 1802, it received the name of the Italian republic, and elected Bonaparte president, and Francis Melzi d'Erile vice-president. It was then divided into thirteen departments; but, in 1805 (March 17th), a deputation of the Italian repub-lic came to conference, also, on the subject of the dignity of king of Italy (see Italy), after which Napoleon was styled emperore des Français et roi d'Italie.

CISPADANE REPUBLIC. See Cispalpine Re-public.
CISPLATANA, with Monte-Video. See Para-
guay and Plata, Republic of.

CISRIENHIS REPUBLIC. Several towns on the 
Rhine, particularly Cologne, Aix-la-Chapelle and 
Boain, at the time when so many republics were 
created in Europe, had not obtained the protection, and took the title of Cisrhenish republic, 
in September, 1707. But at the peace of Campo-
Formio (Oct. 17, 1797), the left bank of the Rhine, 
including the Cisrhenish republic, was ceded to 
France, by a secret article, and the confiscation 
hearing this name is, in consequence, hardly known.

CISTERCIANS; a religious order, which takes 
its name from its original convent, Citeaux, not far 
from Dijon, where the society was founded in 1099. 
Through the exertions of St Bernard de Clairvaux (q. v.), it had increased so much, 100 years after its 
origin, as to embrace 500 rich abbeys, in different 
countries of Europe. The Cistercians dedicated 
themselves to a contemplative life. Their rule 
was severe. They succeeded in freeing themselves 
from the superintendence of the bishops, and formed a 
kind of spiritual republic. A high council, consist-
ing of the abbot and the abbots of the most important 
convents of Clairvaux, La Ferte, Pontigny and Morimond, all 
in France, and twenty other definitores, governed the 
body, under the immediate superintendence of the 
pope. In France, they called themselves Bernard-
dines, in honour of St Bernard. Among the frater-
nates of the world, from them, the most remarkable 
are, the Barefooted monks, or Fratlions (q. v.), and 
the nuns of Port royal (q. v.), in France, the Recol-
lets, reformed Cistercians, in Spain, and the monks of 
La Trappe (see Trappe). Riches and indolence 
brought on the decline of this order. Many of their 
convents ceased to exist before the Reformation, still 
more afterwards, partly by gradual decay, partly by 
failing into other hands. The general fate of the 
religious orders, during the period of the French re-
volution, reduced the Cistercians to a few convents 
in Spain, Poland, the Austrian dominions, and the 
Saxon part of Upper Lusitania. They wear white 
orbes with black scapulars.

CITADEL, or CITTÀDEL (a diminutive of the 
Italian città, city; signifying little city), in fortifica-
tion; a kind of fort, consisting of four, five, or six 
sides, with bastions, commonly joined to towns, and 
sometimes erected on commanding eminences within 
the town. It is distinguished from a castle by having 
bastions.

CITRIC ACID (acidi Citrium) exists, in vari-
able proportions, in the lemon, orange, and the red 
acid fruits. This acid is white, crystallizes in rhom-
obdial prisms, unalterable in the air, inodorous, of 
a very acid taste. Specific gravity, 1.034. Accord-
ing to Messrs Gay-Lussac and Thénard, it is compos-
ed of carbon, 33.81, oxygen, 59.850, and hydrogen, 
0.330. Heated, it is decomposed, and is partly 
changed into a new acid, called pyro-citrite. It is 
very soluble in boiling water, and in three-fourths of 
its weight of cold water. Alcohol dissolves it in a 
smaller proportion. The aqueous solution, concentrated 
in a small degree, is easily altered on exposure to 
the air. It is obtained by saturating the lemon 
juice with pulverized chalk, and treating the insoluble 
citrate which is formed, by dilute sulphuric acid. 
It is employed instead of lemon juice for making lemon-
ade, and it acts then like the other refrigerant medi-
cines. In large doses, and concentrated, it might 
produce serious accidents, on account of its caustic 
action.

CITRON. The citron, lime, and lemon are differ-
ent varieties of the fruit of a small tree, usually 
black, the original or parent stock of which (citrus medica) 
was imported from Asia into the southern parts of Europe.

The citron is oblong, with a very thick rind; the 
lemon is oblong, with a small lump or protuberance 
at the end; and the lime has no protuberance, has a 
very thin rind, and is about the size of a small egg. 
These are the principal marks of difference between 
these three kno,es, and not, generally, that the 
lemon shrub has large and slightly-inclined shining 
leaves, of somewhat oval shape, but pointed, and on 
the footstalks of the leaves there is no remarkable 
appendage. The flowers are large and white, but 
parvulir on the outside of the petals.

It is generally supposed that the citron-tree was 
first introduced from Assyria and Media into Greece, 
and thence into the southern parts of Europe, where 
it is now cultivated to considerable extent. It is also 
rised in the islands of the West Indies. The fruit, 
paraking of the same quality as the lemon, with the 
exception of being somewhat less acid, is seldom 
eaten raw, but preserved in sugar, as a sweetmeat, is 
much used by confectioners and others. It is also 
occasionally employed in medicine. The lemon is 
a native of Upper Asia, from whence, like the citron, 
it was brought into Greece, and afterwards trans-
ported to Italy. The most remarkable characteristic 
of the sharpest and most agreeable of all acids, is its 
in cookery, confectionary, medicine, and various other 
ways. By calico-printers, it is very extensively 
employed, as a discharger of colour, to produce, with 
more clearness and effect, the white-figured part of 
colourless patterns. The citron liquor, which is the 
juice procured by simply squeezing the fruit, and 
straining it through linen or any loose filter; and 
in Sicily and other parts of the Mediterranean, it 
forms an important article of commerce. Being one 
of the most valuable remedies for the scurvy with 
which we are acquainted, it generally constitutes 
part of the stores of ships that are destined for 
long voyages. Several different modes have been 
recommended for the preserving of lemon-juice. One 
of these is, to put it into bottles with a small quantity 
of oil, which, floating on the surface, prevents the 
immediate contact of the air, and retards the decom-
position of the acid, though the original fresh taste 
soon gives place to one which is less grateful. In 
the East Indies, lemon-juice is sometimes evaporated, 
by a gentle heat, to the consistence of a thick ex-
tract. Sometimes it is crystallized into a white and 
salve salt; but what is sold in the shops under the 
name of crystallized juice of lemons, is usually a 
small, or thickened pulp of lemons, or preserved 
syrup, made up with syrup, or black exudate, 
which affords it useful in cookery. When dried, it 
is considered a good stomachic, promotes the appe-
tite, and is otherwise serviceable as a medicine. It 
is often candied and made into a sweetmeat, under the 
name of lemon chips. In distillation, it yields a 
light and almost colourless oil, which, in smell, is 
nearly as agreeable as the fresh peel, and is frequent-
ly employed as a perfume. Lemons are sometimes 
 preserved in syrup. Small ones, with thick rinds, 
are converted into a grateful pickle. Marmalade 
and sirup are also made of them. For the purpose 
of keeping the fruit, it is recommended that a fine 
pack-thread, about a quarter of a yard long, should 
be run through the protuberance at the end of the 
lemon. The ends of the string are to be tied to 
gether, and suspended on a nail, or hook, in an airy 
situation, in such a manner that the lemon may hang perfectly 
free and detached.—The cultivation of the 
lemon is much attended to in several parts of America and the 
West Indies. Its juice affords a more grateful acid 
than that of the true citron. 

CITTA, in geography; the Italian word for 
city, which is used in many proper names of ci-
ties, as Città Castellanana, Città Ducale, Città Nuova, &c.

CITY, in history. Mankind have been twice inclined for civilization and liberty to cities. With them civilization and political institutions began, and in them we developed the principles of democracy or of monarchical rule in the middle ages. The origin of cities belongs to the earliest period of history. According to Moses, Nimrod built three, among which Babylon was the most important. The Jews believe, though without foundation, that Shem erected the first city after the deluge. At the commencement of society, the form of government was patriarchal. The ruler was the head of the family or clan. Relationship, the innate wish of men to live in society, and, more, perhaps, than both these causes, the necessity of providing means of defence against more powerful clans, brought together separate families into one spot. The fertility of the East, also, was an inducement to men to give up the rambling life of nomads, and to form permanent settlements. These settlers began to barter with those tribes who continued to wander with their herds from place to place. They were surrounded with walls, to prevent the inroads of the wandering tribes. The bond of connexion between their inhabitants thus became closer, and their organization more complete. As by degrees the chiefs of these family-states disdained away, the citizens began to elect the most able among them to be magistrates, without respect to birth or descent. Thus political institutions began to assume a systematic character. The earliest form of government succeeding the patriarchal state was probably monarchical. In this, the religious, paternal, and political authority remained closely mingled. The authority of the king was weak, his connexion with the different parts of his dominions imperfect, and the progress of civilization was promoted almost solely by the growth of the cities. These gave rise to the division of labour, the refinements of social intercourse, the development of laws caused by the conflicting interests of many people living close together, the idea of equality of rights, the diminution of awe for a distant monarch, the growth of patriotism, springing from the sense of advantages enjoyed, and the exertions necessary to maintain them. These were the salutary consequences of the establishment of cities. Under the sky of Italy, Africa, and Asia, cities, Italy, cities were built first, and in the greatest number. The Phoenicians and Egyptians particularly distinguished themselves by the erection of cities, which soon attained a high degree of wealth, and consequently of civilization. The Egyptians considered their city Dispolis (Tyre) older than any of the Greek cities, and Pline says that Cecropia (erected in Attica by Cecrops, 1582 B.C., and afterwards called Athens) was the oldest city of Greece. Heren justly remarks, that the rise of cities was the most important source of the republicanism of antiquity. This is particularly true of Greece. In fact, cities are, by their very nature, of a republican tendency. Several confederations of cities existed in the ancient world; for instance, the Phocian, consisting of the cities of Tyre, Sidon, &c., and the Achæan league, formed by the most important cities of Greece, in order to strengthen themselves against the power of Macedon. Under Augustus and his successors, the Romans began to establish colonial cities in Germany, having done the same long before in Gaul, Spain, Africa, &c. In Switzerland, they found the confederation of the cities of the cantons, which were mostly laid waste by the Allemandi, and subsequently rebuilt under the government of the Franks (A. D. 496). The Germans, accustomed to a wild,}

rambling life, did not show any disposition to live in cities, until Charlemagne laboured to collect them together in settled abodes, from his desire to civilize them. Henry I. distinguished himself particularly in this way, and, on this account, has been called, by some, Henry the City-builder. He gave the cities great privileges, in order to induce his subjects to live in them, and thus laid the foundation of that power, which, at a future period, contributed most to break down the feudal system. In many cities, imperial castles were erected to protect the inhabitants, and the unsupportable oppressions and even cruelties exercised by the feudal lords upon their peasants, or by the wandering knights and robbers, drove many people into the cities. The attacks of the neighbouring lords gave firmness to their union, and compelled them to cultivate their resources. Commerce and the various arts and trades were soon cultivated within their walls, and their wealth and respectability increased. They soon became sensible of the want of a better system of laws and political administration than prevailed around them, and the principle of equal rights and laws was quickly developed.

One of the most important remains, if not the most important, of the great fabric of ancient civilization, was the cities of Italy. What the world would have become without them is not to be calculated. In spite of their bloody contests with each other, and the vast struggles in which they engaged, these cities were considered as having lighted the torch of modern civilization. It was not the monarchies, it was not the courts of the great princes, it was the cities of Northern Italy, which opened the way for the progress of improvement; and the petty princes of Italy caught from them the spirit which prompted their efforts to promote it. Under the reign of Conrad III. (1138-52), the cities of Lombardy, and particularly Milan, which stood at their head, had acquired a high degree of wealth and power, and had formed themselves into a confederation. The struggles between the emperors and these cities form one of the most important portions of the history of the German empire and of Italy. Frederic I. in vain demolished the powerful city of Milan. It was soon rebuilt, and the cities of Lombardy, in alliance with the pope, obliged the emperor to conclude with them a very disadvantageous peace at Constance. Two other confederations of cities, the Swiss, and Sicily, were formed during the interregnum of the German empire, between 1256 and 1272. One of them was the powerful Hansa, or Hanseatic league (q. v.); the other, the confederacy of the High German and Rhenish cities, from the foot of the Alps to the mouth of the Mayne, established by Walpode of Mentz, in 1255. A similar confederacy, and a very important one, was that of the Swabian cities, instituted in 1488, to repel the outrages of the feudal lords and knights. By degrees, the cities acquired, in the different countries of Europe, the right of representation in the legislative bodies; and wealth, industry, knowledge, and equal laws, spread from them through Europe. But the cities of Lombardy, though still flourishing and wealthy, had fallen, for the most part, under the rule of single families; their republican governments vanished, and their confederation was dissolved. The associations of German cities experienced a similar fate. By the peace of Westphalia, the princes of the German empire were declared sovereign powers, and the more their authority increased, the more did the relative weight of the cities of the kingdom suffer from the oppressions of the feudal lords. They were now the victims of the policy of the neighbouring princes, whom envy often led to adopt the most unwise
rantable measures against the cities, many of which had lost their independence before Napoleon dissolved the German empire. He took away the privileges of those which remained free; and the congress of Vienna restored freedom to Lubeck, Hamburg, Bremen, and other towns. The following is the number of deaths in the six principal towns that were not accorded to whom they should be assigned. At the same time, Cracow (q. v.) was declared an independent city, with a republican form of government. (For further information, see the articles Germany and Italy.) The following works contain much information on the topic: London and Cambridge, by Dr. Peterman; Count Rumford's History of the Origin of the Leagues of the Free Cities in the Middle Ages and in Modern Times (in German), Zurich, 1829; Eichhorn on the Origin of the Cities of Germany, in his periodical Zeitschrift fur gesetzliche Rechtsvorsien-

**CITIES.** Considered in regard to politics. Cities, as we have already said, naturally develop the democratic principle, and, on this and several other accounts, are to be considered among the finest supports of the free, well-organized and well-functioning municipal institutions, in which the government is in the hands of the citizens, afford continual nourishment to the spirit of freedom throughout a country, and, in fact, are more important, in this point of view, than the mere possession of legislative privileges. Wise nations have therefore been wont to bestow the greatest attention on the establishment of free, well-organized municipalities, while others have neglected this, in their zeal to secure the right of representation to the people at large. The importance of cities, in this respect, makes it very difficult, in a constitutional monarchy, to combine the necessary liberty of municipalities with the prerogatives of the monarch.

In France, this has been a point of contest and legislation ever since the establishment of the charter.

**Medical Statistics of Cities.** The following account of the comparative mortality in large European cities is given in the October number of the Medico-Chirurgical Review, London, 1829. It is well known, that, in any given country, the deaths in a city are more numerous than those in the rural districts. This difference is principally felt in the first five years of life, when many more die in London than in the country. From five years of age to twenty, the deaths in London are fewer than in the rural districts. Between twenty and fifty, many more die in London, on account of the large annual influx from the country. In all cities, a large portion of disease and death is to be assigned to the constant importation from the country of individuals who have attained to maturity, but, having been previously habituated to frequent exercise in a pure atmosphere, and to a simple, regular diet, are gradually sacrificed to confined air, sedentary habits, or a capricious and over-stimulating diet. These causes are not equally fatal to those who have passed their early years within the walls of a city; and, after the age of fifty, the proportion of deaths in London is smaller than in the country. Jenner, and, very recently, doctor Baron, have made some curious experiments on animals, which indicate that a loss of their open range and natural nourishment has, with them also, a tendency to disorganize and to destroy. Doctor Baron placed a family of young rabbits in a confined situation, and fed them with coarse green food, such as cabbage and grass. They were perfectly healthy when put up. In about a month, one of them died. The signs of disorganization were evident in a number of the young rabbits, and spread over the external surface of its liver. In another which died nine days after, the disease had advanced to the for-
much healthier. The superior longevity of the Jews is strongly marked in this city. One death is annually observed among twenty-six of the males, and one in twenty-two and one-half among the Christians. In- 
stated officers, but it is an extreme and an insu-
tuated one, and does not mitigate against the gen-
eral conservative tendency of prosperity, which a va-
riety of evidence seems to establish.—Palermo. 
Mortality is here one in thirty-one. January, Octo-
ber, and November are the most fatal months; April, May, and June the most healthy.—Leghorn. 
The average annual mortality here is one in thirty-
five. Among the Protestants and Jews, it is only one in forty-eight, which is attributed to their great-
er affluence.—Rome. From a recently recovered 
fragment of Cicero (De Republica), an intimation is 
conveyed that the neighbourhood of Rome has been 
always unhealthy. Speaking of the choice of situa-
tion made by Römulus, he observes—locum debilitat 
in regione pestilente salutarem. The population appears 
to have been gradually decreasing till the last peace, 
which has greatly revived it. In 1800, there were 
150,000 inhabitants; but in July 1834, within six 
few years, it has gained 10,000. The annual mor-
tality is about one in twenty-five. There can be lit-
tle doubt that the force of the aguish disposition of Rome might be considerably weakened by steady 
and well-directed efforts, supported by a proportion-
te capital; but it is to be feared that such an exti-
mination of circumstances will not readily meet at 
Rome. In 1816, seventeen out of the twenty-two 
French students were attacked with intermittent fevers. The Villa Medici, in which they reside, was 
formerly healthy; but water brought at a great ex-
pense to emblish the garden, had been suffered to 
 stagnate there.—Naples. The annual mortality 
here is one in twenty-three; a fact that one would 
not have expected in such a delightful situation, 
compared with pestilential Rome, where the mortal-
ty is less. The population of Naples is nearly 
three times that of the ancient mistress of the world. 
—Amsterdam. The annual mortality is very great, be-
ning one to twenty-six.—Amsterdam. The population of 
this once great city is decreased, in consequence of 
declining commerce and political changes. And it is 
not a little curious, as well as melancholy, to ob-
serve that its mortality has increased with the pro-
gress of decay. In Amsterdam was one in twenty-seven—a period when Amsterdam was 
one of the healthiest as well as one of the most 
flourishing cities of Europe. The deaths have now 
increased to one in twenty-four, and Amsterdam is one of the least healthy as well as the least prosper-
ous seaport of Europe. This is one of the alarming 
facts that, after the 1st of January, 1829, no burials 
shall be permitted in towns or churches throughout 
North Holland.—Stockholm. Drunkenness appears 
here, as at Berlin, to produce a large share of the 
mortality. In a recent year, this city exhibited a 
singular instance of an excess of 1439 more deaths 
than births—a symptom which it is painful to ob-
serve in a brave and industrious people. This dis-
proportion existed particularly amongst the garrison, 
and is ascribed to the immediate use of brandy. 
Our authority affirms that this vice destroys the kip-
pinners of prosperity. Sydney is said to have 
been more effectually than any war has ever done. 

The medical police of large cities deserves partic-
ular attention, because the health of multitudes de-

pends upon the care which is taken by the magis-
trates to remove the causes of disease which origin-
ate in a great population. Knowledge of this branch 
of medical science can be obtained only by attentive 
observation and experience, and the utmost care and 
the most rigid regulations of large cities under governments which have paid particular attention to it.

Cities, in a moral point of view. Much has been 
said, written, and preached against the immorality 
of large cities, and the fact cannot be denied; but 
immorality is not confined to them. The petty 
voices of small places, though less glaring, are, per-
haps, equally injurious; making up in constant re-
petition for their comparatively less degree of noxi-
ousness. It is much more difficult, moreover, to 
preserve one of the most important possessions, in-
dependence of character, in a small place than in a 
large one. The cry against the immorality of large 
cities should not make us forget the many great and 
admirable things which mankind have been enabled 
to perform by means of the collected strength or 
talents and resources combined in large cities, and 
their influence in forming the character of great 
men, who could not have acquired elsewhere the 
variety of accomplishment, and the well-proportion-
ated cultivation of their various faculties. At the 
same time, we must allow that it is a very injurious 
ploy to strip a whole country of all which illus-
trates and embellishes it, to swell the trea-
sures of the capital. See Capital.

CIUDAD, and CIVIDAD, in geography, the 
Spanish word for city, from the Latin civitas, 
appears in many names of Spanish places; as, Ciudad-
de-Ias-Palmas, or Palmas (capital of the island 
of Grand Canary), Cívidade-Real, &c.

CIUDAD-RODRIGO (anciently, Lancia, or Mire-
briga); a fortress in Spain, in Leon, on the river 
Agudela; 45 miles S. S. W. Salamanca; lon. 0° 33' 
W.; lat. 40° 25' N.; population, 11,000. It is a 
bishop's see. It was built by Ferdinand II. as a 
rampart against Portugal, from which it is only about 
eighty miles distant. The fort, containing 6000 men, 
was surrendered to the French under Masséna, July 
10, 1810, having been bombarded twenty-five days; 
and Jan. 19, 1812, it was taken by storm by the 
British, under lord Wellington, after a siege of 
eleven days. The Cortes gave Wellington the title 
of duke of Ciudad Rodrigo, and the rank of a grandee 
of Spain, of the first class.

CIVET (viverra, Lin.) ; a genus of carnivorous, 
mammiferous quadrupeds, natives of the torrid regions 
of the ancient continent, particularly distinguished by 
having a secretory apparatus, which forms a power-
fully odorous matter, known by the name of civet.

In general appearance, the species of this genus re-
mind one of the fox, which they also resemble in 
habits; but the tail is long, hairy and cylindrical, 
and the claws though by no means so acute as those 
of the cat, are still partially retractile, or cat-like. 
The resemblance to the viverra is increased by the 
uppers of the eyes, which contract in a straight line, 
and by the colour of the skin, which most 
pecies have banded or spotted with black 
upon a deep yellow or dun-coloured ground. 
The tongue is studded with stout, horny prickles, and 
the ears are of middling size, straight and rounded to 
their tips. The pouch, situated near the genitals, is 
a deep bag, sometimes divided into two cavities, 
whence a thick, oily, and strongly musk-like fluid is 
poured out. They are nocturnal, and prey upon 
birds and small animals, and may be considered as 
forming the transition from the museline or marten 
to the feline race. The genus has been divid-
ed into two sub-genera by naturalists, the first com-
prising the true civets, those having the pouch
CIVIC CROWN—CIVIL LAW.

large and well marked; the second including the genets, in which there is a simple depression, instead of a pouch. Two species of the first, and eight of the second, are at present known. Their individual peculiarities may be seen in Desmarest's Manulocus, p. 202. The odoriferous substance which these animals yield, called, from them, civet, when good, is of a clear yellowish or brown colour, and of about the consistency of butter: when undiluted, the smell is powerful and very offensive, but, when largely diluted with oil or other materials, it becomes an agreeable perfume. At a time when perfumes were more fashionable than they are at present, civet was very highly esteemed, being, by many, even preferred to musk. Young civet-cats were purchased by the drug dealers of Holland, England, &c., as we are informed by Lemery, and brought up tame for the sake of the civet, so that a cat which is large and gentle may come to be valued at between four and eight pounds sterling." M. Pomet, in his history of drugs, relates that he was presented by a friend with a civet-cat, obtained in China in 1683.

"Having kept this creature some days, I perceived that the walls and bars that enclosed it were covered with unctuous moisture, thick, and very brown, of a very strong and disagreeable smell, so that, during all the time I kept this animal, I took care to gather the civet out of the pouch every other day, not without some trouble or hazard, because it put the creature to some pain or apprehension of it; and having done so for months, I had about the quantity of an ounce and a half; but it is certain, that, if the necessary care had been taken, and the beast could be hindered from rubbing itself, I might have got a great deal more." The medical virtues once attributed to the civet were numerous and various; but, in course of time, it has been entirely laid aside, even as a perfumed; yet that, at this time, the words of the dramatist, "Give me an ounce of civet, good apothecary, to sweeten my imagination," might be frequently repeated, even in our large cities, with slight probability of obtaining the article.

CIVIC CROWN; among the Romans, the highest military reward, assigned to him who had preserved the life of a citizen. It bore the inscription Ob civesm servatum, and was made of oak leaves.

He who was rescued offered it, at the command of his leader, to his preserver, whom he was bound to honour afterwards as a father. Under the emperors, it was bestowed only by them. Various marks of honour were also connected with it. The person who received the crown wore it in the theatre, and sat next the senators. When he came in, all the assembly rose up, as a mark of respect. The senate granted to Augustus, as a particular mark of honour, that a civic crown should be placed on the pediment of his house, between two wreaths of laurel, as a sign that he was the constant preserver of his fellow citizens and the conqueror of his enemies. Similar honours were also granted to Claudius.

CIVIL LAW.—I. The Romans understood by this term nearly the same as, in modern times, is implied by the phrase positive law, that is, the rules of right established by any government. They contradis-
in his connexion with others, like the ancient German laws, which give a value to the individual chiefly as a member of a family or a community, but at an early period, treated every one as an independent member of society, the head of a family, free from the restraints of relationship, or membership of corporations. In whatever age, the Roman law, embracing a property common to a family or a corporation, hereditary or entailed, a body of attendants attached to the lord, feudal services, unequal right of inheritance among children, &c., are not to be found in the civil law. The relation between patricians and plebeians, between corporations, was not different from the feudal connexion. The expulsion of the kings was at first of advantage only to the higher classes of citizens (A. U. C. 245), but, only 15 years afterwards (A. U. C. 260), these were obliged to grant to the other citizens the college of the tribunes and the right of holding deliberative assemblies, which opened the way for the great compact of the twelve tables, drawn up by patronian decemvirs (A. U. C. 303, 304), which the ancients considered as establishing equality of rights, though it was not till some years afterwards, that the patricians and plebeians were compelled to consult together with each other (lex Cassia et, A. U. C. 309); and not till a much later period were plebeians capable of being elected consuls (A. U. C. 387). An important point of that fundamental law or charter, it we may give it a modern name, was the establishment of such an order of legal procedure, that the poorer class of citizens, and particularly those living without the city, should not, as had been too often the case, suffer from their causes being hurried through the courts. Another important point was the settlement of the legal independence of the individual, a man may be said to have conquered the world, namely, by its arms, by its laws, and by the decrees promulgated from the palatine chair. The dominion of its laws has been the best founded and the most extensive. The Roman laws may be formally abolished, but their influence can never cease. Their effect is as permanent as that of Grecian art. At the same time, it is not to be denied, that the introduction of the civil law has, in the case of several nations, obstructed the development of their own peculiar systems of law, and in this respect produced evil consequences; but such is the nature of great agents which are beyond the control of those who are in the power of the state with suitable language, a more beautiful style of art, and we might even say, with a purer religion, has likewise prevented the growth or completion of many institutions and modes of action, which might have borne noble fruits. In considering the history of the civil law, as, in fact, of any system of law which has sprung from the wants of the people among whom it grew up, we must take into view the public law and political history of the state, and the growth of its civilization. The commencement of the history of Rome offers little that is original. Its institutions were such as existed in all the neighbouring states. Greek views predominated throughout. The royal authority fell in Rome, as it had fallen in all the Greek governments, and the division of the nation into a hereditary body of nobles, and a comparatively powerless community of citizens, gave rise to armistice, and, to a certain extent, a law-making character of the internal constitution of Rome will afford, even after the ingenious and deep researches of Niebuhr, in his Roman History, ample opportunity for learned investigation. If manly firmness (virtus) constituted the beam ideal of a genuine Roman, the same quality was the basis of the Roman laws. These laws did not consider the individual principally
cres are called senatus consulta). In the beginning, the provinces of the two were so separated, that each one passed decrees only upon its own affairs and relations; but very soon it became necessary to acknowledge mutually a common authority (lex Hortensia, A. U. C. 468). However, as long as Rome remained in its early condition, removal of crimes and the enactment of laws was comparatively rare. After the great internal convulsions had broken out, the conquerors endeavoured to establish their authority more firmly, and to gain the favour of the people, by making important reforms in the laws, particularly those regarding the punishment of crimes and political offences, the regulation of legal processes, and some abuses in the public administration. This was done by Sylla (leges Coratinii, A. U. C. 673), by Caesar (A. U. C. 708—710), but much more by Augustus, in whom, from the year of Rome 725, the power of all the branches of government, and the dissolution of the Senate and of the meetings of citizens, were united (leges Juliae). To the laws, strictly so called, previously customary (the leges, approved by the citizens), and the decrees of the Senate, now were added the special ordinances (constitutions) of the emperors, which the provinces still retained the right of contributing, by their edicts, to the development of the legal system. As soon, however, as the monarchical government became settled, the forms of the republic gradually disappeared. In the reign of Tiberius (A. U. C. 767—790, A. D. 14—37), no leges are to be found after the year 777, and, 300 years later, the senatus consulta, also, merged entirely in the imperial decrees, constitutions, and rescripts. The annual edicts of the pretors, till then customary, were collected under Adrian (A. U. C. 894, A. D. 131), by the jurisconsult Salvius Julianus, into a form which was made unalterable, called the edictum perpetuum. It is worthy of remark, that though, after Augustus, the most absolute despotism had become established in all public relations, and the penal laws had been made mere instruments of despotism, this very time is the most brilliant period of the scientific development of the civil law. This period begins with Augustus, but the brightest part of it falls under the Antonines (from twenty-three B. C. until 180 A. D.) and one or two succeeding emperors. The great names of Caius, Papinian, Ulpian, Paulus, belong to this last period. When the political privileges of the citizens were increased, but the powers of the emperors, which often proved a very imperfect security, the laws which regulated the relative rights of individuals, and protected them mutually from wrong, were continually approaching perfection. This subject deserves a more thorough investigation than it has yet received. All legal relations were expressed with admirable skill and consistency in distinct definitions, and the whole system was developed from a few principles, which run through the whole, and the distinctness and simplicity of which are proved by the adoption of the Roman law among so many different nations. The process of development was in so far historical, as it was always connected with an adherence to the old forms, but it was entirely philosophical and rational, as it always strove to find out the real principles of rights and obligations, and to make the formal law dependent upon them. After the age of the Antonines (from 180 A. D.), such a perfection of the jurisconsults by which the juridical spirit was lost. The judicial system was now continued only by the imperial constitutions, which treated but rarely of private law, while they entered much and often into the subject of public relations. The opinions of the ancient jurisconsults of the better period were regarded almost as legal authorities, and, to remedy the difficulties arising from their different views, it was provided by Valentinian III. (426 A. D.), that the majority of opinions should decide. The number of the constitutions became such, that collections of them were made, first by private persons (codex Gregorius et Hermogenianus, about 365 A. D.), and divided, in the reign of Theodosianus, 438 A. D.), in sixteen books, of which the eleven last have been preserved entire; of the five first, however, only fragments are extant. The latter have been recently discovered at Turin by Peyron, and at Milan by Clossius. (See Hermes (a German periodical), 1736.) Injuries consequent necessary resulted from the cessation in the development of the Roman law after the time of the Antonines. It may be seen, from the expressions of Justinian, into what subtilties, what verbal and formal niceties, the lawyers had fallen in his time, when ships of things, in respect of rules, the present state of law in England, is similar reasons. The public administration, at least as far as regarded its external form, had been reduced into tolerable order since the time of Diocletian and Constantine. Theodosius II. (408—459) had conceived the idea of arranging the immense mass of rules and authorities relating to the private law, but the difficulties, on examination, were considered too great, and no sovereign till Justinian (527—565) had the courage to meet them. He first ordered the imperial constitutions, which still remained in force, to be put into a new collection (codex Justinianus, commenced in 537), and decided, in and after the year 539, fifty legal questions, which had been, till then, left doubtful. At the same time, a systematic abridgment of the writings of the jurisconsults was made by seventeen commissioners, embracing fifty books of digests or pandects, and an introduction to the study of jurisprudence was prepared (institutiones); both works were published December 30, 535, and invested with legal authority. In the following year, a new collection of imperial decrees (codex repertio protectionis) in twelve books, was published, and from that time another series of single decrees (thirteen edicts and 109 new edicts, or pandects) by the Roman law may be considered as completed, because it was deprived of its capacity of further development, and left to mankind as a rich but lifeless treasure. The opinions respecting this work of Justinian are very various. If we consider merely the practical utility of his labours, as regards his age and people, it will not be denied, that he conferred a great benefit on his subjects, and the changes themselves, which were made in the existing regulations, proceeded mostly from a sound view of the higher objects of the law. The abolition of antiquated and useless forms, the simplification of legal relations and legal processes, may be acknowledged to have been the principal objects of the changes made; and these changes were executed with judgment. If there are decrees of little value among them, these imperfections are not greater than we find in all ancient and modern codes. Justinian has been particularly blamed by modern jurisconsults, because the juridical spirit was lost. The judicial system was now continued only by the imperial constitutions, which treated but rarely of private law, while they entered much and often into the subject of public relations. The opinions of the ancient jurisconsults of the better period were regarded almost as legal authorities, and,
part of these writings would have been preserved; and it would seem that a beneficent providence sometimes allows large masses of historical knowledge to perish (as in the case of the Alexandrian collections), in order to compel mankind to revert to the resources of their own minds, and to lead them from knowledge to wisdom. The taking of Justinian was demanded by the want of his age; and it was better to satisfy such a demand, even at the expense of some imperfections, than to delay the necessary work under the pretext of educating competent men for the task, and making those respects, as has been said, the chief end. The fruit of the labour to have been a treasure of legal wisdom for posterity. Our limits will not allow us to mention here the different editions, abridgments and translations of the work prepared for the Greek provinces (the Western provinces were soon lost for ever). One Greek edition, of a much later date, was ordered by L. Basilius Macedo (867—889), and executed under his successor, Leo the Philosopher (886—912). This was called Libri Basilicorum. Of the sixty books of which it consisted, we possess only one part; though, indeed, the greater part, published by C. Hamel, Paris, 1817, 7 vol. fol. (L.), and four books, which did not appear in this edition, were published by Reitz, in Meermann’s Thesaurus Jur., vol. v. p. 1.

Thus the Roman law is one original and independent whole, embracing a period of 1500 years to the time of Justinian, and of 1800 years to that of the Basilica. It stands, in this respect, unique in history. Perhaps Chinn, if, at some future period, we learn more of its history, may afford some institution of similar duration. Even the downfall of the Roman empire has not destroyed the Roman law, but, in some respects, has enlarged its dominion. It was in force, before the modern governments were established, throughout the Roman empire in Europe, and when the Goths, Franks, Lombards, Burgundians, and other Teutonic tribes, erected new empires, not only a large part of the public law of Rome, was incorporated into the new constitutions, but the private law, also, continued to be acknowledged as valid among the old inhabitants. The new rulers took care that, besides their different ordinances for the welfare of the Germanic tribes, abridgments and modifications of the Roman law should be made, sometimes, it is true, rude and barbarous enough. Among the Carolingian constitutions, the breviarum Alamannorum of the Visigoths, 596; the lex Romana of the Burgundians, or Papieni Response, between 517 and 554. For the Lombards, a rifacimento of the Roman law was prepared in the eighth and ninth centuries. and thus in the south of France and Italy, this law continued in authority uninterrupted, as far as it was adapted to the new state of things. But this authority, of course, diminished in proportion as new forms of family relations and social connections and new species and tenures of property sprang up, particularly under the feudal system, and in proportion as the internal disturbances in the different states unsettled the idea of law in general. But this idea was awakened again after the states had gained a degree of stability. People began to perceive that there was a nobler and firmer basis of right than mere power; national union gained consistency and true value by means of the old law. In many states they thus became zealously forwarded the extension of their privileges; the increasing activity produced more solid distinctions than those of birth; the insufficiency of the old laws began to be felt; and the blessings of a scientific cultivation began to be diffused, borrowed, in a considerable degree, from the Arabians in Spain. In this state of things, men rose, in Upper Italy, in the eleventh century, who freed the law books of Justinian from the obscurity in which they had been buried till then, and by these means gave a new impulse to the science of law. Imperial, towards the end of the eleventh and in the twelfth century, is mentioned as the first of them. All the nations on the European continent, at first, that the law was necessary to them, after the model of which were now digested the papal decretals, the feudal law, and, at a later period, the Germanic laws. Thousands of scholars, from all parts of Europe, went to Bologna and other cities of Italy, to study law there. It was generally supposed, at first, that the German races were hostile to the whole of Christendom; but it was soon found out that there existed whole systems of laws and legal relations, with which the rules of the civil law would not harmonize; and the peculiarities in the organization of the tribunals of different countries were long an obstacle to the formal adoption of the civil law. This adoption, therefore, did not take place in the various countries at the same time, nor to the same extent. In Italy and the south of France, it was introduced first and most completely; at a later period, and to a less degree, in the north of France, Germany, and England. It has never, in fact, been acknowledged as binding, but only as an authority in regard to general principles of natural law (raison cerite), and still retains this degree of influence, notwithstanding the establishment of the Code civil. In England, it never has been received in the ordinary civil courts (it is, in some extent, in Scotland) but the spiritual courts have always been guided by it. It is, therefore, in force in such cases as fall under the jurisdiction of these courts; e.g., such as relate to last wills. It is also in force in the admiralty courts, but in both cases, mainly with modifications. In Germany, the idea that the emperors were the successors of the Roman sovereigns contributed much to obtain legal authority for the Roman law in that country; and this has been confirmed by several laws of the empire and of the different states composing it. But the native laws have everywhere prior authority, and the Roman law can only be applied in cases where these make no provision; but all those of its rules which relate to institutions confined to Rome have no force. It is not allowed, moreover, to be applied to cases growing out of modern institutions, such as feets, premonitory bills of exchange, and questions belonging to public law. Many countries, therefore, can happen, in which there may be much doubt whether the Roman law is applicable or not. Prussia and Austria have codes; but in other German states, as in Saxony, there is a great confusion between the Roman and the native law. We have already observed that the effects of the Roman law never would cease, and its influence is perceivable in all the modern codes. We would not be understood as intimating an opinion that the Roman law supersedes the necessity of forming new codes. These are desirable in many nations, on many accounts, and, among others, because the Justinian code itself is not without obscurities, and the language in which it is written renders it inaccessible to the bulk of the people of every modern state; but the welfare of a citizen depends, in a great degree, upon correctly understanding his rights and obligations. Whether the principles of the Justinian code are to be applied to those of the English law, it must be of great advantage to the common lawyer to study a digest which contains the recorded wisdom of many centuries, and furnishes abundantly both examples and warnings. We would recommend to the reader an article on civil law in the American Jurist, No. III. July, 1859 (Boston).
CIVIL LIST; an expression which formerly was customary only in England, but at present prevails also in Germany and France. As used in England, it signifies the sum which is granted to every king, at the beginning of his reign, for the support of his court and household, of ambassadors, and of the civil government. It is the civil principle in England, as in other Teutonic nations, that the monarch was to pay all the expenses of government, even including those of the army, from the possessions of the crown, the domains in (German Fürsten- gender), and that the subjects were not obliged to contribute a farthing to the support of the government. From this principle, which is proved by the history of the origin of the domains, it appears, that the domains, in general, cannot be considered the private property of the ruling family. On the contrary, they are, in general, the property of the state, and have been given to the prince to defray the expense of government. The crown lands of the Saxon kings were very considerable. After the Norman conquest, they were much increased by confiscation, but were soon diminished by grants. Under Henry VIII., they were again much increased by the sequestration of the servants. It was in that time, in England, twenty-seven mitred abbots; there were also two priories, besides numerous other convents; but the greater part of the possessions of the religious orders was squandered by this prince. William III. thought it necessary to strengthen his government by liberally rewarding his most faithful adherents, for which reason he made grants of the crown lands with such profusion that, under the government of his successor (in 1702), a law was passed, prohibiting the alienation of the royal domains. There exist, therefore, few crown lands at present, and the income from them is very limited. It was formerly, under the public treasury. Formerly, there were only certain annual contributions granted to the king for the support of the government. Under Charles II., the amount of the grant was first settled (£1,200,000). Under James I., this was increased to £1,600,000. The revenue from Scotland was not comprised in this sum. After the revolution of 1688, William's love of war being known and dreaded by his people, no appropriation was made for him military expenses, and he received for defraying the expenses of the household, and the branches of the civil service immediately connected with the royal court, the sum of £700,000, and, at a later period, £800,000. This was called the civil list. Under queen Anne, the civil list amounted only to £691,000; under George I., at first, to £750,000, but was increased to £850,000. George II. had £850,000. George III. resigned all the hereditary crown taxes and revenues, appropriated to defray the expenses of the civil list, for the sum of £800,000, which, in 1777, was increased to £900,000, and at last, in 1812, to £1,028,000. Besides these grants, the debts of the civil list have been paid several times by parliament. From 1769 to 1784, they amounted to nearly £290,000,000. In France, during the revolution, certain sums were assigned for the support of the king and his family, which civil list differed from the English in so far as all the real expenses of government were separated from it. For the king, according to the law of 1792, the annual revenue, was given up, £1,041,909, were set apart, and for the princes and the princesses, 8,000,000. To these grants are to be added the royal palaces in Paris (le Louvre and the Tulleries), the castles and domains at Versailles, Marly, St. Cloud, Meudon, Rambouillet, Compiègne, St. Germain-en-Laye, Fontainebleau, &c., with all the valuable and works of art appertaining to them: like-
nations, which arrives at a marked intellectual development, goes through certain stages of civilization, and, after reaching the highest point which it is capable of attaining, declines; that, moreover, the march of improvement in different nations shows itself in distinct confluences, e.g., by the progress of the scientific and philosophical nations along the Greeks by the advancement of the natural sciences and the construction of great works of architecture among the Egyptians, by the development of the law among the Romans, &c.

3. Some believe in a general progress of the intellect to a certain point, after which an equally general decline sets in, thus making the race subject to the same laws as the individual. 4. Some persons cannot discover any regularity in the march of civilization. However these different opinions may appear, when measured by metaphysical theories, the second seems to be most conformable to history, with this qualification, however, that the increasing communication between nations has subjected many to similar influences, so that the opinion is applicable, at present, rather to families of nations than to single ones. Another subject, on which much difference of opinion exists, is, respecting the place where civilization originated. The Greeks, and some inquirers, however, make Ethiopia its first seat, in support of which opinion, various passages are cited from the Greek writers. Little doubt seems to exist, that the Greeks received their civilization from Egypt, Mr. Alexander Everett, in his work on America, goes so far as to maintain that it appears, from the historical sources we possess, that civilization commenced with the blacks; that "the blameless Ethiopians" of Homer were considered, by the Greeks, as superior beings to themselves; and that the Egyptians, before they became mingled with white races, were people of colour, or negroes—a view which the learned gentleman has recently advanced again in a public lecture. A further and highly important question respecting civilization, is, How far was it aided or produced by Christianity? Some persons contend that all the civilization which we enjoy is owing to Christianity, even our progress in science, &c. Others assert the contrary, and say, that history shows that Christianity has hardly ever taken the lead in promoting civilization, which, in every stage of its progress since the birth of Christ, has been urged on by other causes, as the revival of learning, promoted by the conquest of Constantinople, the propagation of democratic notions, etc. Others think Christianity rather accommodated itself to the effects produced by these causes. A third class believe that Christianity had a great influence on civilization in former ages, but that its influence in this respect has become less, as that of science has become stronger. See Perfectibilism.

CIVITA, in geography, the Latin civitas, truncated in the Italian way, appears in many names of cities, as Civita Lavinia.

CIVITA VECCHIA (anciently Centum Cellae), a seaport of the popedom, in the patrimony of St. Peter, 27 miles N. W. Rome; lat. 11° 45′ E.; lat. 42° 8′ N.; population, 7,111. The port was enlarged and rendered commodious by Trajan. It is one of the best in the papal dominion, and next to Ancona in commercial importance. Here are about 6000 galley-slaves. It is the capital of the delegation Civita Vechia.

CLACKMANNANSHIRE, a county of Scotland, bounded by the river Forth, which separates it from Stirlingshire, on the south-east, by Fife-shire, and at every other point by Perthshire. It is the smallest county of Scotland, being only about eight miles long and six and a half broad. Adjacent to the Forth, the surface of the country is plain and fertile, yielding an abundance of corn, agriculture having been here brought to high perfection. Towards the north-east, the ground gradually rises into the Ochil hills, which, besides affording excellent pasture for sheep, produce plenty of coal, freestone, iron-stone and granite, and in some parts slate. Coal is found in Clackmannan and Stirling, antimony, agates, pebbles, and a few specimens of the topaz. The coast is indented with numerous creeks, the resort of fishermen, including several secure harbours, the principal of which are Alloa, and its subordinate port Clackmannan. The public works of the county are chiefly of brecknock on the roads. The town of Clackmannan is nominally the capital of the county, although Alloa (q. v.) is so virtually. Population of the town in 1831, 4266; of the county, 14,739.

CLAIIRON, CLAIRE-JOSEPHE-HIPPOLYTE-LEGIS DE LA TERE; a celebrated French actress. She evinced, when very young, a predilection for the stage, and, adopting the profession, soon became the first tragic performer of her age and country. Garrick, when he visited Paris, became acquainted with her, and afterwards testified the highest admiration of her talents. She long remained without a rival, and, having retired, died in the city of London, aged 75, in 1803. She published Mémoires et Réflexions sur la Déclamation Théâtrale.

CLAN (Gaetic, a tribe or family, among the Highlanders of Scotland, consisted of the common descendants of the same progenitor, under the patriarchial control of a chief, who represented the common ancestor. The name of the clan was formed of that of the original progenitor with the affix mac (son): thus the MacDonals were the sons of Donald, and every individual of this name was considered a descendant of the founder of the clan, and a brother of every one of its members. The chief exercised his authority by right of primogeniture, as the father of his clan: the clansmen revered and served the chief with the blind devotion of children. The appellation of the chiefs had, generally, a reference to the history of their ancestors, and denoted little more than that they were the descendants of the first father of the clan; thus the chief of the Macdonells was Mac Allister More (the son of the great Allister). They were distinguished from the rest of the clan by a feather in their bonnets. Each clan was divided into two orders, the tenants or tacksmen, the near relations of the chief, to whom portions of land were assigned during their lives, leases, and whose descendants were generally merged in the second class, or commoners, by the resumption of the land. The tacksmen usually had a subdivision of the clan under him, of which he was chieftain, subject, however, to the general head of the sept. The jurisdiction of the chiefs was not very accurately defined, but, as is generally the case in such a state of society, it was necessary to consult, in some measure, the opinions of the most influential clansmen, and the general wishes of the whole body. The rebellions of 1715 and 1745 induced the English government to break up the connexion which subsisted between the chiefs and the clansmen. The hereditary jurisdiction of the chiefs was, therefore, abolished, the people disarmed, and even compelled to relinquish their national dress; and but few traces of this institution now remain. (See Mrs Grant's Superstitions of the Highlanders.)

CLAYTON, CLAYTON. A graduate of Yale college, was born at Selden, Massachusetts, June 26, 1703. He was graduated at Harvard college, in 1722, and afterwards commenced the study of divinity. For his acquirements in this and in various other branches of knowledge, particularly mathematics, astronomy, natural and moral philosophy, history, the civil and
CLAPPERTON—CLARE.

Claperton was a man of singular piety and singular industry. His religious sentiments were in accordance with the Calvinism of the Westminister assembly. He constructed the first orrery or planetarium made in America, and published a History of Yale College. His History and Vindication of the Doctrines received and established in the Churches of New England, two Sermons, and Conjectures upon the Nature and Motion of Meteors which are above the Atmosphere. He had prepared also materials for a history of Connecticut, but his manuscripts were carried off in the expedition against New Haven under general Tryon. He died on the 7th of January, 1767, in the 64th year of his age, having resigned his station as president the year previous.

CLAPPERTON, captain Heurt, the African traveler, was born in Amsted, Dumfriesshire, in 1782. After some elementary instruction in practical mathematics, he was bound apprentice at the age of thirteen, to the owner of a vessel trading between Liverpool and North America, in which he made several voyages. He was then impressed into the king's service, and, after serving on the American lakes in the year 1816, and, in 1816, received the commission of lieutenant. Having retired to Scotland, he became acquainted with doctor Oudney, who was about to embark for Africa, and requested permission to accompany him. Lieutenant (since colonel) Denham having volunteered his services, and it being intended that the most noble expedition should be made, to the east and west, from Bornou, where doctor Oudney was to reside as British consul, his name was added to the expedition by lord Bathurst. In the Recent Discoveries in Africa, made in 1823 and 1824, by Major Denham, Captain Claperton and Doctor Oudney (London, 1826), we have accounts of an excursion from Mourzouk to Gharian, a town of the Tuaregs, by doctor Oudney; of a journey across the desert to Bornou, of various expeditions to the southward and eastward, by major Denham; and of an excursion through Sousan to the capital of the Fuladhins, by captain Claperton. The expedition set out from Mourzouk, Nov. 29, 1822, and arrived at lake Tchad, in the kingdom of Bornou, Feb. 4, after a journey of 800 miles. Six days after they entered the capital, Kouka, Claperton, in company with doctor Oudney, who died on the way, set out on an expedition to Socot foo, the capital of Houssa, more than 700 miles east of Kouka, which he reached in ninety days. He was not permitted to pursue his journey to the west, and returned to Kouka, and thence to England in 1825. The information which the traveller collected, in regard to the extent and commerce of the people of Central Africa, was important, as showing the existence in that quarter of a large population of a peaceable disposition, and possessed of a considerable civilization. The geographical information collected was not without its value, although it left undecided the disputed questions of the course and termination of the Niger. The previous views from Tchad (lat. 10° X), Musba (lat. 9° 10'), being 1400 miles in difference of latitude, and from Zangalia, on the east of lake Tchad (lon. 17° E.), to Socottoo (lon. 6° E.), making a difference of longitude of 600 miles. They thus determined the position of the kingdoms of Mandara, Bornou and Hausa, their extent, and the position of their principal cities. On his return to England, lieutenant Claperton received the rank of captain, and was immediately engaged, by lord Bathurst, for a second expedition, to start from the Bight of Benin. Leaving Badagry, Dec. 7, 1825, he pursued a north-easterly direction, with the intention of reaching Socottoo and Bornou. Having landed at the mouth of the Niger, the captain exhorted, and then proceeded westward to Socottoo, the residence of his old friend Bello. Bello refused to allow him to proceed to Bornou, and detained him a long time in his capital. This conduct appears to have arisen from the war then existing between Bello and the sheik of Bornou, and to the intrigues of the pacha of Tripoli, who had insinuated that the British meditated the conquest of Africa, as they had already conquered India. This disappointment preyed upon Claperton's mind, and he died, April 13, 1827, at Churny, a village four miles from Socottoo, of a dysentery. He was buried in a cemetery at Bornou, and a monument, to the memory of the man, was erected at a little distance westward to Badagry, which is of great importance from the assistance which it will afford to future researches. Claperton was a man without education, but intelligent and impartial; of a robust frame and a happy temperament. He was capable of enduring great hardships. His knowledge of the habits and prejudices of the Central Africans, his frank, bold, and cheerful manners, would have rendered him peculiarly useful in promoting the designs of the British government in that quarter.

CLARE. the most northern of the six counties into which the province of Munster, Ireland, is divided, is bounded on a part of the north by Galway Bay, on the west by the Atlantic Ocean, on the south and east by the river Shannon, and on the north-east by Galway county. The surface generally consists of mountains and bogs; the Sliebhobghta hills, the district of Doolin and the mountains of Leen in Clare, Wexford and joining the Shannon is a bog resting on sandstone rock, and might be improved by lime, the carriage of which would be easy by the Shannon navigation. The Burrin Mountains, which occupy the north-west, rest on limestone, and are of ancient beds of limestone, cliffs and res. The junction of the schistose and limestone districts constitutes a broad belt of rich ground, as is the case at Riverstone, Shally, Applevale, Lemanagh, &c., but the mountainous county of Clare has numerous lakes, Lough Terriog, situated upon the summit of Sliebhboghta hills, Lough Gruin, which is crossed by the Shannon, and Loughs Tandane, Inchiquin, and O'Grady are among the most extensive. Agriculture is the only occupation of the inhabitants; and the feeding of sheep upon the extensive mountain pastures is a source of much wealth. Coals have been found. The county has insufficient timber, and at great depths; good flags, slates of a superior quality, limestone, ironstone.
CLARENDON—CLARINET.

259

raingenese, and lead and copper ones in various places; but none of these minerals have yet been worked. The keepers of the forest, called the crowners, were members to parliament, two for the county, and one for the borough of Ennis. Population in 1831, 238,202.

CLARENDON; a village three miles east of Salisbury, where Henry II. summoned a council of the barons and prelates, in 1164, who enacted the laws called the constitutions of Clarendon, by which the power of the pope in England was checked.

CLARENDON. Edward Hyde, earl of Clarendon, lord high chancellor of England, was born probably at Dinton, in Wiltshire, 1609, was educated at Oxford, and practised as a lawyer, in London. Nicholas Hyde, chief justice of the king's bench. He was a member of the long parliament under Charles I.; and the purity of his intentions, his attachment to the laws of his country, and the talents which he displayed, gained him the confidence of that body. Upon the breaking out of the civil war, he attached himself to the king's party; became chancellor of the exchequer and member of the privy council, and followed prince Charles (afterwards Charles II.) to Jersey. Here he remained for two years, while the prince was in France, and during that time began his History of the Rebellion. He died at the Hague, 1649, his works were afterwards carried to England, and buried in Westminster abbey.—Lord Clarendon, as long as he was minister, was the friend and supporter of the king against the factions, and the defender of his country's freedom against the abuse of the royal power. Ingratitude and prejudice made him easily casually him, as his stern and proud character prevented his gaining affection. Among his many writings, the most important is the History of the Rebellion, from 1641 down to the Restoration of Charles II. It is a very able work, although not free from prejudices. To this was added, in 1759, his Life and a Continuation of his History.

CLARET. See Bordelais Wines.

CLARICHORD, or CLAVICHORD. A keyed instrument, now out of use, somewhat in the form of a spinet, and the strings of which are supported by five bridges. One distinction in the clavichord is, that the strings are covered with pieces of cloth, which render the sound sweeter, and, at the same time, dender it, so as to prevent its being heard at any considerable distance. On this account, it was formerly much used by the muses, who could practise on it without disturbing the dormitory. It is sometimes called the deutsch spinet.

CLARIFICATION, or the separation of the insoluble particles that prevent a liquid from being transparent, may be performed by depression, filtration, or conglutination. In the first of these operations, the liquid is permitted to subside, without being in the least disturbed, until all the particles which were in suspension are precipitated; it is then decanted. This mode of clarification can only be used when the substance on which we operate is in a large quantity, or is of a nature not to be altered during the time necessary to complete this operation, and finally when it is possible to secure its separation, and to prevent that which render it turbid. Filtration is a process by which a liquid is strained through a body, the interstices of which are small enough to stop the solid particles contained in it. Filters of wool, linen, paper, powdered glass, sand, or charcoal, may be used, according as the liquid is more or less dense, or of a nature to operate upon any one of these bodies. Finally, clarification by conglutination is performed with the assistance of albumen contained in the liquid, or added to it for this purpose, which, by the action of caloric, or acids, &c., becomes solid, forms a mass, and precipitates the extraneous substance. The white of eggs is generally used for this purpose.

CLARINET. A wind instrument of the reed kind, the scale of which, though it includes every semitone within its extremes, is virtually defective. Its low tone is very soft, and its high tone is very piercing. Its lowest note is a low F, from which it is capable in the hands of good performers, of ascending more than three octaves. Its powers, through this compass, are not everywhere equal; the player, therefore, has not a free choice in his keys, being generally confined to those of C and F, which, indeed, are the only keys in which the clarinet is heard to
The music for this instrument is there-
fore usually written in those keys. There are how-
ever, B flat clarinets, A clarinets, D clarinets, B clarinets, and G clarinets; the three latter are scarce-
lly ever used in Britain.

CLARK, John; an industrious critic and classical
commentator, who published many useful works on
education. He was the master of a grammar school
at Hull, in Yorkshire, where he died in May, 1734.
Among his publications are an introduction to
Latin, and editions of several Latin authors, with
English translations.

CLARKE, Adam, L L. D., an eminent Method-
istical theologian and scholar, was born in 1703, in
the county of Londonderry, Ireland, his father being
an English family, and his mother a Scots woman.
He became an itinerant Methodist preacher in 1782,
and continued to travel in various circuits till 1805,
when he took up his residence in London, where he
passed a considerable part of his subsequent life.
He died of the cholera at Bayswater, August 26, 1832.
He was learned in the oriental languages, and pub-
lished a commentary on the scriptures, and various
other works, among the rest a Bibliographical Dic-
tionary in eight or nine 12mo volumes.

CLARKE, Edward, L. D.; a cele-
britious mathematician of our own times; professor of
mineralogy at Cambridge, which university he enriched
with the fruits of his researches in foreign countries.
He was the second son of the reverend Edward
Clarke, author of Letters on the Spanish Nation, and
various mind works, and was born in 1707. He re-
cieved his education at Jesus college, Cambridge, of
which society he became a fellow, having taken
the degree of A. M. in 1724. Soon after he accom-
pained Lord Berwick to Italy, and, in 1799, set out
with Mr Crripps, on an extensive and laborious tour
through Denmark, Sweden, Lapland, Finland, Rus-
sia, Tartary, Circassia, Asia Minor, Syria, Palestine,
Egypt, Greece, and Turkey, returning, in 1802,
through Germany and France. On his return, he
obtained, from the University to which he belonged,
the honorary degree of L. L. D., as a distinguis-
ished mark of its approbation, and in consideration of
the services rendered to its public libraries and institu-
tions by his liberal contributions, among which the
greatest, perhaps, in value, is the celebrated manu-
script of Plato's works, with nearly 100 others, and
a colossal statue of the Eleusinian Ceres. To him
also the British nation is indebted for the acquisi-
tion of the famous All quiet, the Grecian life, which he discovered in the possession of the French
troops in Egypt, and was the means of its being sur-
rendered to the British army. In 1806, he com-
enced a course of lectures on mineralogy, having
brought a splendid collection of specimens to Europe;
and, in 1808, a professorship being founded purpose-
ly for the encouragement of that branch of know-
ledge, he was elevated to the chair. A rare collection
of plants and medals proved, also, at once the cor-
rectness of his taste and the extent of his industry;
while a curious model of mount Vesuvius, constructed
by him, with the assistance of an Italian artist, from
the materials of the mountain it represents, attests
his great ingenuity. This piece of art is now in the
possession of Lord Berwick. Dr Clarke published
the Testimony of different authors respecting the
colossal Statue of Ceres placed in the Vestibule of
the Public Library at Cambridge, with an account of
its removal from Eleusis (8vo., 1801-1806); The
Tomb of Alexander, a Dissertation on the Sarcoph-
aguses brought from Alexandria, and now in the Bri-
tish Museum (4to., 1805); A Description of the
Greek Marbles brought from the Shores of the Eux-
ine, Archipelago and Mediterranean, and deposited in
the Vestibule of the University Library, Cambridge
(8vo., 1800); Travels in various countries of Europe
Asia and Africa, Part I containing Russia Tartary
and Turkey (4to., 1810); Part II. containing Greece,
Egypt and the Holy Land (Section 1st, 4to, 1812;
Section 2d, 1814); and some other works. Doctor
Clarke died March 9, 1821. After his death, a
large volume was published containing his travels
through Denmark, Sweden, Lapland, Norway, Finland,
and Russia (London, 1823, 4to.). A complete edition
of his works appeared, in 11 volumes, in 4to. and
8vo. (London, 1819-24, under the title of Travels in
various countries of Europe, Asia, and Africa.

CLARKE, John, L. D., a distinguished theo-
logical and philosophical writer, was born at Nor-
wich, in the year 1765, of which city his father
was an alderman. He was educated at Caius col-
lege, Cambridge. Whilst at the university he di-
gently cultivated a knowledge of the Scriptures, in
the original languages, and, before the age of twenty-
one, largely contributed to diffuse the Newtonian
system. Being of opinion that the vehicle of an es-
established work, like that of Rolinhut, would be most
convenient for the gradual introduction of true phi-
losophy, he translated that author's Physics for the
use of his students, whom he thereby familiarized
with the language and reasoning of the Greek
philosophers. On entering into orders, he became chaplain to Moore, bishop of Norwich, and first became an author in his
own profession in 1699, when he published Three
practical Essays upon Baptism, Confirmation and
Repentance. This work was followed by Reflections
on a book called Amory, by Tolland, relating to the
authenticity of writings not received into the
 canon of Scripture. In 1701, he published his Para-
phrase on the Four Gospels, and, about the same
time, received two small livings in and near Norwich.
In 1704, he was appointed to preach the sermon at
Boyle's lecture, when he chose for his subject the
Being and Attributes of God, and gave so much sat-
sfaction that he was appointed to the same office
the next year, when he delivered a course of sermons
on the Evidences of Natural and Revealed Religion.
These sermons exceedingly raised the author's reputa-
tion as a close and acute reasoner, although his argument a priori, for the existence of a God, was
by Pope and others, deemed too subtle and metaphys-
ical. He, however, employed it only in opposition to
Hobbes, Spinoza, and similar reasoners, who could
be no other way opposed. In 1706, he published a
letter to Dr Godwin, on the Christian and the Greek
Soul, and during the same year, gave an elegant La-
tin version of Sir Isaac Newton's Optics, for which
that great man presented him with £500. His
friend, bishop Moore, now introduced him to queen
Anne, who appointed him her chaplain, and present-
ed him with the rectory of St James's, Westminster,
the highest preferment he ever obtained. On this
occasion he took his degree as D. D. In 1712, he
appeared as a philologist, by editing a fine edition
of Caesar's Commentaries, which he dedicated to the
great duke of Marlborough, and, in the same year,
published a work which involved him in endless con-
troversy, entitled The Scripture Doctrine of the
Trinity. In this production, that mysterious tenet
is, on critical principles, examined as deducible
from the words of scripture; and the result of
the author's reasonings was so different from the
opinions of the Church of England that it was the sub-
ject of complaint to the holy house of convocation.
Several controversial pieces were written on this oc-
casion, the chief champion of orthodoxy being doctor
Waterland. In 1715 and 1716, a disputation was
carried on between doctor Clarke and the celebrated
Leibnitz, concerning the principles of natural philo-
sophy and religion, the papers of which were collected and addressed to the princess of Wales, afterwards queen of England. In 1717, he published Remarkable Observations upon Collins's Inquiry concerning Human Liberty and a word of the ceremonies at St. James's; on which occasion the bishop of London sent a circular to the clergy forbidding the use of them. In 1724, he published a volume consisting of seventeen sermons, and, on the death of Sir Isaac Newton, in 1727, was offered the place of master of the mint. This office he declined accepting, as inconsistent with his profession, preferment in which had, however, now become hopeless. In 1728, he wrote a letter to Mr. Houdley. On the Propagation of Velocity and Force in Bodies in Motion, and, the next year, published the first twelve books of Homer's Iliad, with a Latin version, the remaining books of which were published by his son in 1732. Doctor Clarke's reputation as a classical scholar is chiefly founded on this performance, which is held in high esteem. He had all his life enjoyed sound health; but, on Sunday, May 11, 1729, when going to preach before the judges at Serjeant's Inn, he was seized with a pleuritic complaint, which carried him off, after a few days' illness, in his fifty-fourth year. He left in manuscript, ready for press, An Exposition of the Catechism, which was published by his brother, with ten posthumous volumes of sermons. The private character of doctor Clarke was extremely amiable, being upright, mild, and unaffected. His intellectual eminence was founded on a strong cultivation of the reasoning faculty, without passion or enthusiasm. He closely pursued his object, with methodical accuracy and logical acuteness, aided by a strongly retentive memory and indefatigable attention.

CLASSIC (from the Latin classicus). The Roman people were divided into six classes, and classicus was the name given to the citizens belonging to the first class. From this circumstance, the Greek and Roman authors have been, in modern times, called classicus, that is, the excellent, the models. There is, of course, a great diversity of value among them; but their superiority to the writers of modern Europe, at the time of the revival of letters, was so great, that it was very natural for their admirers to give them, collectively, the name of classicus. The Germans soon gave the word klassisch (classical) a wider sense, applying it more philosophically, and making it embrace, I. the standard works of any nation, and, 2. ancient literature and art, in contradistinction to the modern. The British and French have followed this example, though but recently. Dictionnaire de l'Academie gives no other definition to the word classicus than Auteur classique, c'est-a-dire un auteur ancien, approprée, et qui fait autorite dans une certaine matière: Platon, Homer, Demosthene, Cicéron, Virgile, Tite Livi, &c. sont des auteurs classiques.

As regards classical, by which we mean, in this place, ancient, literature, we observe a striking difference between it and modern literature. The Greek authors were the pupils of nature and an active energetic life. These furnished their discipline rather than the pedantic forms of schools, which are impressed with painful labour upon the memory, and only half understood. They had, besides, a very keen sensibility for beauty, which was fully developed by the loveliness of surrounding nature, and by their own art: all their productions were natural. They spent their lives in constant contests for liberty and superiority in physical or mental accomplishments. Everything was public; everything stimulated emulation. Nature and liberty are the genii which presided over the labours of the Greeks; and their works are classical, that is, models, as far as they are the natural fruit of the circumstances in which they produced them. The successes of the Greeks over the slaves of Asia, and the overthrow of the Macedonians by the Romans, first produced poets among them; and these continued, in an uninterrupted series, exerting a decisive influence upon rhetoric, history, and the plastic arts, and receiving, in their turn, a corresponding influence, until degeneracy, overgrown with political subjugation took the place of nature and liberty. The Macedonian and Roman dominion fixed the limits of Greek classical literature. From that time, Greece produced only learned inquirers and rich treasures of knowledge, but no works distinguished as models, such as had been composed in the time of her freedom, under the joint influence of her political constitution, religion, beautiful climate, and language, which contained the elements of the highest perfection in a far greater degree than most other languages.—The Romans, from their political constitution and national character, have become models only in history and rhetoric, and works on war, architecture, and law. The most active element in their national character was always the military and legal spirit. But their language acquired, from the habits of the nation, such conciseness and precision, that the Romans composed in it very few of the classics, and, in fact, in every branch of composition, as far as the expression is concerned, so difficult and so valuable an attainment. The rapid growth of their power outstripped the development of their literature, which attained its meridian soon after the overthrow of liberty and the establishment of despotism. Hence it speedily degenerated, and the time soon arrived when Roman literature consisted, in a great measure, of descriptions of the universal corruption and misery of the people, characterized either by a morose bitterness or by the complacency of deep-seated immorality.—The style of the ancient writers is very characteristic, and forms a striking distinction between them and the moderns. Their language is generally simple, natural, pure, and therefore expressive; whilst the modern writers, by reason of their greater erudition, and the refinements of our social life, are constantly tempted to sacrifice energy and conciseness to brilliancy and richness of expressions. Be this as it may so, Rousseau was led into the paradox of declaring himself an enemy to all wit. Besides the style of the ancient writers, so many circumstances contributed to the excellence of their productions; the union of knowledge and ignorance, of rudeness and refinement, with much in the opposite direction. The Greeks had so beneficial an influence upon them, but the best works of the Greeks and Romans have secured to themselves a permanent place among the means of intellectual cultivation, throughout Europe and the nations of European descent. It has often been said, that the knowledge of the languages and literature of Greece and Rome can be of little value to us, as their condition and character, their principles, political and religious, were so different from ours. But, without mentioning the advantages to be derived from a knowledge of these languages by men devoted to certain particular pursuits, we do not hesitate to affirm, that the highest degree of intellectual accomplishment is not possible without classical attainments. We ought to be thankful that we are permitted to avail ourselves of the literary treasures of these glorious nations, without being obliged to particularize all their defects, which were not in- fold. They spent their lives in constant contests for liberty and superiority in physical or mental accomplishments. Everything was public; everything stimulated emulation. Nature and liberty are the genii which presided over the labours of the Greeks;
were necessary to bring forward examples, it would be easy to show, not only that most of the men of ne plus ultra character, divested in those labours of moral and political science, have had a classical education, but also that this education has exerted a most important influence on their minds. The beneficial effect of classical literature on the character of nations might also be easily shown. Undoubtedly a wrongly directed classical education has, in some instances, produced injurious consequences. So, too, has misdirected religious instruction; but the one is no more an argument against classical literature than the other is against religion.—We shall not, in this place, enter upon a statement of the characteristic differences of ancient and modern literature, as the subject has not been sufficiently discussed by English writers to give that precision to the requisite phraseology which would be necessary to make a condensed view of the subject intelligible. We will only remark, that the religion of the Greeks—to use the words of the celebrated Augustus William Schlegel—was the apotheosis of the powers of nature and of terrestrial life. Everything, therefore, was positive, clear, and finished in their religion and religious views. Such is also the predominating character of their literature. Modern literature, on the other hand, is marked with the character of the Christian religion, in which the human mind is made to appreciate the thoughts of the infinite. The Greek philosophy, moreover, sought for happiness in mental tranquillity and the balanced and harmonious action of the different faculties. The Christian encourages a struggle between the higher and lower powers of our nature. The influence of the Christian principle on the modern writers is not, indeed, universal. Some productions of modern times are characterized by the Greek element rather than the romantic, or, as it might properly be called, the Teutonic-Christian, for instance, some of the poems of Goethe. This cannot be said of Byron, notwithstanding the anti-Christian character of much which he has written. We will conclude our remarks respecting the difference between ancient and modern writers by another remark of Schlegel. He says that the genius of the ancient poets was of a plastic character; that their creations resembled their own ideas, and directed our attention exclusively to a particular object: it detaches the statue from all surrounding objects, or indicates them, if at all, very slightly. This is the character of the creations of the ancient dramatists, whilst the genius of the modern drama has much more form, which fills the picture with a great variety of objects, operating, it is true, to produce a common effect, but having also much individuality of character.

The same difference which exists between ancient and modern literature, prevails, to a great degree, between ancient and modern art. We may remark in general, respecting classical art, by which we mean especially Greek art (the Romans having always remained, in a great measure, imitators of the Greeks), that its productions are complete in themselves, expressing, in their beautiful forms, all which the artist intended to convey, while the genius of modern art is characterized by aiming at something infinite, beyond the power of precise conception and perfect representation. For this reason, the Greeks devoted themselves to sculpture more than to painting, and even gave to their productions in the latter branch of art something of a plastic character, whilst the moderns have directed their attention much more to painting, and have given to sculpture a character different from that which it had among the ancients. The same difference of feeling is apparent in the architecture of the two periods, and the music of modern times owes its excellence to causes similar to those which have carried painting to such perfection. As regards the classical writers of any country, meaning, by this term, the standard writers in the different departments of literature, it would be difficult to give a precise definition of what entitled an author to the epithet classical; yet we may find the judgment of nations (allowing the judgment of the popular tastes of each) pretty uniform and pretty correct. Still, however, there are considerable diversities of opinion as to the writers who are to be ranked as classics, in nations among whom the overwhelming authority of some great learned body has not determined what entitled a writer to this designation. We might instance the Germans, and even the French, as far as respects the writers who have appeared since the publication of the Dictionnaire de l’Académie.—

Much information is contained on the French classics in La Harpe’s Cours de Littérature Française, and in that of Levèze (Paris, 1807, 4 vols.); also in Bouterwek’s extensive Geschichte der Poesie und Bereitsamkeit. For the English classics, Johnson and Warthon are to be consulted. Bouterwek’s work also, is full of valuable information on this subject. The Italian classics are to be learned from the works of Tiraboschi, Guglielmo, Simonelli and Bouterwek. An account of the best accounts of literature is to be found in Velasquez and Nicolas Antonio, Bibliotheca Vetus et Nova, in Simonelli’s Littérature du Midi de l’Europe, and in Bouterwek’s work, of which the part relating to Spain has been lately translated into Spanish, under the following title: Historia de la Littérature Española, escrita en Atenas por F. Bouterwek, traducida al Castellano y adiciones por D. José Gomez de la Cortina y D. Nicolás Hugule y Molinueda (Madrid, 1829, 3 vols. i., pp. 276). Half of vol. i. consists of additions by the translators, which, however, do not add much to the value of the work. For Portuguese literature, Bouterwek, Simonelli, and, chiefly, don Barbara Machado’s Bibliotheca Lisitana (Lisbon, 1731, 4 vols. fol.), are to be recommended. The works of Ideler and Nolte, Handboucher, for French, Italian, Spanish and English literature, are highly valuable, containing judicious selections from the best prose writers and poets in these literatures, with short accounts of each author from whom extracts are made. These gentlemen are distinguished literati at Berlin, of whom the former is likewise known as one of the greatest chronologists of the age, and by his Arabian Christenmuth, or French literature, Kultur und Geist der Deutschen Literature (3rd edition, 1822 et seq. 9 vols.); and the latter 4 vols.) is to be consulted. For further information respecting the literature of different countries, see the articles on these countries respectively. Augustus William Schlegel’s works must be considered as still unrivalled for profound and original criticism on the art and literature of the ancient and modern nations.

CLAUDE LORRAINE, so called, was one of the most distinguished landscape painters. His real name was Claude Gelett; he was called Lorraine from the province of his name, where he was born in the town of Champage, of poor parents, whom he lost early. His education was much neglected. When 12 years old, he went to live with his brother, an engraver in wood at Friburg. Afterwards, a relation of his took him to Rome, where he was employed by the landscape painter Agostino Tassi, as a colour-grinder and a kitchen boy. Here he received a little instruction in painting, having previously acquired some skill in drawing from his brother. The sight of some paintings of Godfrey Vals enchanted him so much, that, in spite of his poverty, he tra-
velled to Naples to study with the artist. His genius now unfolded itself with such rapidity, that he was soon considered one of the first landscape painters of his time; particularly after he had studied, in Lombardy, the works of Giovanni da Udine, whose productions, by his colouring and chiaroscuro were greatly improved.

After making a journey into his native country, he settled, in 1627, in Rome, where his works were greatly sought for, so that he was enabled to live much at his ease, until 1632, when he died of the plague. The pope, Gregory XIII, erected a gallery, called Galleria della Palma, at Florence, to England, Spain, and Germany are adorned with his productions. His best work, and the one on which he himself set the greatest value, is the painting of a small wood belonging to the villa Madama (in Rome). Clement XI. offered to purchase it for as many pieces of gold as would cover its surface; but the artist would not part with it, since he used it as a study. Claude possessed the greatest power of invention, by which he gave an inexhaustible variety to his paintings, united with an ardent and persevering study of nature. The truth with which he portrays the effects of sun and cloud, of the sky seen through the tops of the trees, and all the delicate beauties of nature, is surprising; and no artist but Caspar Dughet comes near him in this particular. But all his rivals fell far short of equaling the dewy humidity which he threw over dark, shadowy places. His figures are poor, as he used to sell my landscape, and give my figures into the bargain." In a great part of his paintings, the figures are the work of Lauri and Francesco Allegri. Claude most frequently chooses agreeable views without fixing limits, in which the eye loses itself. He often introduces grand architectural structures, and makes his landscapes the scenes of mythical and historical events. As other artists frequently gave his name to their own productions, he made drawings of all his paintings and called the books in which they were contained Libri di verità. Such a collection containing 200 drawings, belongs to the duke of Devonshire; another, of 130 drawings to lord Holland.

CLAUDIANUS, Claudius, a Latin poet, a native of Alexandria lived under the emperor Theodosius and his sons, and was an experienced warrior, as well as a writer of merit. His poems gained him such renown, that, at the desire of the senate, the emperor erected a statue to his honour in the forum of Trajan, with the inscription, that he combined the genius of Virgil and of Homer. Besides several panegyric poems on Honorius, Stilicho, and others, we possess two of his epic poems, the Rape of Proserpine, and an unfinished Gigantomachia, eclogues, epigrams, and occasional poems. He exhibits a brilliant fancy, rich colouring, grand variety and precision in his descriptions, but he is often deficient in taste and gracefulness of thought. The best editions of his works are those of Gessner, Leipzig, 1752, and of Burmann, Amsterdam, 1818.

CLAUDIUS (Tiberius) Drusus Caesar, a Roman emperor, the youngest son of the elder Claudius Drusus Nero and Antonia the younger, the daughter of Augustus's sister, born at Lyons, grew up without any education, for the most part among slaves and women, and was an object of ridicule and scorn at court. He lived as an unimportant private man, and occupied himself with literature. Among other works, he wrote a Roman history, embracing the period from the death of Caesar to his own time in 43 volumes, and also his own life. After the murder of Cæsar, Archelaus and Hunsrigus erected a statue to his honour in the forum of Trajan, with the inscription, that he combined the genius of Virgil and of Homer. It was situated in a romantic valley, surrounded on all sides by lofty mountains, and has a handsome public square, several elegant streets, fine gardens, and public walks. It contains five Catholic churches, two Calvinist, one Lutheran, one Unitarian, two hospitals, a Catholic college, containing, in 1814, 232 students; a Reformèd college with 636 students; and a University college with 206 students.

CLAUSETON, Charles von, Prussian major-general, director of the general military school at Berlin, born, June 1, 1780, at Burg, entered the military service in 1792, and took part in the campaigns of 1793 and 1794. He was also active in the war against Napoleon, in the service of Russia and Prussia, and has distinguished himself by his Uber-sicht des Feldzugs von 1813 (Survey of the Campaign of 1813).

CLAVICHORD. See Clavichord.

CLAVICIMBALUM; the name originally given to the harpsichord.

CLAVI-CYLINDER. See Cladun."

CLAVIGERO, Francesco Savero; & Spanish historian, who was a native of Vera Cruz, in Mexico, and travelled in the east, and resided nearly forty years in the provinces of New Spain, where he acquired the languages of the Mexicans and other indigenous nations, collected many of their
CLAVIJO Y FLAXARDO—CLEMENT.

traditions, and studied their historical paintings, and other monuments of antiquity. The first of his researches was a History of Mexico, written in Italian, of which an English translation in 2 vols. 4to. was published in 1767. His work is a faithful translation of Beaumarchais' work, affording a great deal of information relative to the natural and civil history, antiquities, and religion of Mexico; but it displays more industry than judgment on the part of the author.

CLAVIJO Y FLAXARDO, Don Joseph; a Spaniard born, is a native of Mexico. In 1767, he superintended the publication of the Historia y Política de Madrid, with which he had been intrusted as early as 1773. He likewise translated Buffon's Natural History into Spanish (Madrid, 1785—90, 12 vols.). He was vice-director of the cabinet of natural history and following the death of Señor de Sinos, when he died in 1806. Far from resembling the detestable portrait which Beaumarchais draws of him, Clavijo was of a mild disposition, upright character, and a clear understanding. Grethe founded his tragedy Clavijo on Beaumarchais' story.

CLAVIJO (Latin for key) is a most comprehensive word; for a drawing, an index, &c., which serves as a guide to the understanding of another work; for instance, clavis Ciceronis, clavis Homerica, &c.

CLAY is a mixture of decomposed minerals, and hence it is by no means uniform in its composition. Several varieties solid in water, and allow themselves to be kneaded and formed into moulds—a property by which they are fitted for the use so commonly made of them. Some are easily fusible, others refractory; some acquire particular tints, others lose their colour and become white when exposed to a strong heat; upon all of which properties their applicability to particular purposes depends. It is found in beds of the earth, or, covered by the soil, in the formations of brown and black coal. In the latter situation, they often contain remains of vegetables, and are called state clay, which is intimately related to bituminous shale and alum earth. Alumine is the basis of all clays, and imparts to them their predominating characters. It is mixed with very variable proportions of silice, magnesia, lime, and oxide of iron. The varieties of clay are of various important applications in pottery, in manufacturing stone-ware and porcelain, in constructing furnaces for metallurgical operations, &c. Some of the principal varieties are indurated clay, or clay stone, which is clay in its highest state of induration. It is soft, but not easily diffused in water, and does not form with it a ductile paste. Porcelain clay, so named from the use to which it is applied, is white, with occasional shades of yellow and grey. It is dull and opaque; feels soft; in water, it falls to powder, and, when dry, is solid. It forms a good paste. It is, in general, fusible by any heat that can be used. It consists essentially of silex and alumine; that of Cornwall contains sixty parts of alumine with twenty of silex. Potter's clay and pipe clay are similar, but the former, generally of a yellowish or grayish colour, from the presence of Loess in the particles, is the same substance mixed with sand, oxide of iron, and various other foreign ingredients. The boles, which are of a red or yellow colour, are of a similar composition, and appear to owe their colours to oxide of iron. They are distinguished by their couchoidal fracture; the powder, when pure, has a granular appearance. The clays, containing only more oxide of iron. Flint-earth is a peculiar kind of clay, which contains an earthy fracture, sometimes shiny, is dull and opaque. In water, it falls to powder, without forming a ductile paste. It is used to remove grease from cloth. Tripoli is found loose or indurated; its fracture is earthy; it feels harsh and dry; does not adhere to the hand. It is used for polishing the metals and glass. The clays are too generally distributed to require the enumeration of their localities. See the article China-ware.

CLEMENCE ISAURE, daughter of Ludovico Isaure, born in 1404, near Toulouse, lost her brave father when she was only three years old. She was educated in solitude, and grew up, endowed by nature with beauty and talents. Near to her garden dwelt a young troubadour, named Raoul, who became enamoured of her, and communicated his passion in songs, in which her name and his were united.

The maiden was beautiful, but with flowers, agreeably to the petition of her lover.

Vos avez inspiré mes vers,
Qu'une fleur soit ma recompense—
and Raoul could well interpret their meaning. He was the natural son of count Raymond of Toulouse, and followed his father to the camp of the emperor Maximilian. In the battle of Giugenzen, both were slain, and Isature resolved to take the veil. Before doing so, however, she renewed the poetical festival which had been established by the gay company of the seven troubadours, but had been, for a long time, forgotten, gave it the name of Jux floraæ (q. v.), and assigned, as prizes for the victors of the poetical contests, the five different flowers which had served her as means for replying to her lover's passion. These flowers were wrought in gold and silver. Clemence Isature appropriated all her fortune to the support of this institution. She was versed herself in the gay science, and, having fixed upon the 1st of May as the day for the distribution of the prizes, she composed an ode on spring, which acquired for her the surname of the Sappho of Toulouse.

CLEMENT; the name assumed by many popes. Of these, Clement XIV, who abolished the order of Jesuits, was perhaps the most distinguished. He died in 1774.

CLEMENT, Titus Flavius (probably a native of Athens, but, on account of the place of his residence, commonly called the Alexandrinus), was one of the most famous teachers of the Christian church, in the second and at the beginning of the third centuries. He had been a heathen philosopher, was converted to Christianity, and, after travelling a long time in Greece, Italy, and the East, became presbyter of the church of Alexandria, and teacher (cathedeto) of the school in that city, in which place he succeeded Pan- teus, his teacher, and was succeeded by Origen, his pupil. These three instructors increased the fame of the Alexandrian school in the second and third centuries. Clement was a fertile writer. The most important among those of his productions which have been handed down to us, are inscribed Patrocinium, Denomymia, and Συγκειτυν, or Συγκειτυν. It has been justly remarked that the first four, and those of the degrees of the Greek mysteries. The first was the
CLEMENTI—CLEOMENES.

The works of Clementi are of great importance, as enabling us to judge of the state of science in his time, and affording a valuable means of study and accounts of lost works of antiquity. Clementi introduced the eclectic philosophy into Christianity, and promoted the allegorical and mystical explanation of the sacred writings. The philosophy and criticism which gained him the admiration of his time, but also seduced him at times into singular speculations, caused him, at a later period, to be considered a heretic, and to lose, with the orthodox, the name of saint, which had been conferred on him. The first editions of his works are that at Florence, in 1550, and that at Helselberg (Commelin.), 1692, by Frederic Syllum, both in folio. The most complete is that of John Potter, Oxon., A Theatro Skel- don. 1715, reprinted at Venice, 1757.

CLEMEN'TI, MOZZO; a distinguished performer on the piano-forte, was born in Rome, in 1732. His father, a silversmith, was himself fond of music, and had previously published his famous Introduction to young Clementi showing great talent and inclination for this art. Buroni, one of his relations, was his first master. In his seventh year, an organist, Cordicelli, instructed him in thorough-bass, and, in his ninth year, he passed an examination as an organist. He then studied under Galli, the foremost Italian contrapuntist, and from Cappini, the celebrated contrapuntist. At this time, in his twelfth year, he wrote a mass for four voices, which was received with great applause. He had made such progress in his performance on the piano-forte, that an Englishman, Mr Beckford, was anxious to take him to England. His father, at first unwilling to part with his son, consented, and young Clementi studied at the country seat of Mr Beckford, in Dorsetshire, and soon made himself master of the English language. In his eighteenth year, he far excelled all his contemporaries in skill and expression, and published his Opus II., which formed a new epoch in this species of composition. It has furnished the basis of all modern sonatas for the piano-forte, and its simplicity and novelty have attracted the admiration of all connoisseurs and amateurs. After leaving Dorsetshire, he was engaged as director of the orchestra of the opera in London. His fame increased rapidly. In the year 1753, he was called to the Zwicker in Riga, and the young Prince, who was in this city, received him with enthusiasm. From thence he proceeded, in the summer of 1781, to Vienna, where he became acquainted with Mozart and Haydn, and played before the Emperor Joseph II. with the former. He likewise published several compositions. In 1784, he repeated his visit to Paris, but, after that, remained in England till 1802. The loss which he sustained from the failure of a large commercial establishment induced him to give lessons in music for a time. In his leisure hours, he occupied himself with playing on the piano-forte, and the improvement of this instrument. He had previously published his famous Introduction to the Art of Piano-forte Playing. In the year 1802, he went to Paris, for the third time, with his scholar Field; from thence to Vienna and to St Petersburg, where Field remained. Clementi was universally admired. From Petersburg, the piano-forte player Zeuner followed him to Berlin and Dresden. From Dresden, he was accompanied by Klengel the organist, who was anxious to improve under his care. At Berlin, Clementi married his second wife, whom he took with him into Italy, but lost on his return to Berlin. He then went anew to St Petersburg, with the piano-forte, and the famous and celebrated instruc- tor Berger, and afterwards returned again to Vienna. In the following year, family concerns carried him to Rome and Milan. In the summer of 1810, he ventured, notwithstanding the closure of the continental ports, to return to England, where he arrived safely, and married his third wife. In the mean time, he continued to compose, and wrote some grand sym- phonies and sonatas, which were well received. One of his most valuable works is his Gradus ad Parnassum which occupied him a long time. He likewise superintended the construction of instruments, and this business was very lucrative to him. He had one of the principal musical establishments in London, his instruments being highly esteemed. In 1850, he again went to the continent, and remained at Leipzig till Easter in 1821, where two new symphonies of his were performed. He died on the 10th March, 1832, and was interred in Westminster Abbey.

CLEMENTINES; the name given to certain or- dinances proceeding from popes of the name of Cle- ment, chiefly such as were given at the council of Vienne, in 1311, by Clement V. (q. v.), and which form a part of the corpora juris canonici. See Canon Law.

CLEOBIS and BITON Hecadoton relates an affecting story of these two youths, the sons of Cy- dippe, chief-priestess of Juno at Argos. At the He- sacus, a feast in honour of Juno, it was customary for the chief-priestess to be drawn by two white oxen. On one occasion, the procession had already begun to move, and the oxen had not arrived; upon which Cleo- bes and Biton, the sons of the priestess, and some of the youths were yet in the temple, set upon them, and they never woke. (Hercod. i. 31.) The Argives placed the statues of Cleobis and Biton in the temple at Delphi, and in a temple at Argolis they were represented drawing the chariot of their mother. (Pausan. ii., 20.)

CLEOBULUS; one of the seven wise men, as they were called; a native of Lindus, or, according to some, of Rhodes, or Caria. He travelled to Egypt to learn wisdom, like many of the sages of Greece. He was king of Rhodes, and was succeeded on the throne by his daughter Cleobulina. Several of his sayings are extant.

CLEOBULUS; son of Pausanias, king of Sparta. During his reign began the Theban war, in which he commanded the Spartans against Epamin- ondas and Pelopidas. He was killed in the battle of Leuctra, which happened July 8, 371 B. C., according to the Julian calendar. See Epaminondas.

CLEOMENES; the name of three kings of Sparta, the most distinguished of whom is Cleomenes III., son of Leonidas. He intended to reform Sparta, and to restore the institutions of Lycurgus, as the example of Agis, his brother, who had lost his life in a similar attempt. Cleomenes distinguished himself in a war against the Achaeans, commanded by Aratus. Returning to Sparta with a part of the army, he put to death the ephor, made a new division of lands, and introduced again the old Spartan system of education, made his brother his colleague, and provided that in future two kings should always sit on the throne of youths. He lived very simply, was a faithful and friendly towards every body. He treated his enemies with generosity; for instance, the Achaeans, who had begun a new war and were conquered. He showed himself an able general, in a war against the Mace- donians and Achaeans united, but, at last, lost the im- portant battle of Sellis. Cleomenes fled to Egypt, where he was seized and put to death by Ptolemy II. Philadelphus, after having his son Ptolemy Philopator kept Cleomenes in con- finement; upon which he had twelve fellow prisoners.
killed each other. With Cleomenes expired the race of the Heracleids which had sat on the throne of Sparta.

CLEON. See Pericles.

CLEOPATRA. Amongst several Egyptian princesses of this name, the most renowned was the eldest daughter of Ptolemy Aleutes, wife to his eldest son Ptolemy, with whom she shared the throne of Egypt. Both were minors at the death of their father, and were placed under the guardianship of Pothinus and Achilles, who extravagated Cleopatra and her share in the government. She went to Syria, and was forming plans for obtaining her rights by force, when Caesar (q.v.) came to Alexandria, and, captivated with her youthful charms, seconded her claims; and though the people of Alexandria were excited to a revolt by the arts of her brother, Caesar succeeded in pacifying them, and procured Cleopatra her share of the throne. But Pothinus stirred up a second revolt, upon which the Alexandrian war commenced, in which the elder Ptolemy losing his life, Caesar proclaimed Cleopatra queen of Egypt; but she was compelled to take her brother, the young Ptolemy, who was only eleven years old, as her husband and colleague on the throne. Caesar continued some time at Cleopatra's court, and had a son by her named Cesarion. After Caesar's departure, she governed undisturbed. She subsequently made a journey to Rome, where Caesar received her kindly, and directed a part of his time and money to the statue of Venus, in the temple consecrated to that deity. This act, however, excited the displeasure of the people, and Cleopatra soon returned to her own dominions. When her brother, at the age of fourteen, demanded his share in the government, Cleopatra poisoned him, and remained sole possessress of the regal power. During the civil war in Rome, she took the part of the triumvirs, and, after the battle of Philippi, she sailed to join Antony at Tarsus. She was then twenty-five years old, and combined with extraordinary beauty great wit and the highest elegance of manners. She appeared in a magnificently decorated ship, under a golden canopy, arrayed as Venus, surrounded by beautiful boys and girls, who represented Cupids and Graces. Her meeting with Antony was attended by the most splendid festivities. After having accompanied him to Tyre, she returned to Egypt. Antony followed her, and gave himself up to the most extravagant pleasures. She accompanied him on his march against the Parthians, and, when he parted from her on the Euphrates, he bestowed Cyrene, Cyprus, Cæsaria, Phoenicia, Cilicia, and Crete on her, to which he added part of Judea and Arabia, at her request. After this, Antony conquered Armenia, returned triumphally to Egypt, and made his three sons by Cleopatra, and also Cesarion, kings. Now commenced the war between Octavius and Antony; but, instead of acting promptly against his adversary, Antony lost a whole year in festivals and amusements with Cleopatra at Ephesus, Samos, and Athens, before he at last determined to decide the contest by a naval battle. At Actium (q.v.) the fleets met. Cleopatra, who had brought Antony a reinforcement of sixty vessels, suddenly took to flight, and thus caused the defeat of her party; for Antony, as if under the influence of frenzy, immediately followed her. These fled to Egypt, and declared to Octavius that if Egypt was left to Cleopatra's children, they would thenceforth live in retirement. But Octavius demanded Antony's death, and advanced towards Alexandria, which Antony hastened to defend. Cleopatra determined to burn herself with all her treasures, but Octavius pacified her by private messages. These communications did not remain concealed from Antony, who, supposing Cleopatra to be determined to avenge her death. She, however, escaped, and took refuge in the monument destined for her sepulchre, which she had erected near the temple of Isis, and caused the renewal of her suicide. Antony now threw himself upon his sword, but before he expired was informed that Cleopatra was still living, upon which he caused himself to be carried into her presence, and breathed his last in her arms. Octavius succeeded in getting Cleopatra into his power, who still hoped to subdue him by her charms; but her arts were unavailing, and, becoming aware that her life was spared only that she might grace the conqueror's triumph, she determined to escape this ignominy by a voluntary death. She ordered a splendid feast to be prepared, desired her attendants to leave her, and put an asp, which a faithful servant had brought her, concealed amongst flowers, on her arm, the bite of which caused her death almost immediately (B. C. 30). Octavius, in his triumphal procession, had a portrait of the queen, with a serpent on her arm, carried before him. Her body was interred near that of Antony. At the time of her death, she was thirty-nine years old, and had reigned twenty-two years.

CLEPSYDRA (Greek, αἰθροθορία from ξεκίνω, I steal, and ωμε, water) was the name of an instrument intended to measure time by the falling of drops of water, and not unlike our hour-glasses. The length of the fall being constant, the number of the drops fell in a given time was a measure of the time passed. The clepsydra was commonly used in the Greek and Roman courts. To prevent the lawyers from speaking too long, a particular period was assigned to them, to be determined by the clepsydra, and, in Greece, an ἐρεύω was appointed to watch the instrument and to prevent fraud. If the laws, quoted by the advocate, were read, the clepsydra was stopped (αἰθροθορίαν sustineres). Sometimes advocates petitioned for more time; hence the expression, dare or petere plures clepsydras, or clepsydras clepsydras addere. Pompey, in his third consulate, introduced these instruments into the Roman courts. They were also used for domestic purposes. The horologium ex aqua was of a more artificial construction.

CLERGY (from the Latin clericus, derived from the Greek αἰθροθορία, the share or heritage) signifies the body of ecclesiastical persons, in contradistinction to the laitymen. The Greek word was applied in this sense, to the persons who belonged to the clergy. The clergy are distinguished as the particular inheritance and property of God—a metaphor taken from the Old Testament. The clericus was divided, in the ancient church, into the high and low. To the former belonged the bishops, presbyters, and deacons; to the latter, all other ecclesiastical persons. The support of the clergy in different countries constitutes an interesting subject in political economy, and has been investigated in a work entitled, Remarks on the Consumption of the Public Health by the Clergy of every Nation; London, 1822, 2d ed. (See Church and Ecclesiastical Establishments.) When a Catholic priest receives the tonsure, he repeats a part of the 16th psalm, "The Lord is the portion of mine inheritance," &c. The Catholic clergyman, according to the doctrine of the Romish church, is endowed, in his spiritual character, with a supernatural power, which distinguishes him essentially from the layman, as the power to forgive sins, and to consecrate the bread, so as to convert it into the real body of Christ, &c.

CLERGY, BENEFIT OF. See Benefit of Clergy.

CLERK, John, of Eldon; the alleged inventor of the modern British system of naval tactics. See the article Bakeless.

CLEVELAND; a post-town of Ohio, and capital of Cuyahoga county, on lake Erie, at the mouth of
the Cuyahoga, at the point where the Ohio canal reaches lake Erie, sixty miles E. of Sandusky, 180 W. S. W. of Buffalo, 180 N. E. of Columbus; Ion. 81 41' 45" N. 81 42' 46" W. Two EMPIRES, in some respect, important from its situation at the termination of the Ohio canal, and from its connexion with the steam-boat navigation from Buffalo, and is one of the most considerable commercial places on lake Erie.

CLEVES, formerly the capital of the dukedom of Cleves, now the chief place of the Prussian circle of the same name (1080 square miles, with 210,000 inhabitants), is situated in a pleasant plain, a league from the Rhine, with which it is connected by a canal. The city contains 1000 houses, with 6000 inhabitants. It has many manufactures, particularly of wool, cotton and silk. The iron sapphires of a prince Maurice, of Nassau-Siegen, buried here, is surrounded by Roman urns, inscriptions, lamps, &c., which are found in the neighbourhood. Prussia acquired Cleves as early as 1699; and, after it had changed masters several times, it came again into the possession of this government. It is now a strong fortress, lying on the small river Kemschil, over against the Netherlands. The German dialect spoken here much resembles the Dutch.

CLIENTS, in ancient Rome, were citizens of the lower ranks, who chose a patron from the higher classes to assist them in legal cases, to take a paternal care of them, and to provide for their security. The clients, on the other hand, were obliged to portion the daughters of the patron, if he had not sufficient fortune; to ransom him, if taken prisoner, and to vote for him, if he was candidate for an office. Clients and patrons were under mutual obligation not to accuse each other, not to bear witness against each other, and, in general, not to do another any injury. Romulus, who had established this relation, in order to unite more firmly the patricians and plebeians, made a law that he who had omitted his duty as client or patron might be slain by any body. During a period of 600 years, no instance was known of a disagreement between the clients and patrons. This relation continued till the time of the emperors. It is certainly among the most interesting and curious which history mankind. Cleopatra the dispensers of this skill in making attempts at a regular government; as the transition from a patriarchal state, in which family relations are predominant, to a well-developed political system, securing the rights and independence of the individual.

—In modern times, the word client is used for a party to a suit, who has put his cause into the hands of a lawyer.

CLIFFORD, George, the third earl of Cumberland of that family, eminently both for his literary and military abilities, was born in Westmoreland, in 1558. He studied at Peterhouse in Cambridge. His attention, at this period, was principally directed to mathematics and navigation, in both which he became a great proficient. In 1586, he took part in the trial of queen Mary Stuart; and, in the course of the same year, sailed to the coast of South America, having under his command a small squadron, which sensibly annoyed the Portuguese trade in that part of the world. Two years afterwards, he commanded a ship in the ever-memorable action with the "invincible armada," and subsequently fitted out, at his own expense, no fewer than nine expeditions to the Western Islands and the Spanish main, in one of which he succeeded in forming a union of the native inhabitants of the richest and most powerful islands. He made great progress in the study of the native languages, and the wants of the natives, and was considered one of the most learned men of his age; he was the author of Lectures, and disquisitions on the subject of the Chinese, or treble cliff, and the G, or treble cliff, by the several situations given to them on the stave, furnish us with the means of expressing all the notes within the usual compass of execution, both in vocal and instrumental music, without a confused addition of longer lines, either above or beneath the stave.

CLIMACTERIC (anuus climactericus); a critical year or period in a man's age, wherein, according to astrologers, there is some notable alteration to happen in the body, and a person is exposed to great danger of death. The word comes from σκιματζεις, derived from σκίμαι, a ladder or stairs. The first climacteric is, according to some, the seventh year. The others are multiples of the first, as, 14, 21, &c. 63 and 84 are called the grand climacteries, and the dangers attending these periods are supposed to be great. Some hold, according to this doctrine, every seventh year is fatal. The ancients, however, allowed this title only to the product of the multiplication of the climacterial space by an odd number, as 3, 5, 7, 9. Others considered every ninth year as a climacteric. The idea of climacteries is very ancient.

CLIMATE. The ancients denoted by this name the spaces of air, or the regions contiguous to the equator, drawn in such a manner over the surface of the earth, that the longest day in each circle is half an hour longer than in the preceding. According to this division, there were twenty-four climates from the equator, where the longest day is twelve hours, to the polar circle, where it is twenty-four hours. From the polar circle, the longest day increases so rapidly, that, only one degree nearer the pole, it is a month long. The frigid zones, so called, that is, the regions extending from the northern and southern polar circles to the corresponding poles, some geographers have divided again into six climates. We have learned from a more accurate acquaintance with different countries, that heat or cold depends not merely on geographical latitude, but that local causes also produce great variations from the general rule, by which a region lying near the equator, should extend farther than one remote from it. By the word climate, therefore, we understand the character of the weather peculiar to every country, as respects heat and cold, humidity and dryness, fertility, and the alteration of the seasons. The nature of a climate is dif-
CLIMATE.

Of the different causes which affect it, and the observations hitherto made have led, as yet, to no definite result. In general, however, geo-
graphical position is the principal factor taken into view in considering the climate of a country. The highest degree of heat is found under the equator, and the lowest, or the greatest degree of cold, under the poles. The temperature of the intermediate regions is various, according to their position and local circumstances. Thus, for the latitude of 70°, the mean temperature at the equator is 25°; at the poles, 75°; in the temperate zone, 26°; in the tropical zone, 72°; and in the torrid zone, 75°.

In the sandy deserts of Africa, particularly on the western coast, also in Arabia and India, it is excessive. In the mountainous regions of South America, on the contrary, it is very moderate. The greatest heat in Africa is estimated at 70° of Réaumur, or 180° of Fahrenheit. The greatest degree of cold at the poles cannot be determined, because no one has ever penetrated to them. The greatest altitude of the sun at noon, and the time of its culmination above the horizon, depends altogether on the latitude. Without regard to local circumstances, a country is warmer in proportion as the sun's altitude is greater and the day longer. The elevation of any region above the surface of the sea has likewise an important influence on the climate. But the nature of the surface is not to be disregarded. The heat increases as the soil becomes cultivated. Thus, for the last thousand years, the most rapidly growing crops have been nurtured by the destruction of forests, the draining of lakes, and the drying up of bogs and marshes. A similar consequence of cultivation seems to be apparent in the cultivated parts of North America, particularly in the Atlantic states. The mass of minerals, which comprises the highest layer of a country, has, without doubt, an influence on its temperature. Barren sands admit of a much more intense heat than loam. Meadow lands are not so warm in summer as the bare ground.* The winds, to which a country is most exposed by its situation, have a great influence on the climate. If north and east winds blow frequently in any region, it will be colder, the latitude being the same, than another, which is often swept by milder breezes from the south and west. The influence of the wind on the temperature of a country is very apparent in regions on the sea-coast. The difference in the extremes of temperature is less on the coast than inland, which was to be intolerable when the sun is in the zenith, is mitigated by the mild season, which then commences. When the sun returns to the opposite half of the torrid zone, so that its rays become less vertical, the weather is delightful. Lima and Quito, in Peru, have the finest climate of any part of the earth. The variations in temperature are greater in the temperate zones, and increase as you approach the polar circles. The heat of the higher latitudes, especially about 50° and 60° amounts, in July, to 75° or 50° of Fahrenheit, and is greater than that of countries 10° nearer the equator. In Greenland, the heat in summer is so great that it melts the pitch on the vessels. At Tornen, in Lapland, where the sun's rays fall as obliquely at the summer solstice as they do in Germany at the equinox, the heat is sometimes equal to that of the torrid zone, and the nights are almost as long as the days. Under the poles, the climate is, perhaps, the most uniform. A greater degree of cold than any we are accustomed to, seems to reign there perpetually. Even in midsummer, when the sun does not go down for a long time (at the poles not more than a few hours), the air is occupied with immenso masses of it, which surround the poles, feel the oblique effect from the oblique and feeble beams of the sun, and seem to increase in magnitude every year. This is very remarkable; for there is the most undoubted evidence that these now deserted countries were, in former ages, inhabited. But, within a few years, large portions of this continent (if we may so call it) of ice have separated, and floated down to southern seas. This led the British government to adopt the project of penetrating to the north pole. See North Polar Expeditions.

From the general division of America into lofty mountainous plateaux and great plains, there results a contrast between two climates, which, although of an extremely different nature, are in all immediate proximity. Peru, the valley of Quito, and the city of Mexico, though situated between the tropics, owe to their elevation the general temperature of the temperate zone, and the sun, according to its position, as it behoves it, sends down, or mountain ridges, covered with snow, which continues upon some of the summits almost the whole year, while, at the distance of a few leagues, an intense and often sickly degree of heat suffocates the inhabitants of the ports of Vera Cruz and of Guayaquil. These two climates produce each a different system of vegetation. The territory of the torrid zone forms a border to the fields and groves of Europe. Such a remarkable proximity as this cannot fail of frequently occasioning sudden changes, by the displacement of these two masses of air, so differently constituted—a general inconvenience, experienced over the whole of America. Everywhere, however, this continent is subject to a lower degree of heat than the same latitudes in the eastern portion of the earth. Its elevation alone explains this fact, as far as regards the mountainous region; but why, it may be asked, is the same thing true of the low or flat tract of the interior, particularly the north? Alexander Humboldt, in his Tableau de la Nature, makes the following reply: "The comparative narrowness of this continent; its elongation towards the icy poles; the ocean, whose unfinished surface is swept by the trade winds; the currents of extremely cold water, which flow from the straits of Magellan to Peru; the numerous chains of mountains, bounding in the sources of rivers, and whose summits, covered with snow, rise far above the region of the clouds; the great number of immense rivers, that, after innumerable curves, always tend to the most distant shores; deserts, but not of sand, and consequently less susceptible of being impregnated with heat; impenetrable forests, that spread over the plains of the equator, bounding in rivers, and which in those parts of the country that are the farthest distant from mountains and from the ocean, give rise to enormous masses of water, which are either attracted by them, or are formed during the act of vegetation, all these causes produce, in the lower parts of America, a climate, from its coolness and humidity, is singularly contrasted with that of Africa. To these causes alone must we ascribe that abundant vegetation, so vigorous and so rich in juices, and the numerous animal productions, which constitute the characteristic features of the new continent." To these remarks Malte-Brun adds (Universum Geogra-
CLIMAX—CLINICAL MEDICINE.

phy, vol. v, book lxxv.): "Assuming this explanation as sufficient for South America and Mexico, we shall add, with regard to North America, that it scarcely extends any distance into the arid zone, but, on the contrary, stretches, in all probability, nearly southward. They infer that the temperature of a north-west passage be confirmed, may, perhaps, reach and surround the pole itself. Accordingly, the column of frozen air attached to this continent is nowhere counterbalanced by a column of equatorial air. From this result, an extension of the polar climate into the very country of the true polar atmosphere. In the phenomena of winter and summer struggle for the ascendency, and the seasons change with astonishing rapidity. From all this, however, New Albion and New California are happily exempt; for, being placed beyond the reach of freezing winds, they enjoy a temperature analogous to their latitude. (For further information, see Malte-Brun's Universal Geography, book xvii, and the article Wind.)

CLIMAX (from the Greek κλίμακα, a ladder or stairs) and ANTICLIMAX are rhetorical figures; in the former of which the ideas rise in degree; in the latter, they sink. CLIMAX was also the name of several mountainous polar districts. There is another in Phoenicia; also of a castle in Galatia; and another in Peloponnesus, and also in Libya.

CLINGSTONE See Peach.

CLINICAL MEDICINE (from the Greek κλινική, a bed) teaches us to investigate, at the bedside of the sick, the phenomena of a disease. In the phenomena thus presented; to note their course and termination; and to study the effects of the various modes of treatment to which they are subjected. From this mode of study we learn the character of individual cases; theoretical study being competent to make us acquainted with species only. Clinical medicine dispenses, therefore, careful observation. It is, in fact, synonymous with experience. What advances would medicine have made, and from how many errors would it have been saved, if public instruction had always followed this natural course, so that pupils had received none but correct impressions and distinct conceptions of the phenomena of disease, and had attained a practical knowledge of the application of those rules and precepts, which dogmatical instruction always leaves inadequate? We are acquainted with the method of clinical instruction in medicine, which was followed by the Asclepiades, but receded a step by step till they arrived at the results of it as exhibited to us in the writings of Hippocrates, who augmented the stores of experience inherited from them, by following in their steps. After his time, medicine ceased to be the property of particular families, and the path of experience, by which it had been rendered so valuable, was soon deserted. The slow progress of anatomy, and physiology, the constant study of the philosophy of Aristotle, and endless disputes respecting the nature of man, of diseases and of remedies, occupied all the attention of physicians; and the wise method of observing and describing the diseases themselves fell into disuse. Hospitals, at their origin, served rather as means of displaying the benevolence of the early Christians than of perfecting the study of medicine. The school of Alexandria was so celebrated, according to Ammianus Marcellinus, that a careful attendance upon its lessons entitled the student to pursue the practice of medicine. And, since they have never been any known institution, was situated at Nisapour, in Persia; and hospitals, even before the flourishing period of the Arabians, to whom the happy idea is commonly ascribed, were united with these medical institutions. The last school, founded by the emperor Aurelian, and superintended by Greek physicians, spread the doctrines of Hippocrates through all the East. It was supported for several centuries, and in it, without doubt, Rhazes, Ali-Abbas, Avicenna, and the other celebrated Arabian physicians, were instructed.

At the same time, the celebrated John Mesue of Damascus, was at the head of the hospital of Bagdad. Of the manner, unless there, we know nothing; but we are inclined to form no very elevated opinion of the systems of an age which was devoted to all the dreams of Arabian polypharmacy. In truth, medicine shared the fate of all the other natural sciences in those barbarous ages. Men were disposed to acquire, slowly and laboriously, the knowledge of disease, at the bedside of the sick, in the manner of the Greek physicians. It appears probable, that the foundation of universities led to a renewed attention to the study of medical science; and we find, accordingly, that in Spain, even under the dominion of the Arabians, there were schools and hospitals for the instruction of young physicians at Seville, Toledo, and Cordova. But, even then, clinical studies were almost wholly neglected. Instead of studying the history of diseases, the pupils occupied their time with the most unprofitable pursuits: and the most obscure and hardly sensible passages of the journeys, which were made for the same objects to Italy and France, in the eleventh and twelfth centuries. The schools of Paris and Montpellier were those principally resorted to; but in these, the instruction consisted simply in lectures and endless ceremoniousness; the most obscure and insignificant events of the first of these, even at the close of the fifteenth century, when the works of the Greek physicians began to be printed, men were still busied with verbal explanations and disputes. Two centuries elapsed before physicians returned to clinical studies and instructions. Among the renovators of this mode of studying medicine may be named, in Holland, William van Slenen, Otho Heurnius, and the celebrated Sylvius, about the middle of the seventeenth century; and it is said that clinical instruction was given, at the same period, in the schools of Hamburg, Vienna, and Strasbourg. Even Boerhaave, who succeeded Sylvius as clinical instructor at Leyden, in 1714, has left us no journals of daily observation of disease, but only academical discourses upon the general principles of medicine. The influence of this celebrated school was first perceived at Edinburgh, and afterwards at Vienna,—two schools which, in celebrity for clinical instruction, stand in the first rank; the first was the school of Leyden. Cullen, one of the most celebrated teachers of practical medicine at Edinburgh, was too fond of fine-sap theories upon the condition of the diseased structures of the body, and the proximate causes of disease, ever to follow a uniform method in his lectures, and to adopt the entire history of disease, as observed at the bedside, as the basis of his system. From the account of what was effected in clinical medicine in Italy, Germany, and France, in the course of the 18th century, we may discover both the constantly increasing attention to this department of knowledge, and the difficulties with which such institutions are obliged to contend. The Vienna school, by means of the labours of Van Swieten, De Haen, and, still more, of Stoll and of Franch, became a model of clinical study, since public lectures were given in the hospitals, and the simplicity of Greek medicine successfully inculcated. The practice of study of medicine in France, was only an indirect mode of gaining public confidence, till the period of the general reverence of science, and the erection of the French Ecole de Sainte. In that for the first time, clinical instruction was expressly commanded. At the present day, every good school has its particular difficulties with medicine connected with it; that is, an hospital, in
which diseases can be seen and studied by those attending it. In Germany, the empirical or experimental mode of studying medicine was early given up for the more scientific form of lectures; while in Britain and France, the opposite extreme took place, and private practice, attended, of necessity, by many methods, is still, to the bedside of the sick, before they had been properly grounded in elementary studies. In Germany, there are very numerous journals, which contain clinical reports of cases, as there are so many clinical institutions appropriated to particular classes of diseases; for the formation of such schools, an ample, practical instruction is almost wholly overlooked, although some slight lectures of this description are given by the physicians of hospitals. The clinical school is called "ambulatory," when the patients attend only at particular hours; and it is termed "polyclinic," when the instructor and his pupils visit together the beds of the sick.

CLINTON, Sir Henry, a British general who served in the Hanoverian war, and was sent to America, in 1775, with the rank of major-general, where he distinguished himself in the battle of Bunker's Hill. He was chosen to command the New York and Charleston, but without success. In a second attempt on New York, he entered the city, after having defeated the station for the purpose of favouring the movements of General Burgoyne, his attempts were rendered ineffectual by the surrender of that general at Saratoga. In 1778, he succeeded Howe in the command of Philadelphia, which Washington obliged him to evacuate. In 1779, he obtained possession of Charleston. His connexion with Arnold (q. v.), his attempt to seduce the American troops by the offer of making up their arrears of pay, and his boast that there were more American royalty in the pay of the king than there were soldiers in the army of Washington, illustrate the system of corruption then adopted by the British generals in America. In 1782, Clinton returned to England, having been superseded by General Carleton. He died in 1786. His Narrative of his conduct in America (1782), was answered by Lord Cornwallis; to whom Clinton replied in observations on Lord Cornwallis's answer (1785). He was also the author of observations on Steedman's History of the American War (1784).

The compiler was born on 6th January 1769, at Little Britain, New York, North America. He was of English origin. His father served with great distinction during the revolutionary war, and became a major-general in the army of the United States. His mother was a De Witt, a member of the distinguished Dutch family of that name. Her parents had emigrated to America. He was educated at Columbia college, where he highly distinguished himself, and in due time, was admitted to the bar. But before he was able to acquire any practice of importance he was appointed private secretary to his uncle George Clinton, and continued in this office until the end of his relative's administration, in 1785. In the interim, he had been chosen secretary to the board of regents of the university, and to the board of fortifications of New York. In 1797, Mr Clinton was elected a member of the legislature of New York, at the time when the two great parties, who since had divided the country were organized, and embraced the republican or democratic side. In 1800, he was chosen by the council of appointment, of which body he was a member, to support their cause in a controversy between them and governor Jay. This was finally settled by a convention, which met at Albany, in 1801, when the constitution of New York was modified in various ways. The same year he was chosen a member of the senate of the Union, in order to supply the vacancy occasioned by the resignation of general Armstrong and continued a member of that body for two sessions. After that period, he was chosen mayor of New York, and was now in possession of the government, for an intermission of but two years, until 1815, when he was obliged to retire, in consequence of the violence of party politics. In 1817, he was elected, almost unanimously, governor of the state; the two great parties having combined for the purpose of raising him to that dignity. Contemporary with his talents and services. This harmony continued until the distribution of offices, when, of course, discontent was excited, and at that time commenced a systematic opposition to his administration. He was re-elected, however, in 1820, notwithstanding the great exertions of the opposite party. In 1822, he declined offering himself again as a candidate, and retired into private life. In 1810, Mr Clinton had been appointed, by the senate of his state, one of the board of canal commissioners; but the displeasure of his political opponents, who were, at that time, in the majority, who had been excited by the enthusiasm evinced in his favour at the canal celebration, in October, 1823, at Albany, and they deprived him of his office. This act, however, for which no reason could be assigned, occasioned a complete reaction of the public feeling towards him. His friends did not suffer the opportunity to escape, but again brought him forward as a candidate for the office of governor, and carried him, by a most triumphant majority, over Colonel Young. In 1826, he was again elected, by a large majority, over Judge Rochester; but he died before this term was completed. His death was in consequence of a cutaneous affection of the throat and chest, which being neglected, occasioned a fatal disease of the heart. He expired almost instantaneously, whilst sitting in his library, after dinner, Feb. 11, 1828. The next day, business was suspended in Albany. The public testimonials of respect paid to his memory, throughout the state and Union, were almost numberless. His body was interred with every honour. Mr Clinton was tall, finely proportioned, and of a commanding aspect. In his domestic and social relations, he was cheerful and kind; in his friendships warm and sincere; and in his manner, character, and exceptionless attachment to the other distant pursuits, in consequence of long habits of abstraction, and a natural diffidence, of which he never could divest himself. He was an early riser, and extremely laborious, every moment which he had to spare from his necessary duties being devoted to the cultivation of his mind. No one was ever more ambitious of a reputation for science and literature. In some of the physical sciences he was especially versed, and his proficiency as a classical and belles-lettres scholar was very considerable. He was a member of a large part of the literary and scientific institutions of the United States, and an honorary member of many of the learned societies of Great Britain and the continent of Europe. His productions are numerous, and consist of his speeches in the state legislature and in the senate of the Union, his speeches and messages as governor; his discourses before various literary, philosophical, and benevolent institutions; all his communications during the late war; his communications concerning the canal; and his judicial opinions; besides various fugitive pieces. His national services were of the greatest importance; the Erie canal especially, although his title to the merit of being the originator of the project may be disputed, will always remain a monument of his patriotism and perse-
CLIVE—CLIVE. 271

verence. He was, also, a promoter and benefactor of many religious and charitable institutions.

CLIO; daughter of Jupiter and Mnemosyne; the muse of glory and history. Her attributes are, a wreath of laurel on her head, a trumpet in her right hand, and a roll of papyrus in her left. See Mythology, Greek.

CLITUS; son of Driopis, and brother of Hella-nice, the nurse of Alexander the Great. He was one of the generals of Philip and Alexander, and was more than the latter in the battle of the Granicus, by cutting off the hand of Rhosaces, who had just lifted up his arm to kill Alexander. Notwithstanding this service, however, Alexander slew him in a fit of intoxication, on account of some irritating words. After the act was performed he was posthumously given the bitterest remorse.

CLIVE, Catharine, a celebrated comic actress, was the daughter of a gentleman named Raffor, and was born in the north of Ireland, in 1711. When young, she was married to Mr Richard Clive, a barister; but the union was unfortunate, and, a separation taking place, she adopted the theatrical profession, in which she attained a distinguished rank. She filled and adorned a variety of comic parts; and whether she exhibited the woman of good sense, of real fine breeding, the humorous, the fantastic, the affected, the rude, the awkward, or the ridiculous form, she carried them all off with ease; she was sure to fascinate the audience; though her talents were peculiarly adapted to scenes of low life. Her lively, playful humour is exemplified by the following theatrical anecdote:—She performed at Drury lane theatre under the management of Garrick. One night, while playing the lady in Letha, Mrs Clive, in turning her head towards the sign-box, chanced to encounter the eye of Charles Townshend. That political wit pointed instantly to an old belle on his left, a very caricature of the ridiculous dame she was portraying on the stage. The actress paused for a moment, and burst into laughter. The galleries caught the jest, and joined boisterously in the mirth, clapping loudly with their hands at the same time. Mrs Clive at length retired from the stage, of which she had been long a distinguished ornament, and passed the latter part of her life at Little Strawberry hill, near the Gothic villa of Horace Walpole, who, as well as every other person of taste and distinction, courted her society, attracted by the wit and drollery with which she enlivened her domestic circle. Her death occurred in 1785.

CLIVE, Robert, lord Clive and baron of Plassey, was born in 1725, in Shropshire. He was sent to several schools, but, to little purpose, and was said, by all his masters, to be the most unlucky boy in their schools. His father obtained for him the place of a writer in the East India company's service, and, in his nineteenth year, he went in that capacity to Madras. In 1747, he quitted the civil employment, and entered into the military service, for which nature had so peculiarly fitted him. During two years, public events gave him little opportunity to distinguish himself; but, when the British thought proper to engage as auxiliaries, in favour of a competitor to the reigning mughal of Tanjore, it was resolved to attack one of his forts named Desi Cutch, in which service Clive acted with great bravery, and was soon after appointed commissary to the British troops. About this time, M. Duplex, taking part with a candidate for the sufragery of the Curnatic, succeeded in placing him on the throne, on condition of his delivering to the British some of the revenue of the country. By this proceeding, he gained a large grant of territory for the French, and the collection of all the revenues in that quarter of the Hindoo empire. The ostentation and insolence with which they afterwards conducted themselves roused the indignation of the British, a body of whom, under the command of Clive, made an attack upon the city of Arcot, the boldness of the enterprise carried it to its height, and, after a most complete victory, he returned to Madras, and in 1753, sailed to England for the recovery of his health. A diamond hilted sword was voted to him by the East India company, which he only accepted upon condition that colonel Laurence, who had eminently distinguished himself in the action, should receive a like present. He was also presented with the government of St. David's with the right of succession to that of Madras, and a lieutenant-colonel's commission in the king's service. After a successful attack on the pirate Angria, in conjunction with admiral Pocock and Watson, he repaired to St David's, but was soon called to Madras, to command the succours sent to Bengal, where the nabob Surajah Dowlah had attacked the British, destroyed their factories, taken Calcutta, and sallied several of his prisoners in the black hole. Colonel Clive proceeded to Calcutta, and, driving out his enemy, took possession of the city, and, with a very inferior number of men, entered the nabob's camp, and seized his cannon; which alarmed him so much, that he offered terms which were adjusted much to the advantage of the company. The state of things rendering it necessary to form a new plan, Colonel Clive formed the project of decthroning the nabob, the execution of which was confided to Mr Watts and himself; and one of the nabob's officers, named Meer Jaffier, joined them on condition of succeeding to his master's dignity. A Gentoo merchant named Omichund, was engaged to carry on the correspondence between Jaffier and the British; but, demanding a high sum for his services, a double treaty was drawn up, in one of which his demand was inserted, and both were signed; and the first only shown to Omichund, who, trusting to the faith of the British performed his part. The nabob, suspecting what was going forward, commanded Meer Jaffier to swear fidelity and join his army; and the famous battle of Plassey ensued, in which by comparatively a small body of troops, the nabob and his army were put to flight and the company's success decided. To the deep disgrace of Colonel Clive and the British, on the fair being dissolved at that juncture, it was discovered that "the red paper was a trick, and he was to have nothing." The disappointment drove him mad, and, a year and a half after, he died in a state of idiocy. It should also be noticed, that the signature of admiral Watson, who was too honest to sign the paper, was forgery. The new nabob Meer Jaffier who had come over at the close of the action, had presented Clive with 21,290,000, now wished to govern without the interference of the British; but, three rebellions rising against him, he was obliged to solicit their aid, and Colonel Clive suppressed two, but made a compromise with the third competitor, whom he thought would be a check upon the nabob's becoming too powerful. He was next appointed governor of Calcutta; and soon after, a large force arrived at Bengal, on pretence of being sent to reinforce the garrisons belonging to the Dutch company. Suspecting that they were invited by the nabob, to destroy the British power, he attacked them, both by sea and land, with great success, capturing all their forces, and drawing up a treaty, signed by the Dutch, who agreed to pay all expenses, on the restitution of their property. For these services, he was rewarded with the Order of the Garter, and became the omnah of the empire, and received a grant of a revenue, amounting to £28,000 per annum from Meer Jaffier. He then again returned to England, where
his success was much applauded without much inquiry as to the means; and, in 1761, he was raised to the Irish peerage, by the title of lord Clive, baron of Plassey. He had not, however, been long in England before a dispute, respecting the consequence of a letter written by Meer Jaffier and Mr Holwell, who then officiated as governor, which ended in transferring the nabobship from the former to his son-in-law Cossim-Ally-Khan; but in consequence of the shameful monopolies and usurpations of the British traders, the new nabob declared the trade of the country free for all. It was consulted with, respected, to depose him, and to restore Meer Jaffier; and, after a temporary success, he was obliged to take refuge with the nabob of Oude. On the news of these commotions reaching Great Britain, the company appointed lord Clive president of Bengal, with the command of the troops there, and in July, 1764, he returned to India, being first created a knight of the Bath. Before his ar-
ival, major Adams had defeated the nabob of Oude, Sujah ul Dowlah, and obliged him to sue for peace; so that lord Clive had only to settle terms of agreement with the country powers, which he did by a compact, by the terms of which he allowed the disposal of all the revenues of Bengal, Bahar, and Orissa. In 1767, he finally returned to England, being the chief contributor to the immense possess-
ions of the East India company. In 1773, a motion, supported by the minister, was made in the house of commons, "that, in the acquisition of his wealth, lord Clive had abused the powers with which he was intrusted." The charges brought forward in support of this motion had a very serious aspect, but, with the assistance of Mr Wedderburne, he made such a defence, that it was rejected, and a resolution passed, "that lord Clive had rendered great and me-
morious services to his country," which, however, was no contradiction to the motion. From that time, his broken health, and probably his injured peace of mind, rendered him a prey to the most gloomy de-
pression of spirits, under the morbid influence of which he put an end to his life and sufferings, at the age of fifty, in November, 1774.

A physiognomist would scarcely have been fa-
ourable to lord Clive, who possessed a remarkably heavy brow, which gave a close and sullen expres-
sion to his features; and he was, indeed, of a reserv-
ed temper, and very silent; nevertheless, among his intimate friends, he could be lively and pleasant. He was a man of definite and firm decisions, but inspired those under his command with the utmost confidence, owing to his great bravery and presence of mind. Lord Chatham character-
ized him as a "heaven-born general, who, without experience, surpassed all the officers of his time." His talents, in fact, were as great as his political mo-
rality was disputable; and, as in the case of Warren Hastings, the services done to his country have par-
lized the disposition to investigate too nicely into the character of them. He was a member of parlia-
ment from 1760 to his death, but seldom spoke; though, when he spoke, he could display great elo-
quence. In private life, he was kind and exceedingly liberal. He married the sister of the late astronomer-
royal, doctor Maskelyne, by whom he had two sons and three daughters.

CLOACE; subterranean works in Rome, of stup-
endous size and strength, constructed in the time of the Tufns, for the purpose of retarding or checking off the Tiber, the waters from the hill, and the silt of the city. The cloaca maxima, or principal branch, received numerous other branches, between the Ca-
pitoline, Palatine and Quirinal hills. It has stood 2200 years, surviving the earthquakes which have shaken down the palaces, churches, and towers of the

CLOCK. For many inventions which do honour to the human mind, we are indebted to the monks of the middle ages, who, in their seclusion, free from the necessity of providing for their support, employ-
ed the time during which they were not engaged in their devotions in the practice of various arts, both useful and delightful. But the invention of clocks, with which, in all likelihood, there owe to them are clocks, or time-keepers, which are set in motion by wheels, pendulums, and steel springs. The word horologium was in use, even among the ancients; and it might almost be inferred, from many expressions, that they possessed instru-
ments similar to our pocket watches and chamber clocks. It is, however, certain, that their time-
pieces were sun-dials, hour-glasses, and clepsydra. The latter Julius Cesar brought with him from Great Britain. It was a clepsydra which Cossidoo-
rus, in the sixth century, recommended to his monks, when in their shops they also necessities by their sun-dials. The gourmand Trimelchio, descri-
ded by Petronius, had a clepsydra in his dining-room, and placed a trumpeter near it to announce the hours. Vitruvius mentions an Alexandrian artist, who, 140 years before our era, combined spring-
wheels with the clepsydra; but the account is too confused and incomplete to afford a correct idea of its construction. In an old chronicle, it is related that Charlemagne received a clock (see Automata) from Haroun al Raschid in 809, to which small bells were attached, and in which figures of horsemen, at the hour of twelve, came forth through little doors, and retired again. There is a more exact description of the word of particular in the Franco-Anglo monasteries, attri-
buted to Eginhard, in which it is particularly said to have been a clepsydra, and that, at the end of each hour, little balls of metal fell upon a bell, and pro-
duced a sound. It is not probable that the clock which Pacius, arch-deacon of Verona, is said to have invented in the ninth century, could have been equal to our present clocks. The words on his tomb are so indistinct that nothing positive can be inferred from them. The discovery of clocks has likewise been attributed to the famous Gerbert of Auvergne, who afterwards became pope under the name of Syl-
vester II. Gerbert was Dean of Magdeburg, a trustworthy witness, only relates that Ger-
bert placed a horologium in Magdeburg for the em-
peror Otto, after observing, through a tube, the star which guides the seamen. This must have been a sun-
dial, which Gerbert placed according to the height of the pole. In the twelfth century, clocks were made use of in the monasteries, which announced the end of every hour by the sound of a bell, put in motion by means of wheels. From this time for-
ward, the expression, "the clock has struck," is often met with. The hard for marking the time is also made mention of. Of William, abbot of Hirsau, his biographer relates, that he invented a horologium similar to the celestial hemisphere. Short as this ac-
count is, it still appears probable that this abbot was the inventor of clocks, as he employed a person par-
icularly in arranging his work, and keeping it in order. This abbot died at the end of the eleventh century, in 1074, there is again mention of a clock, given by the sultan Saladin to the emperor Frederic II. This was evidently put in motion by weights and wheels. It not only marked the hours, but also the course of the sun, of the moon and the planets in the zodiac. It is highly probable that the Sarumians learned the art of clock-making from the

CLOCK-CLOCK-WORK.

monks of European monasteries; perhaps on the contrary, they were the real inventors of it, and the invention was made known to Europeans by means of the crusades. In the 14th century, there are stronger traces of the present system of clockwork. Danton, of the English college at Douai, in Flanders, was the first who made one of this kind; at least his family was called, after him, D'Ell' Orologio. A German, Henry de Wyck, was celebrated, in the same century, for a large clock which he placed in a tower built by command of Charles V., king of France. This clock was preserved till 1737.

Watches are a much later invention, although they have likewise been said to have been invented as early as the 14th century. The general opinion is, that Peter Hele first contrived them in 1510. One of their names was that of the 'Nuremberg egg' (Nuremberg Ei); others are known which were of the Wooden Egg, invented by Halm, in the Schwarzwald, or Black Forest, in South Germany, and furnish an important object of manufacture for this mountainous and barren country. It is said that 70,000 of such clocks are made there annually. Perhaps this account is exaggerated, but the clocks made in this manner are found to North and South America, and all over Europe. The chief magazine of them is at Neustadt, in Baden.

CLOCK-WORK. It is usual with writers on clock-work to consider the moving part, or that which moves the time, as independent of the striking department of a common clock; and the first being called the watch, and the second the clock department. This method we shall follow, as it tends greatly to the simplification of the subject. (An end view of the watch movement of a common clock is shown, fig. 1, plate XV.) The work-wheel is contained within two brass plates, SS.TT., connected together by four pillars, two of which are seen in the drawing. Between these two plates a barrel C is placed, moving on the pivots b b entering the plates, and which terminate the axis a a. A catgut band passes round the barrel, being guided in winding by a spiral groove cut in its surface. To the end of this catgut band, or cord, a weight P is attached, which, descending by its own weight, will uncoil the cord, and cause the barrel to turn on its axis; and were no obstruction offered, this motion would continue until the catgut were exhausted or the weight reached the ground. This, however, is prevented by the action of a click fixed to the wheel DD, which click strikes against the right sides of the teeth of a matchet wheel attached to the barrel. The teeth of the wheel DD act upon the leaves of the pinion turning upon the pivots e e. The wheel EE is fixed upon the axis of the pinion EE, and thus the motion given to that pinion by the wheel DD, is transferred to the wheel EE, from thence to the pinion e e, and afterwards to the wheel FF, which again gives motion to the pinion f f, upon the axis of which is fixed the swing-wheel GH. The swing-wheel, as will be seen in fig. 2, has teeth of the matchet form, in which the pallets IH play. These pallets are connected by a cross piece, as seen in the drawing, which is fastened to an arbor going through the back plate of the frame, as seen in fig. 1, and carrying the lever UX, which has a forked end, to receive the pendulum. To the brass bar A screwed to the frame of the clock, there is attached a small steel spring by which the pendulum is suspended. The pendulum consists of a slender rod, with a heavy bob at the
CLOCK-WORK.

one end, being suspended at the other. The length of time which the pendulum takes to vibrate will depend on its length, that is, on the distance between the centre of suspension and the centre of gravity of the bob.

On the laws of the motion of pendulums, such remarks shall only be made here as are necessary for the illustration of the further work. The length of a pendulum vibrating seconds at London has been found to be 39.1333 inches. This pendulum, although vibrating seconds at London, would not do so correctly in other latitudes, for it has been found by experiment, and may be demonstrated from the known laws of gravity, that the length of the seconds' pendulum varies, as the advance from the equator to the poles, the length at the equator being 39, and at the poles 39.206 inches.

The latitude of the place where the clock is meant to go must therefore be taken into consideration by the maker, and the length of the pendulum regulated accordingly. The pendulum may be made to vibrate half-seconds, seconds, or two seconds, and the number of the teeth in the wheels made to correspond; but when a choice can be made, experience proves that preference ought to be given to a long pendulum. On this subject more shall be said towards the end of this article; meantime we return to the examination of the connexion of the pendulum with the swing-wheel. — When the pendulum y B, fig. 1, is drawn a little aside from the perpendicular, and then let go, it will move backwards and forwards, the bob B describing the arc of a circle round the centre of suspension y; and from the connexion before pointed out between the pendulum and the pallets, IR, fig. 2, it is easy to see that when, by the action of the weight P, motion is, as shown before, transmitted to the wheel GI, a tooth, H, of this wheel will act upon the pallet K, move it, and cause that tooth to escape. The motion of the pendulum will then cause the pallet I to come into contact with the tooth G, which again will escape, and so on, each tooth in the wheel escaping the pallets.—This department of the clock is denominated the escapement. Various forms of the escapement have been employed at different times, many of which exhibit great ingenuity; that which we have just described is the one in common use; it is very simple, and answers all ordinary purposes sufficiently well. In tracing the times of the revolutions of the wheels, we refer to fig. 1, where the wheel EE revolves once in an hour. The pivot c of this wheel passes through the plate, and is connected with r, upon which the minute hand is fixed. This extremity r, which carries the minute hand, is the end of a long socket fastened into the centre of the wheel NN, the teeth of which act upon the wheel O, whose pinion p moves the wheel gg fixed upon the socket which turns with the wheel N. The hour hand is fixed upon the barrel of the wheel gg, of which course turns once round in twelve hours.

From this description, the reader will perceive that the whole of the wheels, as likewise the pendulum, are kept in motion by the descending of the weight P, until the cord which is coiled round the barrel has been run out. The clock is again wound up by means of a key which fits on the square end of the arbor Q.

For the purpose of winding the clock, the clock c, fig. 2, is moved by the inclined side of the teeth of the rack, which turns while the wheel D is at rest, but it continues to move so soon as the cord is coiled upon the barrel—the clock falls and checks the teeth, thus allowing the wheel D to move, the clock being kept in the teeth of the wheel by means of the spring A. If the pendulum of the clock is a seconds' pendulum, it will make 3600 vibrations in an hour; but a half seconds' pendulum, whose length is about 9.4 inches long, will make double that number, i. e. 7200 vibrations in an hour; and, supposing the latter to be employed, it then follows that, since the teeth of the swing-wheel GI must all act on each of the pallets, each tooth of the pinion revolving 12 times for one revolution of the pendulum, if the swing-wheel have 30 teeth, the pendulum will make 90 vibrations during one of its revolutions. Hence since 60 is contained in 7200 120 times, the wheel GI will turn 120 times in an hour. If the wheel E have 72 teeth, and the pinion 6, then both the pinion revolves 12 times for one revolution of the wheel. The pinion f turns the wheel F which has 60 teeth, and the pinion e making ten revolutions for one of the wheel F, makes 120, while E performs one. The pinion f moves GI, causing it to turn round and make the pendulum vibrate 60 times for every revolution; and as the pinion f turns the wheel G, the pendulum must make 60 x 120 or 7200 vibrations, while the wheel E makes one turn. This last wheel, then, turns once in an hour. The wheel N on the same axis must likewise turn in one hour, and the minute hand is fixed upon a tube on the axis of this wheel. This is fixed on a pivot, and when the wheel N is not moving, the friction, may be moved so as to be set at any figure on the dial plate without affecting any of the wheels. The wheel N having 30 teeth, drives the wheel O, leaving the same number, which therefore revolves in an hour. O carries the pinion f of six leaves, acting upon the wheel gg of 72 teeth; and the pinion will therefore make twelve turns for one of the wheel gg, which must take twelve hours to revolve, and upon the axis of this accordingly the hour hand is fixed.

We have hitherto confined our attention to the going or watch part of the clock; we will now endeavour to explain the construction of the striking department. The prime mover of the striking department, is a weight, attached to a cord wound round a barrel, in fig. 2, similar to the barrel in the clock department. The wheel h, on this barrel, turns a pinion of eight leaves, fixed on the same arbor as the wheel i, which again turns a pinion of eight leaves, on the arbor of the wheel k, of 48 teeth. On the same arbor with the wheel t of 48 teeth, there is fixed a pinion driven by the wheel k, and the wheel t again drives another pinion of six leaves, on whose axis a broad flat piece of metal s is fixed, called the fly, which is seen when the hammer strikes the bell. The resistance thence arising retards the motion of the train. Eight pins project from the side of i, which, as the wheel turns round, act in succession on the tail of the hammer, causing it to move out from the bell. When a pin leaves the tail of the hammer, it is returned, and made to strike the bell a, by the action of the spring s. But to prevent the hammer from continuing to press upon the bell, and thus deaden the sound, a small spring, w, acts upon the hammer, just before it strikes the bell, and lifts it after it has struck. The pin-wheel i, carries a pinion of eight leaves, driven by the wheel k, of 72 teeth, turning once in twelve hours. On the arbor of the wheel k, which passes through the brass plate ss, is fixed a small pinion of one tooth, called the gathering pallet seen at r, fig. 3. The gathering pallet, which revolves once for each stroke of the hammer, turns a larger wheel, a segment of which is seen at r, this wheel is called the rack, and to it is attached the arm b, whose end rests upon the spiral plate c, called the snail, fixed on the same tubular arbor as the wheel 72, and the hour hand. The snail is divided into 12 parts or steps, each of which corresponds to an hour; their circumferences are parts
CLOCK-WORK.

of circles struck to different radii, decreasing in a certain proportion each step, the length of each being one-twelfth part of the circumference of the circle on which it is struck. These circular arcs form so many slips, constituting the snail, against which the arm \( \overline{b} \) of the rack is pressed by the spring \( \overline{w} \), which is at the opposite end of the short arm of the pallet, and on the teeth of the rack; \( \overline{b} \) is the warming-piece, being a three-armed detent, one arm of which is bent at the end, and passes through the plate SS, in order to catch a pin fixed in the arm of the wheel \( \overline{t} \) (fig. 2).

The other arm \( \overline{t} \) takes a direction so as to meet a pin on the wheel \( \overline{O} \). In figure 2, the motions of \( \overline{a} \), \( \overline{b} \), and \( \overline{t} \) are represented as in motion, and the motion would continue were it not that, at each stroke of the hammer, the gathering pallet \( \overline{r} \), lifts the rack one tooth each turn — the hawk’s-bill retaining the rack until a pin in the end of the rack is brought in the way of the gathering pallet lever, and thus stops the motion of the wheels. At the end of every hour the pin in the wheel \( \overline{O} \) touches the end \( \overline{b} \), moving it towards the spring, thus lowering the end \( \overline{k} \) to the circle of motion of the pin in the wheel \( \overline{t} \) (fig. 2). The end of the rack \( \overline{k} \) is at the same time lowered or the end of the short tail, in consequence of which, the other end \( \overline{g} \) is raised so as to clear the head of the rack \( \overline{S} \), when the rack is thrown back by the spring \( \overline{w} \), until the end of the arm \( \overline{A} \) is pressed against the snail. The wheels are set in motion by the weight, when, by the falling back of the rack, the pin in \( \overline{t} \) is released, the gathering pallets; but a few minutes before the striking of the bell, the whole is stopped by the pin in the wheel \( \overline{O} \), falling against the end \( \overline{k} \). The motion of the wheels during this action produces that noise called the warning of the clock. When the hammer is about to descend, either at the hour, or the half hour, the end of the arm \( \overline{b} \), of the wheel \( \overline{O} \), slips over \( \overline{B} \), and it is raised against the end \( \overline{k} \) by a small spring. The hammer \( \overline{p} \) is raised by the pin-wheel \( \overline{t} \), and the bell is struck. The gathering pallet takes up a tooth of the rack each turn, the hawk’s-bill retaining it until the pin in \( \overline{O} \) comes under the gathering pallet, and checks the motion of the striking department until the next hour. The number of teeth that the rack falls back will depend upon the number of strokes made by the hammer, and, from the form of the snail, the rack falls back differently every hour, the hammer making one additional stroke each hour, from one to twelve. If the hammer strikes the rack at any other time than the hour, the arm \( \overline{b} \) should be moved between any two hours, then will the striking part be put into motion, and the arm \( \overline{A} \) remaining in the step of the snail, the last hour will be struck, which is called repeating.

From this description it is easy to see that a clock may be made to go for any length of time without winding up, by increasing the number of teeth in the wheels, or, what comes to the same end, diminishing the number of hours in the pinions. The same may also be done by lengthening the cord to which the weight is attached, or by increasing the number of wheels and pinions. The moving pieces in clocks with short pendulums, called time-pieces, is frequently not a weight, as is above described, but a spring, such as that employed in watches, for a description of which apparatus, see Watch-work. Many other appendages and peculiarities in the construction of escapements and other parts of clocks, might have been described, but such minute detail would be totally inconsistent with the nature of a Popular Encyclopedia. We cannot, however, pass over the more particular description of the pendulum, on which depends the regularity of the clock’s motion. A heavy body \( \overline{p} \), (fig. 4) attached to the end of a cord or slender rod PC, capable of moving round the centre C, forms the common pendulum. The body or bob \( \overline{P} \), will, if undisturbed, remain in the lower point A of the arch PE, but if drawn to one side, as shown in the figure, and then let go, it will, by the action of gravity, have a tendency to move towards the centre of the arc PA, or PL, but because of the rod or cord PC, it describes the arc PA, being part of a circle of which C is the centre. When the bob has reached the lowest point A, it has acquired such velocity as to carry it on to the point E, from which it descends and rises again towards A. The alternate motion is represented as in motion, and the motion would continue were it not that, at each stroke of the hammer, the gathering pallet \( \overline{r} \), lifts the rack one tooth each turn — the hawk’s-bill retaining the rack until a pin in the end of the rack is brought in the way of the gathering pallet lever, and thus stops the motion of the wheels. The momentary impetus given to the bob, as it travels from the point A to E, is a force consisting of the product of the weight of the body, the length of the cord, and the perpendicular distance of the centre of gravity from the point of suspension A. But as the bob falls to E, it descends on a slightly longer radius, and hence has a contrary motion, the momentum of which is directed towards A. By the alternate motion of the bob, the arm \( \overline{b} \) is pressed against the snail, and the motion of the wheels is transferred to the hammer, which returns to the position from which it started, and the cycle of motion is repeated. The pendulum is a very important part of the clock, and the length of its oscillation must be accurately regulated. The length of the pendulum is measured from the centre of gravity to the point of suspension. The time of oscillation depends upon the length of the pendulum, and the square root of the length. The pendulum is adjusted by means of the wheels and pinions, and in the clock is so adjusted as to strike the hour, half hour, and quarter hour, and to stop the clock for a minute, if not wanted. The pendulum is a very important part of the clock, and the length of its oscillation must be accurately regulated. The length of the pendulum is measured from the centre of gravity to the point of suspension. The time of oscillation depends upon the length of the pendulum, and the square root of the length.
CLOISTER—CLOTHING.

The rods E, F, G H are of brass, and fastened in a similar way to the lower bar B D, and to E G the second bar from the top. The two next rods are of steel, and fastened to the cross bars I K and E G. The next two are fastened to the cross bar I M and I K, and are of brass. The central rod to which expansion will be given, is fastened to the steel, and fastened to the cross piece L M, and passes freely through the cross pieces B D, I K. The effect of the steel rods is to lengthen the pendulum, on expansion by heat, or to shorten it on contraction by cold; while this is compensated by the contra expansion and contra contraction of the rods of brass in the following manner.—When, by increase of temperature, the two outer steel rods expand, the cross bar B D, together with the rods attached to it, will descend, and thus the pendulum will be lengthened; but the two next brass rods fastened in B D will also expand and raise the cross piece E G, whereby the next two rods of steel, will likewise be raised. These two last mentioned rods will also expand, and therefore the cross piece I K will be lowered. To this cross piece the two next rods of brass are fastened, and they will likewise expand and raise the cross piece L M, which enables the pendulum to recover the position of the bob, by the expansion of the central rod.—This description of pendulum answers the purpose of keeping correct time exceedingly well, and is accordingly employed in chronometers for navigators, and the clocks of observatories. The last form of the compensation pendulum which we shall notice is that of Closhtavie. A and B are two rods made of steel similar to each other in every respect, the rod B being supported by a bracket D, and the top formed into a gibbet at C. The rod B is firmly fixed into a large piece of marble. F set into a wall so adjusted that the rod may be moved up or down between the brass stage L, M, which touch on a point in the front and behind. The rod A carries at its lower extremity the bob G, twenty-four pounds' weight, the upper end being suspended by a spring at the gibbet C. All this apparatus is unconnected with the clock, to the back of the plate of which at K two cheeks are secured in a line with the verge L. The maintaining power is applied in the usual way of regulators at M, by means of a cylindrical stud, and here the compensation, if so it can be called, takes place. For while the rod B expands, A must raise the upper end C, the lower end being immovable, but its expansion will be exactly compensated by the simultaneous expansion of the rod A, which will lower the bob. It is to be observed that the top of the rod A, is attached to the gibbet by means of two slender chains which pass through between two brass plates, whose lower edges will form the centre of suspension of the pendulum. This pendulum, though much more simple, is not so invariable as a well constructed pendulum of the gridiron construction. See Reid on Clock and Watch Work, a volume published at Edinburgh.

CLOISTER. See Monastery.

CLOOTS, JOHN BAPTIST von; a Prussian baron, during the revolutionary scenes in France, under the appellation of Anacharis Cloots. He was born at Cleves, in 1755, and became possessed of a considerable fortune, which he partly dissipated through misconduct. The example of his uncle, Cornelius Fauw, who published several popular works, inspired him with an inclination to become an author. He travelled over Europe, formed acquaintance with many eminent individuals, among whom was the celebrated Edmund Burke; but the politics of that statesman did not suit the irregular and ardent disposition of Cloots, to whom the French revolution at length opened a career which he thought worthy of his ambition. The first scene in which he distinguished himself was the ridiculous masquerade called the embassy of the human race, partly contrived by the duke de Lauzun. On the 19th of June, 1790, Cloots presented himself at the bar of the national assembly, followed by a considerable number of the porters of the French metropolis, in a suit of black, barred with red, to represent the cause of all nations. He described himself as the orator of the human race, and demanded the right of confederation, which was granted him. At the bar of the assembly, April 21, 1792, he made a strange speech, in which he recommended a declaration of war against the king of Hungary and Bohemia, upon the ground that the assembly should form itself into a diet during a year, and finished by offering a patriotic gift of 12,000 livres. On the 12th of August, he went to congratulate the legislative assembly on the occurrences of the preceding 10th, and offered to raise a Prussian legion, to be called the Vindelic Legion. The 27th of the same month, he advised the assembly to set a price on the heads of the king of Prussia and the duke of Brunswick, praised the action of John J. Ankarstrom, the assassin of the king of Sweden, and, among other absurd expressions, he said, "the Jacobins shall not be excluded from the Guillotine." He displayed no less hatred to Christianity than to royalty, declaring himself the "personal enemy of Jesus Christ." In September, 1792, he was nominated deputy from the department of the Obse to the national convention, in which he voted for the death of Louis XVI., "in the name of the human race." This madman, becoming an object of suspicion to Robespierre and his party was arrested, and condemned to death, March 24, 1794. He suffered with several others, and, on his way to the guillotine, he discoursed to his companions on materialism and the contempt of death. On the scaffold, he besought his executioner to decapitate him last, that he might have an opportunity for making some observations essential to the establishment of certain principles while the heads of the others were falling.

CLOSH, CHODERLOS DE LA (his entire name was Pierre Ambrose François Ch. de la Clole), well known for his extraordinary and dangerous novel, Les Liaisons Dangereuses, born at Amines, in 1741, was an officer in the army, afterwards secretary and confidential of the duke of Orleans, whom he assisted in his plans during the revolution. In 1791, he entered the Jacobins, and was a member of the Constituent Assembly. He died, during the consular government, at Tarentum, in 1803, in the rank of general of brigade in the artillery in the army of Naples.

CLOSE-HAULED (au plus pres, in French), in navigation; the general arrangement or trim of a ship's sails, when she endeavours to make progress, in the nearest direction possible, towards that point of the compass from which the wind blows.

CLOSE-QUARTERS; certain strong barriers of wood, stretching across a merchant-ship in several places. They are used as a place of retreat when a ship is boarded by her adversary, and are therefore fitted with several small loopholes, through which to fire the small arms. They are likewise furnished with several small caissons, called powder-ches, which are fixed upon the deck, and filled with powder, old nails, &c., and may be fired at any time. Instances are known in which close-quarters have proved highly successful in checkering the progress of the enemy.

CLOTH. See Cotton, Woollen, Silk, &c.

CLOTHING. A very striking fact, exhibited by the bills of mortality, is the very large proportion of persons who die of consumption. It is not our intention to enter into any general examination upon the nature of that fatal disease. In very many cases, the
origin of a consumption is an ordinary cold; and that cold is frequently taken through the want of a proper attention to clothing, particularly in females. We shall, therefore, offer a few general remarks upon this particular subject, so important to the health of all classes of persons.

Nothing is more necessary to a comfortable state of existence, than that the body should be kept in nearly a uniform temperature. The Almighty wisdom, which made the senses serve as instruments of pleasure for our gratification, and of pain for our protection, has rendered the feelings arising from excess or deficiency of heat so acute, that we instinctively seek shelter from the scorching heat and freezing cold. We bathe our limbs in the cool stream, or clothe our bodies with the warm fleece. We court the breeze, or carefully avoid it. But no efforts to mitigate the injurious effects of heat or cold would avail us, if nature had not furnished us, in common with other animals (in the peculiar functions of the skin, and lungs), with a power of preserving the heat of the body uniform under almost every variety of temperature. To this natural atmosphere is liable. The skin, by increase of the perspiration, carries off the excess of heat; the lungs, by decomposing the atmosphere, supply the loss; so that the internal parts of the body are preserved at a temperature of about 98° under all circumstances. In addition to the important function of the lungs in regulating the heat of the body, it serves the further purpose of an outlet to the constitution, by which it gets rid of matters that are no longer useful in its economy. The excretory function of the skin is of such paramount importance to health, that we ought, at all times, to direct our attention to the means of securing its being duly performed; for if the matters that ought to be thrown out of the body by the pores of the skin are retained, they invariably prove injurious. When speaking of the excrementitious matter of the skin, we do not mean the sensible moisture which is poured out in hot weather, or when the body is heated by exercise, but a matter which is too subtle for the senses to take cognizance of, which is continually passing off from every part of the body, and which has been called the insensible perspiration. This insensible perspiration is the true excretion of the body, the excretion of the insensible perspiration being a prevailing symptom in almost all diseases. It is the sole cause of many fevers. Very many chronic diseases have no other cause. In warm weather, and particularly in hot climates, the functions of the skin being prodigiously increased, all the consequences of interrupting them are proportionably dangerous. Besides the function of perspiration, the skin has, in common with every other surface of the body, a process, by means of appropriate vessels, of absorbing, or taking up, and conveying into the blood-vessels, any thing that may be in contact with it. It is also the part on which the organ of feeling or touch is distributed. The skin is supplied with countless vessels, which provide an oily matter, that renders it impervious to water, and thus secures the evaporation of the sensible perspiration. Were this oily matter deficient, the skin would become sodden, as is the case when it has been removed—a fact to be observed in the hands of washerwomen, when it is destroyed by the solvent powers of the soap. The hair serves as so many capillary tubes to conduct the perspired fluid from the skin. The three powers of the skin, perspiration, absorption, and feeling, are so dependent on each other, that their loss together for cause of disease than without the other two being also disordered. For if a man be exposed to a frosty atmosphere, in a state of inactivity, or without sufficient clothing, till his limbs become stiff and his skin insensible, the vessels that excite the perspiration and the absorbent vessels partake of the torpor that has seized on the nerves of feeling; nor will they regain their lost activity till the sensibility be completely restored. The danger of such cases is, that the skin is likely to remain parts is well known. If the addition of warmth be not very gradual, the vitality of the part will be destroyed. This consideration of the functions of the skin will at once point out the necessity of an especial attention, in a sickle climate, to the subject of clothing. Every one's experience must have shown him how extremely capricious the weather is in this country. Our experience of this great inconstancy in the temperature of the air ought to have instructed us how to secure ourselves from its effects. The chief end proposed by clothing ought to be protection from the cold; and it never can be too deeply impressed on the mind (especially of those who have the care of children), that a degree of cold amounting to shivering cannot be felt, under any circumstances, without injury to the health, and that the strongest constitution cannot resist the benumbing influence of a sensation of cold, however temporary. It should be so moderate as not to occasion immediate complaint, or to induce the sufferer to seek protection from it. This degree of cold often lays the foundation of the whole host of chronic diseases, foremost amongst which are found scrofula and consumption.

Persons are said to have been known to die from a degree of cold, unless the apartment in which they work is heated to a degree that subjects them, on leaving it, to all the dangers of a sudden transition, as it were, from summer to winter. The inactivity to which such persons are condemned, by weakening the body, renders it incapable of maintaining the degree of warmth necessary to comfort, without additional clothing or fire. Under such circumstances, a sufficient quantity of clothing, of a proper quality, with the apartment moderately warm and well ventilated, ought to be preferred, for keeping up the requisite degree of warmth, to any means of heating the air of the room so much as to render any increase of clothing unnecessary. To heat the air of an apartment much above the ordinary temperature of the atmosphere, we must shut out the external air; the air also begins to receive an increased share of the sensible perspiration; which makes it doubly dangerous to pass from it to the cold, raw, external air. But in leaving a moderately well warmed room, if properly clothed, the change is not felt; and the full advantage of exercise is derived from any opportunity of taking it that may occur.

The only kind of dress that can afford the protection required by the changes of temperature to which high northern climates are liable, is woolen. Nor will it be of much avail that woolen be worn, unless so much of it be worn, and it be so warm, as effectually to keep out the cold. Those who would receive the advantage which the wearing of woolen is capable of affording, must wear it next the skin; for it is in this situation only that its health-preserving power can be felt. The great advantages of woolen cloth are briefly these:—the readiness with which it allows the escape of the matter of perspiration through its texture; its power of preserving the sensation of warmth to the skin under all circumstances; the difficulty there is in making it thoroughly wet; the slowness with which it conducts heat; the softness, lightness, and pliability of its texture. Cotton cloth, the next in order, cannot, however, be said to be so nearly of the nature of woolen, and, on that account, must be esteemed as the next best substance of which clothing may be made. Silk is the next in point of excellence, but it is very inferior to cotton.
in every respect. Linea possesses the contrary of most of the properties enumerated as excellences in woollen. It retains the matter of perspiration in its texture, and speedily becomes imbued with it; it gives an unpleasant sensation of cold to the skin; it is very readily injured by moisture, and contracts heat too rapidly. It is, indeed, the worst of all the substances in use, being the least qualified to answer the purposes of clothing.

There are several prevailing errors in the mode of adapting clothes to the figure of the body, particularly in the girdle and sash. The girdle is made so as to allow the body the full exercise of all its motions. The neglect of this precaution is productive of more mischief than is generally believed. The misery and suffering arising from it begin while we are yet in the cradle. When they have escaped from the nurses' hands, boys are left to nature. Girls have, for a while, the same chance as boys, in a freedom from bandages of all kinds; but, as they approach to womanhood, they are again put into trammels in the forms of stays. The bad consequences of the pressure of stays are not immediately obvious, but they are not to be inferred on this account. The girdle-writes and twists to avoid the pinching which must necessarily attend the commencement of wearing stays tightly laced. The posture in which she finds ease is the one in which she will constantly be, until, at last, she will not be comfortable in any other, even when she is freed from the pressure that originally obliged her to adopt it. In this way most of the deformities to which young people are subject originate, and, unfortunately, it is not often that they are perceived until they have become considerable, and have existed too long to admit of remedy.

CLOTILDE DE VALLON CHALIS, Madeleine Brossard, born at Vallon, a castle on the Ardeche, in Languedoc, in 1405. The poems of this lady, which have been preserved, did not make their appearance till 1803. At the age of eleven, she translated a poem of Petrarch into verse. Fortunate circumstances, particularly her acquaintance with several distinguished female poets of her time, unfolded her poetical talents. In 1421, she married Berenger de Surville, a young knight, who was soon obliged to follow the dauphin (Charles VII.) to Puy-en-Velay. On the occasion of this separation, she composed a beautiful poem, which takes the first rank amongst her works. After seven years, she lost her husband, who fell before Orleans. After this she occupied her time with the education of young females possessed of poetical talent. Among these were Sophie de Lyonna and Juliette de Vivarez. By chance, she became acquainted with Margaret of Scotland, wife of the dauphin Louis. In consequence of a poem which she composed in praise of Duke Philip the Good, Margaret sent her a crown of artifical laurel, with silver leaves, and interwoven with twelve golden flowers; but Clotilde would not listen to the pressing invitations which she received to appear at court. In 1435, she commemorated, in a poem, the triumphs of Charles VIII. The year of her death is not known. Her poems, which are distinguished for delicacy and grace, appear to have been lost, when one of her descendants, Joseph Etienne de Surville (who, in 1798, was shot as a secretly returned emigrant), a man himself possessed of a talent for poetry, succeeded in rescuing his arcanum from his family, discovered, in 1782, the handwriting of Clotilde. With difficulty he deciphered the writing, studied the language, and soon found his pains richly rewarded.

On his emigration, in 1791, he left the manuscript of Clotilde behind him, which, with many other family records, became a prey to the flames. The copies, which had been previously taken of several pieces, came from his widow into the hands of the present publisher, M. Vanderburgh. The genuineness of these poems is not to be doubted, although it is apparent, that in some instances, M. de Surville has ventured to correct errors.

CLOUD. The clouds are aqueous vapours, which hover at a considerable height above the surface of the earth. They differ from fogs only by their height and less degree of transparency. The cause of the latter circumstance is the thinness of the atmosphere in its higher regions, where the particles of vapour become exceedingly rare. The varieties of clouds are numerous. Some cast a shade which covers the sky, and, at times, produces a considerable darkness; others resemble a light veil, and permit the rays of the sun and moon to pass through them. Clouds originate like fogs. The watery evaporations which rise from seas, lakes, ponds, rivers, and, in fact, from the whole surface of the earth, ascend, on account of their elasticity and lightness, in the atmosphere, until the air becomes so cold and thin that they can rise no higher, but are condensed. Philosophers, however, are of very different opinions respecting the way in which the formation of the clouds proceeds. De Luc, whose theory is considered the most probable, believes that the water, after its ascent in the form of vapours, and before it takes the shape of clouds, exists in a gaseous state, not affecting the hygrometer, which is the reason why the air, in the higher regions, is always dry. He explains the clouds to be collections of small vessels, in the transformation of which from the gaseous state, he believes that caloric operates, in part at least, because, according to his opinion, clouds communicate a degree of heat to the body which they render damp. According to Hube, the clouds are collections of precipitated bubbles, and differ by their negative electricity from fogs, the electricity of which is generally positive. If clouds and fogs lose their electricity, rain is produced. These explanations are, however, by no means perfectly satisfactory. More on this subject is to be found in Mayer's Lehrbuch über die Physische Astronomie, Theorie, der Erde und Meteorologie, Gottingen, 1805.

The change of winds contributes essentially to the formation of clouds and fogs. In countries where this change is small and infrequent, as between the tropics, these phenomena of humidity in the atmosphere are not frequent. After they happen, the more violent, because a great quantity of vapour has had time to collect. The distance of the clouds from the surface of the earth is very different. Thin and light clouds are higher than the highest mountains; thick and heavy clouds, on the contrary, touch low mountains, steeples, and even trees. The average height of the clouds is calculated to be two miles and a half. Their size is likewise very different. Some have been found occupying an extent of twenty square miles, and their thickness, in some cases, has been ascertained, by travellers, who have ascended mountains, to be a thousand feet: others are very thin, and of small dimensions.

The natural history of clouds, not as respects their chemical structure, but their forms, their application to meteorology, and a knowledge of the weather, has been well treated by Lucas Howard, in his Essay on Clouds. Clouds into three essentially different formations. These formations are—1. Cirrus, consisting of fibres which diverge in all directions. See this represented in Plate XV. Fig. 1. 2. Cumulus, convex and conical aggregates, which increase from a horizontal basis upwards. See N 2 of Plate XV. 3. Stratus, layers vastly extended, conne-
Natitude and humidity of the atmosphere. The cumulus clouds, and especially those of the family of the more or less fluffy, well-defined masses, in close arrangement (Plate XV. No. 4) — Cirro-stratus, horizontal masses, bent downward or undulated, and separate or in groups (Plate XV. No. 5) — Cumulo-stratus, or twin cloud, the cirro-

stratus bent toward each cumulus, and either appearing intermixed with them or not separated from them, forming a wide-spread structure to its base. (Plate XV. No. 6) — Cumulo-cirro-stratus, or Nimbus, the rain-cloud, a cloud or system of clouds from which rain is falling, above which the cirrus spreads, while the cumulus remains intact, under perfect calm. (Plate XV. Nos. 7 and 8.) — The Full-Cloud, resting apparently on the surface of the ground (Plate XV. No. 9).

The clouds are generally assigned to three atmospheric regions, the upper, the middle, and the lower one, to which a fourth, the lowest, may be added. In the upper region, the atmosphere is in such a state, that it can receive and sustain aqueous matter dissolved into its integral parts. This state of the atmosphere corresponds to the highest state of the barometer. To this region belongs the cirrus, which has the least density, but the greatest height, and is formed of fibre and spray. The cirro-stratus, which is the first to indicate the approach of the lower, the cirro-cumulus, is formed in a few fibres, spreading through the atmosphere. These fibres by degrees increase in length, and new fibres attach themselves to the sides. The duration of the cirrus is uncertain, from a few minutes to several hours. It lasts longer if it appears alone, and at a great height; a shorter time, if it forms in the neighbourhood of other clouds. The middle region is the seat of cumulus, which is generally the most condensed, and moves with the stream of air nearest to the earth. This region can receive much water, but it is not perfectly salt. The humidity becomes collected, and shows itself in masses rising conically, and resting on the third region. The appearance, increase, and disappearance of the cumulus, in fine weather, are often periodical, and correspondent to the degree of heat. Generally, it forms a few hours after sunrise, attains its highest degree in the hottest hours of the afternoon, and decreases and vanishes at sunset. Great masses of cumulus, during high winds, in the quarter of the heavens towards which the wind blows, indicate approaching calm and rain. If the cumulus does not diminish in this case, a thunder-storm is to be expected during the night. At the upper part, with its drying power, predominates, the upper parts of the cumulus become cirrus. But, if the lower region predominates (into which the densest vapours are attracted and dissolved into drops), the basis of the cumulus sinks, and the cloud becomes stratus, which is of moderate density, and its lower surface rests generally upon the earth or the water. This is the proper evening cloud, and appears first towards sunset. To this belong also those creeping fogs, which, in calm evenings, ascend from the valleys, and extend themselves in undulating masses. The stratus remains quiet, and accumulates layers, till at last it falls as rain. This phenomenon — the dissolution of clouds into rain — is called nimbus. Th. Forster has followed Howard in his investigations respecting the clouds, and Goethe, the German poet, has made an application of this theory in his work entitled "Zur Naturwissenschaft," vol. 1.

CLOUD, Sr; a charmingly situated village, two leagues east from Paris, in the department of Seine-

and-Oise, with a royal castle and magnificent garden, which were much embellished by Napoleon. On the 7th of September, 1815, the army of Napoleon, which was divided into three parts, but which, under the guidance of hitler, and by distillation, a limpid essential oil. Oil of cloves is

budded here, full of gayety, attending the fair, which affords a striking picture of a certain class of the French people. Since it is in the department of Seine-et-Oise, St Cloud is historically interesting. Many events in the civil disturbances of that country are connected with this place. Here Henry III. was murdered by Clement, Aug. 2, 1589; and, in modern times, it has been the scene of the revolution by the revolution of the 24th of Brumaire, which destroyed the

tory, and established the consul government. Napoleon chose St Cloud for his residence; hence the expression, cabinet of St Cloud. Under the former government, the phrase was cabinet of Versailles, or cabinet of the month of November. The palace was

sieged, March 31, by the van-guard of the army of the allies under Langeron. April 7, the head-quar

ers of the allied armies were there, and remained there until June 3. In 1815, Blucher had his head-quarters at St Cloud; and here also was concluded the military convention (July 3, 1816), by which Paris fell a second time into the hands of the allies. Bignon, Guilmelnot and count Bondi acted on the part of France, general Muffling (the same who was, in 1829, a mediator between Russia and Turkey, at Constantiople, sent there by the king of Prussia) for Prussia, and Frey for Austria. It was the first time, and probably the last, that the allies arrived at a unanimous sense of several points determined in the conversation afterwards occasioned mutual reproaches.

CLOVE. The clove is the unexpanded flower-bud of an East Indian tree ( Caryophyllus aromaticus), somewhat resembling the laurel in its height, and in the shape of its leaves. The leaves are in pairs, oblong, large, spear-shaped, and of a bright-green colour. The flowers grow in clusters, which terminate the branches, and have the calyx divided into four small and pointed segments. The petals are small, rounded, and of a bluish colour; and the seed is an oval nut. In the Molucca islands, where the raising of different spices was formerly carried on by the Dutch colonists to great extent, the culture of the clove-tree was a very important pursuit. It has even been asserted, that, in order to secure a lucrative branch of commerce in this article to themselves, they destroyed all the trees growing in other islands, and confined the propagation of them to that of Ter

mate. But it appears that, in 1770 and 1772, both clove and nutmeg-trees were transplanted from the Moluccas into the islands of France and Bourbon, and subsequently into some of the colonies of South America, where they have since been cultivated with great success. At a certain season of the year, the clove-tree produces a vast, profusion of flowers. When these have attained the length of about half an inch, the four points of the calyx being prominent and having, in the middle of them, the leaves of the petals folded over each other, and forming a small head about the size of a pea, they are in a fit state to be gathered. This operation is performed betwixt the months of October and February, partly by the hand, partly by hooks, and partly by beating the trees with bambooos. The cloves are either received on cloths spread beneath the leaves, or are suffered to fall on the ground, the herbage having been previ

ously cut and swept for that purpose. They are subsequently dried by exposure for a while to the smoke of wood fires, afterwards to the rays of the sun. When first gathered, they are of a redish-brown colour, by drying, they assume a deep-brown cast. This spice yields a very fragrant odour, and has a bitterish, pungent, and warm taste. It is sometimes employed as a hot and stimulating medicin

ce, but is more frequently used in culinary prepara

ions. When fresh gathered, cloves will yield, on pressure a fragrant oil, and in a long time, by distillation, a limpid essential oil. Oil of cloves is
used by many persons, though very improperly, for curing the tooth-ache; since, from its pungent quality, it is apt to corrode the gums and inflame the alveolar tissue. It will admit of it, a bruised clove is much to be preferred.

CLOVE BARK, or CULILAWAN BARK (coraea lauri culilawam) is furnished by a tree of the Molucca islands. It is in pieces more or less long, almost flat, thick, fibrous, covered with a white epidermis, of a reddish-yellow inside, of a nutmeg and clove odour, and of an aromatic and sharp taste. It is one of the substitutes for cinnamon, but not much used. We find also, in commerce, under the name of clove bark, another bark furnished by the myrtus Caryophyllata (Lin.). It is in sticks two feet long, formed of several pieces of very thin and hard bark, rolled up one over the other, of a deep brown colour, of a taste similar to that of cloves. It possesses the same properties as the former barks, and may be considered as a substitute for them.

CLOVER (Trifolium). The clovers are a very numerous family. Some botanists reckon no less than fifty-five species belonging to the genus of which cultivated clovers are varieties. The following are most used:—1. Pretense, or common red clover. This is a biennial, and, sometimes, especially on clays, soils, a triennial plant. This is the kind most commonly cultivated, as it yields a larger product than any of the other sorts. The soil best adapted for clover is a deep, sandy loam, which is favourable to its long tap-roots; but it will grow in any soil not too moist. So congenial is calcareous matter to clover, that the mere strewning of lime on some soils will call into action clover-seeds, which, it would appear, have lain dormant for ages. It is a recommendation of this grass, that it is adapted to a soil suitable to scarcely any other kind of grass—to land which is dry, light, sandy, or composed mostly of gravel. Clover-seed should be sowed in the spring, except in climates where there are no severe winter frosts. The young plants which come up in autumn cannot bear the frost so well as those which have had a whole summer to bring them to maturity. Spring wheat is a very good crop with which to follow clover-grass-seed. It is recommended to sow the grass-seed, and plough or harrow it in with the wheat. If it be scattered on the surface without being well covered, a part does not vegetate, and that which does will be liable to injury from drought. Clover-seed may also be sown in late June and July, and, indeed, may be sowed as late as October. European writers agree with American cultivators, that the harrowing will do no damage, but will be of service to the grain. The author of a valuable work, entitled a Treatise on Agriculture, lately published in America, directs ten or twelve pounds of clover-seed to be sown on an acre, if the soil be rich, and double that quantity if it be poor. He condemns the practice of mixing the seeds of timothy, rye, grass, &c., with that of clover, “because these grasses neither rise nor ripen at the same time.” Another practice, equally bad (according to this writer), is that of sowing clover-seed on winter grain before the earth has acquired a temperature favourable to vegetation, and when there can be no doubt but that two-thirds of the seeds will perish.” Clover-seed of a bright yellow, with a good quantity of pur- ple and brown-coloured seed amongst it, which should be a very fair sign of quality, should be selected. After it has been thoroughly ripe and well gathered, its power of vegetation will continue for four or five years. Two sorts of machines are described in the Transactions of the New York Agricultural Society for gathering clover-seed. One of these machines consists of an open box about four feet square at the bottom, and about three feet in height on three sides; to the fore part, which is open, fingers are fixed, about three feet in length, and so as not to leave about an inch and a half of space between them, which are thrown back as the box advances. The box is fixed on an axle-tree, supported by small wheels, with handles fixed to the hinder part, by which the driver, while managing the horse, raises or depresses the fingers of the machine, so as to take off the heads of the grass. The other machine called a cradle, is made of an oak board, about eighteen inches in length and ten in breadth. The fore part of it, to the length of nine inches, is sawed into fingers; a handle is inserted behind, inclined towards them, and a cloth put round the back part of the board, which is cut somewhat circular and raised on the handle; this collects the heads or tops of the grass, and prevents them from scattering as they are struck off by the cradle, which may be made of different sizes,—being smaller in proportion for women and children, who, by means of it, may likewise collect large quantities.

2. Trifolium repens, or white clover. This also thrives best in light land. When sown by itself, it rarely grows tall enough to be well cut with a sith. When mixed with timothy or green grass (poa viridis), it makes excellent hay. Clover requires a light soil to continue. Its stalks are so succulent, that the leaves, which are the best part, are apt to crumble and waste away before the hay is well dried. It has, therefore, been recommended to cart it to the mow or the stock before the stalks are dry, and either to put it up with alternate layers of hay and straw, or to salt it at the rate of from half a bushel to a whole bushel per ton. Green clover is good for swine. The late judge Peters, of Pennsylvania, observed, “In summer, my hogs chiefly run on clover. Swine feeding on clover in the fields will thrive wonderfully, when those (confined or not) fed on cut clover will fall away.”

CLOVIS, king of the Franks, born 465, succeeded his father Childeric in the year 481, as chief of the warlike tribe of Salian Franks, who inhabited a barren country between the sea and the Rhine, called the Scheldt. At a former period, it had made incursions into the neighbouring territories, but were driven back into their forests and mountains. Clovis, therefore, united with Hymenacer, king of Cambry, and declared war against Syagrius (son of Aetius), the Roman governor at Soissons. The Roman army, consisting of a few hundred men, commanded by Syagrius, fled to Toulouse, to the court of Alaric, king of the Goths, whose cowardly counsellors deli- tered him up to Clovis, by whom he was put to death. Soissons now became the capital of the new kingdom of the Salian Franks. The uncultivated Clovis governed, and his new subjects with wisdom and moderation; he was particularly desirous to obtain the good-will of the clergy. All the cities in Belicia Secundata submitted to him. Paris yielded to the vic- tor in 495, and, in 507, was selected for the capital of his kingdom. In order to obtain assistance in withstanding the powerful Visigoths in Gaul, Clovis married Clotilda, niece of Gundeinbud, king of Burgundy. This princess, who had been educated in the Catholic faith, was desirous that her husband, also, should embrace it. Her efforts were fruitless, till, on an occasion when he was hard pressed in battle against the Goths, he appealed to Heaven, and promised that if he prevailed, he would consecrate the next day to the Church. When Clotilda called on the God of Clotilda and the Christians. Victory declared in his favour; and the part of the territory of the Allemanni lying on the Upper Rhine submitted to the king of the Franks. The victor’s conversion was now an easy matter for the eloquent
St Remigius, archbishop of Rheims. Clovis was so
lonly baptized at Rheims, December 25, 496, with
several thousand Franks, men and women. St Re-
miugis, at the same time, anointed him. The cities
of the Alpes-Maritimes and Vosgian territories, on
the coast of Spain, and the interior of Gaul, in 497.
There now remained in Gaul only two inde-
dent powers besides the Franks, viz., the
Burgundians and Visigoths. The former had two
kings, Godegisel and Gundesbacl. Clovis made an
attack upon the latter, whose territories extended
from the Vosges to the Alps and the sea-coast
of Marseilles. Gundesbacl, deserted by the faith-
less Godegisel, was routed near Dijon, compelled
to surrender Lyons and Vienne to the victorious
Clovis, and to flee to Avignon, where he concluded
a peace. Clovis returned home loaded with spoils.
Gundesbacl afterwards violated the treaty; but Clo-
vis, fearing the Goths, entered into a new allience
with him. Hostilities soon broke out between Alaric
king of the Goths, and Clovis. In the battle near
Poictiers, between the rivers Vonne and Clounère,
the latter gained a complete victory, slaying his enemy
with his own hand, and captured Aquitaine.
After this conquest, Clovis received the honour of the
consulship from the emperor Anastasius. The king
of the Franks, having his head adorned with a diadem,
appeared in the church of St Martin of Tours, clad
in the tunic and purple robe, and was saluted by the
people as a conquering and victorious monarch.
To increase his authority, while he tarnished his glory, by
murders, and cruelties. He died Nov. 26, 511, having
reigned thirty years. His four sons divided his do-
minions between them. Twenty-five years later, the
kingdom of Burgundy came under the power of the
Franks, the Ostrogoths were obliged to yield them
Arles and Marseilles, and Justinian conceded to
them the sovereignty of Gaul. In the last year of his
reign, Clovis had called a council at Orleans,
from which are dated the peculiar privileges claimed
by the kings of France in opposition to the pope.
CLUB; a society which meets on certain times, at
certain places, for various purposes; for instance,
chess clubs, racing clubs, &c. The political clubs
originated in England, and thence passed to France
and to other countries. They were prohibited by a
law of the German empire, made in 1733. The
French clubs, during the revolution, must be con-
sidered as specious vitriolic clubs. Without their
history is indispensable for the understanding of
a great part of the revolution. They were connected
and regularly organized, and their resolutions were
published. In the minuteness of their ramifications
throughout the country, they resembled the corre-
sponding committees in the American colonies before
the American revolution. These French clubs de-
stroyed the constitution of 1795. They were after-
wards prohibited. See Jacobin and France.
CLUE of a sail (in French, point) is the lower cor-
er, and hence clue-garnets (courage-point, Fr.) are
a sort of two-handled flag. As the cutter was
by the mainsail and foresail, to truss them up to the yard, which
is usually termed cluing-up the sails. Clue-lines are
used for the same purpose as clue-garnets, only that
the latter are confined to the courses, whilst the clue-
lines are common to all the square-sails.
CLUNY; a town of France, in the Saone-et-
Loire, lying between two mountains, on the Grone;
ine miles N.W. Macon, twenty-one miles S. Cha-
lons-sur-Saone; population 3400. Here was a Bene-
dictine abbey, founded by William, duke of Aquitaine,
at one time the most celebrated in France. Its funds
were wasted, (like that of the monastery of Nere,)
and the abbey became a sort of a well
built city. The church is one of the largest in France.
The town contains three parishes. See Auelard.
CLYDE (anciently Gota); a large and beautiful
river in Scotland, which rises amid the mountains and
wastes that separate Lanarkshire from the counties of
Peebles and Dumfries, passes by Lanark, Hamilton,
Glasgow, Renfrew, Dumfartoon, Greenock, &c., and,
after a course of about 174 miles, empties into the
Irish sea, at the southern extremity of the island of Bute. From its source to Bute its length is
about one hundred miles, though in a direct line the
distance is much shorter. Its principal tributaries are
the Douglas water, the Mouse, the Nethan, the
Avon, the Calder, the North Calder, the Kelvin, the
White and Black Cart, and the Leven. Near La-
mark, it has three celebrated falls—the uppermost,
Bonniton Linn, a cascade of about thirty feet; the
next, Cora Linn, where the water takes three distinct
leaps, each about as high as Bonniton; and the low-
est, Stonelyres, which, like Cora, has three distinct
falls, measuring altogether about seventy feet. Stone-
lyres falls are two miles below Lanark; the others are
situated about the same distance above that town.
The Clyde becomes navigable at Glasgow, and is the
most valuable river in Scotland for commerce. See
Glasgow.
CLYMER, George, one of the signers of the
American declaration of independence, was born in
Philadelphia in 1739, of a respectable family. His
father emigrated from Bristol. The death of his
paternal grandfather left George an orphan at the age of
seven years, but he was only seven years of age when
his uncle, William Coleman, who bequeathed to him the
principal part of his fortune. After the completion
of his studies, young Clymer entered into his uncle's
counting-house, though his inclination for cultivating
his mind was much greater than for mercantile pur-
suits. While still in the enjoyment of his property
the colonies by the arbitrary acts of the British parlia-
ment, he was among the first in Pennsylvania to raise
his voice in opposition, and was named by a meeting
held in Philadelphia, Oct. 16, 1773, chairman of a
committee appointed to demand of the commissioners
for selling the tea which had been imported into
America, on account of the East India company,
their resignation of the office. The demand was
complied with. Mr Clymer was afterwards chosen
a member of the council of safety, when the increas-
ing troubles rendered such a body necessary. In
July, 1776, he was chosen, together with Joseph
Bennjamin Franklin, Benjamin Rush, John McPherson,
Thomas Grier, Ross, and George Taylor, esquires, to supply the vacancy in
congress occasioned by the resignation of the mem-
bers of the Pennsylvania delegation, who had refused
their assent to the declaration of independence. The
new members were not present when the instrument
was agreed upon, but they all affixed to it their sig-
natures. In the autumn of 1777, his house in Ches-
ter county, in which his family resided, was plundered
by a band of British soldiers, his property greatly
damaged, and his wife and children constrained to fly
for safety. In the year 1780, Mr Clymer was a mem-
ber of an association which made an offer to congress
of establishing a bank for the sole purpose of facili-
tating the transportation of a supply of 3,000,000
of rations and 300 hogheads of rum to the army, which
was on the point of disbanding, in consequence of its
distressed condition. Congress received the offer, and
pledged the faith of the United States to the sub-
scribers to the bank for their full indemnity, and
deposited in it, as well for that purpose as in
support of its credit, bills for £150,000 sterling,
on the American ministers in Europe. Mr Cly-
mer was one of the gentlemen selected to preside
over the battalion, etc., and the good effects of which
were long felt. In Nov. 1780, Mr Clymer was again
elected to congress, and strongly advocated there
the establishment of a national bank. In the autumn of
1784, during which year party spirit had raged with great violence in Pennsylvania, he was elected to the legislature of that state, to assist in opposing the con-
stitutional rights, which were pressed in various forms of coercion and depicting
scoyrt; they were evolved in many causes of the
nation's upholding the old constitution, which was justly
debted deficient. Pennsylvania is greatly indebted
to his exertions for the amelioration of her penal
code, which had previously been of so sanguinary a
nature as to produce extreme and almost universal
discontent. The writer was also a member of the
convention which framed the present constitution of the
governmental, and was elected to the first
congress which met when it was about to be carried
into operation. After serving throughout the term,
he declined a re-election. In 1781, a bill having
been passed in congress, imposing a duty on spirits
distilled within the United States, he was placed at
the head of the excise department, in the state of
Pennsylvania. In the year 1796, he was appointed,
together with colonel Hawkins and colonel Pickens,
to negotiate a treaty with the Cherokee and Creek
Indians of Georgia. He subsequently became the
first president of the Philadelphia bank, and of the
academy of arts. He died, Jan. 23, 1813, in the sev-
enty-fourth year of his age, at Morrisville, Bucks
county, Pennsylvania.

CYTHEMESTRA; daughter of king Tymalthus
and Lesa, and twin-sister of Helen. She bore her husband, Odysses, the famous Ajax and Electra, and one son, Orestes. During the absence
of Agamemnon, in the war against Troy, she be-
stowed her favours on Egisthus, and, in connexion with him, murdered Agamemnon on his return from
Troy, and, together with her paramour, governed
Mycenae for seven years. Orestes killed them both.

See Agamemnon and Orestes.

CNDUS, or GNIDUS; a town in Caria, a province
of Asia Minor, and a favourite place with Venus, who
was, therefore, summoned the Gnidian goddess. She
had there three temples. The first, probably, erect-
ed by the Lacedemonian Dorians, was called the
temple of Venus Doris. The second was consecrated
to her under the name of Venus Aerae. The third,
called the temple of the Gnidian Venus, and, by the
inhabitants, the temple of Venus Epilene, contained
Fraxiteles' marble statue of the goddess, one of the
masterpieces of art. This was afterwards removed to
Constantinople, where it perished in a conflagra-
tion in 461.

COACH. The coach is distinguished from other
vehicles chiefly as being a covered box, hung on
leathers. In the most ancient times, kings and princes
had particular vehicles which they used on solemn
occasions, but these were not covered. We find in the
Bible, that such carriages were used in Egypt in the
time of Joseph. Covered wagons also appear to be of great antiquity; for, even in Moses' time,
such wagons were used for carrying loads, and the
wandering Scythians are said to have had wagons
covered over. In like manner, from the same origin
so, likewise, had the Spartans, who called these
carriages kaniathan. The seat of the coach-
man is also a very ancient invention of Oxylus, an
Etolian who took possession of the kingdom of Elis
1100 years B. C. The Romans had both open and
covered carriages, the latter being used to transport
sick soldiers and aged people. The covered car-
rriage, called curruco, first mentioned by Pliny, was
invented later. It was adorned with ivory, brass,
and, finally, with gold and silver, and used only
to convey magistrates, and distinguished individuals of
both sexes. Who curruco were drawn by mules.
Covered carriages were therefore known to the an-
cients; but they were not acquainted with coaches,
or carriages suspended on leathers. These are said
to have been invented in Hungary, and their name,
which, in the language of that country, signifies co-
verted, is also of Hungarian origin. Others derive
the Gutschein, or certificate of the coachman, from
Gutsche, which signified, formerly, a bed; or from
Kutsche or Kutsche, considering this as the place
where the vehicle was invented. Others think that coaches
were invented in France. Charles V. is said to have
used such a conveyance, when afflicted with the
gout, in the battle of Parnawa. The invention of
coaches in Hungary is said to have taken place in
1457; but Isabella, the wife of Charles VI. of France,
is said to have made her entrance into Paris, in 1405,
in a covered carriage, suspended on leathers. As, at
first, none but ladies used these carriages in France,
they were called, from this circumstance, chariots du-
mares. Under Francis I., the construction of coaches
was much improved. They were called currousses;
and the openings were furnished with leather cur-
tains. The first man who made use of one of these
carrages was Raimond de Laval, a cavalier of the
court of Francis I., who was so large that no horse
could carry him. His coach, and that of the cele-
bribated Diana of Poitiers, duchess of Valentinois
(q. v.), were made about 1540, and were the first
carriages on springs in Paris; and, ten years after, there
were not more than three such vehicles in that city.
Under Henry III. (1574—89), the fourth coach was
introduced. In an age of manners, when the French
had a great taste for gaiety and dalliance, it was
time that they were considered as belonging ex-
clusively to the royal family, or to very distinguished
officers. Henry IV., who is known to have been
murdered in a coach, kept but one carriage for him-
self and his wife, as appears from a letter, in which
he tells a friend, as an excuse for his absences, that his
wife was using the coach. The marshal Bassom-
pierre, in 1599, brought the first coach with glass
windows from Italy into France. In 1658, there were
520 coaches in Paris, and the number went on con-
tinually increasing. In Germany, the emperors and
princes used coaches as early as the fifteenth century.
The emperor Frederic III., for instance, went in one
to Frankfort in 1474. In 1500, the wife of the elec-
tor Joseph I. of Brandenburg had a gilded coach,
and twelve others ornamented with crimson. Coaches
are said to have been introduced into Spain in 1546,
and into Sweden in the last half of the sixteenth
century.

The oldest carriages used by the ladies in England
were called whirligoes. The mother of king Richard
II., who accompanied him in his flight (1390), rode in
a carriage of this sort. But coaches, properly so
called, were first introduced into England from Ger-
many or France, in 1585, in the reign of queen Eliza-
beth, and the first seen in public belonged to Henry,
elu of Arundel. In 1601, the year before the queen's
death, an act was passed to prevent men from riding
in coaches, as being effeminate; but they were in
common use in London about the year 1605. Twenty
years later, hackney-coaches were introduced. They
were prohibited in 1635, and, in 1637, only fifty
hackney-coaches were licensed. The number of
coaches was increased by degrees, and, in 1770, as
many as 1000 were licensed. The duty on coaches
in England, in 1778, the number then kept being
23,000, amounted to £117,000. The total duty on
coaches in England, in 1785, was £154,988; in Scot-
land, only £5000. The French invented the post-
chaise, the use of which was brought into England
by Tull, the well-known writer on husbandry.
In Switzerland, coaches were a rarity as late as 1650.
The manufacture of elegant coaches, is a proof of
much wealth and mechanical skill in a place; many
different artists being employed in their construction,
who become skillful only when the demand for their
work is considerable. A very large sort of coaches, called omnibus, has lately come into use, first in Paris, and afterwards in London and elsewhere. They serve as a moment of communication between different parts of a city, and carry a large number of passengers, &c. Quite recently, a stage-coach began to run from Paris to Orleans, containing sixty passengers.

COAHUILA Y TEXAS; a state or province of Mexico, bounded E. by Tamaulipas, S. by New Leon, S. W. by Durango, W. by Chihuahua. Its northern boundary and extent are not well defined. It is watered by the Rio del Norte and its branches. The chief towns are Montelovez and Saltillo. COA. See Coal. COAL consists essentially of carbonaceous matter, and, in one variety, the blind coal (see Anthracite), this is nearly pure; but, in the greater number of the varieties of coal, there is present a soft, bituminous matter, which communicates to them some peculiar properties. Those which contain much bitumen are highly inflammable, and burn with a bright flame; those in which the carbon predominates burn less vividly. Numerous varieties of coal exist, deriving distinctions partly from their state of aggregation, but principally from the proportions of their bitumen and carbon. Excepting the anthracite, they may be traced under the two divisions of black coals and brown coals.

The colour of brown coal, as its name imports, is brown; it possesses a ligneous structure, or consists of earthy particles. The colour of black coal is black, not inclining to brown, and it does not possess the structure of wood. The varieties of brown coal are the following: bituminous wood, which presents a ligneous texture, and very seldom any thing like conchoidal fracture, and is without lustre; earthy coal, consisting of loose, friable particles; moro coal, distinguished by the want of ligneous structure, by the property of bursting and splitting into angular fragments, when removed from its original repository, and the low degree of lustre upon its imperfect conchoidal fracture; common brown coal, which, though it still shows truces of ligneous texture, is of a more firm consistency than the rest of the varieties, and possesses a ligneous texture and imperfect conchoidal fracture. Some varieties of black coal immediately join those of brown coal. They are, pitch coal of a velvet-black colour, or, generally inclining to brown, strong lustre, and presenting, in every direction, a large and perfect conchoidal fracture; slate coal, or those coals, slate structures, which, however, seems to be rather a kind of lamellar composition than real fracture; foliated coal, resembling it, only the lamines are thinner; and coarse coal in like manner, only the component particles are smaller, and approach to a granular appearance; cancell coal, without visible composition, and having a flat, conchoidal fracture in every direction, with but little lustre, by which it is distinguished from pitch coal. All these kinds are joined by numerous transitions, so that it often becomes doubtful to which of them we should ascribe certain specimens, though they undoubtedly are members of this species. As the preceding varieties of coal consist of variable proportions of bitumen and carbon, they, of course, must vary in their inflammabiliy. Several varieties become soft, and others coke, when kindled, or, in other words, allow of the separation of the bitumen and carbon. It is a question whether this separation is effected more completely by the application of heat in close vessels: the bitumen is melted out, and there is disengaged ammonia, partly in the state of emulsion with the water; the gas, called coal gas (a variety of carburetted hydrogen), often mixed with carbonic acid and sulphured hydrogen, the carbonaceous matter being, in a great measure, left, forming coke.

The decomposition of coal is carried on, on a large scale, with a view to collect the products; the gas being used to afford an artificial light, which is clear, steady, easily regulated, and economical; the bituminous matter, or mineral tar, being applied to the uses for which vegetable tar and pitch are employed, and the cooked coal being used in the smelting of metallic ores, and for various other purposes, where an elevated and steady temperature is needed.

Coal, excluding anthracite, has been supposed to be of vegetable origin. There is a remarkable gradation from bituminated wood to perfect coal. In some varieties, the structure, and even the remains, of plants are apparent, and its chemical composition agrees with that of vegetable matter. It is difficult to determine, however, in what manner it has been formed, or by what operations the vegetable matter, from which it has originated, has been so far modified, as to have assumed the properties under which it exists. Some of the varieties of coal, easily marked in common with anthracite, as an original mineral deposit.

The varieties called state coal, foliated coal, coarse coal, cancell coal, and pitch coal, occur chiefly in the coal formation; some varieties of pitch coal, also the moro coal, bituminous wood, and common brown coal, are met with in the formations above the chalk, the earthy coal, and some varieties of bituminous wood, and common brown coal, are often included in diluvial and alluvial deposits. The coal seams alternate with beds of slaty clay and common clay, sandstone, limestone, sand, &c. They are often associated with vegetable organic remains, in slaty clay; sometimes, also, with shells, and having iron pyrites intermixed with them. Bituminous coal is so universally distributed, that it is unnecessary to attempt the enumeration of its localities.

Coal, however, having inflammable properties, appears to have been known to the ancients, and to the Britons, before the Romans visited this island, it being found so frequently in ravines and beds of rivers, of a colour and texture so decidedly different from the strata which in general accompany it; but, as, at that period, and for centuries afterwards, a country was covered with immense forests, which supplied abundance of fuel for every purpose of life, there was no necessity for using coal as fuel. The working of coal, therefore, only became an object of attention as population and civilization advanced, when agriculture began to be studied, the woods cleared away, and the arts of civilized life cultivated; accordingly we find, that the working of coal in Britain, as an article of commerce, is comparatively of modern date, and appears to have commenced about the end of the 12th century. The first charter giving liberty to the town of Newcastle-upon-Tyne to dig coal, was granted by Henry III. anno 1230; it was then denominated Sea-coal, on account of its being shipped for places at a distance. In the year 1281, the Newcastle-coal-trade had become so extensive and important that laws were enacted for its regulation. In Scotland, coal began to be worked at the same time; and a charter was granted in the year 1291, in favour of the Abbot and convent of Dunfermline in the county of Fife, giving the right of digging coals in the lands of Pittenpeel, adjoining the convent. From this period the working of coal gradu-
In the beginning of the French revolution, the French authors used this expression, by way of contempt, to denote the confederation of several powers against France. The word alliance appearing to them perhaps, too noble for the object, the name coalition for a distinct object. The first coalition against France was concluded between Austria and Prussia for the preservation of the constitution of the German empire, and for checking the progress of the French revolution (7th of Feb. 1792.) The separate peace with Prussia, concluded at Bâle (5th of April, 1795,) and the line of demarcation for the north of Germany, were the first steps to the dissolution of the German empire. The next coalition is that of 1793. Germany declared war (22d of March,) and was afterwards joined by Portugal, Naples, Tuscany, the states of Germany, and the Netherlands. Peace was concluded at London, between Great Britain and Russia. The third is the triple alliance entered into at St. Petersburg, by Russia, Austria, and Great Britain (28th of Sept. 1795,) at a time when several princes of the empire withdrew their troops. This coalition was dissolved by the peace of Campo- Formio (9th of Dec. 1797,) and was succeeded by another, at Paris (23d of Dec. 1798) and Britain. Austria and Naples, also, were induced to join it. Separate treaties of peace dissolved it again, viz. the peace of Luneville with Austria and Germany (9th of Feb. 1801,) that of Florence with Naples (28th of March 1801) that of Paris with Russia (5th of Oct. 1801,) of Paris with the Porte (9th of Oct.), and of Amiens with Great Britain (25th of March, 1802.) Of all these states Great Britain first declared war against France (18th of April, 1803,) and in April, 1805, new negotiations were begun between Britain, Russia, Austria and Prussia, for another coalition (the fifth) against France. At St. Petersburg, the powers contracted to effect a general Confederation of the European states against France, for the restoration of peace and the political balance, and for the foundation of a federative system adapted to secure the rights of nations. All the powers were to be invited to join this confederacy. In the same year, it was partly dissolved by the peace of Presburg with Austria (26th of Dec. 1805,) and completely, by the peace of Paris with Russia (20th of July, 1806). Prussia, which till then had not taken an active part, thought herself strong enough to encounter France single-handed. The accession of Britain and Russia (besides the previous junction of Saxony and, probably, of other temporizing cabinets) produced the sixth coalition. The peace of Tilsit (7th and 9th of July, 1807), put an end to this union; and the peace at Vienna (14th of Oct., 1809) terminated the austrian coalition with Britain (the seventh). Finally, we may mention under this head the last great alliance against France. It consisted first of Russia and Britain, but was increased in succession by the addition of Spain and Portugal, Sweden, Prussia, Austria, the German princes with few exceptions, Naples, and, at last, Denmark. It ended with the peace of Paris (31st of May, 1814). The return of Napoleon, however in 1815, revived it. From this sprang the
COAT OF ARMS—COBENTZL.

285

...ally alliance" of Russia, Austria, and Prussia, which was joined by the king of France, at Aix-la-Chapelle (q. v.), in 1818. In Britain and the United States of North America, the word coalition is used to denote a combination formed for the purpose of acting against another party; but it always expresses something odious. Thus, for instance, the party of Pitt denounced the coalition of Fox and North.

COAT OF ARMS: 1. The surcoat worn by a knight; 2. the ensigns armorial of a family; so called, because originally worn on some part of the armorial bearings. Their origin is to be referred to the age of chivalry, when they were assumed as emblematic of the adventures, love, hopes, &c., of the knight, and were useful for distinguishing individuals, whom it was difficult to recognize, covered, as they were, from head to foot, with armour. This, perhaps, may even have been the origin of the usage. As every thing else became hereditary in Europe,—estates, dignities, titles, privileges,—so the favourite emblem of the knight became the adopted badge of the family, the figures or characters employed in them began to be hereditary, and amongst them the arms of heraldry (q. v.) was formed. The right to bear arms thus became a distinctive mark of gentle birth. In France, the feudal privileges and nobility were abolished by the revolution. Under Napoleon, the imperial *noblese* wore a certain number of feathers, indicators, and coats of arms. A simple chevalier, one; a baron, three; a duke, seven.

COBALT occurs alloyed with arsenic, nickel, and other metals, and mineralized by oxygen and by arsenic acid. It is obtained, after the ore has been roasted and calcined, in the state of an oxide, impure from the presence of other metallic oxides. When this oxide is obtained in a state of purity, and reduced to the metallic state, we are presented with a metal of a white colour, inclining to grey, and, if tarnished, to red, with a moderate lustre. Its fracture is compact; it is hard, brittle, and of a specific gravity of 7.8. Like nickel, it is sensibly magnetic, and is susceptible of being rendered permanently so. It undergoes little change in the air, but absorbs oxygen when heated in open vessels. It is attacked with difficulty by sulphuric or muriatic acid, but is readily oxidized by means of nitric acid. There are but few known methods of obtaining a pure pr有所的285 oxide of an ash-grey colour, and is the basis of the salts of cobalt, most of which are of a pink hue. When heated to redness in open vessels, it absorbs oxygen, and is converted into the peroxide. It may be prepared by decomposing the carbonate of cobalt by heat, in a vessel from which the atmospheric air is excluded. It is easily known by its giving a blue tint to borax when melted with it, and is employed in the arts, in the form of smalt, for communicating a similar colour to glass, to earthen ware, and to porcelain. Smalt, or powder blue, is made by melting three parts of fine white sand, or of calcined flints, with two of purified pearl-ash and one of cobalt ore, previously calcined, and lading it out of the pots into a vessel of cold water; after which, the dark-blue glass, or saier, is ground, washed over, and distributed into different shades of colours, which shades are occasioned by the different qualities of the ore, and the coarser and finer grinding of the powder. Smalt, besides being used to stain glass and pottery, is often substituted, in painting, for ultra-marine blue, and is likewise employed to give to paper and linen a bluish tinge. The muriate of cobalt is celebrated as a hair restorer. When dissolved in water, so as to form a pale pink solution, and then employed as ink, the letters which are invisible in the cold, become blue if gently heated. It is prepared by dissolving one part of saier in two of dilute nitric acid, with the aid of heat, adding to it of muriate of soda one part, and diluting with twenty parts of water. The peroxide of cobalt is of a black colour, and is easily formed in the way already mentioned. It does not readily dissolve in water, but is decomposed in muriatic acid, the proto-muriate of cobalt is generated with the disengagement of chlorine. When strongly heated in close vessels, it gives off oxygen, and is converted into the protoxyd.

Ores of cobalt: 1. White cobalt ore, or bright white cobalt ore, is composed principally of cobalt and arsenic. Its colour is tin-white, liable to tarnish, with little lustre. It occurs massive and crystallized, in cubes and in octahedrons. It is hard and brittle. Specific gravity, 7.3, to 7.7. Before the blowpipe, it melts, and gives an arsenical smoke and odour. It forms a metallic globule, and gives to borax a blue colour. It occurs chiefly in primitive rocks, and is frequently accompanied with bismuth. It is found most abundantly in Germany, Sweden and Norway, and also occurs in several other European countries. 2. Grey cobalt ore is an alloy of cobalt with arsenic or with iron, or both. It is accompanied with small portions of nickel and bismuth. Its colour is light grey; liable to tarnish. It occurs massive or disseminated, and is never crystallized. It has been found in the United States, at Chatham, Connecticut, but has hitherto been worked advantageously. It also occurs in Bohemia, Saxony, and France. 3. Red cobalt ore is a hydrated arseniate of cobalt, of a beautiful peach-blossom red colour. It occurs massive, disseminated, and in minute crystals. It accompanies other ores of cobalt.

COBENTZL, Jephias, count de, son of count John of Cobenzl, a diplomatist in the Austrian service, was born at Brussels in 1753. He entered first into the military service of Austria, was appointed minister at Copenhagen, after the revolution of 1771, and at the court of Frederic the Great, from 1775 to 1778. In 1779, he was sent on an embassy to Catherine II. of Russia, whose favour he secured by his gallantry, and by composing and taking part himself in comedies at her private theatre. In 1795, he concluded a grand triple alliance between Russia, Britain, and Austria, against the French republic. Being recalled to Vienna the following year, he was again employed in political affairs, and was one of the plenipotentiaries who signed the treaty of Campo-Formio, between Austria and France, in October, 1797, and was also sent to the congress of Rastadt. In the following year, he held a conference, at Selz, with Francis de Neuchateau, a member of the executive directory, respecting the declaration offered to Bernadotte at Vienna. He then returned to Petersburg, whence he was summoned, and sent to Lunelle; and there concluded a treaty of peace with France, in February, 1801. A few months after, he was appointed minister of state and vice-chancellor for the department of foreign affairs at Vienna. In 1803, he followed the Austrian court to Olmuz, and died at Vienna in 1809.

COBENTZL, John Philip, count de, cousin of the last mentioned individual, was born in Carinola in 1741. He was made a counsellor of finance in 1782, and afterwards privy councilor at Brussels. In 1779, he was employed as a diplomatist at the conclusion of the peace of Teschen. In 1790, he was sent to Brabant to treat with the insurgent Netherlands; but the states refused to receive him, on which he retired to London, where he was privileged by the declaration, by which the emperor of Germany revoked all those edicts which had caused the insurrection, and re-established the previous state of affairs. His failure on this occasion probably prevented him from being again employed till 1801, when he was sent
COB! (in Chinese, Shanna); a great desert in the central part of Asia, extending from the sources of the Indus and Ganges, beyond the limits of those of the Amu Darya, from twenty to twenty-four degrees of longitude in length, and varying from three to ten degrees of latitude in breadth. But little is known of this immense region, of about 847,000 square miles in extent. Its great elevation, and the salt with which it is impregnated, render it very cold. The Fightful and unhealthy atmosphere of sand and gravel is hardly broken by the small rivers, lined with narrow tracts of pasture, by the salt lakes, and a few fertile oases interspersed here and there, like islands in the ocean. A few little hills rise out of the general level, which extends all around the traveller, as far as the eye can reach. The small Mongolian horses wander about in large droves, and the wild dziggetai snatches a hasty meal from the pastures. The camel is commonly used by the Mongols to transport burdens.

COBLENTZ (anciently Confluentia, from its situation at the confluence of the Rhine and Moselle), formerly the chief place of the French department of the Rhine and Moselle, now the capital of the Prussian circle of government (Regierungsbezirk) of Coblenz (belonging to the province of the Lower Rhine), containing 1928 square miles, with 357,470 inhabitants, is situated on a charming spot. Opposite Coblenz is Thalehenreislet, a small place on the right bank of the majestic river, at the foot of the rock, on which the Prussians rebuilt the fortifications of Ehrenbreitstein, and rendered it one of the most remarkable productions of military architecture. Over the Moselle is a bridge of 336 paces resting upon four towers. From this bridge there is one of the finest views on the Rhine. Coblenza (1059 houses and 14,900 inhabitants) consists of the old city and the new, or Clement-city, and is, in general, well built. There are several fine public buildings. An aqueduct, constructed by the last elector, brings the finest water from a height near Metternich, over the Moselle bridge, into all quarters of the city. The chief articles of commerce are the Moselle wines and French wines. About one mile from the city is a building, formerly a Carthusian monastery, which is well worthy the attention of travellers, on account of the views it affords of the two rivers on which the city stands. This building is now changed into a fort called Hunnen- kopp. On the other side of the Moselle fort Francis is situated. These two forts protect the city on the left bank of the Rhine, and some other fortifications are to be added. These works, with those of the strong fortress of Ehrenbreitstein (q. v.), will render Coblenz one of the strongest fortresses, and a very important defence to Germany, particularly to the Prussian monarchy. The confluence of the two rivers has always given Coblenz great military importance, even in the time of the Romans, who built a strong camp here. On the road from Coblenz to Cologne is the monument of general Marmont, mentioned by Lord Byron in Childe Harold’s Pilgrimage.

COBRA DA CAPELLO; the Portuguese trivial name of the vipera naja; the hooded snake or viper of the English; serpent à lunettes of the French; a reptile of great evil, but the most venomous of them, and afforded in various parts of the world a very unfortunate value. The species of the viper kind are all remarkable for the manner in which they spread out or flatten the sides of the neck and head when disturbed or irritated. In the cobro de capelo the conformation necessary to this action is found in the most perfect condition, as the animal is provided with a set of ribs or bony processes, moved by appropriate muscles on the sides of the neck, which, when expanded, give the anterior part of the body the appearance of an overhanging arch or hood; on the middle of which is prepared to inflict a deadly wound, a reddish-yellow mark, resembling the rim of a pair of spectacles. From this mark the French name is derived. When disturbed by the approach of an individual, or any noise, the cobra raises the anterior part of its body, so as to appear to stand erect, expands its hood as far as possible, and shows its fangs. So exceedingly poisonous is its bite, that, in numerous instances which are well authenticated, death has followed within a few minutes; under ordinary circumstances, a few hours is the longest term that intervenes from the infliction of the bite till the death of the sufferer, whereas prompt measures for his relief have not been resorted to. So numerous are these dreadful vipers in some parts of India and Africa, that they are frequently found in dwelling-houses, and, in some instances, have taken up their quarters in the beds. Death of necessity must follow, under such circumstances, should the animal be alarmed or irritated by the disturbance, the poison received from this (or, indeed, any other) venomous creature, the first thing to be done is to make a firm and well-sustained pressure beyond the wound, on the side nearest the heart. The excellent experiments of doctor Pennock, which have been already referred to, prove that a sufficient degree of pressure thus kept up will prevent the poison from affecting the system; and this is rendered evident by the good effects derived from ligatures applied around bitten limbs, above the wound, by the natives of India, though such ligatures generally act but imperfectly. The good effects of pressure, combined with the advantage of withdrawing the poison, will be obtained by applying a well exhausted cupping-glass over the wound; a substitute for which may almost always be made of a drinking glass, small bottle, &c., if proper cups be not at hand. It would be well for persons travelling or residing where these vipers are common, to be provided with a bottle of volatile alkali, or spirits of hartshorn, which, applied to the wound several times a-day, and taken internally, in doses of thirty or forty drops, repeated according to circumstances, will avert the injurious consequence of the poison. To heighten the curiosity of the multitude, the jugglers sometimes play them before their exhibitions, and, having extracted their fangs, keep them in cages or baskets, to exhibit as dancing snakes. When the cage is ope,ed, the juggler begins playing upon a pipe or other instrument; whereupon the viper assumes the erect attitude, distends its hood, and remains balancing itself in this position until the music is suspended. It is, however, most probable, that this viper, in common with lizards and other animals, is peculiarly affected by musical sounds. A friend, who passed a considerable time in the kingdom of Ava, informed us, that a cobra entered a room while a gentleman was playing upon the flute, and advanced gently towards him so long as the music continued; whenever it was suspended, the animal halted, and when it was entirely stopped, it gradually withdrew. This circumstance induced them to spare the viper, which uniformly made its appearance on several successive days, and added much to the magnificence of the spectacle mark on the back of the neck, and its distensible hood, the cobra is not especially distinguished from other vipers. Its colours are dull, being a dark greenish-brown, lighter towards the inferior parts.

CObURG; a Saxon principality in central Ger-
many, bounded by a number of other small German principalities. The country is mostly mountainous, with fertile plains: minerals and forests abound in it. According to the law of August, 1821, regulating the constitution of the principality, there is a body of representatives, who have a voice in legislation, and the disposal of the domain, and imposing the new taxes. Accord- ing to the law of Dec. 11, 1800, the feudal privileges were to be abolished by degrees. Coburg has one vote in the general assembly of the diet, and is bound to furnish a contingent of 500 men to the forces of the German confederation. The duke of Coburg-Coburg was received, in the division of the former dukedom of Gotha-Altenburg (edict of Nov. 15, 1826), the duchy of Gotha, and several smaller territories; so that the dominions of the present duke of Saxe-Coburg-Gotha comprise 900 square miles, and 139,440 inhabitants, of which 201 square miles and 83,000 inhabitants are comprised in the principality of Coburg and its dependencies, which were subject to the duke previous to the large accession of territory just mentioned.

Coburg, the capital of the above dukedom, is situated in the beautiful Hagrudi valley of the Itta, with 816 inhabitants. It is a pleasant town, with several manufactories, two fairs and considerable trade.

Coburg. Frederic Josias, duke of Saxe-Coburg, an Austrian field-marshal, was born in 1737; in 1758, took Chocim, and, in connexion with the Russian general Suwaroff, defeated the Turks at Poz- sani in 1789, and conquered Bucharest. In 1793, he commanded against the French, was victorious at Aldenhoven and Neerwinden, took Valenciennes, Condé, Cambrai, and Landrecy; but when the duke of York separated himself from the Austrians in order to besiege Dunkirk, Coburg was besieged by Mau- beuge, Clerfayt at Tournew, and the British at Dunk- kirk; and, in consequence of this, Coburg was again defeated at Fleurs and Aldenhoven. He retreated over the Rhine, gave up his command, and died in his native city in 1815.

Coburg, Saxe, Prince Leopold of. See Char- lotta Augusta.

Cocagna; an annual public festival instituted by the government of Naples, in which food and wine in fountains and from barrels are given to the people. Hence it is said of a country of comfort and plenty, "It is the land of Coquegane." Something similar is instituted, in the division of the Rhine, called Mats de cocagne; masts besmeared with soap for the public amusement, which those who have courage for the enterprise endeavour to climb, for the sake of a price which is fixed on the top.

Cocceii, Henry, born, in 1644, at Bremen, studied at Leyden in 1667, and in 1670, in England; was, in 1672, professor of law at Heidelberg, and, in 1688, at Utrecht; in 1690, regular professor of laws at Frankfort on the Oder; repaired to the Hague, in 1702, without giving up his office, on occasion of the disputes as to the hereditary succession of the house of Orange; received for his services, in 1713, the rank of Baron of the empire, and died in 1719. As a lawyer, he was the oracle of many courts, and his system of German public law (juris publici prudential) was almost a universal academical text-book of this science. Cocceii did not owe his profound juridical learning to skilful teachers, but had earnestly heard lectures on the institutes, but to his great indus- try, which he carried to such an extent, that he allowed but a few hours each night to sleep, lived with the utmost temperance, and even abstained several years from taking dinner. He was mild, ob- liging, and of an exemplary honesty and disinterest- edness. His disputations, Exercitationes curiosae, and

Discret. variis Argumenti, in 4 vols. 4to; his Cons- tituta et Deductions, 2 vols. in folio; his Grotios itul. tratus, 3 vols. in folio.—His eldest son, Samuel, bar- ton of Cocceii, born, 1679, at Heidelberg, was, in 1702, professor at Frankfort on the Oder, and rose, through many degrees to the dignity of grand chancellor of all the German dominions. He died in 1752. His brother, Charles Louis Cocceii, who died in 1808, in Prussia, was the last of this distinguished family.

Coccus, in zoology; a genus of insects of the order of heteroptera. Family gallinaeidae. Generic character; antennae filiform, often ten or eleven articulations in both sexes, shorter than the body; tarsus with two pectinule, conspicuous only in the females; males with two large incumbent wings; females apterous, submontose, fixed, and becoming gall-shaped or shield-shaped after impregnation. These little in- sects are remarkable for many peculiarities in their habits and conformation. The males are elongated in some of their form, have long, large wings, and are desti- tute of any obvious means of suction; the females, on the contrary, are of a rounded or oval form, have no wings, but possess a beak or sucker, attached to the breast, by which they fix themselves to the plants on which they live, and through which they draw their nourishment. At a certain period of their life, the females attach themselves to the plant or tree which they inhabit, and remain thereon immovable during the rest of their existence. In this situation, they are impregnated by the male; after which, their body increases considerably, in many species losing its original form, and assuming that of a gall, and, after depositing the eggs, drying up, and form- ing a habitation for the young. This change of form is not, however, constant to all the species, which has given rise to a division of the genus into two sec- tions; — the one which forms a gall in a single shape, in which the rings of the abdomen are totally obliterated, are called kernes by some authors; and those which retain the distinct sections of the abdomen, notwithstanding the great enlargement of the body, are called true cocci, or cochinel. They are impregnated in the spring, after having passed the winter fixed to plants, particularly in the bifurcations, and under the small branches. Towards the commencement of summer, they have acquired their greatest size, and resemble a little convex mass, without the least appearance of head or feet, or other organs. Many species are covered with a sort of cottony down. Each female secretes the substance in which they are expulged by a small aperture at the extremity of the body. As soon as they are produced, they pass im- mediately under the parent insect, which becomes their covering and guard; by degrees, her body dries up, and the two membranes flatten, and form a sort of shell, under which the eggs, and subsequently the young ones, are found cocooned. Soon after the death of the mother, the young insects leave their hiding- place, and seek their nourishment on the leaves, the juices of which they suck through the infected ros- trum, placed beneath their breast. But it is with a view to their importance as an article of commerce, arising from their use in the arts, that the insects of this genus are particularly interesting. When it is considered that the most brilliant dyes and the most beautiful pigments, as well as the basis of the most useful kinds of cement, are derived from the intestines of these insects, it will not be thought strange that many, if not all, of these insects, except, perhaps, to the bee and the gall insect, are we more inclined than to these singular and apparently insignificant little be- ings. Kermes, the scarlet grain of Poland, cochi- neal, lac-three, lac-dye, and all the modifications of gum-lac, are either the perfect insects dried, or the secretions which they form. The first mentioned
substance is the **coccus ilicis**. It is found in great abundance upon a species of evergreen oak (**quebrus coccifera**), which grows in many parts of Europe, and has been the basis of a crimson dye from the earliest ages of the arts. It was known to the Phoenicians before the time of the Greeks, and it under the name of **saxifrage**, and the Arabsians under that of **kermes**. From the Greek and Arabian terms, and from the Latin name **verniciatum**, given to it when it was known to be the product of a worm, have been derived the Latin **coccineus**, the French **cromalies** and **verneld**, and the English **cromis** and **vermilion**. These were early used, and, until lately, the tapestry-makers of Europe, have used it as the most brilliant red dye known. The scarlet grain of Poland (**coccus Polonicus**) is found on the roots of the **scleranthus perennis**, which grows in large quantities in the north-east of Europe, and in some parts of England. This, as well as several other species, which afford a similar red dye, have, however, fallen into disuse, since the introduction of cochineal. This valuable and most important material is the **coccus casti** (Lin.), a native of Mexico, and an inhabitant of a species of cactus, called **nopal**, which was long thought to be indigenous to America, but which Humboldt considers a distinct species. The trees which produce the cochineal are cultivated for this purpose in immense numbers; and the operation of collecting the insects, which is exceedingly tedious, is performed by the women, who brush them off with the tail of a squirrel or stag. The insects are killed by being thrown into boiling water, placed in ovens, or dried in the sun. Those which are killed by the latter method fetch a higher price, from the white powder, covering the insect, being still retained, and thus preventing, in a great measure, the adulteration of the article. The quantity annually exported from South America is immense; the export value being not less than £500,000. Cochineal was cultivated by the Mexicans previous to the conquest, but probably not to any great extent. Cortez received orders from the Spanish court to pay attention to this valuable dye; and, from that time, the quantity increased very rapidly; but, the trade having been carried on only through Spain, it was not until lately so generally used as it is likely to be in future. Cochineal is also raised in Peru, and several other parts of Spanish America, and becomes every year an article of greater importance to the commerce of that country. The finest, however, continues to be produced on the sea-coasts of the Mexican and Guatamalan Indies, a very inferior kind has been reared, which produces a coarse scarlet dye. Hayti and Brazil have tried to encourage the propagation of this insect. The natural dye which this little animal affords in such abundance is a deep crimson; and the colour called **scarlet** was not discovered until the effect produced by infusing the animal matter in a solution of tin was noticed by a German chemist, in 1643; after which a manufactory of this colour was established in London.

**Lac** is a secretion from a species of coccus inhabiting India, where it is found in astonishing abundance. In its native state, not yet separated from the twig on which it has been deposited, it is called **stick-lac**; when separated, powdered, and the colouring matter washed from it, it is denominated **soap-lac**; **bump-lac** when melted into cakes, and **shell-lac** when purified and distilled into thin **limons**. **Lac-lake** is the colouring matter which is precipitated from an alkalisolution, by means of alum.

**COCHAMBA**; a town of Bolivia, in the province of Cochambamba, in a fertile valley; 90 miles N. N. W. La Plata, 140 S. W. Potosi; lon. 67° 24' W.; lat. 18° 59' N. The province has a mild climate, and produces an abundance of grain, also sugar and cattle. Population about 100,000.

**COCHIN, CHARLES NICOLAS**, engraver, born in Paris in 1688, practised painting till his twenty-third year, which was of considerable advantage to him in the art of engraving, to which he devoted himself. In 1731, he became a member of the academy of Paris, and died in 1754. His son, of the same name, devoted himself to etching rather than to engraving. His productions are superior to those of his father. The collection of his works contains more than 150 engravings, amongst which there are 112 likenesses, in the forms of medallions, of the celebrated French scholars and artists of his time, who were almost all his friends. We have, besides his essays in the memoirs of the academy, several printed works of his, which contain interesting observations on different subjects of art, for instance, on Herculanium. His frontispieces and vignettes are remarkable for neatness and taste. His views of sixteen French seaports are of great value. His composition, in general, is rich, delicate, and pleasing. He was a member of the academy, and occupied several places of importance.

**COCHIN-CHINA.** East of, consists of a part of the kingdom of Cambobo (Cambodia), of Cochin China Proper, and of Tonquin: the two last are called, by the natives, by the common appellation *Annam*. This empire is bounded on the west by Simn and Laos, on the north by China; the sea is the southern and eastern boundary. Cochin-China extends from 8° 25' to about 29° N. lat., the extreme length being a little over 1000 miles; the breadth varies from 70 to 220 miles; its area is estimated at about 135,000 square miles. It is politically divided into the vice-royalties of Kambobo and Tonquin, and Cochin-China, which is administered by the king in person. The country is bounded by a lofty chain of mountains, from which numerous small rivers descend into the sea, forming numerous sand-banks along the coast. The Kambobo or Mecbn, and the Song-koy or river of Tonquin, are considerable streams. The climate is healthy. In Cochin-China, the rainy season continues from October till March, and neither the heat nor the cold is excessive. In Tonquin, on the other hand, the rains commence in May, and terminate in August. The heat and cold are both extreme. The gulf of Tonquin and the neighbouring seas are the nurseries of these seas, which are rarely felt below the latitude of 3° N. lat. Its furniture consists chiefly of the stick-lac, and valuable timber for building and furniture. The orange and lichi are of excellent quality. Rice, sugar-cane, betel, indigo, cotton, and potatoes are the principal productions of agriculture. The true cinnamon is a native of Cochin-China. The mulberry is extensively cultivated for the silk-worm, and the tea-shrub is common in the country. Sheep are very rare. The poultry is numerous and very good. The seas and rivers abound with fish, which supply a great number of the inhabitants with food. Neither the flesh of the buffalo nor that of the ox is eaten by the Cochin-Chinese, and milk they hold in abhorrence, considering it as blood. The Annam race, comprehending the Cochin-China, Tonquin, and Annam, is a short, but active and hardy people. In the useful arts, they have made considerable progress. Their language is monosyllabic. They have no literature of their own, and receive all their books from the Chinese. In writing the Chinese characters, the elementary ones are the same, but they
makc considerable changes in combining them. Their manners are lively and cheerful; their character mild and docile. There are two classes, the commonalty and nobility or mandarins. The government is despotic, as the king is the rod, which is freely administered. The general administration is conducted by a supreme council and six ministers of state. Besides these, there are three other superior officers, called kun—the viceroys of Tonquin and Kambuja, and the minister of elephants, who is properly prime minister, minister of war, and minister for foreign affairs. Every male inhabitant, between eighteen and sixty years of age, is at the disposal of the state; and, in Cochin-China, every third man on the rolls performs actual service during every other three years. These conscripts are called soldiers, and wear uniforms, but are, in reality, engaged as labourers on the public works and in the menial service of the public officers. The royal guard of 30,000 men is always stationed near the person of the king. The ordinary force consists of about 500,000 troops and 800 elephants, cavalry not being at all used. The effective force, regularly armed and disciplined, is not more than 50,000. They are armed partly with muskets and partly with spears. There is no established religion in Annam. The ministers of religion are few and little respected; the temples menial and little frequented. The lower orders in the viceroyalty follow the worship of Buddha or Fo. Persons of rank are of the sect of Confucius; but the only part of the religious belief which assumes a systematic form, is the worship of the dead. Polygamy is permitted to any extent, as the wife is a mere chattel purchased by the husband. Marriages, however, are not free, but by mutual consent. The population has been estimated, by some writers, at £2,000,000, but does not, probably, exceed 10,000,000, perhaps not 6,000,000. The direct commercial intercourse between Cochin-China and Europe and America, has been very considerable, but is now on the increase. The foreign trade, by sea, is principally with China, Siam, and the British ports within the straits of Malacca. The principal places from which it is conducted are Saigon in Kambuja, Hue, the capital of the empire, in Cochin-China, and Cachao in Tonquin. The export articles are common, pepper, spices, silk, tea, dyer's wool, cardamom, ivory, elephants' and rhinoceros' hides, &c.

According to the Chinese annals, Annam was conquered by China, B. C. 214, and colonized by numerous bodies of Chinese. After various revolutions, in which the Chinese yoke was thrown off, and Tonquin, and Cochin-China were alternately conquerors, the present order of things was established by events which took place at the end of the 18th century. The Taysons, three brothers from the lowest ranks of the people, had rendered themselves so powerful as to obtain possession of nearly the whole country; the king had perished in the war against them. His young son, Gianlong, having been intrusted to the care of the bishop of Adran, a French missionary, obtained, through his influence, the assistance of some Europeans, by whose means he formed a navy, disciplined it, and constructed fortifications in the European manner. He succeded, after a struggle of twelve years, in subduing the Taysons, conquered Tonquin in 1802, Kambuja in 1809, and left the empire, on his death, in 1819, to his present Majesty, Mung-meng, his illegitimate son, who, in 1828, added Annam to the dominions of China. The intervention of the court of China. See Le Bisschoppe's Het Etat actuel du Tonquin, de la Cochinchine, &c., Paris, 1812; White's Voyage to the China Sea, Boston, 1823; and particularly Crawfield's Embassy to Siam and Cochin-China, London, 1838.
The hen is ready to commence laying after she has moulted or changed her plumage, and is not at the trouble of making a regular nest. A simple hole, scratched in the ground, in some retired place, serves her purpose, and she generally lays from there. In the meantime, she begins to sit upon them for the purpose of hatching. Having thus taken possession of her nest, she becomes a model of enduring patience, remaining fixed in her place until the urgency of hunger forces her to go in search of food. A short time suffices; she runs eagerly about to procure it, and soon resumes her charge. Her eggs are diligently turned and shifted from the centre to the edge of the nest, so that each may receive a due degree of genial warmth, and it is not until about twenty-one days have elapsed that the incubation is completed. The strongest of the progeny then begin to chip the shell with the bill, and are successively enabled to burst their brittle prisons. She continues upon the nest till the whole are hatched and dry, and then leads them forth in search of food. The hen, except when accompanied by a young brood, is always timid, and ready to fly away, but when she is charged in she can discharge the duties of maternity, her whole nature is changed. She fiercely and vigorously attacks all aggressors, watches over the safety of her young with the utmost jealousy, neglects the demands of her own appetite to divide the food she may obtain among her nurslings, and labours with unremitting diligence to provide them sufficient sustenance. The limits within which we are restricted forbid the attempt to give a complete history of this valuable species, which is, in every point of view, interesting. To detail all that would be necessary to illustrate it, as an object of natural history and domestic economy, —the modes of breeding, rearing, preparing for the nest, and distribution of the young, &c.,—would require a small volume. Fortunately, almost every one, who will employ his own observation, may readily arrive at such knowledge. Very full histories of the species are given by Buffon and other standard authors. Temminck has, perhaps, offered the most complete, in his Histoire des Gallinacés. See Incubation.

Cock-fighting was an amusement of the Greeks and Romans. An annual cock-fight was instituted at Athens, and Æschines reproaches Timarchus, and Plato the Athenians in general, with their fondness for this sport. The cocks of Phaestus and of Tauris in Boeotia were in great esteem in Greece. The Romans seem to have used quails and partridges also for this purpose. Mark Antony was a patron of the pit, but, in his matches with Octavius, it was observed that Caesar's cocks were always victorious. This barbarous and brutalizing spectacle, it is well known, has been a favourite sport with the English, although repeatedly denounced and prohibited by the laws; but it is now deservedly in disrepute. Many nice rules are given for the training and dieting of cocks, and for the choice of individual combatants. "The best cocks," says one of the many English writers on this subject, "should be close, bitters, deadly heelers, steady fighters, good mouthers, and come to every point." Great difference of opinion has prevailed as to the size most proper for game-cocks. Hoyte settles it at not less than 4 lbs. 8 oz., nor above 4 lbs. 10 oz. The strain from which the cock is chosen ought also to be distinguished for victory. For the combat, they are armed with steel or silver spurs, or gaffes. The place appropriated to fighting is called the pit, and consists generally of a mound of earth, covered with sod, and surrounded by seats in circular tiers. The battle is conducted by two setters, who place the cocks back to back. When they are once pitted, neither of the setteVs can touch his cock, so long as they continue to fight, unless their weapons get entangled. —Cock-fighting is prevalent in China, Persia, and Malacca.

Cock-pit; the place where cock-fights are held. —In navigation, the cock-pit of a man of war comprises the compartment of the poop where the wounded are dressed in battle, or at other times. It is situated under the lower deck.

COCKADE (from cocarde); a plume of cock's feathers, with which the Croats adorned their caps. A cockade was formerly worn by the French Volunteers in France, which soon became a national emblem and party signal. During the French Revolution, the tri-coloured cockade became the national distinction. National cockades are now to be found over all Europe. In some countries, the law requires every citizen to wear one, and the deprivation of them is a disgraceful punishment, as in Prussia. In point of fact, the rule requiring them to be worn is but little observed.

COCKCHAFFER; a species of coleopterous insect, belonging to the genus melolontha (Fab.), remarkable for the development of the larve state, as well as for the injury it does to vegetation, after it has attained its perfect condition. By Linnaeus, this species, which is also known by the trivial names of 'may-bug,' 'door beetle,' &c., was placed in the genus scarabaeus, or beetle (see Beetle); and it is true, that melolontha have the general aspect, conformation, and habits of the beetles. They differ from them, however, in having the body less depressed, swelling out above and below into a sort of hump. The head is engaged in the corselet, which is slightly narrowed in front, and most commonly attached to the elytra behind. The antenna which are so pointed in a mass, are composed of ten joints, the last of which terminates the mass like a plume, which the insect displays at will, sometimes to the number of seven plates, larger and more perfectly developed in the males than females. The bodies of melolontha are very often velvet-like, and covered with hairs and imbricated scales, differently coloured like the butterflies. Some species are very highly adorned in this way, and present combinations of brilliant and beautiful colours.

The may-bug (melolontha vulgaris) is hatched from an egg which the parent deposits in a hole about six inches deep, which she digs for the purpose. The larva is a bright yellow in colour, and are placed regularly side by side, though not included in any common envelope. At the end of about three months, the insects come out of the eggs as small grubs or maggots, and feed upon the roots of vegetables in the vicinity with great voracity. As they increase in size and strength, they become able to make their way with ease under ground, and continue their ravages upon the roots of plants. When the worm has attained its greatest size, it is an inch and a half long by more than half an inch thick, perfectly white, with a red head, having a semicircular lip, and a strong pair of jaws, with which it cuts the roots, for the purpose of sucking out their fluids. It has two antennae, but is destitute of eyes. The subterranean existence of these animals is extended to four years, and, as their food is not accessible during the cold season, they bury themselves sufficiently deep in the soil to be safe from the frost, and pass the winter in a state of torpidity. When the spring restores them to animation and activity, they revisit the upper stratum of the ground, having, at each annual awakening, undergone a change of skin.

At the end of the third year, they have acquired their full growth as larvae; they then cease eating, and void the residue of their food, preparatory to the
change or metamorphosis which they are about to undergo. If opened at this period, their strongly muscular integument is found to be completely filled with a mass of white, oily matter, resembling cream, apparently destined as a reserve for the alimentation of the larva, and discharged from their bodies at this period in the form of a nymph, which is scarcely less than six months. To undergo their final change, these larvae bore into the earth to the depth of two feet or more, where they form a rounded cavity, the sides of which are smoothed and consolidated by the application of a fluid disorged from their bodies; larval matter, being thus secured, it soon begins to contract in length, swells, and bursts its skin, coming therefrom as a soft, whitish nymph, having all the members shrunk and folded, uniformly arranged in the same manner exhibiting the rudiments of elytra, antennae, &c. The insect then gradually acquires consistence and colour, becoming of a brownish hue. This state continues about three months, by the end of which time the insect disengages its wings, limbs, and antennae, and assumes its rank as a perfect coleopterous insect. It is in the month of February that the larva changes into an insect. During the months of March and April, it approaches the surface of the earth, and, about the beginning of May, escapes from its growing mode of life to soar through the air, dispersing in sunshine and shade. From this circumstance, the German trivial name of Maikfer, and the English may-bug or beetle have been given. The term cockchafer, applied to the common species, is evidently made up from the German.

Cockchaffers, in their perfect state, pass the greatest part of the day in a state of slumber or quietude, on the leaves of the trees which they feed on, unless disturbed by the too great heat of the sun which arouses them to fly to the shade. At eventide, the whole of this drowsy population take wing, for the sake of procuring food. Their flight is light, humming, and generally with the wind; and so little is the insect capable of directing its course, that it strikes violently against every object in the way. This peculiarity has given origin in France, to a proverbial expression, applied to a thoughtless, blundering person, who is said to be as stupid as a may-bug: "Elordi comme un hanneton."

The generative act of these insects has some peculiarities. The male, which is generally smaller than the female, and always cognizable by the greater size of its coxal spines, is not, in general, very active. As soon however, as this object is accomplished, he seems to fall into a state of flinthis and lethargy, and the female, in flying from place to place, carries him with her, hanging in a helpless, inverted position, with his back downwards, and his feet in the air. The male organs are quite singular, being formed in such a manner that the organ conveying the fecundating fluid is introduced by the aid of two elongated horns, which, by their approximation, form a sort of stiff point. These two pieces lie over another, within which are muscles, that at the proper moment, contract, and thus dilate the sheath, which may be compared to a surgical dilator. To this expansion of the sheath the adherence of the sexes during the act of generation is owing. The males perish as soon as they have fulfilled this great object of their being, as they thenceforth cease to eat. The fecundated female takes the trees for the earth, intertwining with her claws, she bores a hole six or eight inches deep, in which she places from fifty to eighty eggs. This completes the circle of her actions, and she soon after dies; though it has been said, without any foundation in observation or analogy, that the females, after laying their eggs, resume their former habits, and live among the trees.

COCK-FIGHTING. See Cock.
COCK-PIT. See Cock.

COCKROACH (blatta, Lin.); a genus of insects belonging to the orthopterous or straight-winged order, characterized by an oval, elongated, depressed body, which is covered in the male with a pair of wings, the head is inclined, short, and concealed under the corselet; the antennae are long, bristly, formed of numerous pieces, and inserted in a groove within the eyes. The corselet is scutiform, covering the head and origin of the elytra; the abdomen is terminated by two small spines. The legs are long, armed with little spines; the feet are long and compressed; the tarsi have five joints. They have a longitudinal crop or crawl; the gizzard, or muscular stomach, is internally provided with strong hooked teeth; from eight to ten ceca are found about the pylorus.

These insects are among the most disagreeable of the annoyances to which the dwellings of man are subject, and, where their multiplication is permitted, the ravages they commit are extensive and vexatious. They are all nocturnal, and exceedingly agile; their flattened bodies allow them to hide, with ease, in the crevices of tiles, and the small spaces thereby. They are always on the alert, and run away from danger, which is not secured from their voracity. Like all other predaceous, they are thrown into confusion and put to flight by the presence of light, whence they were, in ancient times, appropriately called teucrige, or light-shunners. Their destructiveness is not confined to articles of provision for the table; silk, woolen, and even cotton cloths are devoured, or rendered useless by being gnawed through. At some seasons of the year, when the male cockroaches fly about, they are very troublesome, especially about twilight, when they dash into rooms, and often strike against the faces of those present, to the great alarm of females, who generally dread them excessively. The presence of a light, it is true, would secure us against such invasions from the cockroach, but a great number of other nocturnal insects would be attracted by its glare, and induce a greater degree of annoyance. When a cockroach takes refuge, or seeks concealment upon any person, he will inflict a smart bite, if particularly hurt or alarmed.

The sapient Sancho Panza declares, that there is a remedy for everything but death; and it is truly happy for mankind, that the multiplication of this pestilent race may be repressed by aid of their own poison, and the agency of that insectary, which is the term for the mortar of the street. When the one-third of white or red lead is added, and the mixture is moistened with molasses, so as to make it moderately adhesive, the cockroaches will greedily devour it. The repetition of this poisoned food for a few nights is generally sufficient to reduce their numbers to a very few, even in the most infested houses, and will eventually cause the destruction of the whole. They may also be poisoned with preparations of arsenic, sublimate, &c., mixed with sugar or molasses, of which they are very fond. Traps, especially designed for their capture, are sometimes to be found at the potteries. A paste-board can be covered, well balanced upon two pins, and placed upon the edge of a vessel, nearly filled with molasses and water, makes a very good trap. The dish should be so placed, that they can readily mount upon the cover, which revolves on its axis whenever the equilibrium is disturbed, and throws the cockroaches into the fluid.

Cockroaches, like other orthopterous insects, do not undergo a complete metamorphosis: the larvae and nymphs resemble the perfect insect, except that they have merely rudiments of wings. The females lay their eggs successively and singly. The egg has a very singular appearance, being large, cylindric, etc.
COCKSWAIN—COD.

rounded at both ends, and having a projecting deni- tated line or keel, throughout its length, on one side. This egg is half as large as the belly of the female, and she carries it for seven or eight days, attached to the posterior part of the abdomen, and, finally, attaches it to some solid body, by means of a gummy fluid.

The species of cockroach at present determined, are about twelve in number. Among these, the *blatta Americana* and the *blatta Orientalis* are the especial pests of America. The first mentioned is the largest of the genus, and grows to be two or three inches long, including the antenna. Throughout the southern portion of this continent, and in the West India islands, this species (*blatta Americana*), called *Kakeratoe* by the Dutch, is very numerous and troublesome. The *blatta Orientalis*, or common kitchen cockroach, was originally brought from Asia to Europe, and thence to America. It is now thoroughly domiciled in all parts of that country, to the great vexation of its inhabitants. This species is fond of warmth, and makes its abode near to the kitchen fire-place, about ovens, stoves, &c.

COCK-SONG. The cock-songs are the cheered songs of the cock who manages and steers a boat, and has the command of the boat's crew. It is evidently compounded of the words cock and swan, the former of which was anciently used for a yawl, or small boat, as appears from several authors, but has now become obsolete.

COCOA. COCONUT. COCOA-NUT. The cocoa-nut is a woody fruit, of an oval shape, from three to four or six to eight inches in length, covered with a fibrous husk, and lined internally with a white, firm, and flaky kernel.

The tree (*cocos nucifera*) which produces the coco-nut, is a kind of palm, from forty to sixty feet high, having on its summit only leaves or branches, appearing almost like immense feathers, each fourteen or fifteen feet long, three feet broad, and winged. Of these, the upper ones are erect, the middle ones horizontal, and the lower ones drooping. The trunk is straight, naked, and marked with the scars of the fallen leaves. The nuts hang from the summit of the tree in clusters of a dozen or more together.

The external rind of the nuts has a smooth surface, and is of a somewhat triangular shape. This encloses an extremely fibrous substance, of considerable thickness, which is immediately visible to the eye. The latter has a thick and hard shell, with three holes at the base, each closed with a black membrane. The kernel lines the shell, is sometimes nearly an inch in thickness, and encloses a considerable quantity of sweet and watery liquid, of a whitish colour, which has the name of milk. This tree is a native of Africa, the East and West Indies, and South America, and flourishes best in a sandy soil.

Food, clothing, and the means of shelter and protection, are all afforded by the coco-nut-tree. The kernels of the nuts, which somewhat resemble the filament in taste, but are of much firmer consistency, are used as food in various modes of dressing, and sometimes are cut into pieces and dried. When pressed in a mill, they yield an oil, which in some countries, is the only oil used at table; and which, when fresh, is equal in quality to that of almonds. It, however, soon becomes rancid, and, in this state, is principally used by painters. This milk or fluid contained in the nut is an exceedingly cool and agreeable beverage, which, when good, somewhat resembles the kernel in flavour. Cocoa-nut trees first produce fruit when six or seven years old; after which, they yield from fifty to a hundred nuts annually. The fibres of the leaves envelop the cocoa-nuts, after having been soaked for some time in water, become soft. They are then beaten, to free them from the other substances with which they are intermixed, and which fall away like saw-dust, the stringy part only being left. This is then run into large vessels, and finally introduced into barrels, or inserted into caves, even for large vessels. The cake thus manufactured is, in several respects, preferable to that brought from Europe, but particularly for the advantages which are derived from its floating in water. The woody shells of the nut are so hard as to receive a high polish, and are formed into drinking cups, and other domestic utensils, which are sometimes expensively mounted in silver. On the summit of the cocoa-nut-tree, the tender leaves, at their first springing up, are folded over each other, so as somewhat to resemble a cabbage. These are occasionally eaten in place of culinary greens, and are a very delicious food; but, as they can only be obtained by the destruction of the tree, which dies in consequence of their being removed, they are in general considered too expensive a treat. The larger leaves are used for the thatching of buildings, and are wrought into baskets, brooms, mats, sacks, hammocks, and other useful articles. The nuts are made into boats, and furnish timber for the construction of houses; and when their central pith is cleared away, they form excellent gutters for the conveyance of water. If, whilst growing, the body of the tree be bored, a white and sweetish liquor exudes from the wound, which is called *toddy*. This is collected in vessels of earthen ware, and is a favourite beverage in many parts where the trees grow. When fresh, it is very sweet; in a few hours it becomes somewhat acid, and, in this state, is peculiarly agreeable; but, in the space of twenty-four hours, it is completely virulent. By distillation, this liquor yields an ardent spirit, which is sometimes called *rack*, or *arrack*, and is more esteemed than that obtained by distillation from rice or sugar, and merely fermented, and flavoured with the cocoa-nut juice. If boiled with quick-lime, it thickens into a sirup, which is used by confectioners in the East Indies, though it is much inferior to sugar produced from the sugar-cane.

COCYTUS (from κόκυς, to lament); a river of ancient Epirus, which falls into the Acheron. The waters of both are tinged with black. The Greek poets call this river the *black Cocytus*, echoing with the sad protestations of the shades who revel here, to their eternal torture, in the scenes of their former lives. This is collected in vessels of earthen ware, and is a favourite beverage in many parts where the trees grow. When fresh, it is very sweet; in a few hours it becomes somewhat acid, and, in this state, is peculiarly agreeable; but, in the space of twenty-four hours, it is completely virulent. By distillation, this liquor yields an ardent spirit, which is sometimes called *rack*, or *arrack*, and is more esteemed than that obtained by distillation from rice or sugar, and merely fermented, and flavoured with the cocoa-nut juice. If boiled with quick-lime, it thickens into a sirup, which is used by confectioners in the East Indies, though it is much inferior to sugar produced from the sugar-cane.

COCOYX (from κόκυς, to lament); a river of ancient Epirus, which falls into the Acheron. The waters of both are tinged with black. The Greek poets call this river the *black Cocytus*, echoing with the sad protestations of the shades who revel here, to their eternal torture, in the scenes of their former lives. This is collected in vessels of earthen ware, and is a favourite beverage in many parts where the trees grow. When fresh, it is very sweet; in a few hours it becomes somewhat acid, and, in this state, is peculiarly agreeable; but, in the space of twenty-four hours, it is completely virulent. By distillation, this liquor yields an ardent spirit, which is sometimes called *rack*, or *arrack*, and is more esteemed than that obtained by distillation from rice or sugar, and merely fermented, and flavoured with the cocoa-nut juice. If boiled with quick-lime, it thickens into a sirup, which is used by confectioners in the East Indies, though it is much inferior to sugar produced from the sugar-cane.

According to mythology, Cocytus is the son of Styx, and father of Phlegethon and Menthe. Pausanias advances the following conjecture respecting this river:—"At Ciechyrus is lake Acheron, with the rivers Acheron and Cocytus, whose waters are very ungrateful to the taste. Homer, I imagine, had seen these rivers, and, in his bold description of hell, gave to the streams in it the names of those in Thesprota."
they have a large, strong swimming-bladder, fre-
quent denatured or lobed at its borders.

The most interesting of all the species is the com-
mmon or Bank cod (G. morrhua, L.). Regarded as a
supply of food, a source of national industry and
commercial wealth, or as a wonder of nature in its
constitutions, this fish, rightly prepared, justly
challenge the admiration of every intelligent ob-
server. Though found in considerable numbers on
the coasts of other northern regions, an extent of
about 450 miles of ocean, having the chill and rugged
shores of Newfoundland, is the favourite annual resort
of cod, codfish, haddock, and hake, which visit the sub-
marine mountains known as the Grand Banks, to
feed upon the crustaceous and molluscous animals
abundant in such situations. Hither, also, fleets of
fishermen regularly adventure, sure of winning a rich
freight in return for their toils and exposure, and of
conveying plenty and profit to their homes and em-
ployers. Myriads of cod are thus yearly destroyed
by human diligence; millions of millions, in the egg
state, are prevented from coming into existence, not
only by the fishermen, who take the parents before
they have spawned, but by hosts of ravous fishes, and
by tides, which remove vast numbers of the eggs which
attend upon their migrations to feed upon their
spawn; yet, in despite of the unceasing activity of all
these destructive causes, year after year finds the
abundance still undiminished, inexhaustible by hu-
man skill and avidity, irrepressible by the combined
vomitory of all the tribes of ocean. This, however,
is by no means the sum of destruction to which the
species is liable. After the spawn is hatched, while
the fry are too young and feeble to save themselves
by flight or resistance, they are pursued, and devour-
ed in shoals by numerous greedy tyrants of the deep,
and, still worse, by their own glutinous progenitors,
clearly demonstrating that without some extraordinary
exertion of creative energy, the existence of the species
could not have been protracted beyond a few years.
Such, however, is the fecundity with which the All-
wise has endowed this race, that if but one female
annually escaped, and her eggs were safely hatched,
the species would be effectually preserved. This is
not so surprising when we recollect that the ovaries
of each female contain not fewer than 9,344,000
eggs, as has been ascertained by careful and repeated
observation.

Few members of the animal creation contribute a
greater amount of subsistence to the human race; with
fewer are more universally serviceable than the cod-
fish, of which every part is applied to some useful
purpose. When fresh, its beautifully white, firm and
fatty muscles furnish our table with one of the most
delicious dainties; salted, dried, or otherwise con-
served for future use, it affords a substantial and
wholesome article of diet, for which a substitute could
not readily be found. The tongue, which is always
separated from the head when the fish is first caught,
even epicures consider a delicacy; and tongues, salt-
ed or pickled along with the swimming-bladders, which
are highly nutritious, being almost entirely pure gelatine, are held in much estimation by house-
keepers, under the title of tongues and sounds. The
sound or swimming-bladder of codfish, if rightly pre-
pared, supplies an isinglass equal to the best Rus-
sian, and applicable to all the uses for which the im-
porated is employed. The liver, light grey and bulky,
when fresh, is very rich and oily, and is said to be,
with satisfaction, but it is more generally reserved, by fishermen, for the sake of the large quantity of fine limpid oil which it con-
tains. This is extracted by heat and pressure, and forms the well-known cod-liver oil of commerce,
which, in many respects, and for most uses, is su-
perior to the commonly used fish-oil. The heads of
cod fish, after the tongues are cut out, and the gills
are saved for bait, are thrown overboard, on account of
want of room, and because salting would not pre-
serve them to any advantage. Yet the head, being
almost entirely composed of gelatine, is, when fresh,
the richest, and perhaps the most nutritive part of
the fish. Cod are also suitable for the stock of
fishermen, and free for their own nourishment, but the great mass is thrown into the sea—a circumstance we can scarcely
reflect upon without regret, when we remember how many poor, in various charitable institutions,
and through the country generally, might be luxuri-
ously fed with it. If vessels were provided with the
requisite implements and fuel, these heads would furnish a large amount of strong and valuable
fish-glue or isinglass, that would well repay the trou-
ble and expense of its preparation. The intestines of
the codfish also yield a tribute to the table; the
French fishermen, especially, prepare from them a
dish somewhat similar, and not far inferior, to the
sounds. Finally, the ovaries or roes of the females
are separated from their membranes, and the eggs,
nicely pickled, afford an agreeable and gustful relish,
far more delicate and inviting to the palate than the
commonly celebrated jelly. Still further varieties are
the usual modes of employing the different parts of our
fish, the Norwegians, Icelanders, and Kântschaules
would put the backbone and other refuse parts, for
the purpose of feeding their dogs and other domestic
animals during the winter. Strange as such a diet
may appear, it is stated as a well-established fact
that cows, fed upon these pounded bones, mingled
with a small quantity of vegetable matter, yield a
larger supply and a better quality of milk than those
supported upon more ordinary provender.

The usual mode of preserving codfish for commer-
cial purposes is by salting them immediately after
they are caught. Having first removed the head, bow-
els, &c. Those which are carefully selected and
salted with greater attention to their whiteness, are
usually called dunfish, and bring a better price than
such as are salted in bulk, with little regard to the
discolouration caused by imperfect washing and
drainage before being packed. Where facilities are
afforded for drying, by an adjacent shore, or by the
construction of the vessel, cod are cured by drying
alone, or with a very small quantity of salt.

This process requires several days' exposure to sun and
air, and, when skilfully conducted, keeps the fish,
for an indefinite period, in a state of perfect
whiteness and freshness, both peculiarly advan-
tageous to the appearance of the fish at respectable
tables. Cod thus cured are called stock-fish, and be-
fore being cooked, require to be softened, by soak-
ing in water and pounding with a wooded mallet.

The spawning season, on the banks of Newfound-
land, begins about the month of March, and termi-
nates in June; consequently the regular period of
fishing does not commence before April, on account
of the storms, ice, and fogs; and indeed, many fish-
ermen consider the middle of May as sufficiently
early. After the month of June, cod commence
their migrations to other quarters, and, of course, the
fishing is suspended until the ensuing season. Dur-
ing the months of April and May, fresh cod, of se-
veral species, are caught, in considerable abundance,
on the Atlantic coast of the United States, as far
south as North Carolina; of Delaware Bay, and still
more to the southward. At this season, the markets
of this country are, for a short time, supplied with
this fine fish. The inhabitants of the north-eastern
cities, being near to the great fisheries, and employ-
ing vessels built for the conveyance of live fish, are
liberally provided with all the luxuries obtainable
from this great gift of Providence.

COD.

293
The Common or Bank cod (Gadus morhua) varies in size and weight according to its age and the season of the year. The average length is about two and a half or three feet, and the weight between thirty and fifty pounds. Single cod have been caught weighing three times as much, measuring five and a half feet in length; but such exceptions are large and flatteringly. The gape is equal to the mouth; the upper jaw projects beyond the lower, which has a cirrhus or beard about the length of a finger; the eyes are very large, and veiled by a transparent membrane; the scales are of large size; first ray of the anal fin, not articulated and spinous. —Professor Mitchell, in his interesting paper on the fishes of New York, enumerates ten species of cod among the supplies brought to the market of that city, caught on the coasts adjacent. To his valuable researches, published in the first volume of the New York Philosophical Transactions, the reader may advantageously refer. We are intended to be initiated into the distinctions by which these species are discriminated. They are named as follows: —Gadus morhua, Bank cod; G. callarias, dorse cod; G. tomcod, tomcod; G. aglefinus, haddock; G. blenniodes, blennoid cod; G. paurpureus, New York pollock; G. merosicaeus, lake; G. tenuis, slender cod; G. longipes, codling; G. punctatus, spotted cod. The whole process of cod-fishing is highly interesting, but the briefest description of it would require far more space than can be afforded here. The importance of this fishery, and the great national interests which it involves, has made it a fruitful source of diplomatic discussion, and led to the establishment of various regulations, to which all are obliged to conform which participate of its advantages. It is obviously out of our power satisfactorily to treat of these topics, and all the interesting matter connected with the subject, in an article solely designed to give a general sketch of the characters of the genus, and of the most interesting species of cod.

COD, CAPE. See Cape Cod.

CODE, in jurisprudence, is a name given, by way of eminence, to a collection of laws. (For the derivation of the word, see Codes.) For the different parts of Europe, and barons of course, the advantages of codes and codifying, see Law. For the different codes of modern times, see the respective countries, and the following list.)

CODE NAPOLEON. See Codes, les Cinq.

CODE OF FREDERIC, CODEX FREDERICIANUS. See Prussia, Code of.

CODE OF JUSTINIAN. See Civil Law.

CODES, Les Cinq (French; the five codes); the new French digest of laws. The civil code (Code civil) or general law of the country, the commercial code, the penal code, the codes of civil and criminal procedure, form together a whole, which, whatever may be their absolute value, will remain a perpetual monument of the state of things in France which proceeded from the revolution, and particularly of Napoleon's administration. They originated from the spirit of the times and of the nation; and are, in some respects, the key-stone of the revolution, as they secure in the greatest degree, their reasonable value, and security. Like all human works, they are chargeable with imperfection, and they have been criticised with severity by some, political parties and some learned works. See Savigny Von dem Beruf unserer Zeit zur Gesetzgebung, 1816. —On the Attitude of the present Age for Legislatio and Jurisprudence, translated from the German of F. C. von Savigny, by a Barrister of Lincoln's Inn. Yet, compared with the preceding condition of jurisprudence in France, they must be acknowledged by all to have been a great and undeniable benefit to the country, as well as to the age in which they were produced. The laws in France, before the revolution, were in a state of the greatest confusion. The Roman or civil law was universally in force as subsidiary to the local customs, and was applied, particularly, to the regulation of contracts. But with regard to the rights of property of married people, the modifications of landed property, feudal rights, etc. Such was the greatest difference between the different parts of the kingdom. The invasions of the German tribes must have effaced, in a great measure, with the Roman law, the last traces of the ancient laws of the Gallic nation; and that more or less completely, according to the degree to which the Roman constitution had taken root among the ancient inhabitants, and to the political importance which they themselves maintained under their new masters. Hence, in the northern parts of France, and under the dominion of the Franks, the Roman institutions were more generally supplanted by the German, than in the southern parts of France. The Franks were more populous and under the dominion of the Visigoths and Burgundians. Here some portions of the Roman municipal and judicial institutions had always been preserved; the civil law, particularly, as it was contained in the collection of Theodosius I., remained valid, especially with regard to the rights of property between married people. The provinces where it thus continued in force were called pays du droit c civil. The many droits coutumiers of different districts, baronies and counties which were to be found in France, even in the pays du droit Romain, originated when the authority of a general government had given place to feudal anarchy, when every barony and every city formed an independent whole, and the king was nothing but the first among the great feudal lords of France (the dukes of Normandy, Aquitaine, Burgundy and Brittany, the counts of Champagne, Flanders, Provence, &c.), and, in his own domains, scarcely more than the first among the inferior barons. In each of these divisions, a particular system of law developed itself in the struggle of the old, free municipal institutions with the usurpations of the barons, in which the former perished entirely. The peculiarities of these different laws, however, are not the result of the special spirit of the nation, than from accidental circumstances and events. It must, however, be acknowledged, that the laws of the provinces or ancient principalities of the realm, which were founded partly on express provisions adopted by the sovereign in union with the states, are of greater importance. Among these, the laws of Normandy are of the most consequence, since they are, at least with regard to the feudal rights and the general principles of landed property, the foundation of the whole English law. See Howd's Traite sur les Coutumes Anglo Norman des, Dieppe, 1774, 4 vols., 4to. William I. made the feudal law of the Normans the predominant law of England, and founded the different branches of his government on feudal principles; even the language of the courts of justice and of the official papers of the government in England remained French for centuries; and French formulae are still used in legal language, even sometimes singularly perverted. After the law of Normandy, the customs and statutes of the city and county of Paris were of chief importance, since they served as a model for many others, and were considered, in some measure, as a subsidiary source of law in the juristi-
tion of the parliament of Paris. Some of these par-
ticular systems of law had been reduced to writing in
very early times; for instance, the *États généraux de
St Louis*, which were in force in the royal baronies,
and revived under Henry IV. in the period of
Peter Desfontaines, of the 13th century. Besides
the general privileges of the cities, particular
municipal laws were sometimes granted. See ex-
amples in the great collection of royal ordinances,
begun by Laurière, 1723. Most of these particular
laws were made by the king, and the number of
the inhabitants and of the judges, and were, con-
sequently, very uncertain in their application.
Therefore, after Charles VII. had driven the English
from the French territory, it was decreed in the assembly
of the states, 1453, that all customary laws should be
reduced to writing. The inhabitants were first ques-
tioned as to the law in use (by tens, or per turiam)
until it was believed that sufficient certainty was ob-
tained; the laws were then arranged by men learned
in the law, examined in the council of state, and con-
firmed by the king. This operation continued almost
a hundred years, and produced several hundreds of
laws, which were published in a collection, the
members of which, containing more than 400, was made by
Bourdot de Richebourg (*Contumier général*, Paris,
1724, 8 vols., folio). Besides this mass of particular
laws, some general laws were passed. The first and
second dynasty promulgated *capitulaires*, with the con-
cept of a common law, which, as the lawgiver had
already observed, was not only obliged, in the
time of feudal anarchy, to grant complete independ-
ence and sovereignty to the great vassals and lords
of the kingdom (pays hors l'époque du roy), but
even the inferior barons, the king's particular vassals,
who had been endowed by him out of his own do-
 mains, made themselves almost entirely independent.
The legislative power of the king could, therefore,
at first, he exercised only by granting privileges to
the cities, by which the power of the barons was li-
lited, to the advantage not only of the citizens, but
also of the crown. From the time of Philip Augustus
(1180—1229), it became an established principle, that
the king could unite vacant fiefs of the kingdom with
his hereditary domains, as crown lands; and one of
the first acquisitions of this kind was the duchy of
Normandy. The great power which thus accrued to the
king, was strengthened by another principle, and personal authority of Louis IX. (1226—1270),
that he was enabled to make general laws, partly
with, partly without, the consent of the barons.
These were called *ordonnances*. They were in force,
however, only in the hereditary domains of the king;
the great barons exercised an equal legislative power
in their own territories. After almost all these fiefs
had been united with the crown, excepting some small
sovereignties, as the principalities of Dombes, Orne,
Bouillon, the counties of Aviron and Ven-
asien; and after the marriage of king Charles VIII.
with the daughter and heiress of Bretagne, the au-
thority of the *ordonnances* extended over the whole
kingdom. At the same time, the royal power ap-
proached that absoluteness, which was prepared under Richard by the entire subjection of the
nobles, completed under Louis XIV., and the abuse
of which under Louis XV., produced the revolution.
Among the *ordonnances* of this period, are distin-
guished those on jurisdiction and the order of proce-
dure, in which France was then in advance of the
rest of Europe. The more ancient refer to local
subjects, and the connexions of the church with the
state. To the former belong the *ordonnances* of 1440
and 1453, and that of Villers Cotterets (1350), which
was almost contemporaneous with the law of crimi-
nal procedure of Charles V., in Germany, and intro-
duced the written trial instead of the usual irregular
and tumultuous process, which was different in every
seigneurie. Its author was the chancellor Guillaume
Poyet, from whom it was also called *Guideline
Poyet*. We might add, also, the ordinances of
Desfontaines, (1560), the *ordonnance* of Blois (1579), and others. None of these *ordonnances*, nor any collection of
them, bore the name of code. The earlier incomplete
collections of them (a systematic one was first made by
Fontanon, 1611, 4 vols. folio; a chronological one by N.Girard, 1640, 4 vols. folio) were superseded by that published by the chancellor Pont-
chartrain, the first volume of which, edited by De
Laurière, appeared in 1723. The work has been con-
tinued by Secouce, Villevalois, Bréquigny, Cam-
mus, and Pastoret, 1810, 18 vols., folio. It is to be
concluded with the reign of Francis I. Henry III.
intrusted the systematic arrangement of the ordon-
nances of his predecessors to the famous Brisson,
who published them under the name of Code Henri
or *Basiliques*, though they acquired no legal author-
ity. Under Louis XIII. (1629), an express *ordon-
nance* respecting the judicial procedure, and other
subjects, which had hitherto been regulated by
the states, was sketched, in 461 articles, by the chan-
celloir Michael de Marillac, but was not acknowled-
ged by the courts, as it was not registered. It was
called *Code Marilletic* or *Code Michau*; and, in later
times the name code has been applied to several pri-
ate collections of the ordinance of the state, especially
of the *ordonnance*. For instance, Code *Louis XIV.*,
by Chausse-pierre, containing the *ordonnances* from 1722
to 1740, 12 vols., 12mo.; or relating to single objects,
Code noir; *Code des Cures*, Paris, 1780, 4 vols.,
12mo.; *Code penal*, by L'Averty, 1777, 12mo., &c.,
but never as a legal designation. The government
of Louis XIV. was distinguished for its legislative
activity. Comprehensive *ordonnances*, or rather real
codes of law, appeared on the civil process (1667),
on the criminal process (1670), on commercial law
(1675), on the forest law (1609), on the marine (1681),
and on ecclesiastical jurisdiction (1696). The most
important *ordonnances* of Louis XV. relate to dona-
tions (1731), wills (1735), and substitutions (1747).
In this state of things, the great diversity in the ex-
isting laws was as burdensome as it was revolting to
reason. It would betray but a superficial acquaint-
ance with history, to suppose that such a diversity of
laws could not be produced in a country of great
measures, and yet have only accelerated the advan-
towards the development of the science of law, as it re-
quites the study of many accidental details, rather
than of the general principles of universal right, by
which the Roman law has attained its high perfec-
tion. It is also a very injurious check to civil inter-
course, and a source of insecurity and loss to those
who enter into any legal connexions with the inhab-
itants of other provinces. Nothing contributes more
to promote the internal intercourse of a nation, the
foundation of its greatness, than uniformity of laws.
Hence the reduction of those 400 particular systems
of customs into one civil code, was one of the things
most desired by the French nation; and Napoleon,
after having restored peace, and settled the subject
of ecclesiastical relations, could think of nothing
which would contribute more to promote his popularity
and the good of France, than the execution of this project,
which had been attempted in vain during the revolu-
tion. The emperor himself remarked at St Helena,
that he considered the code which bears his name to
be the best monument which he had erected for him-
self. The abolition of so many systems of law, of
the feudal privileges, of the family trusts, of the indi-
viduality of the fiefs, made the preparation of a gene-
ral civil code possible, and even necessary, which
was acknowledged as early as in the first constitution
of 1791. Yet the three projects of Cambacérès, then deputy, afterwards second consul, and finally grand chancellor of the empire, in 1793, and 1795, did not meet with approbation. The code of civil law was prepared with the greatest care; its defects must, therefore, have been to a certain extent the results of legal science in France. The restoration has caused no essential changes in it, but only deprived it of its name, Code Napoléon. A new official edition was prepared in the Bulletin des Lois (vii. ser. iv. 109), in which, however, nothing but the expressions referring to Napoleon and the imperial constitution was changed. A similar effort was announced on grounds by Cambacérès, which assumed the imperial dignity. The only essential change in the civil code down to the present time, is the abolition of the law of divorce, which, contrary to the principles of the Catholic church, had been made entirely free during the revolution, but had been subjected to some restrictions during the reign of Napoleon. If we leave out of the question ecclesiastical considerations, and examine the subject only in a moral point of view, there can be no doubt that the sanctity and moral dignity of matrimony are better secured by declaring it dissoluble, under certain circumstances and with the consent of either of the parties, than by increasing the mutual dislike of the parties, by making the bond indissoluble, preserving thus the appearance only, and not the essentials of marriage. Next to the code of civil law, the code of criminal procedure is particularly the creation of the spirit of the time. The criminal ordonnance of 1670, by its severity (allowing a double torture, the question preparatoire, to compel confession, and the question previsible, before the execution, to discover the accomplices), but still more by the manner in which it was administered by the tribunals, had excited universal indignation. The ambition of the higher courts, which aimed not only to the securing of independence for the judicial authority, but also to political influence; the pride of the judges in their infallibility, and the esprit du corps, united the higher and lower courts in endeavours to conceal and defend their errors. The principle that confession was not necessary for condemnation, but that circumstantial evidence alone was sufficient (the exclusion of which was the chief trait of the German code of criminal procedure of 1532), was accompanied by many revolting abuses, and the execution of innocent persons—Lebrun, Langlade, Calas, Sirwen, Montbailli, Labarre, and others, were attributed to the then state of legal science, and the criminal was modelled on the English, the French, and the Swiss codes. The English code, or the Code de Commerce, of the 20th and 21st September, 1807, is a modification and extension of the above mentioned ordinances of 1673 and 1681, on commerce and navigation. These five codes have had a number of commentators and editors. They are founded on the basis of usage and experience, though it is evident, at least in the civil code, that it has been an object to avoid the particular and incidental, and to establish general principles. The ancient laws of the Romans, the French laws of the early part of the 17th century, the history of their origin, the projects, the observations of the courts and of the tribunate, the discussions in the council of state, and the speeches in the legislative body. Most of these materials are printed. At the same time, the history and study of the French codes are indispensable for a right understanding of the French revolution, its real character and tendency, as well as of the extraordinary man whom it produced. It is worthy of notice, that, in the discussions of the articles of the codes, we find the consuls Bonaparte, who usually partook in the discussions, inclining, generally, to the milder side. Besides the official editions, we have several editions of single codes, and of the five codes together, of which two deserve to be particularly mentioned, as they contain, at the same time, useful annotations and additions: Les Cinq Codes, avancés par Sirey (1818, 5 vols. 4to); and, as a manual, Manuel du Droit Criminel, by a well-known commentator, and les CinQ Codes, etc., by Balliére (Paris, 5th edit., August, 1821, 4to and 12mo). The history of the French law has been given by Fleurot of Silherrad (in his edition of Heineccius's Hist. Jur.), and by Bernardi (De l'Origine et des Progrès de la Legislation Françoise: Paris, 1818). The Code Forestier, or
the collection of laws respecting the administration of the woods, those belonging to cities, villages, &c. as well as those of the king, was published Aug. 1, 1827, under Charles X. It is to be found, with the Code Constitutionnel, the five codes, &c., in a very convenient edition, the title of which runs thus: Les Six Livres des enceintes et Rapports entre eux, augmentés de la Charte Constitutionnelle, du Tarif des Frais de Justice, de la Loi sur le Sucrâti; d’un Choix des autres Lois, Décrets, Ordonnances, formant le Complément de la Legislation civile, commerciale, et criminelle, et d’une Table des rapports de la Legislation Ecclésiastique, Paris, 1829.

Though this title speaks of the Six Codes, the five first given are of course considered as constituting one whole.

Having given, in the preceding paragraph, the general history of the Five Codes, we shall offer here a brief outline of the particular history of the Code Napoleon, or, as it is now called, Code civil. One of the first labours of Bonaparte, when consul, was, to give France a code. By a consular decree, dated 4th of Thermidor, year 8 (Aug. 15, 1800), a committee was instituted "to compare the order which had hitherto prevailed in the preparation and arrangement of a civil code, for a civil code hitherto published, to determine the plan which the committee shall think best to adopt, and to discuss the chief principles of civil legislation." Portail, Tronchet, Bigot-Premenon, Maléville, and the minister of justice, formed this committee. Portail, Maléville, and the present text, were the "pays du droit civil." See the preceding paragraph. In the following year, 1801, these commissioners reported a draft of a civil code, which was, in the first instance, submitted to the court of cassation (of errors; see Cassation, Court of) and the various courts of appeal. With a view of improving the draft, the new code was extensively produced. The Code civil was called by the renown, Code Napoleon. It was divided into 2281 paragraphs, which are numbered, and consist of a few lines each. The work is divided into three books (livres); each book into a certain number of titles; each title is comprised in one or more chapters. A preliminary title, "On the Publication, Effects, and Application of the Law in General," precedes the whole. The first book is entitled "Of Persons," and, in eleven titles, treats, 1. of the enjoyment and privacy of civil rights; 2. of civil acts, such as the registry of births, marriages, and deaths; 3. of domicile; 4. of absentee; 5. of marriages; 6. of divorce; 7. of the relations of father and son; 8. of adoption and officious guardianship; 9. of the paternal power; 10. of minority, guardianship, and emancipation; 11. of majority, of guardianship of persons of age (interdiction) and judicial council. The second book is entitled "Of Property and the different Modifications of Ownership," and in four titles, treats, 1. of the distinction of property into real and personal (immeubles et meubles); 2. of ownership; 3. of usufruct, of use and habitation; 4. of servitudes and titles and rights of use (propriéte). The third book is entitled "Of the different Modes of acquiring Property," and, in twenty titles, treats, 1. of successions; 2. of donations inter vivos and testaments; 3. of contracts, or conventional obligations in general; 4. of engagements formed without a convention; 5. of the contract of marriage, and the rights of the parties respectively; 6. of sale; 7. of exchange; 8. of the contract of promise; 9. of the convention of loan; 10. of deposit and sequestration; 12. of contracts connected with chance (alcatoires, such as wages and life-rents); 13. of powers of attorney; 14. of becoming security; 15. of transactions; 16. of bodily duress in civil cases; 17. of furnishing security; 18. of mortgages; 19. of taking and setting off by execution; 20. of prescriptions. It would be necessary to give the heads of the chapters also, in order to present a clear view of the code, but our limits do not permit it. The work already quoted, Conference du Code civil, is indispensable to a complete understanding of the code, because it gives the history of each law. It first presents each article in the code, as finally adopted. Next follow the following forms and draughts of each article discussed in the council of state, with the report of the discussions. To this succeed the observations made in the section of the chamber of the decrees. From this work, how active a part Napoleon took in the formation of the code, as his remarks are given as well as those of the others, and he was present during almost the whole of the debates. By the conquest of the French, the Code Napoleon was introduced into Holland, the kingdom of Westphalia, the kingdom of Italy, of Naples and Spain, and the dukedom of Berg. It had much influence, moreover, on the administration of justice in several smaller countries, as Baden; but it has nowhere, out of France, retained the authority of law, since the overthrow of Napoleon. In the courts of the left bank of the Rhine, and in some parts of the kingdom of the Netherlands; in the former, however, the government intends to introduce the Prussian code. In America it has served as a model to the Code of Louisiana and the Code Henri. See Louisiana, Code of, and Christophe.

CODEX; with the ancients, that part of the wood of a tree next to the bark. Before the invention of paper, wooden tablets, covered with wax, which were written on with the stylus, and put together in the shape of a book, were called codex. The word was afterwards rendered, by the Italians, bark paper, and used for writing, to denote a large book. Thus, important works, particularly old manuscripts of poets, historians, &c., which had been preserved, were called codices manuscripti. (See Manuscript.) In like manner, a collection of laws was called codex, with the addition of the name of the sovereign under whom it had been compiled, as Codex Carolinii, Codex Napoleon.

Codex rescriptus (Latin; a re-written codex). This name is given to ancient manuscripts, which, in the middle ages, were used, after the original writing had been in a great measure effaced, for the copying of other works, generally ecclesiastical treaties. Thus the Institutions of Gains, recently discovered by Niebuhr, at Verona, are a codex rescriptus. Some skill is required to read the ancient letters under the others. The Greek name for codex rescriptus is palimpsest (q. v.), now more frequently used. The Holy Scriptures themselves have been sometimes effaced, to make way for homilies and legends. One of the earliest manuscripts of the Bible, described by Wetstein, in his preface to his New Testament, as number 6, is a codex rescriptus.

CODICIL. See Codicil.

CODICIL, in law; a supplement to a will, to
be considered as a part of it, either for the purpose of explaining or altering, or of adding to or subtracting from the testator's former disposition. A codicil may be annexed to a will, either actually or constructively. It may not only be written on the same paper, or allied to or folded up with the will, but may be in a different place, in a different handwriting, or written in a different paper. If intended to effect a devise of lands, it must go through the forms required by the statute of frauds; but, to a will of personal estate, it may be either written or mucronated, provided, in the latter case, it only supplies an omission in the preceding.

CODRUS, son of Melanthus, was the seventeenth and last king of Athens. During his reign, Attica was attacked by the Dorians, and, according to some, by the inhabitants of the Peloponnesus, or the Thracians. The assailants, on inquiring of an oracle what would be the result of their incursion, received for answer that they would be successful if they avoided killing the Athenian king. Codrus, becoming acquainted with this answer, resolved to sacrifice himself for his country. He disguised himself in a peasant's dress, entered the enemy's camp, provoked a quarrel with some deserters from his own city, and was slain. When the Athenians, upon hearing of this, sent a herald to demand the body of their king. The courage of the assailants was so damped, when they became acquainted with the circumstances, that they retired without striking a blow. In honour of their patriotic monarch, the Athenians now abolished the royal dignity, esteeming it no one worthy to be the successor of Codrus. They also used his name as a common term to express a man of distinguished excellence.

COEFFICIENTS, in algebra; figures put before the letters, to indicate how many times the letter is to be multiplied by itself. Thus 4 a signifies \( a^4 \). If the coefficient be indefinite, it is expressed by a letter, as \( b a \).

COEHORN, Menso, baron of; an engineer; born, 1641, near Lewarden, in Friesland. His father, a distinguished officer, early instilled into him an inclination for military science, which he studied thoroughly. In his sixteenth year, he entered the service as captain. He distinguished himself at the siege of Maastricht (1673), and at the battles of Senef, Cassel, St Denis, and Fleurus, mud soon rose to the rank of a colonel. In 1675, not having received the command of a regiment, which had been promised him, he negotiated with Louis for entering into the pay of the French service. The prince of Orange, however, detained his wife and eight children as hostages, and thus obliged him to return, and secured his attachment by acts of favour. In the war of 1689, against France, he again distinguished himself. His defence of fort William, in 1692, which he himself had planned, against the attacks of Vauban, attracted much attention. Both commanders displayed all their talents. Coehorn was finally wounded, and had but 150 men left able to do duty, when he surrendered the fort, June 23, 1692. In 1702, he destroyed the French lines near St Doant. In the same year, he published at Lewarden his new theory of fortification. In 1705, he directed several sieges. In 1704, Marlborough invited him to the Hague, to concert a plan of operations, where he died, March 17, 1704. Coehorn was a man of good principles, and honourable feelings, written of a colonel. The Athenians crushed by an overpowering mass of artillery, and of men, and se-

COFFEE.—Coffee. This shrub (coffee arabica) is from 15 to 20 feet in height. The leaves are four or five inches long, and two broad, smooth, green, glossy on the upper surface; and the flowers, which grow in bunches at the base of the fruit, are white, with pink inside. The berries and fruit are somewhat of an oval shape, about the size of a cherry, and of a dark red colour when ripe. Each of these contains two cells, and each cell a single seed, which is the coffee as we see it before it undergoes the process of roasting.

Coffee is an article of but recent introduction. To the Greeks and Romans it was wholly unknown. It was first introduced into England by a Turkey merchant, named Edwards, in 1652, and his Greek servant, named Pasqua, first opened a coffee-house in London. The first invention of coffee is ascribed to the Persian Zoroaster, and the practice of drinking it, in the 15th century to a mufti or Mohammedan priest, at Aden, on the Red sea, who having found that its use cleared the intellect, was exhilarating, and gently opened the bowels, and at the same time prevented drowsiness, recommended first its use to his dervises, with whom he passed the night in prayer. From Aden it was communicated to Mecca, where first the pilgrims, or Hadjis, and then the rest of the people, adopted it; and from Arabia it passed over to Grand Cairo in Egypt, where, in 1511, its use was prohibited, from a belief that it was intoxicating and inclined to things forbidden by the Alcoran. But the sultan of Constantinople, engaged in a war with the Turks, allowed the coffee to pass along the coast of Syria to Constantinople. Here the dervises attempted to raise a clamour against it, by quoting from the Alcoran that coal is not of the number of things created by God for food. Accordingly, the mufti ordered all the coffee-houses to be shut up, but his successor declares that coffee was not coal, they were again opened. During the war in Candia the coffee-drinkers and news-mongers having made too free with politics, the grand vizier Cuproli suppressed the coffee-houses in Constantinople. However at the present day the Turks indulge in moderate use of coffee. There is a sort of coffee used in Turkey not known in this country, which they call the Sultan's coffee, from being used in the seraglio, and being much less heating, while it at the same time gently relaxes the bowels. This coffee is made from the external drupes or seeds, which is found to be a most palatable and soothing tonic, and is never imported into Europe. The berries alone are known in England, where the liquor, on its first introduction, was called the sirup of Indian mulberries.

The berries are, as well known, roasted over a charcoal fire, in a revolving iron cylinder, previous to being used; they are then ground in a mill. But
in Turkey they are pounded in large marble mortars to an impalpable powder. The Turks, too, never take sugar or cream with their coffee, and use no pains to purify it from the sediment, drinking it very strong and in small quantities frequently during the day and night.

As to the effects of coffee on the human body, it is believed to be slightly astringent and antiseptic, counteracting the fermentation of food in the stomach, whereby it assists digestion, and is powerfully sedative. But in delicate and irritable nervous people, it often occasions watchfulness and trembling. It has even been accused of producing palseys, and should therefore be avoided by such persons as have a tendency to that complaint. Where it agrees, it removes headaches, exhilarates, promotes digestion, and counteracts the effects of opium and narcotics, which is the reason probably that it is so much consumed by the Turks and other oriental nations. It is assuredly one of the best medicines which can be employed in dispelling the fits of periodical asthma. When taken for this purpose, the coffee should be the best kind from Mocha, newly burnt, and made very strong. On the one hand, coffee is much used to be repeated fresh after the interval of the quarter of an hour, and taken without either milk or sugar. This remedy was used for many years by the celebrated Sir John Hoyer, who wrote upon asthma, and was also prescribed commonly by Dr Musgrave of Devonshire. The husk, which produces the strength and strength of coffee, is much used as a remedy, and is sometimes administered with the addition of ice, which is said to increase its virtues.

Great attention is paid to the culture of coffee in Arabia. The trees are raised from seed sown in nurseries, and afterwards planted out in moist and shady situations, on sloping grounds, or at the foot of mountains. Care is taken to conduct little rills of water to the roots of the trees, which, at certain seasons, require to be constantly surrounded with moisture. As soon as the fruit is nearly ripe, the water is turned off, lest the fruit should be rendered too succulent. In places much exposed to the south, the trees are planted in rows, and are shaded from the otherwise too intense heat of the sun, by a branching kind of poplar-tree. When the fruit has attained its maturity, cloths are placed under the trees, and upon these the labourers shake it down. They afterwards spread the berries on mats, and expose them to the sun, which, by the action of the heat and of the rains, which are so common in Arabia, serve to break off by large and heavy rollers of wood or iron. When the coffee has been thus cleared of its husk, it is again dried in the sun, and, lastly, winnowed with a large fan, for the purpose of clearing it from the pieces of husks with which it is intermingled. A pound of coffee is generally more than the produce of one tree; but a tree in great vigour will produce three or four pounds. Before the commencement of the French revolution, the island of St Domingo alone exported more than 70,000,000 of pounds per annum; and, at the present day, such is the fertility of this island, that sufficient coffee is raised to reduce the price of it greatly in the civilised world. Almost all the Mohammedans drink coffee at least twice a day, very hot, and without sugar.

The excellence of coffee depends, in a great measure, on the skill and attention exercised in roasting it. If it be too little roasted, it is devoid of flavour, and, if too much, it becomes acrid, and has an agreeable burnt taste. In Europe, it is usually roasted in a cylindrical tin box, perforated with numerous holes, and fixed upon a spit, which runs lengthwise through the centre, and is turned by a jack, or by the hand. Coffee is used in the form either of an infusion or decoction, of which the former is decidedly preferable, both as regards flavour and strength. Coffee, as very commonly prepared by persons unacquainted with its nature, is a decoction, and is boiled for some time, under a mistaken notion that the strength is not extracted unless it be boiled. But the fact is just the reverse. The first infusion, which produces the flavour and strength of coffee, is dispelled and lost by boiling, and a mucilage is extracted at the same time, which also tends to make it flat and weak. The best modes are, to pour boiling water through the coffee in a biggin or strainer, which is filled just to extract nearly all the strength; or to pour boiling water upon it, and set it upon the fire, not to exceed ten minutes. Prepared in either way, it is fine and strong. There are coffee-machines in which the water is boiled, and the steam penetrates the coffee, and extracts, to a great degree, the strength and aroma. Immediately after, the boiling water is poured over it. Thus the best coffee is made. As we have already said, in Europe, coffee is generally roasted in a cylinder; in Asia, however, open pans or tin plates are used, and, if the time allows, a boy is employed, who picks out every bean, when it has reached the right degree of brownness. The same is done by some French people. The second difference in the Asiatic way of preparing coffee is, that they pound the beans, and do not grind them, much preferring the former mode. In Marseilles, we have seen coffee likewise ground. Whether this is really preferable, we do not venture to say. But this difference has to do with the fact that Asiatic coffee is, on the whole, much better than the European. The difference is probably owing to the different way of roasting. The Turks and Arabs boil the coffee, it is true, but they boil each cup by itself, and only for a moment, so that the effect is, in fact, much the same as that of infusion, and not like that of decoction. They do not separate the coffee itself from the infusion, but leave the whole in the cup. It improves the beverage very much to roast and grind the coffee just before it is used.

The Turks drink coffee at all times of day, present it to visitors both in the morning and afternoon, and the opium-eater lives almost entirely on coffee and opium. Beaumont, in his excellent work on Greece, tells of a theriacophage (an opium-eater), who drank more than sixty cups of coffee in a day, and smoked as many pipes. Coffee has been the favourite beverage of many distinguished men. Napoleon and Frederic the Great drank it freely; Voltaire liked it very strongly; and Leibnitz drank it also during the whole day, but mixed with more than an equal quantity of milk. The best coffee, in the western part of the world, is made in France, where this beverage is in a universal use. In the fact, throughout the continent of Europe, it is generally drunk. In England, however, tea is a more common drink, although cof-
COFFEE—COHESION.

Fee is coming every day into more general use. This will be apparent from the following table, in which the increase in the consumption of coffee in Great Britain within ten years is very striking, having risen from seven million pounds annually, to twenty-two million in 1831. Much of this increase may be attributed to the material reduction on the duty on coffee which took place in 1823. From 1820 to 1824, the rates of duty were on British Plantation coffee 1s per lb.; on East India, 1s 6d., and on Foreign, 2s 6d. From 1825, the rates were reduced to 6d. on British Plantation coffee, 1s 3d. on East India, and 3s on Foreign coffee. By the reduction of duty, as will be seen, the revenue on coffee has been greatly increased.

<table>
<thead>
<tr>
<th>Years</th>
<th>Quantities cleared for Consumption</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Plantation</td>
<td>East India</td>
<td>Foreign</td>
</tr>
<tr>
<td>1820</td>
<td>6,916,623</td>
<td>268,945</td>
</tr>
<tr>
<td>1821</td>
<td>7,439,156</td>
<td>171,717</td>
</tr>
<tr>
<td>1822</td>
<td>8,734,007</td>
<td>233,329</td>
</tr>
<tr>
<td>1823</td>
<td>9,794,090</td>
<td>313,313</td>
</tr>
<tr>
<td>1824</td>
<td>10,155,435</td>
<td>317,749</td>
</tr>
<tr>
<td>1825</td>
<td>10,629,065</td>
<td>791,591</td>
</tr>
<tr>
<td>1826</td>
<td>14,440,063</td>
<td>603,198</td>
</tr>
<tr>
<td>1827</td>
<td>15,109,059</td>
<td>913,459</td>
</tr>
<tr>
<td>1828</td>
<td>16,006,099</td>
<td>913,576</td>
</tr>
<tr>
<td>1829</td>
<td>17,025,185</td>
<td>1,053,965</td>
</tr>
<tr>
<td>1830</td>
<td>17,084,496</td>
<td>1,324,751</td>
</tr>
</tbody>
</table>

In England and the United States of America, coffee, almost always, is badly made. The coffee-houses in France, it is well known, are places which afford great opportunity for interesting conversation. In the south of France, they are still more frequented than in the north. The different cafes of the palais royal in Paris are famous: the cafe des veillees is one of the most splendid. The cafe des la paix contains a small theatre. In the cafe des avesnies, every evening, blind men and women of the hospice des quinquages sing play and sing. Those coffee-houses, in France, where smoking is allowed, are called estaminets, which is also the name of the beer-houses in Holland. One of the greatest attractions in French coffee-houses is the imamodiere, a woman who sits in an elevated seat, to attend to the sale of the refreshments. She is generally very pretty, and is dressed with much taste. With genuine French tact, she repulses all improper freedoms. The coffee-houses in London are poor. In the East, the coffee-houses, or rather booths, form a very essential part of the social system; all men of leisure assembling there. In these places are also to be found the famous story-tellers, who repeat long tales to attentive hearers, who show their interest by exclamations of 'God save him! Allah deprive him of his eyes!' &c., or utter warning cries to alarm the hero when danger awaits him. It often happens, that the story is broken off, and continued the next day. There is a highly interesting manuscript in the royal library at Paris, in Arabic, entitled the Support of Innocence. It relates to the lawfulness of using coffee. The author is Aljedri Alhambali. Of this De Sacy gives an account, and extracts from his Chrestomathie Arabe (vol. 1., p. 411). It appears that a question arose, whether coffee was to be included among the intoxicating beverages which the Koran prohibits; and the manuscript proves that it is not. There are many other interesting matters in these extracts. The shikh, the writer of the manuscript, states that the use of coffee was first introduced by a famous skiekh, in Iraq, and scholars of Arabia Felix, called Dhabani, about the year 870 of the Hegira. In Egypt, the drinking of coffee seems to have been at first regarded almost as a religious ceremony. The devotees, who introduced it there, assembled for the purpose of enjoying it on Monday and Friday evenings, when it was handed round with great solemnity, accompanied with many prayers, and ever and anon with exclamations of 'There is no God but God, and Mohammed is his prophet.' In the manuscript above cited, two different methods of making coffee, one called buniyah, in which the grain and husk are used together, and another called kiha-riya, in which the husk is used alone. Many sermons against coffee-drinking are extant, written at the time when it was introduced into Europe; as there are also many sermons against smoking. We recollect having read the following passage in an old sermon:—"They cannot wait until the smoke of the infernal regions surrounds them, but encompass themselves with smoke of their own accord, and drink a poison which God made black, that it might bear the devil's colour."

COFFIN. Coffins were used by the ancients only to receive the bodies of persons of the highest distinction. Even at the present time, they are not used in the East, either by Mohammedans or Christians. The Jews do not use coffins, but only two boards, between which the corpse is tied. But in Egypt, coffins seem to have been used in ancient times universally. They were of stone, wood, or a kind of paste-board made by gluing cloth together. Coffins among Christians were probably introduced with the custom of burying. See Burying-Grounds. It has been often proposed that they should be made with a hole opposite the mouth of the body, so as to allow breathing, in case of revival. Of course, it would be necessary, at the same time, to let the coffin stand for some days in a convenient place, as is the custom in many parts of Germany. Coffins are made in the factory of MORTA, a manufacturer in London; 97 B. W. ; Int. 19° 45' N. It is 13,414 feet above the level of the gulf of Mexico. The Mexican name of this mountain is Nahoomcopetl; the English, the Four parts or the Square mountain. It is evident that the mountain has been a volcano, and is formed of basaltic porphyry.

COGNATES; the relations of the mother's side. COHESION is that force which preserves in union particles of a similar kind. Its action is seen in a solid mass of matter, the parts of which cohere with a certain force which resists any mechanical action that would tend to separate them. In different bodies, it is of different degree; the cohesion of silver is measured by the force necessary to pull them asunder. According to Sickingen, the relative cohesive strength of the metals is as follows:

- Gold: 159,955
- Silver: 109,711
- Platinum: 202,361
- Copper: 304,927
- Tin: 302,927
- Hard iron: 559,090

Cohesion in liquids is very much weaker, the parts being disjoined with much more facility; and in substances existing in the aerial form, it is entirely overcome, the particles, instead of attracting, repelling each other.

Cohesion in bodies is weakened or overcome by two general causes—by the repulsion communicated by calorie, or by the attraction of aggregation or cohesion which may be exerted by the particles of one body on those of another.

Caloric communicated to a solid body separates its particles to greater distances, as is evident from the enlargement of volume which it produces. By thus increasing the distances, the force with which the attraction of aggregation or cohesion is exerted is diminished; it cannot be carried to a sufficient extent, the cohesion is so far weakened, that the body passes into the liquid form; and, if carried still farther, the attractive force is entirely overcome, requil-
COHESION.

301

tion is established between the particles, and the body passes into the aeriform state. The same effects are produced by the exertion of that attraction which unites the particles of one body with those of another. If a liquid be poured upon a solid, it often impinges with its surface as if its attraction is sufficiently powerful to overcome the cohesion of the solid; its particles are consequently disunited, to combine with those of the liquid, and it entirely disappears. This forms the chemical process of solution. A similar effect is sometimes produced by the chemical action of the air upon the body. When these powers, whether of heat or of chemical attraction, are withdrawn, cohesion resumes its force, but with results which are different, according to the circumstances under which this happens.

When the attraction of aggregation is suddenly and forcibly exerted, the particles are united, in general, indiscriminately, and according to no regular law. If a body, which has been melted, is suddenly cooled to a sufficient extent, it becomes solid, and forms a mass of no regular structure or figure; or, if its cohesion has been suspended by the chemical attraction exerted by the air, and renewed by cooling it, and if this attraction suddenly cease to operate, the force of cohesion is resumed, and the solid substance appears in the form of a powder. This latter case forms the chemical operation denominated precipitation. But, if the force of cohesion is exerted more slowly, the particles are united, not indiscriminately, but regularly with regularity, so as to form masses of regular structure and figure, bounded by plane surfaces and determinate angles. This forms the operation of crystallization; and such masses are denominated crystals.

Crystallization takes place from fluidity, produced either by heat or by the exertion of a chemical attraction. Ice is an example of the first, which shoots out in long, slender crystals, when water is cooled to a sufficient extent; and salts, which, when they have been dissolved in water, separate in crystals, on withdrawing a part of their water by evaporation, or reducing its solvent power by a diminution of its temperature, is an example of crystallization from fluidity, produced by affinity. In either of these cases, if the operation is conducted slowly, so as to admit of the particles uniting by those faces most disposed to union, crystals are formed; and these are, in general, larger, more transparent, and more regular in their form, the slower the crystallization has taken place. But the variety of these forms is increased by the introduction of an already formed crystal, or of some foreign substance, into the solution, which operates as a nucleus, and upon which the crystallization commences. The access of air and light exerts an important influence, also, on the crystallization of certain salts. An enlargement of volume is often produced by crystallization, as in the examples of ice, of several metals, and of a number of salts; while, in other cases, the reverse is the fact, the volume of the crystallized substance being less than while it existed in the liquid state—differences evidently depending on the mode in which the particles unite. Crystals formed from a watery solution generally retain a portion of water in a combined state, and this is the case not only with those salts which are formed by the chemist, and in the arts, but with nearly all of the earthy and saline crystals found in nature. The water is named that water which escapes crystallization. When deprived of it, they lose their transparency and density. Some part with it from mere exposure to the air, and suffer these changes; they are then said to effloresce. If they attract water and become humid, they are said to deliquesce. In some salts, the water of crystallization is in such large quantity, that, on the application of a moderate heat, it causes them to melt—a change called the watery fusion. Water, which has dissolved one salt to the point of saturation, will still take up a considerable proportion of a second, and even of a third. Sea-water contains several well-known saline compounds. In such mixtures of the salts have different degrees of solubility, they may often be obtained separately, by a gradual evaporation of the water, the last soluble being the first to separate. The water of the ocean, evaporated to a certain degree, yields common salt; evaporated still further, it depositsramer's salts, and the more saline, water holds dissolved a compound containing magnesia. Crystallization also takes place in the transition from the aerial form, as is well exemplified in the arrangement of a flake of snow. Every substance in crystallizing is disposed to assume a certain regular figure: sea-salt, for example, takes the form of the cube; nitre, that of a prism.

Carbonate of lime is found crystallized in rhomboids, a particular class of prisms and pyramids; and garnet in regular dodecahedrons. The important application, therefore, of this law becomes at once obvious. The form of the crystal, in mineralogy, enables us to determine the mineral of which it is composed; this is true of pharmaceutical preparations; their crystalline forms furnish a certain test of the nature of the crystallized body.

The theory of crystallization is still obscure. It may be conceived that the particles of bodies are of certain regular figures, and that in uniting, they may be disposed to approach by certain sides, in preference to others, probably by those which admit of the most extensive contact. Hence a regular structure and figure, uniform with regard to each substance, will be produced. The numerous diversified figures of crystals may be reduced to others more simple; thus the equilateral, six-sided prism, and the double six-sided pyramid of calc-spar, or carbonate of lime, may be reduced by successive sections (parallel to natural joints in these crystals) to the rhomboid. The figure thus arrived at by mechanical division, and which is supposed to constitute the nucleus of the crystal, is called the primitive form. The number of original forms thus obtained, according to M. Hauy, amounts to six: 1. the regular tetrahedron; 2. the parallelepipedon, which includes the cube, the rhomboid, and all the solids, which have six faces parallel, two and two; 3. the octahedron, the surfaces of which are triangles, and, according to their species, cubic, rhombohedral, isometric, rhombic, or, in general, the hexagonal prism; 5. the dodecahedron with rhombic faces; 6. the dodecahedron, with triangular faces. The secondary forms of crystals, or such as are usually exhibited by nature, are supposed to grow out of the primitive forms in the following manner:—The particles first unite to produce the primitive form, and from this proceeds the secondary form by the application of successive layers of particles parallel to its faces; which layers are denominated laminae of superposition. The modification of figure is the consequence of the abstraction of one, two, or more rows, or ranges of particles, from the planes or angles of each of these laminae, by which a decreasing series of particles will be formed. Thus, supposing that upon one side of a cube successive layers of cubic particles be placed, and each layer be less, by one range of particles, than the one upon which it rests, it is obvious that the lines which bound the sides must be continually approaching each other, and that the last layer must consist of a single cube. It follows, then, that a four-sided pyramid will be raised upon one of the surfaces of the cube; and that, if the same thing happen upon the five other sides, the cube must be converted into a dodecahedron, with rhombic
faces. The last figure is then secondary. Its formation has generally been quoted to illustrate the law of decrement, as it has been termed, and it is easy to represent it, although coarsely, by models. "But if," said the author of this kind of reasoning, "we have the advantage of speaking to the eyes, we substitute the infinitely delicate architecture of nature, it will be necessary to conceive the nucleus as consisting of an incomparably greater number of imperceptible molecules, and then the number of laminae of superposition being itself, comparatively augmented, while their thickness has become imperceptible, the channel which these laminae form at their edges will likewise escape our senses." Hence the surfaces of crystals appear to us planes.

The facts which have been discovered, relative to the laws of decrement, are sufficient to prove that an immense variety of crystals may be made to grow out of the combinations of the particles producing the primitive forms, for the decrements may take place on the edges, or parallel with the faces of the primitive forms, on the angles, in which the lines are parallel with the diagonals of the faces, in lines parallel with the faces of the primary forms, or in any mode which combines, more or less, the decrements already mentioned, and which, therefore, said to be mixed. These primary decrements may be so modified, as that they shall take place on certain edges or certain faces, or that they shall combine the diagonal and faces, or from one edge, or one angle to another; or, at the same time, on all the edges and all the angles, &c. Nevertheless, such is the fecundity allied to this simplicity, that, when limited to ordinary decrements, and to form ranges on the edges and the angles of a rhomboid, it may be demonstrated, that this species of nucleus is susceptible of producing 8,388,640 varieties of distinct forms.

COHORT. See Lession.

COIMBETORE, or COIMBOETOR; a province of Hindostan, in Mysore, and southern part of the dominions of Tippoo Sultan. The country is separated from the country of Travancore, Cochin, and the Nayas, by lofty mountains called the Western Ghauts; a continuation of which also bounds it on the north. On the east it is bounded by the Carnatic, and south by Dindigul; and it is divided into north and south, by its first river, producing sugar, cotton, rice, and betel leaf; and well watered by several rivers. The principal towns are Coimbetore, Erroad and Carroor. In 1799, on the death of Tippoo, and the division of his territories, Coimbetore was ceded to the East India company.

Chimboré, a town of Hindostan, and capital of the province to which it gives name; situated at the foot of the Western Ghauts, on the river Noel; ninety miles S. Seringapatam, 222 S. W. Madrass; lon. 77° 7' E.; lat. 10° 58' N.; population, 12,000; houses, 2,000. This city formerly contained upwards of 40,000 inhabitants; but it suffered much by the wars of the British and the Mysore sovereigns. It is now recovering. The exports are tobacco, cotton, thread, cloth, sugar, betel, &c.

COIMBRA (anciently Coimbriga Coinbrica); a city of Portugal, capital of the province of Beira, situated on a mountain, near the river Mondego, ninety miles N. N. E. Lisbon; lon. 18° 27' W.; lat. 40° 13' N.; the population was lately given at 15,500; but the disturbances in Portugal have, according to recent accounts, reduced the number much. It is a bishop's see, and seat of the inquisition. It contains a cathedral, seven churches, an hospital and a university. It was built by the Romans, about 300 B. C. The university was originally founded in A. D. 1291, at Lisbon, but was transf. d hither in A. D. 1308, and is now the only one in Portugal. It consists of eighteen colleges with ample funds. The course of study here is divided into six branches, viz. theology, taught by eight professors; canon law, by nine; civil law, by eighteen professors, by six; mathematics, by four; and philosophy, by four. The number of students in 1804, was 1,431, and in 1817, about 1,400. To the university belong a botanical garden and a library of 40,000 volumes. The adequate on twenty archs, is remarkable. The environs of Coimbra present very singular objects. The inhabitants manufacture linen, pottery, earthenware, articles of horn, and wooden toothpicks.

COINAGE, is the art of converting pieces of metal into current coins, for the purposes of commerce. The metals to be coined, having been first melted, are reduced into plates of the requisite thickness, by being passed repeatedly between the steel cylinders of laminating and drawing machines. These thin plates are then subjected to the action of a cutting out press, by means of which they are divided into circular pieces, nearly of the size of the intended coin, in which state they are called blanks. These blanks are then cut into rings, or the edges of each individual piece is adjusted to its standard weight. The pieces which are too light, are selected to be again melted; and those which are too heavy, are subjected to the action of a rasp or file. The pieces thus adjusted, being in a state of great hardness, from compression, by the rolling process, by which all their latent heat had been squeezed out, are again subjected to the action of a cold red heat in a reverberatory furnace, after which they are boiled in very weak sulphuric acid, which makes them perfectly clean. After having been dried either in a warm saw dust, or over a very slow fire, they are in a state for the two succeeding processes of milling and stamping. The operation of milling is performed round the edge to prevent their being clipped or filed. The principal pieces of this machine, are two thin steel plates, about a line or the eighth of an inch thick, one-half of the milling or legend, or of the ring, is engraved on the thickness of one of these laminae, and the other half on the other, and these two plates are straight, although the blank or coin to be marked by them is circular. The blanks (or planchetts as they are also called) are put in between these lames in the size of the edge of the thick plate, which is fastened upon a very thick wooden table, and the planchet being likewise laid flat upon the same plate, the edge of the planchet may touch the two laminae on each side, and in their thick part. One of these laminae is immovable, and fastened by means of several screws, the other is made to slide by means of an indented wheel, which is made to receive the teeth that are upon the surface of the steel lamina. This sliding plate makes the circular piece of metal turn round in such a manner, that it remains stamped on the edge, when it has made one turn. Only crowned, and half-crowned pieces can bear the impression of letters on the thickness of their edges.

The coining engine, or mill, is so constructed, that one workman may stamp 20,000 coins in a single day. Gold, silver, and copper planchetts, are all of them coined in a mill, into which the coining squares, or dies as they are called, are fastened. That of the face underneath in a square box, garnished with male and female screws, to fix and keep it steady; and the other above, in a little box furnished with similar screws to fasten the coining square. The planchet is laid flat on the square of the engine, which is pulled by its cords, causes the screws set within it to turn. This enters into the female screw, which is in
Edward I. first debased the pound sterling, by coining it into twenty shillings and threepence. Edward III. by three several reductions, brought it to twenty-five shillings in tale; Henry IV. reduced it to thirty; Edward V. to thirty-seven and sixpence; Henry V. to 32s. 2d. In the 18th century, the process has been passing over the changes which happened between this and the second of Elizabeth, she, by two reductions, brought the Tower pound to 58s. 1d., or the pound Troy to 32 shillings, at which it still remains. Other operations of the same kind have since been in agitation at different periods; James I. had taken measures for a new reduction, by giving it up, chiefly by the sage counsels of Lord Bacon. The speech of Sir Robert Cotton to the same purpose, in the reign of Charles I., and its salutary effects, are well known; and Mr Locke had the honour of crushing the last attempt of this nature, which has been made with any prospect of success, by his celebrated treatise on the value of money.

The debasements of the gold coin have been made both by a diminution of their weight, and an increase of their denomination, but principally in the latter way. These operations were made, not only with reference to the proportion of them to the value of the silver currency during its successive changes, both real and nominal. The adjustment was made in the former way, at the two last debasements of silver, in Edward III.'s reign, and at the debasement of Henry IV. In the subsequent debasements it was by the former method; but when the nominal value of the current gold was raised, the sovereign generally found it expedient to issue new gold coins of the former nominal value. Thus, when Edward IV. debased his silver, he raised the gold noble from 6s. 8d. to 8s. 4d.; but he soon after coined anges-lets, or dikes, of 6s. 8d., the old value of the noble, and anges-lots equal to the former half nobles; and when Henry VIII. first raised the angelf from 6s. 8d. to 7s. 6d., he coined george-nobles of 6s. 8d. When the last reduction of the silver took place in Elizabeth's reign, she fixed the rate of gold to silver in coins of the old standard, at 10½ to 1, and in those of the new (or of crown gold) at 10½ to 1. Since that period, the changes in the gold coin have only been calculated to keep pace with the gradual alterations in the relative real values of the two precious metals. It is remarkable that no less than four different systems have come into existence, for the adjustment of the coinage till the beginning of James I. s reign, although America had been discovered above a century, and even the richest of the silver mines, those of Potosi, upwards of fifty years; nay, Elizabeth, about the beginning of the seventeen century, valued the gold at a lower rate, in proportion to the silver, than Edward III. had done; yet it is well known that the average silver price of wheat, during the last half of the sixteenth century, was nearly five times its silver price during the first half. (See the digression concerning the value of silver in the former part of this book, particularly the tables at the end of Book I. chap. 13.) We have already seen that we should expect to find the whole gold coin exported, therefore, during this period, in consequence of the mint prices of the two metals being so much nearer each other than their market prices. But although no great exportation of gold seems to have been the result of this discrepancy, soon after James s accession, he was found necessary to raise the mint price of gold; and, by three several operations, that prince brought the proportion between gold and silver to 13½ to 1, in coins of the old standard, and 13½ to 1, in those of the new; and the whole rise, during the year of his accession, from the union of the crowns, was 32½ per cent. But notwithstanding the great depreciation of silver, from

the body of the mill, and turns it with so much force, that by depressing the upper square upon that of the effigy, the plainchet lying between both, being suddenly and violently compressed, receives both the impressions in the twinkling of an eye.

The face of the medal is very curious. An original design is engraved upon a piece of soft cast steel of the size of the money to be coined. The table of the die must be perfectly level or square. The impression is cut into the steel, and its depth is in proportion to the relief, ultimately required upon the face of the coin. When the engraving is finished, the die is then hardened. This is a very nice process, and requires considerable care to perform it. The die is put into a cast iron pot, completely embedded in animal charcoal, chained from leather. The pot is placed in an air furnace, in which coke or charcoal is burned, which gives a steady and uniform degree of heat. The die having endured its proper degree of heat, is withdrawn from the furnace, and plunged into a large cistern of cold water, into which a stream is constantly kept flowing. If the steel, as sometimes happens, is faulty, or heated to excess, it will fly in pieces, and the artist's labour be lost. If perfect, however, it is now placed in the multiplying die-press. An impression is thus taken from the hardened die upon a blank die of cast steel, similar to the mode of impressing the money. The blank die is fixed to the lower die of the coining press, and by working the screw of the press, which has very long and heavily loaded arms, the matrix is made to strike the blank die with great force, and bring its impression in raised relief upon its surface. The hardness following this violent compression of the steel is so great, that a proper impression of the matrix cannot be taken from it, without softening and softening the die perhaps two or three times, which is done in iron pots, as in the case of hardening, but without cooling them so hastily. An impression taken this way is called a punch-press die. When the die sinker has given all the more delicate lines of the original to it, it is then hardened in the same manner as its original, and in its turn employed to give impressions to blank dies by a similar process, the impression being sunk into the dies, which again being used for coinage, gives the impression in raised relief to the money.

This important department of the mint is under the superintendence of the clerk of the irons, who never suffers the multiplying press to be used but in his presence. He has also the care of all the dies, and must account to the Board of Management for all matrices, punch-presses, and dies made and destroyed in the mint.

Silver coins were, till nearly two centuries after the conquest, the only money of British manufacture. Henry III., towards the end of his reign, coined a few gold pieces, which were so little circulated, that, until an accident brought the fact to light in the year 1749, the proceeding III. had almost been supposed the first of our kings who made gold money. At the conquest, the pound sterling was equal to a Tower pound of silver of the old standard, and it continued of this weight till the 28th of Edward I. It was divided into twenty shillings, and each shilling into twelve pence, of the weight of twenty-four grains each. Nothing, therefore, could have been more simple or convenient in every respect than this system of coinage, which subsisted unaltered for two centuries, and till several years after a second metal had been introduced into the circulation.

The Tower or Rochelle pound, used in our mint until 18th Henry VIII., was three-fourths of an ounce less than the pound Troy. Since that year the pound Troy has been used.
the middle of the sixteenth to the middle of the seventeenth century, the silver price of gold seems to have risen with a very unaccountable slowness. The first reduction in the weight of the gold coin which James I. made, was found sufficient to create an unmingled mixture of the two metals; and thus, that currency for several years; yet it amounted to no more than 10 per cent. of rise in the mint price of that metal. This indeed, was in some years more, found to be insufficient; and in the ninth year of his reign, he augmented the mint price 10 per cent. further, by raising the nominal value. New silver coin was then presented to the market, and this measure, being adopted, than it was found that the rise was much too great; the silver coin began to disappear, and continued diminishing rapidly for many years, to the great discredit of the government, as we find by various proclamations against the manufacture of plate, and the exportation of bullion, 'in respect of the excess of foreigne commodities, which is a thing in itself intolerable.' Yet the price of silver was all this time continuing to fall, and did not, in fact, reach its lowest point before the year 1640 or 1650. It was not till this last period, or about the time of the Commonwealth, that the three penny shilling was framed, and the ratio was fixed to counteract the effects of the too great rise in the mint price of gold, effected by the two operations of James, and by another reduction which he very in-judiciously made at the time when silver was most quickly disappearing. After this, the market silver price of gold continued to rise, so that Charles II. once more reduced the weight of the gold coin; the guinea was issued at 20 shillings value, but it became current at a higher rate, and was allowed to vary with the relative market prices of the two metals. The silver coin, during the remaining part of the century, suffered extremely from clipping; and at last the devil rose to such a height, that the guinea passed for 30 shillings; all commodities became dear in proportion; and silver bullion was exported to buy gold. The recoinage was now undertaken at a great expense; and during the interval, the people became more accustomed to gold than to silver coins, which were besides disliked in general on account of their late degradation. Guineas were at the same time prohibited from passing for more than 22 shillings; they soon fell to 21s. 6d.; but this was still higher than the market price of gold bullion, and the new silver coins were accordingly exported; so that in 1717, the government was forced to consider the question of the matter to Sir Isaac Newton, he was of opinion that, in a short time, the payments of silver would not be made without a premium. In pursuance of this great man's advice, the nominal value of the guinea was reduced to 21s., and it was fixed at this rate as legal tender.

The violent changes which took place in the monetary system during the interval between the 34th Henry VIII. and the 6th Edward VI., were of a different description from those hitherto under consideration. They consisted in alterations of the standard. By three several degradations, Henry VIII. reduced the standard of silver from 11 oz. 2 dwt. and 18 grs. alloy, to 4 oz. and 8 oz. alloy; and Edward VI. brought it down to 3 oz. and 9 oz. alloy; so that the pound of old standard silver was now coined into £25 6s. 4d. Nor was any regard paid to the relative values of gold and silver during these alterations the proportion in 36th Henry VIII. was 5:7:1; in 3d Edward VI. it was 5:1:1; and in the times of Edward VI. it was only 24:1:1. So that enormous profits, sometimes above 350 per cent., were made by melting and exporting the gold coin; and accordingly it all disappeared from circulation in a very short time.

For this evil a reform of the coin was the only remedy; and it was undertaken at the end of Edward's reign, upon very judicious principles, and to the fullest extent. He left this salutary change nearly completed; and Elizabeth, by putting the last hand to so great a work, and often happens in such cases, the glory of the whole enterprise. Indeed, there is nothing really admirable in the general policy of this renowned princess with respect to the coinage. If she finished the reform of her brother, she departed from some of his wisest principles; and, indeed, by the standard of finesness she reduced the weight of the currency, by several operations, and was only prevented from executing still greater changes, by the firmness and sagacity of Burleigh. The issue of base coin in Ireland during Tyrone's rebellion, is a measure scarcely to be paralleled in the history of public frauds. If we except the extravagant imitation by James II. it stands unmatched in the annals of the coinage. The inefficiency of the plan was remarkable. The Irish were ready for every species of submission after the defeat of the insurrection; but the base coin was universally rejected, and would not pass, even at its real value. See Paulet Hibernia, and British Coins and Coinage, 2d. The coinage of James II. after the revolution in England, forced a copper and pewter coinage upon the Irish, at the rate of above 660 times its intrinsic value.

Coins. The following table of the relative value of the different species of coin is taken from the Companion to the British Antiquaries 1823. The American value in dollars and cents is here given, in addition to the value in English currency, given in the Almanac. The subject is one which does not admit of perfect accuracy, but we believe the estimates are sufficiently correct for all the purposes for which such a table can be used. The rates used in the custom-houses of the United States for some of the most important monies of account mentioned, are as follows, being somewhat different from the value assigned to them in the table:

<table>
<thead>
<tr>
<th>Coin</th>
<th>£d.</th>
<th>ct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>English pound sterling</td>
<td>4</td>
<td>44</td>
</tr>
<tr>
<td>shilling sterling</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>penny sterling</td>
<td>0</td>
<td>01</td>
</tr>
<tr>
<td>France—franc</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>Holland—or the Netherlands</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>guilder or gulder</td>
<td>0</td>
<td>92</td>
</tr>
</tbody>
</table>

The method of obtaining the results in the table below (we use the words of the Companion) is founded upon the same principles as in the table of Silver. The value is that of pure gold or silver which it contains: the rest is alloy. Thus, if we suppose a coin to contain a thousand parts of metal, of which 917 are pure gold or silver, the 83 remaining parts being alloy, the 917 represent the standard, or relative purity of the coin. Suppose we wish to know what is the value, in English money, of the Russian imperial 10 rubles: the weight is 13-073 gram., the standard at 917; deducting the alloy, that is, 1-08 gram., there remain, in pure gold, 11-958 grammes. The English sovereign weighs 7-9505 gram., the standard is at 917, the alloy, consequently, 0-062 gram., and the weight of pure gold contained in it, 7-8184 gram. Now, by the rule of three, the question will thus be resolved: 7-318 gram. : 11-958 gram. :: 20 shillings :: £1 12s. bd. By this method, we can ascertain the relative value of all coins; but sometimes the value thus determined will not exactly agree with the sum allowed in exchange. This difference arises from political causes and commercial vicissitudes. This fall and rise, in the relative value of money, principally takes place wherever there is a paper currency.—A report of the director of the United States' mint, in 1827, gives the weight, value and
The silver coins of late emissions are of less value than the older ones:

<table>
<thead>
<tr>
<th>Weight</th>
<th>Pure silver, value of face, grain</th>
<th>Gold.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 g</td>
<td>5.09</td>
<td>1.00</td>
<td>0.99</td>
<td>0.99</td>
</tr>
<tr>
<td>20 g</td>
<td>6.79</td>
<td>1.33</td>
<td>1.32</td>
<td>1.32</td>
</tr>
</tbody>
</table>

A General Table of the Gold and Silver Coins of different Countries, giving their National Denominations and Value. Weight in Dwt. and Grammes. Denomination of Parts of Pure Metal which they contain, and their Value in English Money and Dollars and Cents.

1. United States of America.

<table>
<thead>
<tr>
<th>Gold</th>
<th>Pure gold, value of face, grain</th>
<th>Gold.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 g</td>
<td>3.91</td>
<td>0.80</td>
<td>0.79</td>
<td>0.79</td>
</tr>
</tbody>
</table>

2. Austria and Bohemia.

<table>
<thead>
<tr>
<th>Gold</th>
<th>Pure gold, value of face, grain</th>
<th>Gold.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 g</td>
<td>2.41</td>
<td>0.50</td>
<td>0.49</td>
<td>0.49</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Gold</th>
<th>Pure gold, value of face, grain</th>
<th>Gold.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 g</td>
<td>2.24</td>
<td>0.45</td>
<td>0.44</td>
<td>0.44</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Gold</th>
<th>Pure gold, value of face, grain</th>
<th>Gold.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 g</td>
<td>3.05</td>
<td>0.63</td>
<td>0.62</td>
<td>0.62</td>
</tr>
</tbody>
</table>

5. Denmark.

<table>
<thead>
<tr>
<th>Gold</th>
<th>Pure gold, value of face, grain</th>
<th>Gold.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 g</td>
<td>3.69</td>
<td>0.75</td>
<td>0.74</td>
<td>0.74</td>
</tr>
</tbody>
</table>

6. France.

<table>
<thead>
<tr>
<th>Gold</th>
<th>Pure gold, value of face, grain</th>
<th>Gold.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 g</td>
<td>4.45</td>
<td>0.95</td>
<td>0.94</td>
<td>0.94</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Silver</th>
<th>Pure silver, value of face, grain</th>
<th>Silver.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 g</td>
<td>2.70</td>
<td>0.55</td>
<td>0.54</td>
<td>0.54</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gold</th>
<th>Pure gold, value of face, grain</th>
<th>Gold.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 g</td>
<td>4.64</td>
<td>0.95</td>
<td>0.94</td>
<td>0.94</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Silver</th>
<th>Pure silver, value of face, grain</th>
<th>Silver.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 g</td>
<td>4.64</td>
<td>0.95</td>
<td>0.94</td>
<td>0.94</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gold</th>
<th>Pure gold, value of face, grain</th>
<th>Gold.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 g</td>
<td>5.57</td>
<td>1.12</td>
<td>1.11</td>
<td>1.11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Silver</th>
<th>Pure silver, value of face, grain</th>
<th>Silver.</th>
<th>Fine actual value of face, grain</th>
<th>Current value of face at American banks in dollars and cents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 g</td>
<td>5.57</td>
<td>1.12</td>
<td>1.11</td>
<td>1.11</td>
</tr>
</tbody>
</table>

The money unit in France, is the franc, which, according to the decimal system, is divided into 100 parts, called centimes. In government accounts and legal deeds, all sums must be expressed in francs and centimes; but amongst the people, and in the purchase of goods sold by retail, and in small quantity, the denomination of sous is still in use. This practice does not create confusion, because the son is a multiple of the centime,—that is, there are 20 sous to the franc, and each centime 5 centimes. The two sous piece may also be called décime, or tenth of a franc. Although the franc and the livre tournois now appear to be of equal value, there is, however, a slight difference in favour of the franc:—100 fr. = 101 livres 5 sous. Hence, if an individual had to discharge a debt contracted previously to the year XVII. of the republic, and stipulated in livres tournois, he would be entitled, in making his payment in...
### 11. MOOGL (EAST INDIES).

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crown</td>
<td>0.108</td>
</tr>
<tr>
<td>Half-crown</td>
<td>0.104</td>
</tr>
<tr>
<td>Fourpence</td>
<td>0.068</td>
</tr>
<tr>
<td>Farthing</td>
<td>0.028</td>
</tr>
</tbody>
</table>

### 12. NAPLES.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>New piece of 3 ducats</td>
<td>0.108</td>
</tr>
<tr>
<td>19th century</td>
<td>0.087</td>
</tr>
<tr>
<td>18th century</td>
<td>0.085</td>
</tr>
<tr>
<td>16th century</td>
<td>0.083</td>
</tr>
</tbody>
</table>

### 13. PAPAL STATES.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plata of Pius VI and VII</td>
<td>0.083</td>
</tr>
<tr>
<td>Half-plata</td>
<td>0.081</td>
</tr>
<tr>
<td>Plata of Pius IV</td>
<td>0.082</td>
</tr>
<tr>
<td>Plata of Pius III</td>
<td>0.084</td>
</tr>
<tr>
<td>Plata of Pius II</td>
<td>0.085</td>
</tr>
<tr>
<td>Plata of Pius I</td>
<td>0.086</td>
</tr>
</tbody>
</table>

### 14. PARMA.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decunio</td>
<td>0.112</td>
</tr>
<tr>
<td>Decunio of 1750</td>
<td>0.110</td>
</tr>
<tr>
<td>Decunio of 1760</td>
<td>0.110</td>
</tr>
<tr>
<td>Decunio of 1770</td>
<td>0.109</td>
</tr>
<tr>
<td>Decunio of 1780</td>
<td>0.108</td>
</tr>
<tr>
<td>Decunio of 1790</td>
<td>0.107</td>
</tr>
</tbody>
</table>

### 15. PERSIA.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rupia</td>
<td>0.111</td>
</tr>
<tr>
<td>Half-rupia</td>
<td>0.110</td>
</tr>
<tr>
<td>Double rupia of 4 hushis</td>
<td>0.110</td>
</tr>
<tr>
<td>Half-rupia of 2 hushis</td>
<td>0.109</td>
</tr>
<tr>
<td>Half-rupia of 1 hushis</td>
<td>0.108</td>
</tr>
<tr>
<td>Half-rupia of 1/2 hushis</td>
<td>0.107</td>
</tr>
<tr>
<td>Half-rupia of 1/4 hushis</td>
<td>0.106</td>
</tr>
</tbody>
</table>

### 16. PORTUGAL.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>2400 reis</td>
<td>0.113</td>
</tr>
<tr>
<td>1000 reis</td>
<td>0.113</td>
</tr>
<tr>
<td>600 reis</td>
<td>0.113</td>
</tr>
<tr>
<td>400 reis</td>
<td>0.113</td>
</tr>
<tr>
<td>200 reis</td>
<td>0.113</td>
</tr>
</tbody>
</table>

### 17. PRESSIA.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ducat</td>
<td>0.112</td>
</tr>
<tr>
<td>Carola</td>
<td>0.111</td>
</tr>
<tr>
<td>Carola of 1000 reis</td>
<td>0.110</td>
</tr>
<tr>
<td>80 reis</td>
<td>0.109</td>
</tr>
<tr>
<td>50 reis</td>
<td>0.108</td>
</tr>
<tr>
<td>25 reis</td>
<td>0.107</td>
</tr>
<tr>
<td>10 reis</td>
<td>0.106</td>
</tr>
<tr>
<td>5 reis</td>
<td>0.105</td>
</tr>
</tbody>
</table>

### 18. RAGUSA.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 ducats</td>
<td>0.113</td>
</tr>
<tr>
<td>4 ducats</td>
<td>0.113</td>
</tr>
<tr>
<td>2 ducats</td>
<td>0.113</td>
</tr>
<tr>
<td>1 ducat</td>
<td>0.113</td>
</tr>
</tbody>
</table>

### 19. RUSSIA.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 kopeks</td>
<td>0.112</td>
</tr>
<tr>
<td>10 kopeks</td>
<td>0.111</td>
</tr>
<tr>
<td>5 kopeks</td>
<td>0.110</td>
</tr>
<tr>
<td>2 kopeks</td>
<td>0.109</td>
</tr>
</tbody>
</table>

### 20. SARDINIA.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 ducats</td>
<td>0.113</td>
</tr>
<tr>
<td>2 ducats</td>
<td>0.112</td>
</tr>
<tr>
<td>1 ducat</td>
<td>0.111</td>
</tr>
</tbody>
</table>

### 21. SAVOY AND PIEMONTE.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zecchino</td>
<td>0.113</td>
</tr>
<tr>
<td>Half zecchino</td>
<td>0.112</td>
</tr>
<tr>
<td>Quarter zecchino</td>
<td>0.111</td>
</tr>
<tr>
<td>New crown</td>
<td>0.110</td>
</tr>
</tbody>
</table>

### 22. SAXONY.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zunic</td>
<td>0.113</td>
</tr>
<tr>
<td>Half zunic</td>
<td>0.112</td>
</tr>
<tr>
<td>Quarter zunic</td>
<td>0.111</td>
</tr>
<tr>
<td>New guilder</td>
<td>0.110</td>
</tr>
</tbody>
</table>

### 23. SCILLY.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crown</td>
<td>0.113</td>
</tr>
<tr>
<td>Half-crown</td>
<td>0.112</td>
</tr>
<tr>
<td>Farthing</td>
<td>0.111</td>
</tr>
</tbody>
</table>

### 24. SPOLE.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doubloon</td>
<td>0.113</td>
</tr>
<tr>
<td>Half doubloon</td>
<td>0.112</td>
</tr>
<tr>
<td>Quarter doubloon</td>
<td>0.111</td>
</tr>
</tbody>
</table>

### 25. SWEDEN.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 francs</td>
<td>0.112</td>
</tr>
<tr>
<td>1 ducat</td>
<td>0.111</td>
</tr>
<tr>
<td>1/2 ducat</td>
<td>0.110</td>
</tr>
</tbody>
</table>

### 26. SWITZERLAND.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 francs</td>
<td>0.113</td>
</tr>
<tr>
<td>10 francs</td>
<td>0.112</td>
</tr>
<tr>
<td>5 francs</td>
<td>0.111</td>
</tr>
<tr>
<td>2 francs</td>
<td>0.110</td>
</tr>
<tr>
<td>1 franc</td>
<td>0.109</td>
</tr>
</tbody>
</table>

### 27. UK.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crown</td>
<td>0.113</td>
</tr>
<tr>
<td>Half-crown</td>
<td>0.112</td>
</tr>
<tr>
<td>Farthing</td>
<td>0.111</td>
</tr>
<tr>
<td>Penny</td>
<td>0.110</td>
</tr>
</tbody>
</table>

### 28. VENICE.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 lira</td>
<td>0.112</td>
</tr>
<tr>
<td>10 lira</td>
<td>0.111</td>
</tr>
<tr>
<td>5 lira</td>
<td>0.110</td>
</tr>
<tr>
<td>2 lira</td>
<td>0.109</td>
</tr>
<tr>
<td>1 lira</td>
<td>0.108</td>
</tr>
</tbody>
</table>

### 29. WALDEMAR.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 florins</td>
<td>0.112</td>
</tr>
<tr>
<td>10 florins</td>
<td>0.111</td>
</tr>
<tr>
<td>5 florins</td>
<td>0.110</td>
</tr>
</tbody>
</table>

### 30. WASHINGTON.

<table>
<thead>
<tr>
<th>Coin</th>
<th>Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 dollars</td>
<td>0.113</td>
</tr>
<tr>
<td>10 dollars</td>
<td>0.112</td>
</tr>
<tr>
<td>5 dollars</td>
<td>0.111</td>
</tr>
<tr>
<td>2 dollars</td>
<td>0.110</td>
</tr>
<tr>
<td>1 dollar</td>
<td>0.109</td>
</tr>
</tbody>
</table>
COIRE—COKE. 307

27. TORREY.


Gold.
Zoëcharamilchristus of No- 2406 936 0 6 11 1 0 1.1
bri, 1617, 316.
Half-unit.
26 3 125 936 0 4 3 1 0 0 6
Round, or 2 zoccharamils, 3 46 457 0 0 6 4.
Zoëcharamilchristus of 306 845 0 3 5 1 5 0 1 4 3 32.
Silver.
Half-unit, 209 360 0 1 2 5 0 3 7 7.

58. TUSCANY.

Gold.
Round, 2 zochi, with the Lily, 6 171 10256 1000 1 8 7 6 6 8 1.
The third coinage, or zoeki, 5 2498 1000 0 6 3 2 2 6.
Horse, 2 zochi, 2 442 1000 0 6 3 2 2 6.
Zoëcharamilchristus, with effigy, 2 5018 1000 0 6 3 2 2 6.
Horse, 2 zochi, 2 442 1000 0 6 3 2 2 6.
Horse, 2 442 1000 0 6 3 2 2 6.

Silver.
Frankscreen of 10 pace, or 17 133 25 977 917 0 5 1 3 4.
Piece of 3 pace, 5 181 17 238 917 0 2 2 3 3 5 1.
Piece of 2 pace, 2 159 5 204 917 0 1 5 2 2 4 2.
Piece of 1 pace, 3 110 17 520 917 0 3 3 3 5 4 2 2.

29. VENICE.

Gold.
Zoëcharamilchristus, 5 5 2 048 1000 0 6 2 2 1.
Half-unit, 2 1 1 942 1000 0 4 1 1 17 7.
Horse, 2 456 1000 0 6 3 2 2 6.
Plata, 1 651 1000 0 7 5 1 4 9 7 7.

Silver.
Dorast of 9 ferre, 14 153 27 770 85 0 3 3 1 7 1 60.
Silver, 10 22 770 780 0 3 1 2 1 3 3 8.
Decusati, 10 27 514 948 0 4 0 1 9 9.
Tellers, 10 27 514 948 0 4 0 1 9 9.
On, 8 9 943 948 0 1 7 3 8 1 8.

 För further information in regard to coins, see Standard, Mint, Money, and Exchange.

COIRE (Chur); the capital of the Swiss canton of the Grisons, on the rivers Plessur and Rhine, with 3350 inhabitants. The trade between Germany and Italy is the cause of the wealth of this city. Not far from Coire the Rhine begins to be navigable for small vessels. This town contains several scientific establishments, and a bishop's see, whose income amounts to 10,000 guilders, chiefly derived from the Tyrol. The secular possessions of the bishops were given, in 1802, to the Helvetic republic, as an indemnification for losses which it had suffered in other quarters. Until 1498, Coire was a free imperial city, but at that time came under the government of the bishop, who was under the archbishop of Mentz. There is a very good school here.

COKE. See Cont.

Edward Coke, one of the most eminent English lawyers, the son of Robert Coke, esquire, of Norfolk, was born in 1550. He received his early education at the free school of Norwich, whence he was removed to Trinity college, Cambridge. From the university he went to London, and entered the Inner Temple. He pleaded his first cause in 1579, and was appointed render of Lyon's Inn, where his lectures were much frequented. His reputation and practice rapidly increased, and he was placed in a situation of great respectability and applause, by a marriage with a co-heiress of the Paston family. He was chosen recorder of the cities of Norwich, and of Coventry; was engaged in all the great causes at Westminster hall, and, in the 35th year of Elizabeth, chosen knight of the shire for his county, and speaker of the house of commons. In 1593, he became solicitor-general, and, soon after, attorney-general; and the death of his wife, who brought him ten children, gave him another opportunity of increasing his wealth and influence, by a marriage with the widow lady Hatton, sister to the minister Burleigh. He acted the usual part of a crown lawyer in all state prosecutions; and one of the most important that fell under his manage- ment as attorney-general, was that of the unfortunate earl of Essex, which he conducted with greatasperity. Soon after the deposition of James I., he was knighted. The celebrated trial of Sir Walter Raleigh, which, in which Coke displayed a degree of arrogance to the court, and of rancour and insult towards the prisoner, which was universally condemned at the time, and has been deemed one of the greatest stains upon his character, by all posteriori. On the discovery of the gunpowder plot, he obtained great credit by the clearness and sagacity with which he stated the evidence; and, in 1606, he became chief justice of the common pleas. In 1613, he succeeded to the important office of chief justice of the court of king's bench, but was in much less favour with James than his rival, lord Bacon. He was, in fact, too wary and staunch a lawyer to commit himself on the subject of prerogative; and as his temper was rough, and his attachment to law truly professional, he could scarcely forbear involving himself with a court so notorious for arbitrary principles as was the English during the reign of James. The dissolution of parliament, in which he displayed in the execrable affair of Sir Thomas Overbury and in the prosecution of the king's wretched minions, Somerset and his countess, for that atrocious murder, made him enemies; and advantage was taken of a dispute, which he erroneously engaged with the chancellor, to render him the mark of censure, both from the council and his post of chief justice. His real offence, however, was a refusal to favour the new favourite Villiers in some pecuniary matter. Coke meanly made up this breach by marrying his youngest daughter, with a large fortune, to the elder brother of Villiers, and, in consequence, reinstated in the council in 1617, and actively engaged in prosecutions for corruption in office, and other crimes of a nature to recruit an exhausted treasury by the infliction of exorbitant fines. He, however, supported the privileges of the commons with great tenacity; for which, after the prorogation of parliament, in 1621, he was committed to the Tower. He was, however, quickly liberated; but was again expelled the privy council, with peculiar marks of displeasure on the part of James. On the accession of Charles I. he was nominated sheriff of Buckingham- shire, in which county he was created for the county, which, however, he represented in the parliament which met in 1628. The remainder of his career was highly popular; he greatly distin- guished himself by his speeches for redress of grievances; vindicated the right of the commons to proceed against any individual, however powerful, who openly named Buckingham as the cause of the misfortunes of the kingdom; and, finally, sealed his ser- vices to the popular part of the constitution, by propor- posing and framing the famous "petition of rights," the most explicit declaration of English liberty which had then appeared. This was the last of his public acts. He died on Oct. 29, 1634, of a fever, which seem fol- lowed, sent him into retirement, at Stoke Pogis, in Buckinghamshire, where he spent the remainder of his life in tranquility. He died in Sept., 1634, in the 85th year of his age, leaving behind him a nu- merous posterity and a large fortune. Sir Edward Coke was a great lawyer, but a great lawyer only. In mere legal learning he has, perhaps, never been excelled; but he was essentially defective in the merits of systematic arrangement and regard to general principles, without which law is a mere collection of arbitrary rules, underserving the name of science. It must be admitted, however, that his Commentaries, especially his Commentary on Littleton's Treatise on Tenures, form a vast repository of legal erudition. In short, he was a man of immense professional re- search, and great sagacity and perseverance in a cho-
COKE-COLBERT.

...and, as usual, more philosophically and generally. His principal works are, Reports, from 1600 to 1615; A Book of Entries (folio, 1614); Institutes of the Laws of England, in four parts; the first of which contains the commentary on Littleton's Tenures; the second, a Commentary on Magna Charta and other statutes of the third, the criminal laws of the crown; and the fourth, an account of the jurisdiction of all the courts in the kingdom: A Treatise of Bail and Mainprise (1636, 4to): Reading on the Statute of Fines, 27 Edw. (4to); Complete copyholder (1640, 4to).

Coke, Thomas, a missionary, was born in 1747, at Brecon, in South Wales. In 1775, he took his degree of L.L.D. at Oxford, and, soon after, became acquainted with the celebrated John Wesley, who soon brought him over to his own opinions, and in 1789, appointed him to superintend the London district; he also made him one of the trustees, on his execution of the deed of declaration as to all his chapels. In 1781, Wesley is said to have consecrated him as a bishop, for the purpose of superintending the Methodist societies in America. The doctor now, therefore, made several voyages to the United States and the West Indies, establishing meeting-houses, organizing congregations and missionaries. He subsequently returned to England, where he had a misunderstanding with Mr Wesley, who, as the founder of a sect, expected more submission than doctor Coke was inclined to bestow. He accordingly determined on visiting Nova Scotia; but in consequence of a storm the ship in which he embarked took refuge in the harbour of Antigua, which led him to preach there, and to visit several other islands; and he examined the state of religion generally, both in the West Indies and America, before he again returned to England. He made, altogether, nine voyages to this quarter of the globe, on the same business, and met with great success as a missionary. He was the author of a Commentary on the Bible, undertaken at the request of the Methodists; A History of the West Indies, and several other works, among which was a Life of Wesley, written in conjunction with Henry Moore. In 1814 he sailed for the East Indies, but died on the voyage. He was of a zealous, but also of an amiable character.

COLBERG; a Russian fortress and sea-port in Pomerania, in the district of Kolsin, on the river Persante, one mile from the sea, with about 7000 inhabitants. Heinrich, a small fortress, was often attacked and besieged by the Russians, in the war against Frederic the Great; and, in 1807, it was admirably defended by General Gneisenau, Schill, and the citizen Nettlebeck, against the French generals Freiile, Loison, and Morier, who commanded in succession the besieging corps, consisting of 18,000 men, which fired into the town 6775 balls, besides those thrown against the works. The garrison which was only 6000 men strong, lost 429 killed, 103 wounded, 209 prisoners, and 159 missing. The fortress was not taken. The remnant of the garrison was formed into one regiment, called the Colberg regiment, which was considered one of the bravest in the Prussian army. Blucher returned thanks to them in particular, for their conduct in the battle of Ligny, June 16, 1815, on which occasion they had been engaged from 10 o'clock till about dark, and had suffered great loss.

COLBERT, Jean Baptiste, a celebrated French minister of finances, was descended from a Scottish family, but born at Rheims, in 1619. His grandfather and father were both wine-merchants. He entered, in 1648, the service of le Tellier, secretary of state, by whom he was made known to cardinal Mazarin, who availed him of his assistance, in the financial administration of the kingdom. Mazarin appointed him, in 1654, with the office of secretary to the queen, and recommended him, at his death, to the king (1660). Louis XIV. made Colbert intendant of the finances. Colbert and Le Tellier now joined to effect the fall of Fouquet, for which purpose they had united, the former from ambition, the latter from envy. After effecting this object, Colbert, with the title of a controleur-general, assumed the direction of the finances. He had a task to remedy the evils which the feeble and stormy reign of Louis XIII., the splendid and exorbitant measures of Richelieu, and the troubles of the Fronde, and the confused state of the finances under Mazarin, had occasioned. He found fraud, disorder, and corruption prevailing everywhere. The domains were alienated. Burdens, privileges, and exemptions were multiplied without measure; the state was the prey of the farmers-general, and, at the same time, maintained only by their aid. The people were obliged to pay 90,000,000 of taxes, of which the king received scarcely 35,000,000; the revenues were anticipated for two years, and the treasury empty. Colbert had to proceed from the same point as Sully; but the jealous and impetuous Louis XIV. increased his difficulties, and he was forced, in the latter half of his career, to retrace the steps which he had taken in the former. He began with establishing a council of finances and a chamber of justice; the first that he might have an oversight of the whole; the other that he might watch the embezzlements of the farmers-general, and liquidate the debts of the state. For the purpose of alleviating the public burdens, he endeavoured to lower the interest of the public debt; and, in order to mitigate the odium of this measure, he consented to a considerable diminution of the taxes, and to the remission of all arrears up to 1666. He abolished many useless offices, retracted burdensome privileges, diminished salaries, put a stop to the infamous trade in offices, and to the no less injurious custom of making the courtiers interested, as farmers-general, in the produce of the public revenue; he exposed the arts and abuses, and limited the immense gain of the collectors; established a loan-bank; diminished the interest of money: re-established the king in the possession of his domains, and appropriated suitable funds for each expenditure. A better distribution and collection of the public revenue was established. The king, one-half. The happiest success crowned his wise and courageously executed measures. Notwithstanding the expenses of nearly ten years' war, and the prodigality of a luxurious king, Colbert succeeded, in twenty-two years, in adding to the revenues more than 29,000,000, and making an equal diminution in the public burdens; and, at his death, in 1685, the revenue actually received amounted to 116,000,000. In 1664, Colbert was superintendent of buildings, of arts and manufactures, and, in 1668, minister of the marine. To his talents, activity, and enlarged views, France owes the universal development and the rapid progress of her industry and commerce. France was not only freed from the taxes which its luxury had hitherto paid to foreign countries, but it partook also of the advantages of that industry which had previously distinguished Britain, Holland, Venice, and all the states of Italy, the Low Countries, and Germany. Manufactures were established, and flourished; the public roads were improved, and new roads laid out. Colbert built the canals of Languedoc; formed the plan of that of Burgundy; declared Marseilles and Dunkirk free ports; granted premiums on goods exported and imported; regulated...
the tolls; established insurance offices; made uniform laws for the regulation of commerce; laboured to render the pursuit of it honourable, and invited the nobility to engage in it. In 1664, two commercial companies were founded in each of the East and West Indies, to which the king advanced considerable sums. The colonies in Canada, Martinique, and particularly in St Domingo, received new life from their union with the crown, and began to flourish. New colonies were established in Cayenne and Madagascar. For the purpose of maintaining these enterprises, a considerable naval force was required. Colbert created this also. When he entered the ministry of the marine, the navy consisted of a few old vessels, which Mazarin had permitted to rot in the harbours. Colbert at first purchased vessels in foreign countries, but soon had them built in France. The ports of Brest, Toulon, and Rochefort were repaired; those of Dunkirk and Havre were fortified. Naval schools were established, and order was introduced into all branches of the marine. In 1672, France had 60 vessels of the line, and 40 frigates: in 1681, victorious by land and sea, she had 198 men-of-war. By the 26th of April, 1668, Colbert, Louis XIV. caused the civil and criminal legislation to be improved, and the arts and sciences encouraged. Under the protection and in the house of the minister (1669), the academy of inscriptions was founded. Three years afterwards, he founded the academy of sciences, and in 1672, the academy of architecture. The academy of painting received a new organization. The French academy in Rome was established. He enlarged the royal library, and the garden of plants, and built an observatory, in which he employed Huygens and Cassini. He began the measurements of the provinces in France, and sent men of science to Cayenne. Paris was indebted to him for numerous embellishments, and many learned men in Europe received his patronage. But, notwithstanding all this, many objections have been made to this great minister. The most important is, that he promoted manufactures at the expense of agriculture, and left the peasantry without resources. With more justice, he is charged with having introduced an excess of minute and vexatious regulations into all branches of the administration. But Colbert must be judged with regard to the circumstances under which he lived and the impossibility of not everything he wished. He had not such an influence on the undertakings, resolutions, and inclinations of his prince as was enjoyed by Sully. Sully gave the law to his master; Colbert received it from his. The former might be called the minister of the nation; the latter, only of the king. Henry IV. Louis XIV. had both great aims; but the one for France, the other for himself; and this difference produced the most important results in their administration. Sully, ever independent and sure of approbation, enriched the state by a wise economy, which was considered as his. But Colbert, who considered the people as his family: Colbert, always dependent and thwarted in his plans, maintained the state, notwithstanding the prodigality of the king, and rendered it flourishing, notwithstanding the burdens of numerous armies and expensive wars. He was forced to have recourse to measures which he desired to see abolished forever; and he predicted to the president, who recommended a loan, "You open a wound which our grandchildren will not see healed." As soon as peace permitted him to breathe more freely, he returned to his own principles, and corrected the consequences of the hurricane which had overwhelmed his own will so rapidly, that the end of his administration was the most splendid epoch of the reign of Louis XIV. Colbert was ambitious, but honest; and, living in a continual struggle with intrigue and jealousy, enjoyed no tranquillity. He died in 1683, at the age of sixty-four years, exhausted by incessant labour, worn out with anxiety and grief, remonstrating, with difficulties, with dangers, and excited to action, looking with apprehension to the future. The people of Paris, embittered by new taxes on provisions, disturbed his funeral, and threatened violence to his remains; but the misfortunes which soon afterwards afflicted the state, opened the eyes of his enemies, and obliged them to recognize the memory of him whom they had unjustly persecuted.

COLCHESTER; a town in Essex, situated on the river Colne; 51 miles N. E. from London. It is situated on the north side of an eminence on the Colne, eight or nine miles from the sea. Vessels of 100 tons can come up to it. It contains an ancient castle, and has been encircled by walls, now much decayed. It is a place of considerable trade and manufacture. The principal manufacture consists of woollen cloth, particularly baize. Oysters form a considerable article of trade. It is an ancient town, supposed to be the Colonia of the Romans and the present place of the Roman colony Constantia. In 1648, this city sustained a memorable siege against the forces of the parliament, and did not surrender till after it had experienced the horrors of famine. Population in 1831, 16,167.

COLCHICUM. The colchicum autumnale, or meadow saffron, is a bulbous-rooted plant, which grows in various parts of Europe, and which, of late years, has become quite noted as a remedy for that bane of a luxurious life—the gout. It is a very powerful remedy, and should never be used without the attendance and advice of a well-educated medical practitioner, as its effects might otherwise be highly injurious. It is now believed to be identical with the base of the eau medicinale, which has been, for some long a period a celebrated empirical remedy for the gout. It is used in various forms, either the powdered root, or vinegar or wine, in which it has been steeped, or, which is considered the best, wine in which the fresh seeds have been steeped. It is also used with benefit in many cases of rheumatic affections, which often so much resemble the gout.

COLCHIS; a fertile country on the Black sea, now Mingrelia and Gurieul, on the River Phasis (Phasis of the ancients) which empties into the Black sea. The Argonauts first made the Greeks acquainted with this country, the original population of which, according to tradition, was derived from Egypt. The people were celebrated for frugality and industry. Surab and oters tell us that the inhabitants used to place flocks in the streams, in order to intercept the particles of gold brought down from the mountains by the water. See Argonauts.

COLCOTHAR (also called crocus martis, and rouge d'Angletre) is an impure brownish-red oxide of iron, which remains after the distillation of the acid from the sulphate of iron. It forms a durable colour, but is most useful by artists, in polishing glass and metals.

COLD. See Cataarrh.

COLDEN, Cadwallader, a Scottish physician and botanist, was the son of the reverend Alexander Colden, of Dunse, and born Feb. 17, 1658. After studying at the university of Edinburgh, he devoted himself to medicine and mathematics, in which he made great proficiency. In 1708, he emigrated to Pennsylvania, and practised physic for some years when he returned to England, and there acquired considerable fortune by partnership in several situations. From London he went to Scotland, and repaired again to America, in 1716. He settled a second time in Pennsylvania, but, in 1718, removed to
New York. After a residence of a year in this city, he was appointed the first surveyor-general of the lands of the colony, and, at the same time, master in chancery of the corporation of the King's council, under governor Burnet. For some time previous to this, he had resided on a tract of land, about nine miles from Newburgh, on Hudson river, for which he had received a patent, where he was exposed, every moment, to the attacks of the Indians, the tract being situated on the frontier. In 1763, he was chosen lieutenant-governor of New York, and occupied this station during the remainder of his life, being placed repeatedly at the head of affairs by the absence or death of several governors. During one of those periods, the paper intended to be distributed in New York, under the British stamp, met, arrived, and was put under his care, in the fortification called fort George. The people assembled in multitudes, under several leaders, and determined to point out the paper that was to be delivered up and destroyed. But, though the fort was declared untenable by the engineers, and the people threatened to massacre him, Colden defended his trust, and finally succeeded in securing it on board a British man-of-war, then lying in the port. The populace burned him in effigy, and destroyed his carriages, in his sight. After the return of governor Tryon, in 1775, he retired to a seat near where he died, Som. 28, 1776, in the eighty-ninth year of his age, a few hours before nearly one-fourth of the city of New York was reduced to ashes.

Mr Colden's productions were numerous, consisting of botanical and medical essays. Among them is a treatise, showing the causes, and pointing out the remedies, of the yellow fever, which, about the year 1743, desolated New York. He also wrote an account of the prevalent diseases of the climate, and a history of the five Indian nations. But the work which cost him most time and labour, was one published, at first, under the title of the Cause of Gravitation; but which being afterwards much enlarged, appeared in 1751, with the title of the Principles of Action in Matter, to which is annexed a Treatise on Fluxions. He corresponded with many of the most distinguished characters of the day, among whom were Linnaeus, Gronovius, the earl of Macclesfield, doctor Franklin, &c. Mr Colden always took great delight in the study of botany. His descriptions of between three and four hundred American plants were published in the Acta Palaeobotanica. He paid attention also to the climate, and left a long course of diurnal observations on the thermometer, barometer, and winds.

COLDINGHAM; the name of a parish and village situated on the Scottish border, about two miles from Eyemouth, Berwickshire. It is supposed to be the Colonia of Tolesy and the Coldham of Bede. Besides the ancient village of Collingham, there are two of lesser note, named Auckencarow and West Preston. The church, which was partially rebuilt in 1670, is all that remains of the priory of Coldingham, said to be the most ancient nunnery in Scotland, and to have been re-founded in 1086, by Edgar, king of Scotland, for Benedictine monks. Here, on the promontory called Abb's head, stand the remains of a chapel, to the north-west of which is a lofty peninsular rock, crowned with the ruins of Fast castle, which, though deemed an impregnable fortress, was several times, during hostilities between the two kingdoms, taken by violence, and burnt. Several of the fortlets were formerly scattered over this parish; and on an eminence called Wardlaw are vestiges of an ancient oval encaumment. Population of the parish in 1831, 2668.

COLDSTREAM, the name of a parish and town in Berwicksbire, on the northern bank of the Tweed. The parish is about eight miles in length and four in breadth, being the southernmost of the highest state of cultivation. Its ancient name was Lualyt or Luelhull, the church of which, now in ruins, with its chapel of Hirsel, belonged to the priory of Cistercian nuns founded at this place, by Gospatrick, Earl of Dunbar; but on the erection of a new church, its designation was changed to Kirktown, and afterwards to Coldstream. The town is situated at the confluence of the river Leet with the Tweed, which is here crossed by a bridge that unites the two kingdoms. It is a thriving place, the chief thoroughfare from Edinburgh to Newcastle, and other parts in that direction, passing through it. Population of the parish in 1831, 2897. When general Monk quartered here in 1659—60, he raised a regiment of horse which he called, and which still continues to be called, the Coldstream Guards.

COLIC (from colo, colon, the name of one of the intestines). The appellation of colic is commonly given to all pains in the abdomen, almost indiscriminately; but, from the different causes and circumstances of this disorder, it is differently denominated. When the pain is accompanied with a vomiting of bile, or with obstinate costiveness, it is called a bilious colic; if flatulence causes the pains that is attended with temporary distension, relieved by the discharge of wind, it takes the name of flatulent or windy colic; when accompanied with heat and inflammation, it takes the name of inflammatory colic; or enteritis. When this disease arises to a violent height, and is attended with obstinate costiveness, and an evacuation of bowels by the mouth, it is called passio ilica, or ilie passion. Doctor Cullen enumerates seven species of colic. One of the most important is the colica Pictorum. This is called, from the places where it is endemic, the Pictou, the Surinam, the Devonshire colic; from its victims, the plunders' and the painters' colic; from its symptoms, the dry belly-ache, the nervous and spasmodic colic. It has been attributed to the poison of lead, and this is undoubtedly the case, when it occurs to glaziers, painters, and those employed in lead works; but, though this is one, it is by no means the only cause. In Devonshire, a very common convulsion, strongly convulsing pains in the intestines, and a tendency to a paralysis of the extremities. It is occasioned by long-continued costiveness; by an accumulation of acrid bile; by cold applied either to the extremities, or to the belly itself; by a free use of unripe fruits, and by great irregularity in the mode of living. From its occurring frequently in Devonshire, and other cider countries, it has been supposed to arise from an impregnation of lead received by the stomach; but this seems to be a mistake, as it is a very prevalent disease in the West Indies likewise, where no cider is made, and where there is only a very small quantity of lead in the mills employed to extract the juice from the sugars. One or other of the causes just enumerated may justly be said always to give rise to this species of colic. The dry belly-ache is always attended with some degree of danger, which is in proportion to the violence. Several are the duration of the disease. Even when it does not prove fatal, it is too apt to terminate in palsy, and to leave behind it contractions of the hands and feet, with an inability in their muscles to perform their office; and in this
miserable state of existence, the patient lingers out many wretched
years.

COILIGNY, GASPAR DE, admiral of France, born in 1516, at Châtillon-sur-Loing, distinguished himself under Francis I., in the battle of Ceresoles, and under Henry II., who made him colonel-general of the French infantry, and, in 1552, admiral of France. He was honored and rewarded for his valor in battle, for strict discipline, and for his successes over the Spaniards, in particular for his service of St. Quentin. When St. Quentin was taken by storm, the admiral was made prisoner. After the death of Henry II., the intrigues of Catharine de Medici induced him to place his trust in the Huguenots, who were afterwards against the Guises. He formed so powerful a party, that the Catholic religion in France seemed to be in danger. Condé was more ambitious, enterprising, active; Coligny more considerate, prudent, and more fit to be the leader of a party; equally unfortunate in war with Condé, but skilled in the remoying every what was appeared irrecoverable losses, and more to be feared after a defeat than his enemies after a victory, he was, besides, endowed with virtues, which he practised as far as party spirit and the violence of the times permitted him. The first battle between the Huguenot and Catholic armies (the battle of Dreux) was lost by the admiral, but he saved his troops from the Duke of Guise was murdered at the siege of Orleans, he was accused of being the author of the murder, but he cleared himself by an oath: it was unnecessary, the nobleness of his spirit raising him above suspicion. The civil war recommenced with increased fury, in 1567. Coligny and Condé encountered the constable Montmorency at St. Denis. This indecisive action was followed by the battle of Jarnac (in 1569), which was fatal to the Calvinists. Condé fell, and the whole burden of command devolved on Coligny. He alone sustained his party, and was beaten again at Moncontour, without, however, losing his courage. An advantageous peace seemingly put a stop to this contest (1570). Coligny appeared at court, and was, with his adherents, loaded with favours. Charles IX. gave him 100,000 francs, as an indemnification for his injuries, together with a seat in the council. From all sides he was warned not to trust to these caresses. As the admiral was leaving the Louvre, August 22, 1572, his right hand and left arm were wounded by a shot from a window. One Maurelen had fired at him from a building belonging to the monas
tery of St. Germain. The shot was intended to injure the plan of Catharine de Medici, probably with the knowledge of the Duke of Guise. Charles testified the deepest sorrow, caused search to be made for the assassin, and said to Coligny, "My father, you have the wounds, but I the pain." This he said at the moment when the massacre of the Protestants was already prepared. The slaughter began on the night of St Bartholomew's, August 24, 1572. (See Bartholomew's Day, Saint.) The duke of Guise hastened with a numerous suite to the house of the admiral. One Bethune, or Bemue, at their head, entered with his drawn sword into the chamber of the old man, who, sitting in an easy chair, said, with a calm mien, to their leader, "Young man, my grey hairs ought to command thy respect; but do as thou pleasest; thou hast shortened my life but a few days," upon which the wretch pierced him with se
everal sharp thrusts, and pushed him into the court-yard. The corpse was given up for three days to the fury of the people, and finally was hung up by the feet on a gibbet, at Montfaucon. Montmorency, a cousin of Coligny, caused it to be taken down, and had it secretly buried in the chapel of the castle of Chantilly. An Italian carried the head to Catharine, who ordered it to be embalmed and sent to Rome.

COLL, a town in Bohemia, with 4400 inhabitants, eleven leagues from Prague, famous on account of the battle which Frederic the Great lost there, June 18, 1757, the first which he lost in the seven years' war. Coll is also known for the prosperity which it found there.

COLOMBO, a gigantic ruin in Rome. This building, which was 1012 feet in circumference, and contained eighty arcades, was the greatest amphitheatre which Roman magnificence ever erected. It was built by Vespasian, and is said to have been erected by one Titus, the son and successor of Vespasian. There were 12,000 Jews and Christians. Authors rank it above the pyramids of Egypt, and other wonderful works of the ancient world. It is said to have held about 110,000 spectators, of whom above 90,000 were sented. For the greater part, it consists of travertino, and has three rows of columns, one above the other; the lowest is of the Doric, the second, the Ionic, and the highest, the Corinthian order. Down to the thirteenth century, this monument of ancient grandeur remained almost uninjured; afterwards pope Paul II. took all the stones from it which were used for the construction of the papal palace of St. Mark, and, in later times, other palaces were erected from its fragments. Presently, care is taken not to touch the ruins of the Colosseum, but it is gradually crumbling away of itself, and in few centuries, perhaps, nothing more may be seen of its upper part; the lower part, however, will last for ever. The endangered in which the wild animals were kept are still standing, and remind us of the times when their builders were devoured by the beasts, to gratify the savage taste of the people. Benedict XIV. caused a cross to be erected in the centre of the arena, where every Sunday afternoon, Catholic worship is performed. A hermit resides in these vast ruins. The Colosseum received its name from the colossal statue of Nero, which was placed in it. There is in Rome a model of the Colosseum, as it was when complete, on a pretty large scale. The traveller, after having viewed this immense building by daylight, should return to gaze again by the light of the moon, when its grandeur is really amazing.—Very recently, an enormous structure, called Coliseum, has been erected in Regent's Park, London, chiefly by a Mr. Horner. It is divided into three parts—the panorama, or grand view of London, of which many points of view are afforded; the building by the twenty-four columns (the people who do not want the trouble of walking up, an ascending room is provided); the suites of rooms for subscribers, and the conservatory with greenhouses and fairy creations. The whole shows great ingenuity.

COLLATERAL RELATIONS (Collaterales); descendants of brothers or sisters, or the brothers or sisters of the ascending lines. In politics, collateral lines have often played an important part; and great jealousies have frequently existed between the collateral lines of a ruling family.

COLLATION is the comparison of manuscripts, in order to ascertain the true reading of an author. This is often a very important operation, as manuscripts were frequently made by people who did not understand what they wrote, or wrote very carelessly. Among the moderns, the Germans have done most in this line. See M. Bode, and Beck of Berlin; Niebuhr and Bluhm, for various authors in the libraries of Italy; G. H. Pertz, in regard to manuscripts relating to the early history of Germany, in the Italian and German libraries.

COLLE, CHARLES; a dramatic poet, born in 1703, at Paris. His early connexion with Hugau-
COLLEGE.

nier, Gallet, and Pannard, writers of Anecdotie songs and anecdotelle, instilled into him the same inclination for pleasure, the same gaiety and folly, as the English comedians of the earliest youth. Some of his pieces are still found in the Repertoire du Théâtre Français. He paints freely, nay, boldly, the manners of his time. He died in 1783. In 1697 appeared his posthumous work, Journal Historique, giving an account of interesting events in the history of literature from 1748 to 1775, in three vols.

COLLEGE (Latin, collegium); in its primary sense, a collection or assembly. In a general sense, a collection or society of men invested with certain powers and rights, performing certain duties, or engaged in some common employment or pursuit. Among the Romans, three were required to make a college (tros facultium collegium). In a particular sense, college signifies an assembly for a political or ecclesiastical purpose. There were several such at Rome, e.g., collegium pontificum, anguorum, sepem- nir, &c. In modern times we have the college of electors, or their deputies, at the diet of Ratisbon; so, also, the college of princes or their deputies, the college of cities or deputys of the imperial cities, the college of cardinals, or sacred college. In Russia, this denomination is given to councils of state, courts or assemblies intrusted with the administration of the government, or important departments. In Greece, Britain and America, a society of physicians is called a college. So, also, there are colleges of surgeons, a college of philosophy, a college of heralds, &c. Colleges of these kinds are usually incorporated or established by the supreme power of the state. This name is also given to a society of persons engaged in the pursuits of literature, including the officers and students. The English literary colleges are academical establishments, endowed with revenues, whose fellows, students, and tutors live together under a head, in particular buildings, in a monastic way. The buildings form quadrangles connected with gardens and grounds. The more ancient establishments, formerly monastries, derive their origin from the 13th and 14th centuries. The college of Christ-church, Oxford, was founded in the time of Henry VIII., by cardinal Wolsey. The college is conducted for the benefit of the public architecture, and for collections in different branches of science and of art. They are also admired for their fine paintings on glass. The president of such a college (master, warden, rector) forms, with the other members of the government, the teachers and students, a corporation, independent of the other colleges, and of the university. Graduates, maintained by the endowment of particular founders, are called fellow (in Latin, socii). There are other classes also supported in part by the funds of the colleges, and called post-masters and scholars, exhibitors or stipendiaries and servitors (young men who wait on the others at table, and have board and instruction gratis during four years). Many colleges have also chaplains, choristers, clerks, or sextons, and a great number of servants. The president and the officers administer the college according to the statutes of the foundation. The visitor, who is a bishop or lord, named by the founder, decides in contested cases. The under-graduates are subjected to a severe discipline. They are obliged to go every day to the chapel, and are not allowed to sleep out of the college. Whoever wishes for a degree, must be presented to the university, as a candidate, by a pastor. The Fellows at the universities keep their fellowships for life, unless they marry or inherit estates which afford a greater revenue. They are successively promoted, so that their income amounts to from £50 to £150, and more, annually, from them the parishes are supplied, in which case they commonly lose their fellowships. Oxford has nineteen colleges, and six halls, or mere boarding-places, while it has no funds, and seven fellows, where every student lives at his own expense. (The dining-rooms of the colleges are also called halls.) In Cambridge, there are twelve colleges and four halls, which are all provided with funds. Most of the colleges in Oxford and Cambridge have, besides their dependent members, that is, those who are supported from the college funds, independent ones, who live at their own expense, but are subjected to most of the college laws: they are called, according to their rank and the sum they pay for board, noblemen, fellow-commoners and commoners. The school at Eton has also a college, consisting of a provost, seven fellows and seventy boys, who are called collegers. The fellows of Eton have a right to marry, and to hold a living besides their fellowship. They are also considered as dignitaries of the church. They and the provost are the directors of the whole, manage the property of the college, fill the livings and fellowships connected with the institution, and choose the teachers. Of the colleges in Eton, the best scholar in the highest class is admitted into the first vacant place of king's college at Cambridge as a scholar, and then becomes, in three years, a fellow. I. e., is provided with a stipendiary. Classical literature is the chief object of instruction, hence the general knowledge which, in England, men of the highest rank and of the greatest wealth possess of Grecian and Roman literature, exhibited in the frequent quotations from the classics, in parliament, which, in any other country, would appear somewhat pedantic. The lectures on scientific subjects are meager, compared with those of the continental universities, and afford scarcely the necessary hints for private study. The colleges are less institutions for education than learned republics with an orderly gradation of classes, of which one influences the other, and which are intimately connected with the spirit of the nation. (See Universities.) The English universities exercise a great deal of influence upon the ecclesiastical and political establishments of that country, and have certainly contributed much to the national disposition for adhering steadily, and sometimes obstinately, to ancient establishments, customs, and views. The old universities, therefore, have been preserved by a large majority of the common and liberal men, not to answer the demands of the age. To meet these demands, they have established the London university (q.v.). This again, on the same principle by which the Protestant reformation led to many salutary reforms among the Catholics, induced another party (the churchmen) to establish in the English metropolis the king's college (q.v.).

In Scotland, there are two colleges at St Andrews (the united College and St Mary's or New College)—one at Glasgow (founded in 1450),—two at Aberdeen (King's College, founded in 1497, and Marischal College, founded in 1593),—and one at Edinburgh (founded in 1591). These are all distinct universities, with the exception of the two at St Andrews, which are reckoned one university. The Scottish universities differ in many respects from those of England. In the English universities, students are liable to no fees, but give their lessons in private; in the Scottish, tuition is given by lectures delivered by the professors in public, accompanied by examinations of the students. In the English, the meetings are called terms, and recr
of colleges in America is undoubtedly laudable, as it is the same which prompts every man there to acquire knowledge; but it ought not to be forgotten, that colleges differ entirely from common schools. The latter may be multiplied, and there can hardly be too many of them; but for colleges, it is not to make them truly great to concentrate in a few, great stores of talent and erudition. In the universities of Europe, donation has been added to donation, until many of them have attained great magnificence.

Table containing the proper title of each College of the United States; the place where it is situated; the time when founded; the number of its students; the number of its volumes; the number of its professors; the number of its volumes; and the number of its students.

<table>
<thead>
<tr>
<th>College</th>
<th>Place</th>
<th>Number of Students</th>
<th>Number of Volumes</th>
<th>Number of Professors</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watervile</td>
<td>Waterville, Maine</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Bowdoin</td>
<td>Brunswick, N. H.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Dartmouth</td>
<td>Hanover, N. H.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Middlebury</td>
<td>Middlebury, Vt.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Vermont Univ.</td>
<td>Burlington, Vt.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Amherst</td>
<td>Amherst, Mass.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Harvard Univ.</td>
<td>Cambridge, Mass.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Brown Univ.</td>
<td>Providence, R. I.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Washington &amp; Lee</td>
<td>Lexington, Va.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Yale</td>
<td>New Haven, Conn.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Columbia</td>
<td>New York, N. Y.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Union</td>
<td>Schenectady, N. Y.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Hamilton</td>
<td>Clinton, N. Y.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Geneva</td>
<td>Geneva, N. Y.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Rutgers</td>
<td>New Brunswick, N. J.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Virginia</td>
<td>Richmond, Va.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Washington</td>
<td>Washington, D. C.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Western</td>
<td>Pittsburgh, Penn.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Madison</td>
<td>Madison, Wis.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Allegheny</td>
<td>Pittsburgh, Penn.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>St Mary's</td>
<td>Cincinnati, Ohio</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Columbiana</td>
<td>Columbus, O.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>W. &amp; L.</td>
<td>Washington, D. C.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Virginia</td>
<td>Charlottesville, Va.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Hampden Sidley</td>
<td>Princeton, N. J.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>William and Mary</td>
<td>Williamsburg, Va.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Washington</td>
<td>Lexington, Va.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Seneca College</td>
<td>Fitchburg, Mass.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>St. Mary's</td>
<td>Brooklyn, N. Y.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Washington</td>
<td>Washington, D. C.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>St. Louis</td>
<td>St. Louis, Mo.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>St. John's</td>
<td>Cincinnati, O.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>St. Charles</td>
<td>St. Charles, S. D.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. Geol.</td>
<td>Athens, Ohio</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Pittsburgh</td>
<td>Pittsburgh, Penn.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Nashville</td>
<td>Nashville, Tenn.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Illinois</td>
<td>Urbana, Ill.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of California</td>
<td>Berkeley, Calif.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Chicago</td>
<td>Chicago, Ill.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Pennsylvania</td>
<td>Philadelphia, Penn.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Michigan</td>
<td>Ann Arbor, Mich.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Texas</td>
<td>Austin, Tex.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of California</td>
<td>Berkeley, Calif.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Notre Dame</td>
<td>South Bend, Ind.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Richmond</td>
<td>Richmond, Va.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of Chicago</td>
<td>Chicago, Ill.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
<tr>
<td>Univ. of California</td>
<td>Berkeley, Calif.</td>
<td>1200</td>
<td>90</td>
<td>120</td>
<td>1700</td>
</tr>
</tbody>
</table>

For more particulars, see the colleges where the colleges are established.

* The catalogue of the officers and students in the various departments of Transylvania University, for the year 1858, exhibits a total of 360.—Nat. Quart.

COLLEGE OF CIVILIANS; commonly called Doctor's Colleges, founded by doctor Harvey, dean of the arches, for the professors of the civil law residing in the city of London. The judges of the arches, admittance, and prerogative courts, with several other eminent civilians, commonly reside here. To this college belong thirty-four proctors, who make themselves parties for their clients, manage their causes, give licenses for marriages, &c. In the common hall of Doctor's Colleges are held several courts, under the jurisdiction of the civil law, particularly the high court of admiralty, the court of delegates, the arches court of Canterbury, and the prerogative court of Canterbury, whose terms for sitting are much like those at Westminster, every one of these holding several court-days, most of them fixed and known by preceding holydays, and the rest appointed at the judge's pleasure.

COLLEGIATE SYSTEM, in ecclesiastical law (see Church). In politics, it is opposed to bureaucracy (see Bureau), and signifies that system of government in which the members of each department of govern-
have all a voice in the decision of measures, so that each branch of government is carried on by collegians, not by a single president. This system has been followed in the French fleet and naval administration.

COLLEGIANTS. See Rheinbergers.

COLLILOVER. See Cabbage.

COLLIN, Henry Joseph von, born at Vienna, in 1772, was the son of a physician. He rose, by degrees, to an important place in the financial department of the Austrian government. He sacrificed his feeble health, and even his favourite inclination for poetry, to the duties of his office, in which he laboured with an assiduity that at length put an end to his life. He died of a nervous fever in 1811. Having laid a wager with a friend to write a tragedy within six weeks, he produced his first drama, Regulus, the plan of which he had arranged before. It was followed by Coriolanus, Polyxena, Balbea, Bianca della Porta, Meeron, and De Heratier und Curtatier. A selection of his smaller poems appeared in Vienna, after his death, with fragments of his epic poem Rudolph von Hohenburg. His works are characterized by a spirit nourished on the ancient classics, and by a vigorous simplicity. They are sometimes, however, rather frigid and stiff. They are not very finished productions. A complete edition appeared in Vienna, 1814, 6 vol.

COLLIN, MATTHIES von, brother of the preceding, in 1808, became professor of mathematics and philosophy at Cracow. In 1815, he was appointed tutor of the duke of Reichstadt (son of Napoleon). He died in 1854. As a dramatic poet, he ranks below his brother. In 1813, he was editor of the Literary Gazette of Vienna, and, in 1818, of the Vienna Animals of Literature (Wiener Jahrbiicher der Literatur).

COLLIN D'Harleville, Jean Francois, a French dramatist, was born in 1750, at Mainieron, near Charleville. He abandoned the profession of the law, and enriched the French stage with character-pieces, as L'Inconstant, L'Optimiste, Les Chateaux en Espagne, Maitre de Caire dans son petit Castel, Les Artiste. In his earliest pieces, he wrote by rule, but subsequently followed the bent of his own genius. In his best piece, the Vieux Célébataire, he returned, however, to the established principles of the French theatre. In general, his comedies are blamed for their manner, and his comic characters as wanting in individual traits. In his allegorical poem, Melopomene et Thalie, we find natural ease combined with sentimental philosophy, but often prosic verses. He died in 1806.

COLLINGWOOD, Cuthbert, first Baron; a distinguished officer of the navy, born at Newcastle-upon-Tyne, in 1748, and educated at the same school with the ex-chancellor Eldon, under Mr Moises. He entered the royal navy in 1761, and in the action of June 1, 1794, was flag-captain on board the Prince, commanded by admiral Bowyer. In 1797, he commanded the Excellent during the battle off Cape St Vincent, on the 14th of February in that year, and having, in 1799, been made rear-admiral of the white, was promoted, in 1801, to the red. In 1804, being then vice-admiral of the blue, he assisted in the blockade of Brest harbour; but his most distinguished service was the part he bore in the great victory of Trafalgar, in which his gallant manner of bringing his ship into action, and the skill and resolution with which he fought her, excited the personal admiration of Nelson himself, upon whom lamented fate fell. The command of the fleet devolved upon him as the senior officer, and he was allowed to a hazardous place while cruising off Minorca, in the Ville de Paris, on the 7th of March, 1810. His remains were carried to England, and deposited in St Paul's, near those of his friend Nelson. Collingwood appears to have been a model of a naval officer. He was distinguished for zeal, courage, humanity, circumspection, and strictness of discipline. Though hardly any man had more experience in the governing of sailors, he was an enemy to flogging. His letters to his children are full of excellent sentiments and judicious advice. Every young naval officer should be familiar with the Public and Private Correspondence of the Vice-Admiral Collingwood, with Memoirs of his Life, (3vo, 3d edition, London, 1828).

COLLINS, William, a distinguished English poet, was born in 1720 or 1721, at Chichester, where his father was a barrister. He was educated at Winchester school and at Oxford. While at college, he wrote his Oriental Eclogues, which were printed in 1742. Their success was moderate, and, in 1744, the author went to London as a literary adventurer. In 1746, he gave his Odes, Descriptive and Allegorical, to the public; but the sale did not pay for the printing. The poet's indignant spirit burned all the unsold copies. Yet among these odes were many pieces which at present rank with the finest lyrics in the language. Pecuniary distress followed this disappointment; and, aided by the advance of a few guineas from the booksellers for an intended translation of the Poetics of Aristotle, he was enabled to escape into the country, whence he found means to pay a visit to his uncle, colonel Martin, then with the British army in Germany. The death of this relation, who bequeathed him a legacy of £2000, raised him to comparative affluence; and he immediately returned the booksellers their advance, being reduced, by nervous debility, to an utter incapability of any species of mental exertion. Originally too laxly strung, disappointment, distress, and irregularity had completely disarranged his nervous system. Dreadful depression of spirits followed, for which he had no better remedy than the fatal indulgence of the invalid. From absolute alienation of mind, it was thought best to confine him in a lunatic asylum; but, finally, he was consigned to the care of a sister, in whose arms he terminated his brief and melancholy career, in 1756. Collins, by his taste and attainments, appears to have been peculiarly adapted for the highest style of poetry. His odes, from which he derives his chief poetical fame, notwithstanding the disparaging remarks of doctor Johnson, are now almost universally regarded as the first productions of the kind in the English language for vigour of conception, boldness and variety of personification, and genuine warmth of feeling. The originality of Collins consists, not in his sentiments, but in the highly figurative garb in which he clothes abstract ideas, in the felicity of his expressions, and in his skill in embodying ideal creations. His chief defect is an occasional mysticism. His temperament was, in the strictest meaning of the word, poetical; and he had existed under happier circumstances, and enjoyed the undisturbed exercise of his faculties, he would probably have surpassed most, if not all, of his contemporaries, during the very prosaic period which immediately followed the death of Pope.
Colloredo belongs, 1. Fabricius, born 1576, who was sent as ambassador by Cosmo II., of Medici, to the emperor Rudolph II.; 2. Rudolph, count Waldsee, field-marshall of the imperial armies, distinguished in the thirty years' war, particularly at Lutter, and, in 1589, he was invested with the title of Prince of the Empire, 1775, master-general of the ordnance, commanded in 1813 the first division of the army at Kulm (q. v.), died in 1822, while commander-in-chief in Bohemia.

COLMANN, GEORG; a dramatic writer and elegant scholar of the last century, born at Florence, in 1733; his father being at that time British envoy to the grand duke's court. From Westminster school he was removed, at the usual age, to Christ Church, Oxford, where he was graduated, as master of arts, in 1758, having previously, in conjunction with his friend Bonnel Thornton, published a series of essays after the manner of the Spectator, under the title of The Connoisseur. This lively work, which came out weekly, was continued from Jan. 1, 1754, till towards the close of the year 1756, and tended much to establish his reputation, and procure him the friendship and acknowledged genius of Drury Lane. At the desire of his relation, lord Bath, he turned his thoughts to the law, entered himself of Lincoln's Inn, and even went so far as to be called to the bar; but his genius soon turned to the more congenial study of the belles-lettres. His poetical vein had so early found an outflow of his nature in occasional pieces; but his first dramatic attempt was made in the year 1760, when his Polly Honeycombe was brought out, with great temporary success, at Drury Lane. The year following, he produced the well-known comedy of the Jealous Lady, which not only excited great attention at the time, but, as well as his Clandestine Marriage, has remained an established favourite ever since. The English Merchant, the Oxonian in Town, and a long list of other pieces of less note, but not deficient in merit, followed in succession, in the composition of some of which he was assisted by his friend Garrick. In 1764, his pecuniary resources were much increased by a handsome annuity bequeathed him by lord Bath; and an addition to his fortune, which he acquired three years after, by the decease of general Pulleyen, enabled him, the following summer, to purchase Mr Beard's share of the three houses in Great Orange-street, with the variances with his partners in the concern, he was induced to dispose of his portion of the property at least as soon as he had acquired it; and to purchase, in lieu of it, the little theatre in the Haymarket, which he bought of Foote for an annuity, and continued in the personal superintendence of it till the year 1790, when a paralytic attack not only deprived him of the use of one side, but entirely plunged his faculties into a hopeless state of derangement. He nevertheless lingered on, in a lunatic asylum at Paddington, till 1794, in which year his decease took place. Besides the writings already enumerated, and a large variety of others of the same class, his classical attainments, and the purity of his taste, are evinced by his elegant and spirited translation of Horace's Art of Poetry, published in 1783, and of the comedies of Terence; to the former of which is prefixed an ingenious Commentary, which places his acumen as a critic in a very respectable point of view.

COLOGNE (in German Köln); formerly a free city of the empire, and seat of the electoral chapter of Cologne, is a city of the imperial body, and was formerly a sovereign prince, and one of the most important members of the German empire. It resided at Bonn. Cologne is now the capital of the Prussian district Cologne, in the province of Cleves-Berg, the seat of an archbishop, a high-president, the government, and the court of appeal for the Rhenish provinces, a tribunal of the first instance, and many public institutions. It is one of the largest and oldest German cities on the left bank of the Rhine. It is a league in length, in the form of a semi-circle, and was built on the site of the town of Colonia Claudia. The streets are narrow, dirty, and lonely. With the decline of the Hanseatic league, to which it belonged, this city lost its riches, and, under the French government, its opulent clergy, and beautiful works of art. The great warehouses are still standing as monuments of the past, but only a small number of the new buildings are distinguished for beauty. The handsomest public places are, the new market with its lime-trees, the fay market, and the old market. Cologne has twenty churches, five monasteries, 7000 houses, and upwards of 54,000 inhabitants, besides the garrison. One of the noblest works of Gothic architecture is the unfinished cathedral, in the form of a cross, 404 feet long, and 180 wide. It was in the course of erection from the year 1248 until the reformation. Only the choir, 200 feet high, of the transept, was completed. The nave is supported by 100 columns, of which the middle ones are forty feet in circumference; but it has only two-thirds of its intended height, and is covered with a wooden roof. Each of the towers was designed to be 500 feet high; 250 feet of one is finished, and the 60,000 feet of the other. The nave has a square plan, and the high altar is the chapel of the Magi, built of marble, in the Ionic style. In a magnificent box are deposited a few relics. On the left side of the choir is the golden chamber, with the treasury of the cathedral; but it no longer enjoys its ancient riches. Respecting the original plan of the church, which has been discovered, see George Muller's Beschreibung (Description), with nine engravings, large folio, and twenty-six pages of text (1818), and Boisseree's work, Uber den Dom zu Köln (On the Cathedral of Cologne), with engravings (1824). The church of St Gereon has a lofty dome and three galleries. The church of St Cunibert has an altar like the famous altar of St Peter's church in Rome. The church of St Peter has an admirable painting, by Rubens, of the martyrdom of the apostle Peter. In the religious establishment of St Ursula, for noble ladies, the visitor sees, he is assured, the portrait of the Virgin, painted in the time of the Great and used in the church. The pictures are arranged on shelves, and make a formidable appearance. The town house in Cologne has a splendid portico, adorned with two rows of marble columns. The Jesuit's library, though it has been deprived of many works, still contains 60,000 volumes. Many paintings in the monasteries and churches were carried off or destroyed by the French. (See Boisseree.) The city, however, still contains some beautiful collections of works of art. It is favourably situated for trade, forming an intermediate point between Germany and Holland, and its commerce, particularly in Rhenish wine, or hock, is very considerable. The trade in cloth, linen, lace, cotton and silk, tobacco and earthen ware is still important; likewise, the distillation of Cologne water, or eau de Cologne, of which several million bottles are exported every year. There are fifteen manufactories of it, and the traffic has been constantly increasing since the seven years' war. The bottles are made in Stolberg, three leagues from Aix. As a great city, where magazines can be conveniently established, and military provisions obtained, as a convenient place for crossing the Rhine and the condition of the sea and Cohents, as a point of meeting of many roads, it is probably forming a part of the basis (q. v.), from which must proceed the operations of the German armies against the Netherlands and France, Cologne is of great military importance. The fortifications were restored in 1815.
COLOMBIA.

They are strengthened by a chain of casemated towers, which contain several stories, and each a few cannon. These are placed at some distance from the city, as separate and detached works. Cologne has thus become a strong place, though not, indeed, so important a fortress as Coblenz. The small city of Douai, at the head of the English road from Cologne to Paris, is fortified, and thus completes the double tele-de- pont. In former times, Cologne was a very powerful city, and its university famous. The merchants of Cologne, who settled in London under Elizabeth’s reign, gave a great impulse to the English commerce. All the old chronicles of Cologne, written in low German, is a highly interesting work. The eau de Cologne is famous throughout Europe and America, though only a small part of what is sold under this name is genuine. One of the best ways of distinguishing the genuine from the spurious is, to rub a few drops on the hand, when the good eau de Cologne must neither smell of any spirituous liquor, nor of musk, nor any foreign substance, but only of the etherial odour proper to the water.

COLOMBIA, The Republic of, in South America, is comprised between lat. 12° 30’ N., and 6° 35’ S.; and between 82° and 92° W.; extending over a surface of 1,100,000 square miles. It is bounded on the north by the Caribbean sea, east by Guiana and Brazil, south by Brazil and Peru, and west by the Pacific ocean; on the north-west, it borders on the republic of Central America. The face of the country is remarkable: the western part contains the loftiest ridges of the Andes, while the eastern stretches out into immense plains, intersected by gigantic rivers. Towards the southern part (Quito) are found the celebrated summits of Chimborazo, Antisana, Pichincha, Cotopaxi, Colocache, &c. In this Thetis of the new world, in the valleys of the Andes, raised 10,000 feet above the surface of the ocean, the population of the central part of the country is concentrated. Farther north, the height of the mountains is less, and in New Grenada, the Cordillera is divided into three parallel chains, of which only the two lateral ones are of great elevation. Besides the Andes, the principal chain is that of Caracas, running along the north coast, with summits of from 12,000 to 14,000 feet high. The principal lake is Lake Maracaibo in Venezuela; the imaginary lake Parima has disappeared from the maps. The most important rivers of Colombia are the Magdalena, the Amazon, and the Orinoco. The Amazons receive, all the great rivers of the eastern declivity of the Andes, south of lat. 3° N. North of that point, they flow into the Orinoco. The immense plains in the east, stretching from Merida to Guiana, and from the chain of the Caracas to the Amazon, are partly inundated and fertilised by the waters of the Orinoco, and partly composed of bare deserts called llanos. The climate, in a country of such extent, and of so remarkable a diversity of elevation, must differ exceedingly. In Venezuela, the year is completely divided by the rainy and the dry season, the former commencing in November, and ending in April. New Grenada commands a remarkable variety of climate: temperate, even cold and frosty, but healthy on the elevated table lands, the air is burning and pestilential on the sea-shore, and in some of the deep valleys of the interior. At Carthagena and Guayaquil, the yellow fever is endemic. New Granada is mostly tropical.

Among the productions of the vegetable kingdom we mention cacao, Peruvian bark, coffee, and indigo, sugar, cotton, and tobacco. Gold, plata, silver, cinabarin, are among the mineral riches of the republic. The principal articles of export are cacao, indigo, tobacco, hides, and cattle. The imports are manufactured goods of almost every description. The contraband trade has been carried on to such an extent by the foreign colonies in the neighbourhood, that it is impossible, from the custom-house returns, to form any estimate of the real value of the imports or exports. The Dutch in Curacoa have been engaged in this trade for nearly two centuries, and the English, and the French of the Banda Oriental, which is the opposite of Colon, is fortified, and thus completes the double tele-de-pont. In former times, Cologne was a very powerful city, and its university famous. The merchants of Cologne, who settled in London under Elizabeth’s reign, gave a great impulse to the English commerce. All the old chronicles of Cologne, written in low German, is a highly interesting work. The eau de Cologne is famous throughout Europe and America, though only a small part of what is sold under this name is genuine. One of the best ways of distinguishing the genuine from the spurious is to rub a few drops on the hand, when the good eau de Cologne must neither smell of any spirituous liquor, nor of musk, nor any foreign substance, but only of the etherial odour proper to the water. The republic is composed of the three colonial governments of Quito, New Grenada, and Venezuela, and, by the law of June 23, 1824, is subdivided into twelve departments, namely, 1. The Isthmus, 2. Magdalena, 3. Zulia, 4. Boyaca, 5. Venezuela, 6. Orinoco, 7. Cauca, 8. Apure, 9. Guayquil, 10. Meta, 11. Cauca, 12. Assuy.

These are composed of 49 provinces, which are again subdivided into 218 cantons, and each canton into municipals. The population may be estimated at about 2,711,000. It is composed of whites, Indians, mestizos, negroes, and mulattoes; one-half being of the mixed races, one-fourth creoles, one-eighth Indians, and the remainder, negroes and Europeans. Travellers have observed that beauty, vigour, and courage are more common in the mixed races. The creoles, whose throats are filled with cacao, are called after them, some Indian or black blood in their veins. Those on the sea-coast have the Spanish features, but little beard; those of the more elevated regions resemble the inhabitants of the north of Europe, but they commonly have the black, stiff hair of the latter. The goitre is very common in some parts of Colombia;
the pure Indians and negroes, however, are not affected with it. The negroes are found principally in the maritime parts of the country. The new government has decreed that from the year 1680 all slavery shall cease, and the negroes shall be treated as human beings. Besides those already mentioned, Bogota (the capital), Caracas, St Thomas, Quito, Popayan, Cuenca, Riobambo, Othalo, Merida, Cumanà, Maracaibo, Barcelona, Guanare, and Trujillo. All the Indians have been declared free since the revolution. Many of the Indian tribes have been brought into subjection to the whites, and have become partially civilized by the labours of the Catholic missionaries. They are allowed to live in villages by themselves, and to be governed by magistrates of their own choice. The principal Indians remaining unsubdued are the Cana-hiros, who are about 30,000 in number, and occupy a tract along the coast to the west of the gulf of Maracaibo. They often make inroads upon the neighbouring settlements. The Guaranos, who inhabit the islands formed by the mouths of the Orinoco, are about 8000 in number. The Caribs occupy the coast of Spanish Guiana, between the mouths of the Essequibo and the Orinoco. Besides these tribes, all the country on the Orinoco above the cataracts of Atures, and indeed all the immense tract between the sources of the Orinoco and those of the Amazon, are inhabited by nations of savages, who have hitherto resisted all the attempts of the Spanish to subdue them. The Catholic religion has been declared the established religion of the state; but all others are tolerated. The establishment is composed of two archbishops and ten bishops: the clergy are rich and powerful; some of them distinguished themselves in the revolution by their patriotic sentiments. Colombia has four universities—at Quito, Bogota, Caracas and Merida; that of Bogota is merely a theological seminary; the three others are intended for students in the other branches. Provision has also been made for the establishment of primary schools, high schools, and provincial colleges; but the unsettled state of the country allows but little to be effected.

Historical Sketch. The republic of Colombia is of very recent origin, although the history of the three states, by the union of which it has been formed, is coeval with the era of Columbus. Previously to the discovery of the revolutions, they were known by the names of the vice-royalty of New Grenada, the captain-generalship of Caracas, and the presidency of Quito. Of their annals prior to the union, a brief sketch will here be given.

Quito. The provinces of Quito, having formed a component part of the Peruvian empire at the time of the Spanish conquest, continued to depend directly on the government of Peru until Sept., 1804, when they were erected into a separate presidency. In 1717, the government was suppressed, and the country incorporated into the vice-royalty of New Grenada. In 1722, it was again separated, and remained so until it became a part of Colombia. The revolution commenced August 10, 1809, when the president, count Ruiz de Castilla, was deposed, and a junta soberana appointed to administer the government. He was reinstated the November following, and a second revolution took place in September, 1810. But, in a few months afterwards, the Spaniards, under Montes, regained Quito, and continued to hold the presidency until May, 1822, when the victory of Pichincha, gained by general Sucre, put an end to their power.

Caracas. The coasts of New Grenada, which border on the Caribbean sea, were first visited by Columbus, during his fourth voyage. Ojeda and Amerigo Vespucci followed Columbus in exploring parts of the coast, and Vespucci gave the first regular description of the people who inhabited its shores. In the year 1608, Ojeda and Nicuesa obtained extensive grants in this and the adjoining country. Ojeda had been appointed by the viceroy from cape de la Vela to the gulf of Darien, which was to be subjugated, but Nicuesa; and Nicuesa was appointed to govern from the gulf of Darien to cape Gracias a Dios; the territory included within these points to be named Golden Castle. The province of Tera Firma, including both the grants of Nicuesa and Ojeda, was given by a subsequent charter, in 1514, to Pedro Arias de Avila. Under the orders of Avila, the western coast of Panama, Veragua, and Darien was explored as far north as cape Blanco, and the town of Panama was founded.

In 1586, Sebastian de Benalcázar, one of the officers who accompanied Fierro in the expedition to Peru effected the conquest and colonization of the southern internal provinces of New Grenada, whilst Gonzalo Ximenes de Quezada, who had been sent by Lugo, the admiral of the Canaries, overran the northern districts from Santa Marta. They met with considerable opposition, and was eventually made to desist by the efforts of the governor of the province, who finally succeeded in reducing the country, and the whole was formed into one government, and put under a captain-general, appointed in 1547; to check whose power the royal audience was established, of which he was, however, made president. In the year 1722, the province of New Grenada was converted into a separate vice-royalty. This form of government continued until 1724, when the captain-generalship was restored; but, in 1740, the vice-royalty was re-established. Under this system, the evils of which were of a very grievous nature, the inhabitants of New Grenada continued until the invasion of Spain by the French. The desire of independence had long been prevalent; but it was not until 1810, that it began to be publicly avowed. The junta then chosen were composed of persons generally favourable to independence. A congress from the different provinces or departments of the vice-royalty soon afterwards assembled, and, in 1811, a formal declaration of independence was made. The country has, since that period, passed through many vicissitudes of fortune. The cause of freedom and that of the royalists have been alternately triumphant, and many frightful scenes of civil bloodshed have occurred. In 1816, a decisive action was fought between the independents and a Spanish army under Morillo, which ended in the total defeat of the former, and the dispersion of the congress. After remaining under the dominion of the royalists for three years, Grenada was again emancipated by the army of Bolivar, who entered Santa Fe in August, 1819. In December, 1819, a union was effected with Venezuela into one republic.

Caracas, or Venezuela. The coast of this country was originally discovered by Columbus, in 1498, during his third voyage. Several attempts being made to colonize the Spanish government came to the determination of settling the country under its own direction. These expeditions were managed by priests, and generally ill conducted; and it was found necessary to subdue the inhabitants by force. When this was partially effected, and the Spanish settlers were placed in some security, the proprietorship was sold, by Charles V, to the Welsters, a German mercantile company. Under their management, the Spaniards and the natives suffered the most grievous tyranny. The abuses of their administration became so intolerable, that they were driven away in 1550, and a supreme governor, with the title of captain-general, was appointed. From this period until the year 1806, Caracas remained in quiet subjection to the mother country. In 1806, a gallant but
COLOMBIA.

unfortunate attempt was made to liberate her from the yoke. General Miranda, a native of Caracas, formed for this purpose an expedition partly at St Domingo and partly at New York. A landing was effected, but the force inadequate to the designed object. Many were taken prisoners by the Spanish authorities, and several suffered death. The defeat was decisive, and gave an effectual blow, for the time, to the project of independence. In 1810, however, Spain being over-run by the French powers, the opportunity was seized by the principal inhabitants to establish a free form of government. For this purpose, a junta suprema, or congress, was convened in Caracas, consisting of deputies from all the provinces composing the former captain-generalship, with the exception of Maracay. At first, they published their acts in the name of Ferdinand VII.; but the captain-general and the members of the audiencia were deposed and imprisoned, and the new government received the title of the confederation of Venezuela. The most violent and impolitic measures were now taken by the regency and cortes of Spain towards the people of the Western Hemisphere, and the voice of the people decided in favour of independence, issued a proclamation, on the 5th of July, 1811, formally declaring it. A liberal constitution was established, and affairs wore a favourable aspect for the cause of freedom, until the fatal earthquake of 1812, which, operating on the superstition of the people, led to a great change in the public opinion. Montevideo, a royalist general, taking advantage of the situation of affairs, marched against Caracas, and, after defeating general Miranda, compelled the whole province to submit. In 1813, however, Venezuela was again emancipated by Bolivar, who was sent with an army by the confederation of Grenada. In 1814, he was, in his turn, defeated by Boves, and compelled to evacuate Caracas. In 1816, he again returned with a respectable body of troops, and was again defeated. Undismayed by reverses, he landed again, in December of the same year, convened a general congress, and defeated the royalists in March, 1817, with great loss. In the month following, however, Barcelona was taken by the Spanish troops. The contest was maintained for some time afterwards with various success. Bolivar was invested by the congress with the ample powers, the situation of the republic requiring the energy of a dictator. On the 17th of Dec., 1819, a union between the republics of Grenada and Venezuela was solemnly decreed, in conformity with the report of a select committee of deputies from each state. This confederation received the title of the—

Republic of Colombia. In conformity with the fundamental law, the installation of the general congress of Colombia took place on the 6th of May, 1821, in the city of Rosario of Cucuta. The first subject considered by this body was the constitution; and it was finally decided that the republic should form one nation, on the central system, under a popular representative government, divided into legislative, executive, and judicial. Bolivar, the president, was, in the mean time, actively engaged in bringing the war to a close. On the 24th of June, 1821, was fought the memorable battle of Carabobo, in which the royalist army was totally defeated, with the loss of their artillery, baggage, and upwards of 6000 men. In the fall of 1822, Bolivar completed, by the capture of Panama, the overthrow of Spanish power in this quarter; the only remaining memorial of the war being the loss of the city of Carabobo, Dec. 1823. For, by the successes of the troops sent against Quito, the Spaniards had been compelled to surrender their authority in the south. Bolivar defeated Murgeon at Curico, in April, 1822, and, in May, Sucro gained the splendid victory of Pichinchia, immediately after which the Spanish authorities capitulated. A long course of victory having thus been delivered to the South Americans, Bolivar marched into Peru, in 1824, at the head of only 10,000 men, to effect the liberation of that country. Meanwhile, the acknowledgment of the independence of Colombia, by the United States, in 1823, and, in successive years since then, by Great Britain and the rest of the republican states, except Spain, gave new activity to her commercial relations. The government was administered, in the absence of Bolivar, by the vice-president, general Francisco de Paula Santander; and from the adoption of the constitution until 1826, the legislative and executive authorities, relieved from anxiety with respect to Spain, strenuously exerted themselves in various domestic improvements. The finances were placed on a more solid footing; public education was carefully fostered; and institutions, adapted to the new order of things, everywhere arose. To all outward appearance, the republic was rapidly acquiring consistency and stability, when the insurrections in Venezuela, produced a fatal change. Paez, being one of the most distinguished officers of the revolution, received the command of the department of Venezuela. In the execution of a law for enrolling the inhabitants of the city of Caracas, he gave so much offence to the inhabitants by his arbitrary conduct, that they obtained an impeachment against him before the senate. Being notified of this, in April, 1826, and summoned to appear and take his trial, he refused obedience to the summons, placed himself at the head of the troops, and became the nucleus of a strong party in ancient Venezuela, which, dissatisfied with the central system, demanded a reform of the government, some desiring that Venezuela should again be separate from New Grenada, others wishing for a federal constitution, like that of the United States. In consequence of this insurrection, the north-eastern departments of the republic remained virtually independent of the rest, until Jan., 1827, when Bolivar returned to Colombia, and succeeded in restoring the national authority, by promising to assemble a convention for the reform of the constitution. Meanwhile, various disorders broke out in other parts of the republic, and, in December, 1827, Bolivar, knowing that the re-elected presi- dent and vice-president, were duly qualified, the latter in May, and the former in Sept., 1827, and affairs remained tranquil until the convention assembled at Ocaima, in March, 1828. The violence of parties, and the disturbed state of the country, prevented the convention from adopting a new constitution; but Paez, who had been re-elected, was compelled to resign, and Bolivar, as the most respected of the leaders of the new republican party, was elected President of the confederation of Peru and Colombia, on June 13, 1828; and others followed in quick succession from every part of the country. Bolivar was not slow in obeying the call, and organized the new govern-
ment by appointing a council of ministers and a council of state for its administration, with D. Jose M. de Castillo for president of each council. This unpopular act was opposed by a party, some of whom, unfortunately, conspired to assassinate Bolivar. The attempt was made Sept. 25, 1828, but failed, owing to the bravery of the officers and attendants about his person, among whom his aid, colonel Ferguson, was killed. Generals Padilla and Santander were accused of participating in the plot, and condemned to death by a special tribunal. Padilla was executed under his sentence; but the punishment of Santander was commuted for banishment. The immediate agents in the attempt were apprehended, and suffered the punishment of death. This did not prevent general Ovando from raising the standard of opposition in Popayan, and gathering so large a force as to demand the immediate presence of Bolivar to resist it. At the same time, a declaration of war was issued against Peru, in consequence of difficulties between the two countries, arising out of the attempt of Bolivar to make himself perpetual president of Peru. Peace was made between the two countries in 1829. In October of the same year, general Cordova began an insurrection in Antioquia, and in January, 1830, Venezuela declared herself independent of Colombia, at the same time, solemnly declared, at Bogota, every imputation against him as aiming at a crown to be false, and retired to his country seat, after having refused to take any part in public affairs. His death, which took place in December of the same year, tended to quell the political commotions, and to restore tranquillity in the disturbed provinces. In 1831, general Paez was elected president of Venezuela; in the same year, general Flores was named constitutional president of Quito or Equator; and in 1832, Santander was elected provisional president of New Grenada. Regarding the future fortunes of these states, we cannot at present speculate. See the articles South America, New Grenada, Quito, Venezuela, Bolivar, &c. The following works may be consulted relative to Colombia: Humboldt's Tableaux de la Nature; Perspicacions Historiques et Geographiques de la Colombie, Paris, 1823, (translated into English, 1825); Colombia, 2 vols., 8vo, London, 1822. COLON. See Punctuation.

COLONEL; the commander of a regiment, whether of horse, foot, or artillery. There were times when the Colonels of the European continent regiments were commanded by generals; but this is no longer the case.

COLONIAL ARTICLES. See Commerce. COLONIZATION SOCIETY. American. One sixth part of the population of the United States consists of blacks. Of these, 1,392,196 are slaves (See Slavery); the remaining 250,000 are free. In some of the states, the free black population is oppressed by legal disabilities, and, in all, is virtually excluded from the enjoyment of some of the most important civil privileges, by the prejudices of the European race. A caste is thus formed in the state, of individuals below the salutary influence of public opinion, cut off from all hope of improving their condition, degraded, ignorant and vicious themselves, and leaving the same legacy of humiliation and shame to their children. The part they play, and the colonel's use them, on the other hand, with the slaves, and render them the fit agents for fomenting insurrections among them. On this account, they have become objects of suspicion and alarm in the slave-holding states; and the owners of slaves consider it impolitic and dangerous to emancipate their negroes, since they contribute to increase the strength of a dangerous class, without deriving any important benefits themselves from the change. This state of things gives rise to the colonization society. So early in the year 1777, the plan was posited by Jefferson, in the legislature of Virginia, of emancipating all the slaves born after that period, educating them, the males to the age of twenty-one, the females to that of eighteen, and establishing colonies of them in some suitable place. The plan of colonization has been subsequently approved by the legislatures of nine states; but it was first carried into execution by individuals. The society was formed in 1816. "Its object is, to promote and execute a plan for colonizing (with their consent) the free people of colour residing in that country, either in Africa or such other place as congress shall deem expedient;" to prepare the way for the interference of the government, by proving that a colony can be established and maintained without the opposition of the natives; that the colonists can be transported at a moderate expense; that an important commerce might be thus established, and the slave-trade in consequence discouraged. The practicability of the plan being proved, it was intended to extend it to the entire removal of the whole black population. In 1817, two agents were sent by the society to examine the coast of Africa for a site for the colony. They selected a position in the Sherbro, and, in February, 1820, the first vessel was despatched with eighty-eight colonists. They were conducted by an agent of the society, and accompanied by two agents of the government. The expedition arrived on the low coast in the rainy season; the three agents, and a great number of the colonists, were carried off by the fever of the colony, and it became necessary to abandon the colony. In 1821, another vessel was sent out, with twenty-eight colonists, and cape Mesurado was purchased as a more favourable position. It has a fine harbour, the climate is pleasant, and the soil is fertile, producing sugar-cane, indigo, and cotton without cultivation. In 1823, the emigrants amounted to 150, of whom several were recaptured Africans, taken from vessels seized for a violation of the laws of the United States. In 1829, the colony had 1,900 inhabitants. It has received the name of Liberia, and the town at the cape is called Monrovia, in honour of the ex-president Monroe. The possessions of the society extend 150 miles along the coast, and a considerable distance into the interior. Eight stations or settlements have been established, at the request of the native chiefs, who construct the necessary buildings for the accommodation of the colonists at their own expense. The colonists employ several hundred native labourers; and they are, in general, on very comfortable circumstances. Several schools have been established, and the moral and religious character of the inhabitants is excellent. By the constitution of Liberia, all persons born in the colony, or residing there, shall be free, and enjoy all the privileges of the citizens of the United States; the agent of the society possesses the sovereign power; the judiciary consists of the agent and two justices appointed by him; the other officers are chosen by the colonists. The common law is adopted, with the modifications already introduced in the United States, and others required by the peculiar situation. They have a code of civil law, which is entitled to trial by jury. The commerce of the place is increasing. Rice, palm-oil, wax, and some coffee, are exported. The supreme control of the government is to remain in the hands of the society until the settlers are in a condition to govern themselves.
While the benevolent exertions of the society have been thus successful in Africa, its influence on the public sentiment in America has been very salutary. The congress of the United States had already abolished the slave-trade, in 1808, as soon as the resources imposed by the continuance were removed. Through the representations of the colonization society, the act of March 3, 1819, was passed, authorizing the president to make arrangements for the support and restoration of recaptured negroes.

May 15, 1820, the slave-trade was declared to be impossible and punishable with death. The society has succeeded in overcoming the fears and prejudices of its former opponents; some of the most eminent statesmen in the slave-holding states have become earnestly engaged in the cause; the legislatures of several of the same states have contributed funds for its assistance; and, in 1829, the number of auxiliary societies amounted to ninety-six. The experiment has convinced the blacks themselves of the great benefits they must derive from their colonization, and the number of applicants for transportation has been constantly increasing. The emancipation of slaves is also a moral victory that France has made for them. In 1828, 100 were manumitted, and, in 1829, 200 were offered to the society, on condition that they should be sent to Liberia. Information concerning the history and objects of the society may be found in its annual reports published at Washington, in the African Repository also published at Washington, in the North African Review, January, 1824, and January, 1825 (Boston), and in the American Quarterly Review, No. 8, December, 1828.

**COLONNA, VITTORIA**, the most renowned poetess of Italy, was the daughter of Fabrizio Colonna, high-constable of Naples; and born in 1490, at Marino, a fief belonging to the family. At the age of four years, she was destined to be the wife of Fern. Franc. d'Avanos, marquis of Pescara, a boy of the same age. The rare excellences, both of body and mind, with which nature and a most careful education had adorned her, made her an object of universal admiration, so that even princes sued for her hand. But, faithful to her vow, she gave her hand to the companion of her youth, who had become one of the most distinguished men of his age. Their marriage took place in 1500. When her husband fell, in the battle of Pavia (1525), Vittoria sought consolation in solitude and in poetry. All her poems were devoted to the memory of her husband. She lived seven years, by turns at Naples and at Ischia, and afterwards retired into a monastery, first at Orvieto, and finally at Viterbo. She afterwards abandoned the monastic life, and made Rome her abode, where she died in 1547. Her *Rime* are not inferior to the best imitations of Petrarch. The finest are her *Rime Spirituali* (Venice, 1548, 4to), which display deep feeling and pure piety. A collection of all her poems appeared in 1790, at Bergamo.

**COLONY.** Before America and the way by sea to the East Indies were discovered, the states of Europe, in the middle ages, with the exception of the Genoese and of the Venetians, had no foreign colonies. The Mediterranean afforded a passage to an extensive commerce, which was chiefly carried on by the small Italian states, particularly Venice and Genoa, and the sea-ports of Catalonia. The commerce between India and the continents of Europe and Asia was carried on chiefly by way of Ormus and Hormuz, at the mouths of the Indus and of Albe po, Damaus, and the harbour of Barut, and especially Egypt, were the chief emporiums. As long as commerce was confined to land-carriage, and conduced by small states, it never could have the importance which it assumed in the hands of the Spaniards and Portugese, after America was discovered and the passage by sea to the East Indies effected. When the Portuguese nation first commenced its discoveries, its grandiories were revolved in Africa. By continual wars with the Moors, first in Europe and afterwards in Africa, the martial spirit of the nation acquired that chivalrous energy which impelled it to romantic enterprises, particularly as the most violent hatred against the infidels was connected with it. From 1410, when Henry the Navigator (q. v.) commenced his voyages and discoveries on the western shore of Africa, till his death, in 1469, the Portuguese discovered, in 1419, Madeira; in 1430, cape Bojador; in 1446, cape Verdi; two years later, the Azores; in 1449, the cape Verl ises, and penetrated to Sierra Leone. In 1484, Congo was visited. Bartolomeo Diaz reached (1486) the cape of Tempesta, which king John called the *cape of Good Hope*. Soon afterwards, under the reign of king Emanuel the Great, a daring adventu rer led the Portuguese by that route to the East Indies. Diaz discovered, in 1488, the island of Calcut, on the coast of Malabar. The Portuguese did not succeed without a struggle, particularly with the Moors, who had previously been in possession of the inland trade of India, in establishing settlements on the coast of Malabar, and nothing but the lofty spirit and the determined valour of the first viceroy, the great Almeida of Abrantes (1505—9), and of his still greater successor, Alphonso Albuquerque (1515), could have founded, with such feeble means, an extensive dominion in India; the chief seat of which, from 1508, was Goa. The Portuguese garrisoned some strong places along the coast of the continent and the islands, as commercial posts, among which, on the coast of Africa, Mozambique, Sofala, and Melinda; in the Persian gulf, Ormus and Mascat; on the Malabar coast, besides Goa, Din, and Dammun; on the Coromandel coast, Negapatam and Melapoor (St Thomas), and Malacea on the peninsula of the same name, were the most important. After the year 1511, colonies were established also upon the spice islands; after 1518, in Ceylon; the latter of which soon became considerable. Those in Java, Sumatra, Celebes, and Borneo remaind much the same. When, in 1640, the Dutch began to settle in 1600, by Caberal, did not become of consequence until more recently. On the other hand, the commercial connexions formed, in 1517, with China, and, in 1542, with Japan, were, for a long time, a source of riches to the Portuguese. Till that time, the Portuguese had been in the undisputed possession of all the East Indian commerce. In order to prevent difficulties with Spain, all the discoveries which should be made beyond cape Bojador were adjudged, in 1481, by a papal bull of Sextus IV., to the Portuguese. A dispute with Spain concerning the rights of the crown of the Malugares, in 1580, by an agreement that Charles V. should sell his claims, for 350,000 ducats, to the crown of Portugal. But, after Philip II., in 1580, had made himself master of Portugal, the East India colonies also fell under the dominion of the Spaniards, and, soon after, into the power of the Dutch. The ability of some great men, and the heroic spirit of the nation, had founded the power of Portugal in the East Indies. It fell when the character of the people degenerated, when a low trading spirit took the place of heroism, even among the higher classes of the nation; when navigation, though poverty-stricken, was still the life. Also, the influence of the clergy, and particularly of the inquisition, became predominant. To these causes of decline were added the annexation of Portugal to
Spain, and the neglect of the Portuguese colonies, resulting from this union. Moreover, all the enemies of Spain, particularly the Dutch, were now also enemies of Portugal, and the fabric of Portuguese greatness in the East Indies could not be preserved. A Dutch fleet and a traders' fleet were received with great satisfaction in this resumption of commerce with the East Indies by means of a privileged society, but by fleets which started every year, in February or March, for India, under the protection of the government. The coasting trade in India, which was confined to a few seaports, the Portuguese and the Dutch having already together the monopoly; but they contented themselves with carrying goods to Lisbon, without attempting to export them to the rest of Europe. The disadvantages of this system were soon felt by their marine, particularly as it allowed the Dutch to become dangerous rivals. From this time, the Portuguese maintained a place among the important colonial powers of Europe only by the possession of Brazil. It was fortunate, as regarded the colonization of this country, that its gold mines were not discovered till 1608, its wealth in diamonds not until 1728, and that its trade was monopolized by two companies till the time of Pombal.

At about the same time as the Portuguese, the Spaniards also became a colonial power. October 11, 1492, Columbus discovered the island of San Salvador, and, in his three following voyages, the group of the first line of islands seems clearly to have inhabited the American continent. St Domingo or Hispaniola became of great importance to Spain, on account of its gold mines. Attempts were also made to colonize Cuba, Porto Rico, and Jamaica, from 1508 to 1510. The great kingdom of Mexico was subjected by Cortes, 1519—1521; Peru, Chile, and Quito, 1530—1535, by Pizarro and his followers; in 1542, Terres Firma, and 1536, New Grenada, were conquered. The nature of the countries of which the Spaniards took possession, decided, from the first, the character of their colonies, which afterwards continued unchanged in the main. They did not produce the various precious articles of the East Indies, instead of which the Spaniards found gold and silver, the great objects of their desire. While, therefore, the colonies of the Portuguese in India were, from the beginning, commercial, those of the Spaniards in America were always mining colonies. It was not till later times that the Spaniards indulged in trade as a secondary character. To maintain their extensive dominion, particularly over the wild nations of the interior, the Spaniards endeavored to convert the Indians to Christianity by the establishment of missions, and to induce them to live in permanent abodes. The government of the colonies, in its fundamental traits, was settled in 1532, during the Reign of Charles V. A council of the Indies in Europe, viceroy, at first, two afterwards, four, together with eight independent captains-general, in America, were the heads of the administration. The real audiencia was the council of the viceroy or captains-general. Cities were founded, at first along the coasts, for the sake of commerce and as military posts; afterwards also in the interior, in particular, in the vicinity of the mines; as Vera Cruz, Cumaná, Porto Bello, Carthagena, Valencia, Caracas; Acapulco and Panama, on the coast of the Pacific; Lima, Concepcion, and Buenos Ayres. The whole ecclesiastical jurisdiction of the Indians was in the hands of the viceroy and the viceroys of the colonies, except that, in the latter, the church was much more independent of the king. The precious metals were the chief article of export from the colonies, and the commerce in them was subjected to very rigorous inspection. The intercourse with Spain was conducted to the single port of Seville, from which two squadrons started annually—the galleons, about twelve in number, for Porto Bello, and the fleet, of fifteen large vessels, for Vera Cruz. While, therefore, the commerce was not expressly granted, by law, to a society, it remained, nevertheless, entirely in the hands of a few individuals. Spain had taken possession of the Philippines in 1564, and their commerce was maintained, from 1572, by the South sea galleons, between Acapulco and Manilla; but, owing to the great restrictions on commerce, those islands, notwithstanding their advantageous situation, were an expense to the crown, instead of being profitable to it; religious considerations alone prevented them from being abandoned.

Far greater activity and political importance were communicated to the colonial commerce of Europe, when two commercial nations, in the full sense of the word,—the Dutch and the English,—engaged in it. The Dutch, during the struggle for their independence, first became the formidable rivals of the Portuguese, then subjected to the Spanish yoke. The participation of the Dutch in the colonial system imparted to the colonial commerce a new impulse and a far greater extent. They had already, for some time, carried on their trade in East India between Lisbon and the rest of Europe, and had seen, during the struggle for their independence, the weakness of the Spanish naval force. The tyranny of Philip II. forced them to a measure which they would not readily have adopted from choice, that of fighting单独 them. The Dutch had established, in 1572, the East India company; the intercourse with the Dutch with Lisbon had already been prohibited by Philip in 1584; the prohibition was revived, in 1594, with the utmost severity, and a number of Dutch vessels in the harbour were seized. Excluded from all trade in the productions of India, they had now no alternative left, but to resign this branch of commerce entirely, or to import directly from India the articles which were refused to them in Europe. Encouraged by Cornelius Houtmann, a well-informed man, who had made several unsuccessful attempts to find a northern passage to the East Indies, the "company of remote parts," composed of merchants of Amsterdam and Antwerp, equipped four vessels, which set sail for the East Indies, April 2, 1595, under the command of Houtmann and Molemaen. Though the profits of the first expedition were not so great as had been expected, the weakness and unpopularity of the Portuguese, who were universally hated in India, and the want of knowledge in the far-distant region, combined to enable the Dutch to maintain themselves, which sent fleets to this rich region. The number of competitors in India was thus immediately increased, and the continued hostility of the united Spanish and Portuguese power induced the states-general, not many years afterwards, to unite the separate societies into one, called the Dutch East India company, which, by a charter granted March 20, 1602, and renewed afterwards at different times, received not only the monopoly of the East India trade, but also sovereign powers over the conquests which they should make and the colonies which they should establish in India. The supremacy which the states-general retained for themselves was little more than nominal. The colonial system of the Dutch in the East Indies was rapidly developed, and early received the decided character which it has ever since retained. Their colonies in the East Indies became commercial colonies; and the Moluccas, being more easily defended than the continent of India, which was then subjected to powerful rulers, became the principal seat of their power. This was undoubtedly the chief cause of their continuing so long in a flourishing condition, as they required only the dominion of the sea to maintain them. In 1618, the newly built Batavia was made.
by the governor-general Koen, the capital of the Dutch possessions. The Dutch now rapidly deprived the Portuguese of all their East Indian territories, not, indeed, without resistance, but with little difficulty; and, in 1611, they found means to establish colonies on the island of Java, in the strait between Java and Sumatra, where the Portuguese retained but a few insignificant possessions in Goa, the melancholy remains of their former grandeur. About the middle of the 17th century, the power of the Dutch reached its highest point; particularly after they had effected the establishment of a colony on the island of Good Hope, which, in 1653, afforded an excellent bulwark for their East India possessions, and had taken Ceylon from the Portuguese in 1658. All the Dutch colonies in the East Indies were under the governor-general of Batavia, to whom were subordinate several governments, directories, commanderies, and residencies, the titles and number of which varied with the importance of the different colonies at different times. In Europe, the colonial administration was conducted by a council of ten Bevindhebers, who were chosen from a body of sixty directors, the Dutch East India Company also had some West India Company, which at first, made extensive conquests in Brazil (1630—1649), but lost them again in 1642. Their settlements on some of the smaller West India islands, as San Eustatia, Curacao, Saba, and San Martin (1632—49), were more permanent, and were particularly important on account of the smuggling trade there carried on. On the continent, only Surinam, Paramaribo, Essequibo, and Berbice were in the hands of the Dutch in 1667.

Nearly at the same time with the Dutch, the English made their appearance as a colonial power, at first, with far inferior success. They first visited remote seas during the reign of queen Elizabeth. After many fruitless attempts to find a north-east or north-west passage to the East Indies, English vessels found their way round the cape of Good Hope to the East Indies in 1591. Dec. 31, 1600, Elizabeth granted a charter to a society instituted for the purpose of carrying on an exclusive trade beyond the cape and the straits of Magellan. Their commerce with India, however, was not, at first, important. They established only single factories on the continent. The island of St Helena, which was taken possession of in 1601, was not of any permanent possession in that quarter of the world. During the reign of Charles I., in 1623, the English East India company was driven from the Spice islands by the Dutch, and retained, besides Fort St George built in 1620, at Madras, only some factories on the coasts of Malabar and Coromandel. From 1653 to 1658, the company seemed to be entirely dissolved, until it was revived and supported against the Dutch by Cromwell. But, during the reign of Charles II., it again fell into decay, chiefly by its own fault. A new East India company, with a charter from the crown, was formed in 1668, and the union of both in 1708, as it then seemed, alone saved the East India trade from total ruin. The possessions of the English in India were limited almost entirely to Madras, Calcutta, and Bengal, and the vast British empire there dates only from the middle of the 18th century. The ruin of the Mogul empire in India, which commenced by the war between Aurung Zeb (1707), and was completed by the incursions of Nadir Shah (1739), afforded the opportunity for the growth of British power, as the British and French interfered in the contentions of the native princes and governors. The French, under Labourdonnais and Duplex, appeared, at first, to maintain the superiority; but the British succeeded, after driving both of them from India, in acquiring the ascendency in the Carnatic; and, in the middle of the last century, they extended their dominion, under the command of Lawrence and Clive (q. v.). By the destruction of Poonaherry, they secured their superiority in the Carnatic, and the foundation of the city of Clive at Plassey, June 28, 1756, laid the foundation of their exclusive sovereignty in India. By the treaty of Allahabad, Aug. 12, 1765, Bengal was surrendered to the British by the titular great Mogul, and the nabob of the country retained but a shadow of dominion. By the treaty of Plassey, June 28, 1765, the dominions of Hyder Ali and Tippoo Saib, may be considered as completely establishing the exclusive sovereignty of the British in India. The Maharratas, with whom the British first waged war in 1774, remained the only formidable enemies of the company. The British territory in India was now of an extraordinary extent, including the whole eastern shore, the greater part of the western, and all the countries on the Ganges and Jumna to Delhi. (For the recent changes in the British and Dutch East Indies, see India and East India Companies.) At almost the same time as the British, the French began to participate in the East India commerce, the London and Plymouth companies were established (1600) by James I.; the former for the southern, the latter for the northern coast of the North American coast; and, in the same year, Jamestown, on Chesapeake bay, was founded. The colonies in a country which possessed neither gold nor other productions of nature or art particularly adapted for commerce, necessarily became agricultural colonies. During the domestic disturbances in England, which caused much emigration, the North American colonies greatly increased; separate colonies were formed, and, after the dissolution of the London company in 1629, and of the Plymouth company in 1637, received constitutions containing many republican principles. In later times arose the English establishments in the West India islands, including Barbadoes, half of St Christopher's (1623), and, soon after, many smaller islands. Yet the West India possessions did not become important as plantations until the sugar-cane was introduced into Barbadoes (1641) and into Jamaica in 1660. This island had been taken from the Spaniards in 1655. The British colonies in North America prospered much more than those in the West India islands; they were not exposed to the same difficulties. England in 1660 introduced the latter in 1732. In the same year, Georgia, the youngest of the thirteen provinces, was founded. Newfoundland (in French, Terre-neuve) also became important for its cod-fisheries, and Canada was surrendered to Britain at the peace of Paris, in 1763. In 1764 began the dispute between Britain and its North American colonies, on the question, whether the former had the right to impose taxes on the colonies when they were not represented in the British parliament; and, April 19, 1775, commenced the war, in which the Americans were assisted by France, and which terminated with the acknowledgesment of the independence of the thirteen provinces. By the peace of Paris (1783), the first independent state in the new world was recognised in Europe. The power of Britain was not broken by this event; its commerce with the new republic increased rapidly. Canada and Nova Scotia were now the centres of the British. The British West India islands rose in proportion as the restrictions on commerce diminished. But the free states of North America advanced with giant strides; their number has increased from thirteen to twenty-four, and their flag waves over every sea. The West India colonies, however, were unfavourably affected by the extension of the cultivation of pro-
ductions previously peculiar to them. The slave-trade was also abolished (1806).

France acquired colonies later than the Dutch and English. Her colonies, and what, at first was thought indispensable for them, commercial companies, were the work of Colbert. He purchased, on the East India trade, a share in the Dutch monopoly, in 1664, and declared that the British Isles, St. Lucia, Grenada, and others, settlements already formed by private persons (1664), and, in the same year, sent colonists to Cayenne. But the settlements on a part of St Domingo by the piratical state of the Buccaneers became the most important. The West India commerce, on this footing, increased. It survived only ten years. Sugar and cotton, and, since 1728, coffee (first introduced into Martinique), have been the most important productions of the West Indian colonies, which, by the great commercial privileges granted them in 1717, and by the smuggling trade with Spanish America, soon obtained the ascendency over the English. Though France, by the terms of the peace of Paris (1763), lost some of its smaller islands, it was indemnified by the riches of St Domingo, which furnished, in the years preceding the revolution, an annual gross revenue of 15,000,000 livres. The French did not meet the competition of the West Indies together. In 1791 and the succeeding years, St Domingo suffered terribly, but it has risen again under an entirely new form. (See Hayti.) In 1661, France possessed Canada, Acadia or Nova Scotia, on the continent, and the island of Newfoundland. These colonies, however, made but slow progress. The last was ceded to Britain by the treaty of Utrecht (1713); the two first, with Cape Breton, in 1763. Louisiana, declining in prosperity, was given up to Spain (1764), and Cayenne could ill afford for these losses. Louisiana was afterwards restored to France, but sold by her, in 1803, to the United States. The French did not meet with much better success in their attempts to establish themselves in the East Indies. In 1664, Colbert founded an East India company. After fruitless attempts to form a colony in Madagascar, Pondicherry was founded on the coast of Coromandel in 1670, and soon became the chief seat of the French East Indies. But the company fell into decay. In 1719, it was united with the Mississippi company, but still remained feeble. On the other hand, the English took possession of Isle de France and Bourbon, in 1720, which had been abandoned by the Dutch. This island, with Mauritius, was held under the administration of Labourdonnay (commencing in 1736), by the cultivation of coffee, whilst Dupleix, as governor-general of Pondicherry, had the direction of affairs in the East Indies. Here the arms of the French had been successful since 1751; but the peace of 1763 deprived them of their conquests, and the East India company was dissolved in 1769. The French now possess only Karical and the demolished town of Pondicherry. By the possession of the island of Bourbon alone they have maintained a doubtful influence upon the commerce of the East Indies.

The Danes and Swedes have likewise had colonies; and there was a time when even Austria endeavoured to partake in the colonial commerce. An East India company was formed in Denmark, in 1618, in the reign of Christian IV., which acquired Tranquebar, a settlement on the coast of Tranquebar, in 1675, which was dissolved in 1684. The second company, formed in 1670, which survived till 1729, was not more fortunate. In 1671, the Danes also occupied the West India island of St Thomas, to which were added, in the first half of the 18th century, St John and Santa Cruz, which they purchased from France. In 1734, a West India company was established; but, on its dissolution (1764), the commerce with the West Indies was made free to every one, and the islands there improved rapidly. The East India commerce, for which a company had been instituted in 1732, was also very lucrative. But the company traded chiefly with China, and ceded their settlements in the East Indies in 1769, to the British. When the Danes had got it had no possessions in India, established an East India company, in 1731, in order to engage directly in the tea trade with China, which it carried on with much success. In 1784, by the acquisition of the small island of St Bartholomew from France, it gained a firm footing in the West Indies. Denmark was less successful. Under the reign of Charles VI., she attempted to engage in the direct commerce with the East Indies by establishing the company of Ostend (1722), but was obliged, by the violent opposition of Britain and Holland, to dissolve the company in 1751. An attempted settlement, in the last quarter of the 18th century, on the Nicobar islands, in the Indian ocean, which were occupied, in earlier times, by the Danes, but abandoned on account of the unhealthy condition of the situation, was equally unsuccessful.

A company was first established in Russia, in 1787, for obtaining furs on the Kurile isles, the Aleutian islands, and the north-west coast of North America. An akuse, in favour of this company, forbidding other nations to trade and fish on the coasts of Asia and North America, from 51° North lat. on the American side, and the south cape of the island of Uper on the Asiatic, together with the intermediate islands, met with opposition from the United States; but, by a treaty concluded at St Petersburg, April 17, 1824, it was agreed that the people of both governments should be allowed to trade or fish unmolested in any part of the Pacific ocean or its coasts. It was also agreed that Russian vessels, originating from the north-west coast to the north of 54° by citizens of the United States, nor to the south of the same point by Russian subjects.

While the slave-trade was unobstructed, Africa was of much importance in respect to the colonial interests of Europe. The African establishments are mostly single fortified factories along the coasts of Africa. Their chief object was the slave-trade, which was chiefly carried on by privileged companies. A free negro colony was founded at Sierra Leone, by the British (1780), and the abolition of the slave-trade (q. v.), which originated with Denmark, and which had been in force in Britain (1802 and 1806), must necessarily affect the African settlements.—The discovery of Australia led, in 1788, to the settlement at Sydney cove, in New South Wales, and those in Van Diemen's land (q. v.), which soon became flourishing colonies. See New South Wales.

The commerce of the world (see Commerce) received a powerful impulse from the colonies, and the nations soon perceived that these constituted one of the chief sources of their wealth. It is, however, not to be denied, that the illusions of the mercantile system, so called, and, still more, the great wealth which some colonial powers acquired, and which was attributed exclusively to their colonial trade, caused an exaggerated value to be affixed to this commerce, without sufficient regard to the particular character and genius of the different nations, their geographical and political position, and the resources of each time. Under the influence of this misapprehension, each state endeavoured to exclude all strangers from participating in it; and a law of nations was formed, with regard to the colonies, which was distinguished from the common European law of nations by its ungenerous principles. Thus the Portuguese and Spaniards endeavoured to exclude all other Euro
pean nations from navigating the seas on which their colonies were situated, and to maintain this assumption by force. But neither Spain nor Portugal was able to maintain, for a long time, their exaggerated pretensions, against which England and Holland declared themselves very early. No sooner, however, had the Dutch established their footing on the colonies of the English and the Portuguese trade, than they announced, if not the same, yet not much nobler principles. Though it was acknowledged, in general, that the Indian seas were not the exclusive property of any power, yet the new proprietors endeavoured to secure the exclusive dominion of some seas, if not of the whole, by treaties, but also by acts of violence and oppression, even in the midst of peace. The principle was adopted, in general, that each European nation should be excluded from commerce with the colonies of every other, and not unfrequently foreigners were forbidden even to land. Great Britain first declared the colonial trade free, in 1822, and the Netherlands seem inclined to follow this example. The colonial trade is divided into three principal classes; the mutual trade between the different countries of those distant regions; the mutual commerce between Europe and the colonies, and the trade in colonial articles in Europe. The first trade between the countries where the colonies are situated, which, in the East Indies, before the arrival of the Portuguese, was almost exclusively in the hands of the Arabs or Moors, the Europeans early sought to appropriate; yet they did not succeed in making themselves so entirely masters of it, as to exclude other nations, in later times, chiefly the Chinese and Hindoos, from taking a considerable share in it. As little did the trade in colonial articles in Europe remain the exclusive property of one nation, though the nation which had brought the goods from the countries where they were produced, had many advantages over others, which were obliged to purchase from it. With the exception of the Spaniards and the Portuguese, who have mostly sold in their own ports the productions which they had brought from their colonies, the nations of Europe have endeavoured to be themselves the exclusive carriers of the productions of their colonies to the different parts of the Europe continent. But it was chiefly the intermediate trade between Europe and the colonies, which every nation reserved to itself, to the exclusion of all foreigners. This was the universal practice, even in time of peace, and was retained also in time of war, as long as the war lasted; but, as soon as it was over, it was, till the middle of the last century. At that time, the British navy attained such a decided superiority, that, during the wars between Britain and France, the latter dared not continue the commerce with its colonies. The French, therefore, adopted a policy, usually practised by them, and the other less powerful colonial powers, in their future wars with Britain, viz: to declare the trade of the colonies free to all friendly and neutral vessels. By this means, they secured not only their colonies, which could not well do without their supplies, but saved at least a part of the produce of the colonial trade; for the neutrals would purchase the goods of the colonies, with which they were allowed to trade, and to carry them off as their own property. The British, on the other hand, maintained that this was, in most cases, only a fictitious sale, and that the neutrals were, in one case as well as in the other only the carriers for the billi-

genters. This was, no doubt, the fact in most cases, when, for instance, great purchases were made for places and countries where there could be no market for such a quantity of colonial articles; or when some commercial houses, entirely unknown before, suddenly had immense dealings in colonial articles, which they declared were carried to the colonies, not by the colonial trade, than they announced, if not the same, yet not much nobler principles. Though it was acknowledged, in general, that the Indian seas were not the exclusive property of any power, yet the new proprietors endeavoured to secure the exclusive dominion of some seas, if not of the whole, by treaties, but also by acts of violence and oppression, even in the midst of peace. The principle was adopted, in general, that each European nation should be excluded from commerce with the colonies of every other, and not unfrequently foreigners were forbidden even to land. Great Britain first declared the colonial trade free, in 1822, and the Netherlands seem inclined to follow this example. The colonial trade is divided into three principal classes; the mutual trade between the different countries of those distant regions; the mutual commerce between Europe and the colonies, and the trade in colonial articles in Europe. The first trade between the countries where the colonies are situated, which, in the East Indies, before the arrival of the Portuguese, was almost exclusively in the hands of the Arabs or Moors, the Europeans early sought to appropriate; yet they did not succeed in making themselves so entirely masters of it, as to exclude other nations, in later times, chiefly the Chinese and Hindoos, from taking a considerable share in it. As little did the trade in colonial articles in Europe remain the exclusive property of one nation, though the nation which had brought the goods from the countries where they were produced, had many advantages over others, which were obliged to purchase from it. With the exception of the Spaniards and the Portuguese, who have mostly sold in their own ports the productions which they had brought from their colonies, the nations of Europe have endeavoured to be themselves the exclusive carriers of the productions of their colonies to the different parts of the Europe continent. But it was chiefly the intermediate trade between Europe and the colonies, which every nation reserved to itself, to the exclusion of all foreigners. This was the universal practice, even in time of peace, and was retained also in time of war, as long as the war lasted; but, as soon as it was over, it was, till the middle of the last century. At that time, the British navy attained such a decided superiority, that, during the wars between Britain and France, the latter dared not continue the commerce with its colonies. The French, therefore, adopted a policy, usually practised by them, and the other less powerful colonial powers, in their future wars with Britain, viz: to declare the trade of the colonies free to all friendly and neutral vessels. By this means, they secured not only their colonies, which could not well do without their supplies, but saved at least a part of the produce of the colonial trade; for the neutrals would purchase the goods of the colonies, with which they were allowed to trade, and to carry them off as their own property. The British, on the other hand, maintained that this was, in most cases, only a fictitious sale, and that the neutrals were, in one case as well as in the other only the carriers for the billi-
COLONY.—COLONIES.

general, with more violence and haughtiness than the single, defenceless merchant, who cannot count on the protection of an armed power. That companies are not necessary for carrying on the colonial trade is proved by the example of the Spaniards and Portuguese in India. As a rule, independent nations live in the enjoyment of the most flourishing periods. Instead of considering the companies as the cause of the flourishing state of the East India trade, we ought rather to be astonished that, notwithstanding the companies, this commerce has prospered so much. The rapid success of the Dutch and English in particular cases is to be ascribed to similar institutions which were not attended with equal success. Besides the companies, there were other restrictions on the colonial trade. Every subject, for instance, was forbidden to sail for the colonies in the service of a foreign power, or without the permission of a company, which possessed the monopoly of their trade. The trade was also usually confined to a few ports, to a certain number of vessels, and to certain times. More liberal principles have been adopted only in recent times. The exclusive privileges have been limited, and the unprivileged, as for instance, in this country, permitted to partake in the colonial trade. In general, however, the privilege has been allowed to this trade. In the government of the colonies, the same principle of keeping them in a state of dependence was maintained. Their trade and government were always in the closest connexion, though in different degrees in different colonies.

Colonies, in general, may be divided, according to their nature, into four large classes, viz., agricultural, mining, planting, and commercial colonies. In the first, to which belong chiefly the colonies in North America, agriculture is the chief object. The Europeans who settled there became landed proprietors, and seldom returned to their native country. In the second and third generation, the move the ties of affinity and other connexions with the mother country disappear, and the recollections of it vanish, the colonists form more and more a distinct nation, and become more and more estranged from their native country. Hence, as experience has shown, the possession of such colonies is insecure as soon as the population increases, and the inhabitants come more into contact with each other. The mining colonies, the chief object of which is the acquisition of precious stones and metals, are nearly in the same condition; as for instance, the settlements of the South Sea Company in South America, are, from their nature, easily converted into agricultural colonies, and may form, though more slowly, distinct, independent nations; as is the case with the settlements in South America already referred to. (See South American Revolution.) It is entirely different with the planting colonies, the object of which is the production of certain plants which generally grow only in a hot climate, as, for instance, the settlements in the West India islands. Here a nation is not easily formed. Europeans are the proprietors of the plantations; but their number is small; besides, they seldom become domesticated there, but, on account of the unhealthy climate, and the inconveniences attending the manner of living there, either administer their plantations by a steward, spending their revenues abroad, or remain in the colonies only until they have collected a fortune, when they return to their native country. The small number of planters (for the greater part of the population consists of negro slaves, who are used exclusively for the cultivation of the plantations) is the cause that establishments of this kind are least able to dispense with the protection and support of the mother country. Similarly situated are the commercial colonies, which are intended to dispose of the natural or artificial productions of the country. They grow up from single factories and commercial stations, which, by fraud and force, successively make themselves the centres of considerable territories. The possession of landed property in them is only a means for the promotion and increase of the trade. The proprietors of this kind, are the rulers, but seldom landed proprietors; they are mostly soldiers, officers, and merchants. For this reason, a nation is not easily formed in them, as the Europeans residing there merely wish to make a fortune and return to their native country. On account of the nature separate and possessive in the three principal governments of British India, the influence of the civil residents over the troops stationed in the states of the allies of the East India company, the mixture of the royal troops with those of the company, the great influence of the royal forces in Ceylon, and the frequent changes of the garrisons, a military revolution is not much to be feared in British India. The hardest fate which the inhabitants of commercial colonies can suffer, is to fall into the hands of commercial companies which form, at the same time, sovereign political bodies. The abuses and mismanagements of the companies have obliged the government to interfere in the most secret and important matters of them more or less under their own immediate superintendence, and to limit them chiefly to trade. The governments of agricultural, mining, and planting colonies are usually of a different character. In them, it is not merely conquered tribes which are to be ruled, but principally Europeans themselves, who have settled in them, former inhabitants of the mother country, and therefore to be treated with far greater delicacy. The government of the mother country has usually taken care of the administration of these colonies itself; and, where they have been managed by companies, the colonies have had, at least, some part in the government: several of them have enjoyed an almost republican constitution. After the abolition of the slave-trade, a fifth class of colonies was formed on the African coast—colonies for the civilisation of freed slaves—approaching most nearly to the nature of agricultural colonies. The most important is at Sierra Leone (q. v.), under British authority. It will become an important military and commercial post, as its connexion with the interior of Africa increases. A similar colony, called Liberia, was founded at cape Mesurado, on the coast of Guinea, in 1817, by the people of the United States. See Liberia. The Liberian government has not been successful. In 1829, the authorities of Cincinnati (Ohio) ordered the black and mulatto persons to give security for their good behaviour, or to leave the place. This description of persons in that town amounted to about 2000, many of whom decided to settle in Canada. They purchased 124,000 acres of land; and the colony is said to contain, at the time we are writing, 1100 persons.

COLONIES, MILITARY, OF RUSSIA. The Russian military colonies differ much from those of Alexander of Moscow and those of the ancient Romans, and also from the Military Frontiers of the Austrian empire, and the distributed troops of Sweden. Russia has endeavoured, by the settlement of entire regiments in particular districts, under a peculiar military, civil, and police government, to form the civilisation of the country. This is the work of crown peasants and paid soldiers, whereby agriculture, population, and civilization may be advanced, and the standing army of the empire increased without burdening the revenue.

Count Arakatscheff, who rose by merit from a low rank in the army to that of general of artillery, is the author of this system, and for a time directed its execution. When the emperor Alexander, at the
colonies.

termination of the wars with Napoleon, desired plans for diminishing the great expense of standing army, Araktschesjew advised him to quarter the soldiers among the crown peasants, to build military villages on a given plan, to allow to each house a certain number of acres for fields, cultivation of the soil, and the government of this institution. The soldier was thus to become a peasant of the crown, and the crown peasant a soldier, and both were to be made to contribute to their own support by the cultivation of the soil, and the whole male population of the colonies was to be drilled in the military exercises, and be afterwards, as far as may be, for the full extent of the vast extent of the empire, the recruits hitherto levied had often been totally separated from their homes; they joined their regiments, and, after twenty-five years of service on the frontiers of Turkey, Persia, Poland, Norway, and China, forgot that they had families and a country. It was therefore considered desirable that the whole military force of the Russians along the boundaries of Poland, Turkey, and the vicinity of Caucasus, should be collected into military colonies, by which not only the population and cultivation of the country should be promoted, but the military forces of the country provided for, but also the soldiers themselves in times of peace, and in the midst of their wives and children, and around their own firesides, should acquire an attachment to their country. Such colonies were first established in the government of Novgorod; the soldiers were placed in certain villages, which were the property of the crown; the peasants were gradually brought under military government, obliged to wear their hair short, and to shave their beards, and were also drilled in military exercises, so that, in case of the death, absence on service, or sickness of the quartered soldier, the peasant could immediately take his place. Some disorders, the consequence of this project, were soon suppressed, and the whole system gradually developed. According to this system, the name, age, property, and family of each inhabitant of the selected villages are specified; the older peasants are declared the chief colonists, and houses built for them, in regular rows constituting streets. Each chief colonist is equipped in uniform, trained to military exercises, and receives a house with fifteen de- tincts of land, on condition of maintaining one soldier and his horse, if cavalry is colonized. The soldier quartered on him is called the agricultural soldier, and assists him in the tillage of the fields and in domestic concerns, also serves as an assistant, commonly the eldest son, who, after the death of his father, with the approbation of the colonel of the regiment, inherits his real estate. The second son, or some other relation, comes into the reserve, and also dwells in the house; the third is also made an agricultural soldier; the others are colonists, &c. A family is divided into three classes. The boys, until they are eight years of age, are allowed to remain with their parents; they are then sent to the military schools, where they are habituated to strict discipline: at the age of thirteen years, they become colonists, and at the age of sixteen as agricultural soldiers. At seventeen years, they form a part of the military colony, which is governed by a peculiar code. Each colony has its own court of justice, at which the highest officer presides, and the rest follow according to rank. No girl is permitted to marry any one but a soldier. No person is allowed to enter the military district without a special pass from the military authority. The duties connected with the post-houses are also committed to the care of the soldiers. After twenty or twenty-five years' service, the agricultural soldier may renounce his double duty as a soldier and a farmer, or declare himself an invalid. His place is then filled by one of the reserve. Thus did Russia, in 1824, already established a kind of military caste, and, as it were, a military zone, which extends from the Baltic to the Black sea, and forms a part of the Russian empire, in the governments of Novgorod, Cherson, Charkow, and Ekaterinoslaw, and constitutes the proper country of her standing army. In this belt of land, all the male children are born soldiers; in their seventeenth year, they are placed under the standards, constantly drilled in military exercises, and remain soldiers till they are sixty years of age. It is to be observed to be a boor. They are divided into regiments, companies, &c., for whose support a part of the crown- lands is set apart. From the produce of the land granted them, the soldiers of the colony must support themselves and their horses, while not in active service; they receive pay. It is calculated, that the number of these agricultural soldiers, when the system is fully carried into execution, will amount to 3,000,000, half of whom can be drafted for service. The colonies already established, in 1824, contained about 400,000 male inhabitants, including 40,000 cavalry and 70,000 dragoons. In 1828, it is estimated that there are none of much importance in Russia. General count Araktschesjew was, till the death of Alexander, the commander-in-chief of all the military colonies of the empire. In January, 1824, all the military colonists of the military orphan schools (in which reading, writing, and arithmetic are taught by the Lancastrian plan, and the soldiers' catechism explained), were made subordinate to the commander-in-chief of the military colonies. Of the cantonists, a considerable number yearly enter the military service, in the place of those of the reserves, who have been drafted to supply the numbers of the agricultural soldiers. The boys then sent out vacated by these cantonists, and so on. A military education is the peculiar support of this system, which subjects the peasant to a military police. For the education and support of the boys and cantonists, the revenue obtained from the release of recruits is appropriated. The proprietors of landed property in the thinly settled governments were released from the duty of levying recruits, by the payment of a certain sum of money; 3500 of these releases, at 2000 roubles paper money each, were issued, which produce an income to the state of 7,000,000 of roubles. The expenditures for the military colonies amounted, according to the report of the commander-in-chief, in the year 1822, to 4,962,475 roubles, and the total expenditure since their organization, to 1824, amounted in all to 15,780,115 roubles. Of the 6,000,000 of crown peasants, 4,000,000 are sufficient to furnish recruits to the army (600,000) and soldiers (800,000). The army consists, together with her present army of 8—900,000 men (according to the rolls, though not in actual service), would have one equally strong in her colonists, which can be recruited from the cantonists and the body of reserve, without interruption, and in the best manner. A very large district will be required to preserve a body of 2,000,000 of soldiers, who have houses and families, under military discipline and restrictions. This system, since the death of the emperor Alexander, has been extended no farther, but, as far as it was already in existence, has been retain-
ed, and was for a time under the direction of gener-
ral Diebitsch. Mr. Lyall, in 1822, visited the Rus-
sian military colonies, and gave an account of them
in his Travels through Russia (London, 1824).

COLONIES, Pauper. The public attention has,
of late, been directed to the new and highly inter-
esting establishments in Holland, which have ac-
tained the name of pauper colonies. The object of
these institutions is to remove those persons who are
a burden to society to the poorest waste lands, where,
under judicious regulations, they may be enabled to
profit for their own subsistence. The last account that
we have seen of these establishments has been pub-
lished by Mr. Jacob, the reporter on the corn trade.

As the subject is so interesting and novel, a
detailed account, we hope, will be agreeable. Of
the pauper colonies, the one which Mr. Jacob
selects for illustration is that of Frederics Oord.
The originator of this scheme was general Van den
Bosch. The general, while in the island of Java,
had formed a connexion with a Chinese mandarin,
whose skill in farming he had admired, and who had
under him a colony of emigrant Chinese. On his
return to Europe he had the grand design of the
Netherlands a plan for a pauper establishment, which
met with the royal patronage. A public meeting
was held at the Hague in 1818, and a "society of
beneficence" formed, and two committees organized
for its management. The president was prince Fre-
derick, the second son of the king. During the
sanction of the king, the society was recommend-
ed to all the local authorities, and soon found itself
in possession of £6,625, obtained from more than
20,000 members. With these funds the society pur-
chased an estate on the east side of the Zuyder Zee,
and not far from the town of Steenwijk. This estate
cost £4,882, and contained from 1200 to 1300 acres,
about 200 of which was under a sort of culture,
covered with bad wood, and the rest a mere heath. They
let the cultivated land, about one-tenth of the whole; deepened the Aa (which runs through the estate), so that it is navigable for boats, and built store-houses, a school, and dwellings
for about fifty-two families, of from six to eight per-
sons each. Their operations were begun in Septem-
ber, 1818; by the 10th of November the houses were
ready; and the communes sent some poor fa-
milies. The total expense of each family was £150,
and it cost £100 to build the buildings of each family;
the clothing, implements of domestic life, furniture and implements; the clothing; two cows, or one cow and ten sheep; cultivation and seed, first
year; advances in provisions; advances of other
kinds; flax and wool to be spun, and seven acres un-
cultivated land. This sum allowed about £25 for
each individual, and they are expected to repay it to
the society in rent and labour, besides maintaining
themselves, in about sixteen years. Each allot-
mant of seven acres is laid out in a rectangle,
having the house with one end toward the road,
and the other reaching fifty feet into the allotment.
The dwellings occupy the part next the road; then
comes the barn, after that the stables for the cattle,
and behind these the reservoir for manure, in which
every particle of vegetable and animal refuse is care-
fully made up into compost, with the heath and moss
of the land; the preparation of this compost being one
of the most essential of their labours.

The colonists are subjected to a kind of military
regulation, all their work being done by the piece.
They assemble at six in the morning, in summer and
winter, and those who do not answer to their names
at the roll-call get no wages for the day. When the
labour of the day is over, each receives a ticket stat-
ing the quantity of work he has performed. He may
procure food from the store at fixed rates. Those who
are at first unable to support themselves obtain cred-
its for a short period. The women spin, weave, and
knit, at first from purchased wool and flax, but as
soon as possible from the produce of their own flocks
and fields. A day and a half's work every week is allowed them for the care of the young and those who are not fit for labour; and for this, those
who work are allowed one shilling per day in sum-
er, and eight pence in the winter. The whole of
the necessaries and appointments are regularly in-
spected with military care, and such as have been
wasteful are obliged to make good what they have
destroyed. It will be borne in mind, that the whole
stock out of which each family of six or eight per-
sons is to find support, and, if they can, effect some
savings, is the stock of £150, and the seven acres of
waste land, which is of a description not the most
susceptible of cultivation. The careful preparation
of manure, the most remarkable feature in Chinese
husbandry, is the grand resource; and the result is
most encouraging, as an example of how much reg-
ularity and perseverance may effect with small
means.

As the preparation of manure is still very imper-
fectly understood, and as many families throw away
what constitutes, with these colonies, the elements
of prosperity, we give some details from Mr. Jacob's
book, the utility of which must compensate for their
homeliness. When the house and barn are built, the
soil formed, by mixing sand and clay; a compost,
which makes it sufficiently retentive of moisture, the
land manured, dug, and one crop sowed or planted
on it, then a family, consisting of from six to eight
persons, is fixed on at an expense, as before stated,
of £150. To enable this household to subsist, to pay
the rent, and to save something, it is necessary that
very assiduous farming be persevered in. The direc-
tions therefore require, and, by their enforcement of
the prescribed regulations, indeed, compel each family
to provide sufficient manure to dress the whole of
the land every year. For this purpose, each household
must provide itself with 150 tons of manure yearly,
or at the rate of more than 20 tons to each acre.
When it is considered that few of the best Eng-
lish farmers can apply one-half that quantity of
manure, it will not appear wonderful that seven acres
should be made to provide for the sustenance of the
same number of persons and leave a surplus to pay
rent and to allow of a reasonable consumption; the
farm, the live stock of two cows, or one cow and ten
sheep, to which may be added pigs, would not nearly
enable the cultivator to manure his small portion of
land once even in four or five years. It hence becomes
necessary to form masses of compost, the collecting
the materials for which forms the greater part of
the employment of the colonists. These masses are
created almost wholly by manual labour, of that
kind which, but for such an application of it, would
be wholly lost to the community. As straw is, at
least, in the early period, not abundant, and as that
from the corn must, at first, be chiefly used as food
for the cattle or for covering to the houses, other
materials, which the heaths furnish, are resorted to
in order to make beds for the cattle. The heath
land is pared, but the operation is cut with the
spade a very thin slice of the earth, and not to the
bottom of the roots of the plants, that they may, as
they soon will do, shoot again; the parings are not
only made thin, but in narrow strips or small spots.
Thus but little soil is taken away, and the roots,
though cut, are not all of them destroyed; the parts
that are left bare are protected from being too much
dried up by a thin covering of straw, and when the
ripe heather are scattered over the spaces left bare
near them, and soon bring forth the same plants. By
this operation, there is a constant succession provided of healthy material. This purifying for the heath is a joint operation performed by the men in a kind of military lines. The society pays each for the work he performs, and from the average result it is obtained, the sods are sold to the several households at the same price, and are carried to their respective farms in small one-horse carts, which are kept by the society for that and for similar purposes, to which mere manual labour cannot be so beneficially applied. We have dried and collected to the last grain of the colonists, they are piled in a kind of stack, and portions of it are pulled out, not cut out, to ensure their being broken into small fragments. With these the bedding of the cows or sheep, as the case may be, is formed. The use of bog-turf or peat, as one of the materials of compost, is not approved. It impedes the process of fermentation, which is the most important part of the preparation of the heaps of manure. Another expedient is therefore adopted, by piling the second year's grass land, whether of clover, ray grass, or fern. These clods, containing a proportion of the roots of the plants which have been piled from them, and of such genera as mould, become useful auxiliaries to the healthy turf, and spare the use of that material, which, if solely applied, would require almost as much land to supply it as the farm itself. Fresh material is added to the bedding of the cattle every morning and evening, and such manures then solely as provide the whole day is wheeled to the dung-hill. Each morning, that which lies near the hinder part of the cow is thrown outward, and the part towards its head takes its place, and fresh heather, about a quarter of a foeder, or 250 pounds, added to the bedding; the same is also done every evening. The sheep and pigs are only supplied with fresh heather once a day. It is reckoned that ten sheep make an equal quantity of dung with one cow. It must be obvious to every one, that the changing and consequent turning over thirteen times must make the mixture of the animal and vegetable substances more equally rich; and the uniform treading of it must break it into small particles, and give greater scope to the fermentative putrefaction. Each week, the stalls are cleaned, and the dung conveyed to the place appointed at the back of the barn. This is of a round shape, from three to four feet in depth. The bottom and sides are paved with clinker, and these are laid water-tight. It is commonly from twelve to fourteen feet in diameter, and sufficiently capacious to contain the dung made by the cattle in the course of four weeks. The mass is thus composed of portions which have remained from four weeks to one day, over which the ashes from the household and all the sweepings of the premises are strewn. Adjoining to the dung-heaps is the reservoir, into which the drainings of the stalls are conveyed. Equal care is taken that every other material for compost is preserved. In Scotland, little attention is paid to these matters; and even in agricultural districts, many of the most valuable ingredients for fertilizing the earth (soap-suds, for instance) are constantly thrown away. This sespool, containing about a hogshend is never allowed to run over, and, if it has not rained, is every other day filled up with water, and then, with a scoop, taken up, and sprinkled over the bed of dung. This heap contains four weeks' dung, or thirty foeder, or fifteen tons: and the administering fourteen such portions of rich fermenting matter must vastly enhance the value of the whole for the purposes of vegetation. At the end of the fourth week, the dung-hole (called, locally, the girkade) is emptied, and its contents thus again turned over the most putrid parts being, by this means, brought up to the top: it is formed into a heap from three to five feet high, and carefully covered with sods: by this covering the fermentative heat is prevented from evaporating, and the mixing of this very heavy matter is in the event of it penetrating it would check fermentation. When the heap has lain and fermented during one, two, or three months, it is carried to the field which is to be manured with it. The covering of sods is separated from the heap, and carried to the dung-hole, where it is laid at the bottom of the next month before rotation, and imbibes it with an equal proportion of vegetative power.

The following are the sums of produce and expenditure for each family for one year:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total rent, expenses, including rent</td>
<td>£42</td>
</tr>
<tr>
<td>Expenses, including rent</td>
<td>£10</td>
</tr>
</tbody>
</table>

Surplus each year, £8

The desire of gain, and the approbation of the superintendents, are, in general, found to be sufficient encouragements both to industry and good conduct. When these are not enough, forfeiture of privileges, confinement and hard labour are resorted to. There are no jails here. The weekly wages of the labourers are nine shillings and sixpence, and gold. Those who have the copper medal may leave the colony on Sundays without asking leave; the silver is given to those who have made some savings, and they are allowed to go beyond the colony in the intervals of labour on working days; and when they are absent, they may bring gold medals, showing that they clear £29 a-year by their labour, they are free-tenants, and released from all the regulations of the colony. These privileges may, however, be suspended for offences. In the course of seven years from its first establishment, the colony of Frederics Oord contained a population of 6778, including that of Omme Schanez, which is under a more rigid control. Among the number were 2174 orphans and foundlings. The total number forming all the colonies in Holland was stated to Mr Jacob as 20,000, but he thinks it exaggerated; there were, however, 8000 in North Holland. Every attention is paid to the education of the young.

COLOSSUS (Lat.; κολοσσις, Gr.), in sculpture; a statue of enormous magnitude, whence the Greek proverb κολοσσικ or µιγαλες. The practice of executing statutes of colossal dimensions and proportions of high antiquity. The people of the East, from the most ancient times, have been the patrons of sculpture. The pagodas of China and of India, and the excavated cavers of the East, abound with colossi of every denomination. The Asiatists, the Egyptians, and, in particular, the Greeks, have excelled in these works. The celebrated colossus of Rhodes was reckoned one of the seven wonders of the world. This statue, which Muratori reckons among the fables of antiquity, was, raised, by the Rhodians, in honour of Apollo. There are many contradictory accounts in ancient authors concerning this colossal statue of Apollo; but the following gathered from several sources, is not devoid of interest, though mixed up with much fable. When Demetrius, king of Macedon, the son of Antigonus, laid siege to the city of Rhodes, because the Rhodians would not renounce their alliance with Ptolemy Soter, they were succoured by their allies, and particularly by Ptolemy, so effectually, that the besiegers were compelled to abandon their enterprise. The Rhodians, in recognition of their regard for these services of their allies, and of the protection of their tutelary deity, Apollo, resolved to erect a brazen statue of the sun, of a prodigious size. Chares, the disciple of Lysippus, was intrusted with the project. He had scarcely finished the work, but he found that he had expended al
the money he had received for the whole, which overwhelmed him so completely with grief and despair, that he hanged himself. Lacesus, his fellow-countryman, finished the work in the space of three Olympiads (twelve years), and placed the enormous statue on its pedestal.

Pliny does not mention the latter artist, but gives all the honour to Chares. Scarcely sixty years had elapsed before this monster of art was thrown from its place by an earthquake, which broke it off at the knees; and so it remained till the conquest of the country by the Franks, in a.d. 684, when it was broken to pieces and sold to a Jew merchant, who loaded above 900 camels with its spoils. Strabo, Pliny, and other ancient authors, who lived at the time that the colossal of Rhodes is said to have been in existence, and who could have learned from contemporaries the truth or falsehood of the accounts of it, give its height at seventy cubits, or a hundred English feet. Other authors, who flourished since its destruction, report its height at eighty cubits. Pliny also relates its height at eighty cubits. Pliny also relates its height at eighty cubits. Pliny also relates its height at eighty cubits.

The difficulties of carrying it away, more than moderation in the conqueror, alone prevented Fabius from removing it to Rome, with the statue of Hercules, belonging to the same city.

Colossus of Rhodes. This colossal, so famous in Italy before the time when the Romans despoiled their vanquished enemies of their works of art. The Jupiter of Leontium in Sicily was 7 cubits in height, and the Apollo of wood that was transported from Etruria, and placed in the palace of Augustus, at Rome, 53 feet. The same emperor, however, left an Apollo in the temple of that god, which he built near his own palace. The earliest colossal recorded to have been sculptured in Rome was the statue of Jupiter Capitolinus, which Spurinus Carvilius placed in the capitol after his victory over the Samnites; but colossal soon became far from scarce. Five are particularly noticed: namely, two of Apollo, two of Jupiter, and one of the Sun. There has been dug up among the ruins of ancient Rome, a colossal statue of the city of Rome, which was reckoned among the tutelary divinities of the empire. The superb colossal on Mount Cavallo, called by some antiquaries the Dioscuri, was calculated by Strabo to be composed of a well made man, would make his height nearer to eighty than seventy cubits. Perhaps the latter dimension may relate to its real altitude to the crown of its head, and the greater to its altitude if erect.

But we are not aware that any writer has given this reason for the ancient difference. Of other colossal statues, those which were executed by Phidias are among the most celebrated for beauty and elegance of workmanship. They were his Olympian Jupiter and his Minerva of the Parthenon. The virgin goddess was represented in a noble attitude, twenty-six cubits or thirty-nine feet in height, erect, clothed in a tunic reaching to the feet. In her hand she branched a spear, and at her feet lay her buckler and a dragon of admirable execution, supposed to represent Erichthonius. On the middle of her helmet a sphinx was carved, and on each of its sides a griffin. On the ovals was displayed a head and a figure of victory. This colossal work was not only grand and striking in itself, but contained, on its various parts, curious specimens of minute sculpture in bassi rilievi, which Phidias is said to have brought to perfection. His Olympian Jupiter was executed after the ungrateful treatment he received from the Athenians, when he abandoned the city of his birth, which he had rendered celebrated by his works, and took refuge in Ells. Animated rather than subdued by the ingratitude of his countrymen, Phidias labourled to surpass the greatest works with which he had had any share. But of this the view he framed the statue of Jupiter Olympus for the Eleusins, and succeeded even in excelling his own Minerva in the Parthenon. This colossal statue was sixty feet in height, and completely embodied the sublime picture which Homer has given of the mythical monarch of the heavens. While describing the colossal of ancient times one must not forget the magnificent and extravagant proposal of Dinocrates to Alexander the Great, of forming mount Athos into a colossal of that conqueror; nor a similar proposal, in modern times, of sculpturing one of the Alps, near the pass of the Simplon, into a resemblance of Napoleon. Amongst the famous statues of ancient history there record as eminently beautiful, that which was executed by Lysippus at Tarcentum. It was 49 cubits or 60 feet in height. The
brated statue of the Nile; the four statues that sur-
round the splendid fountain and obelisk of the Piazza
Nevosa, the admired work of Bernini. They are
personifications of four of the principal rivers in the
world—Rhine, Danube, Ganges, and Nile. The Rhine was sculptured
by Frai Baratta; the Nile, by Antonio Fancelli;
the Danube, by Claude Fran(; and the Rio de la
Plata, by Antonio Raggi. Other colossal statues of
less consequence are also found among the beautiful
works of art in this city. The pride and ambition of the
Renaissance was to conquer sacred temples, and
representations of their persons. Nero was the
first who ventured on a colossal of himself by Zenodo-
rus; but, after his death, it was dedicated to Apollo
or the sun. Commodus afterwards took off the head,
and replaced it with a portrait of himself. Donatian,
attracted by a similar ambition, prepared a colossal of
himself as the deity of the sun.

Among more modern works of this nature is the
enormous colossal of San Carlo Borromeo, at
Arona, in the Milanese territory. It is of bronze, 60
feet in height, and has a staircase, in its interior, for
the purpose of occasional repairs and restorations.

The following are copied from the Cavallaro
statues, in Hyde park, London, and a few
but little larger than life, of the size that may be
considered heroic rather than colossal, such as decorate
some public buildings and commemorative columns,
as those on St. Paul’s cathedral; lord Hill’s column in
Shrewsbury; the Britannia, on the Nelson col-
umn, at Yarmouth; the duke of Bedford, in Russell
square; Charles Fox, in Bloomsbury-square, &c., are
near all that Britain can boast of in this noble
style of art. The four colossal statues at Paris, which
are in front of the facade of the palace of the corps
legislatif, are in good taste, and show great boldness
and freedom in the execution. They represent the
four greatest legislators of France—Sully, Colbert,
L’Hoital, and D’Aguesseau. They are in their
proper costume, and seated. Canova’s Perseus is also
much larger than life, and a very fine work. It
belongs rather to the heroic than to the colossal.

COLOUR; a property of light, the knowledge of
which can be obtained from no description, but is
acquired by means of the organ of sight. To investiga-
tate the properties of light, so far as colour is concern-
ed, let us institute the following simple experiment:—Lett a beam of light from the sun, be admitted
through a hole of the window-shut of a dark chamber.
At the back of this hole let there be placed a triangular glass prism in such a way as to receive the beam of light, and transmit it to a white wall opposite the window-shut. This arrangement being made, it will be found that the beam of light, after passing through the hole, remains white, and proceeds in a straight line until it enters the prism, on passing through which, however, it immediately begins to disperse, and will form upon the wall an oblong image of seven different colours; red, orange,
yellow, green, blue, indigo, and violet. These
colours are precisely the same as those seen in the
rainbow (q. v.), and are called prismatic or primary
colours. See that of the white light has been decomposed into seven different colours, by means of
the glass prism, but if we place a screen, having a
hole in it, behind the prism, so as to intercept all the
light excepting that of one colour (say indigo), it will
be found that a prism placed behind the screen
will have no effect in decomposing this light; so that
the indigo, in passing through the second prism, will
remain unchanged, and the same with all the others,
which led Newton to denominate the seven colours
above mentioned, simple or homogeneous colours.

That these seven primary colours, when combined
together in proper proportions, constitute white,
may be shown by a very simple experiment. Let
the seven colours be painted on the face of a circular
piece of pasteboard, as near their proper tints as pos-
sible, and in the order and proportion exhibited in
the following table. The angles of the principal
colours, the angles at which the light will be refracted,
into 360 degrees, the following spaces are allowed to
the respective colours, bearing the same propor-
tions as in the prismatic spectrum, and rainbow;
that is, violet 80, indigo 40, blue 60, green 60, yellow 48,
orange 27, red 45. If this painted circle be made to
receive the rays of the sun, it will be perceived that the single colour will have sufficient time to make a strong impression on the eye before all the others have passed in succession, the rays coming from the several colours being in a manner mingled together, and the impres-
sion of the spectator will be that the circle is white.

The same thing may be proved by mixing, in due propor-
tion, seven powders of the proper colours, the com-
pound powder being white. Various theories have
been advanced to account for the phenomenon of
colour, which the reader will find discussed under
our articles Light and Optics. A simple and satisfac-
tory theory may be deduced from the facts elicited
during the course of the experiments conducted about the close of the last century by Lord
Brougham. From the experiments above alluded to it
is inferred that the particles which compose white
light vary in magnitude, the particles of the red
being to those of the violet, in the proportion of
1275 to 1253; those two colours being the extremes
of the prismatic spectrum. The particles of all other
colours, are less than the red, diminishing as they
approach the violet, the particles of which are least.
We may now see the cause of the prism
separating a beam of white light into seven different
colours, since it must have more power in altering
the course of the smaller particles than the larger
or more dense; and, accordingly, we find the red rays
least bent out of their original direction, and the
violet most, the intermediate colours being more or
less bent from their primary course according as
they approach the red or violet. The cause of the
differences of colours in bodies may also be easily
accounted for on the same principle. The pores of
some bodies are of such a nature, that they either
reflect all the rays of light which they receive or in
the proportions in which they exist in the solar
beams, in which case these bodies will appear white;
when, on the other hand, they reflect none of the rays
of light which are reflected from the body, it was
given some years ago in the examination of a specimen of crystal of quartz, about 2 1/2 inches in
diameter, belonging to the cabinet of the duchess of
Gordon. This crystal being broken in two, the faces
of the fracture appeared perfectly black, pre-
senting an appearance like black velvet. On ex-
amination, this singular phenomenon was found to
arise from the smallness of the diameter of the fibres
not exceeding one-third of the millimith part of an
inch, in consequence of which they were incapable of
reflecting the smallest particles of the rays of light.
Between white and black, innumerable intermediate
states may arise from the differences in the
magnitude and arrangement of the fibres and
pores of the bodies which either reflect or transmit
light. The peculiarity of the fibrous arrangement
of the surface of mother of pearl, causes it to reflect light
diffrent colours very agreeable to the eye; a rarity
curiously advantage in producing similar appearances, by running
small grooves very near to each other across the
surface of polished glass or metal. That it is not
the chemical composition, but the mechanical ar-
rangement of the surface of the mother of pearl which
produces these colours, may be proved by a very
simple experiment. Place a small quantity of strong solution of gum Arabic between two plates of mother of pearl, which, when hard, must be separated from the plates; it will then be found to exhibit, either by reflection or refraction, all the fineries of the real shell. The blue colour of the sky is to be accounted for on the principle that the air reflects the blue part of the rays only, and the diversified appearances of the clouds under different circumstances arise from differences in their density or position. The immense quantity of vapour between a spectator on the earth, and the sun, presents an obstruction to the easy passage of light, so that only the more dense rays can reach the eye, the weaker rays or light of smaller particles being retarded; hence the morning and evening skies present those beautiful assemblages of yellow, orange, and red clouds. So it is in looking along a street at night; the lamps change their colour as they recede from us, becoming more and more inclined to red, according to their distances; and divers have always remarked the red appearance of objects under water.

When the sun is high in the morning and evening, when the sun is near the horizon, the rays have to remove a great quantity of dense vapour before they reach the eye; and the less ponderable rays will be obstructed, the more ponderable or red rays being the only ones which reach the spectator; hence the red appearance of the sun in the morning and evening.

Although opticians, in considering the subject of colours, usually regard the seven of the prismatic spectrum as simple and distinct from each other, yet, on a close examination of the image formed by the prism, it will be found that the colours pass into each other by degrees, and that therefore there is a great diversity of hue even in the space usually allotted to one colour. Some hold that there are only three primary colours; red, blue, and yellow, because all the others can be compounded of these. This view of the subject is rendered highly probable, by the fact that the colours, said to be compound, i.e. orange, green, indigo, and violet, are intermediate between the primary, red, yellow, and blue, as exhibited in the prismatic spectrum. The shade and tint of the compound colours may be greatly varied by mixing the simple colours which form them in different proportions. Thus green, which is a compound of blue and yellow, may be varied by mixing with it very various shades, by mixing these colours in different proportions, and still the resulting colour will be called green; but the shade of either yellow or blue can only be altered by adding white; for should any other colour be added to the yellow or blue, the compound can no longer receive the name of yellow or blue. Much practice is necessary to enable us to distinguish slight differences in the shades and tints of colours, and some eyes are totally incapacitated for this, especially where particular colours are concerned. Many instances might be brought forward of this nature; we need only mention Dugald Stewart, Dalton, and Troughton, who could not distinguish certain colours from others. But in all cases where this defect exists, it has been found that the persons are insensitive to red light and all the compound colours into which it enters.

A very simple experiment of M. Buffon's has opened a new field in the science of colours, which has been productive of results of great utility in a practical point of view. Buffon having placed a red wafer on a sheet of white paper, and fixed his eye on it steadily for a few seconds, he then having looked at another part of the paper, he saw a green spectrum of the same size as the wafer. By using wafers of different colours, differently coloured spectra were produced, as follows:

**COLOUR.**

|- Black | White  |
|- Red | Bluish green |
|- Orange | Blue  |
|- Yellow | Indigo |
|- Green | Violet, with a little red |
|- Blue | Orange red |
|- Indigo | Orange yellow |
|- Violet | Bluish green |

These spectra are called accidental or contrasting colours; they are rendered still more distinct, if the wafers be viewed upon a black ground, and the eye transferred from that to a white ground. The accidental colours may all be found in another way. Take the circle alluded to before, having the prismatic colours painted on its surface, in the proportion as marked in the figure below. If this circle be whirled round its centre, it will, as observed above, appear as a white disc. But suppose any one of the colours taken out, or painted black, then will the circle, when whirled round, exhibit another colour, which shall be the accidental of that which has been blackened or omitted. Thus, if the red be left out, the disc, when whirled, will appear green, and by leaving out the other colours in succession their respective accidentals may be shown. The accidental colour of any of the colours in the circle may be easily found. Thus,

If we omit violet, wishing to find its accidental colour, then the remaining arch will be A E B, whose centre of gravity is the point m m, the green being in the centre of that arch, being something towards the yellow; therefore the contrasting colour of violet will be green, mixed with a little yellow. Hence, by drawing a diameter through the centre of the omitted arch, the other extremity of this diameter will be in the centre of the accidental colour, and so of the rest. The explanation of the phenomena of accidental colours is at once simple and satisfactory. When the eye is directed for some time, to a red spot for instance, the retina becomes strongly excited by the red rays, and its sensibility to weaker impressions of rays of that colour must, therefore, be for a time destroyed; just as the palate, when accustomed to a particular taste, ceases to feel its impression when weak. Now white is a compound of all the colours, and, therefore, when the eye is turned from the red wafer to the white ground, it will necessarily become insensitive to the red rays which enter into the combination of the white; the eye, therefore, receives an impression of all the others combined, which, we have seen, must be green, the accidental colour of the red. It deserves to be noticed, that none of the three simple colours, before alluded to, ever appear as the accidental of a compound, but each contrasting colour of a simple one is compounded of the other two; thus, the accidental colour of red, i.e. green, is a compound of blue and yellow.
Colour.—COLOURING.

Many other curious facts might be noticed connected with accidental colours, but they may be here omitted, as of minor importance; and we proceed to show what the scientific application of this law has already been laid down. Whenever colours are employed, and great distinctness required, as in the dial-plates of watches, or books printed on small type, the colour of the ground should be the accidental of that of the character, as in this case the unavoidable motion of the eye will be accompanied with images of the accidental colours of the letters floating on the ground, black letters are therefore best upon a white ground; the one being the accidental of the other; but if the book were printed with red ink, indistinctness would follow, since green spectra would necessarily be seen floating on the pages. The same principle ought to be taken advantage of by painters and the drawers of patterns; for there must always be, either in a picture or design, some principal object to which all the others ought to be subservient; the colour of this object must, therefore, in a great measure regulate the tints of the rest of the picture, which ought to partake more or less of the accidental. The contrast of the colours must not, however, be carried to too great a length, otherwise the mellowness of the piece will be destroyed, and the over-distinctness of the colouring will form a gaudy, rather than an agreeable picture. This the judicious artist effectually avoids by the introduction of a class of colours called harmonics or harmonizing colours. The harmonising colour of any original may easily be found, for it is always that next to the original, and between it and the accidental, in the order of the spectrum; hence, yellow will form the harmonising colour to white, orange to yellow, red to orange, violet to red, blue to violet.

To show the application of what has been said, we may remark, that in a composition of white objects the pure colour will appear on the principal light only, and black will be the contrasting colour, which, however, may be too strong for the nature of the subject, and may, therefore, be diluted into a grey. In order to lead the eye agreeably from the white to its contrasting colour, the harmonising tint, yellow, will be introduced, which, in proportion to its distance from the principal light, will harmonize into the shade, by gradually losing its brightness, and manifesting yellowing properties. To the yellow may be added to it, according to the position and colour, so as to harmonize with and increase the effect of the principal. Every principal colour in a picture, will have its harmonising colour next it, and the contrasting one farther from it, the intermediate space being occupied by tints neutralised by these together, the intensity of the harmonising and contrasting colours diminishing towards each other. The principal masses of light should be occupied of course, by the light colour as nearly as possible in the order of their power of illumination; thus the yellow should follow white, then orange yellow, red orange, &c., and these again should be counter-balanced by the deeper colours in the shades arranged according to their office as contrasting colours, so as to produce harmony and consistency in the whole.

The sky and back ground will be found powerful auxiliaries in producing harmony in a picture. Thus a grey cloud may be opposed to a white object, and by gradually resolving itself into blue becomes a contrast to the yellow. In deep colours or broken tints, as brown, dull green, blue grey, &c., harmony may be less sparingly used. Thus much we have said on the practice of colouring to illustrate the application of the theory we have endeavoured to lay down, which will be found consistent with the practice of the best masters. Although the laws of harmonious colouring have not as yet been fully treated of, they are founded on the unchangeable laws of nature, and have been floating in the minds of the leading artists of all ages, particularly those of the Venetian school, who have excelled all others in the beauty of their colouring. The silk dresses of France and Britain, exhibit some of the best. The designs of Messrs. Chalmers, based on these principles, which have been known and acted upon by the designers of patterns for many years, as may be seen by reference to an excellent article on design, in Murphy's Art of Weaving. The judicious decoration and painting of apartments, as likewise the selection and arrangement of coloured articles of dress, can only be well performed by following the laws of harmonious colouring. (See Hay on Harmonious Colouring adapted to House Painting, Edin. 1828.)

Colours of Plants. We find in Plants eight fundamental colours, which are called pure and unmixed colours—white, grey, black, blue, green, red, and brown. As no plant has a pure red, these principles, in respect to their gradations, are entirely equal and alike. Thus, for example, of white, there are pure or snow-white; whitish or dirty white; milk or bluish white; amiantus or greyish white; ivory or yellow-white; or porcellanous or reddish white; and clank or red. There are also fine gradations to yellow; the blue violet to white; the blue colombine to red; the red tulip to a yellow, and the yellow to a white, &c. The same thing may be observed in fruits. Linnaeus has inferred the properties, and especially the taste of plants, from their colour. Yellow is generally bitter, red sour, green denotes a rough alkaline taste, paleness a flat taste, whiteness a sweet, and black a disagreeable taste, and also a poisonous, destructive property. Colours, in the vegetable as well as in the animal world, appear to be in truth a secret of nature. How, for instance, bright yellow and deep red or green are made to appear side by side upon a leaf, separated by the finest lines only, and yet not produced by any variety of properties which is perceptible to any of our senses, is a mystery to us. Moreover, nature, in some cases, appears to distribute colours, with the greatest regularity, while, in other instances, she sports in the most capricious manner. An isolated spot, particularly if bright, is harsh and disagreeable, and any object introduced must be tempered in position and colour, so as to harmonise with and increase the effect of the principal. Every principal colour in a picture, will have its harmonising colour next it, and the contrasting one farther from it, the intermediate space being occupied by tints neutralised by these together, the intensity of the harmonising and contrasting colours diminishing towards each other. The principal masses of light should be occupied of course, by the light colour as nearly as possible in the order of their power of illumination; thus the yellow should follow white, then orange yellow, red orange, &c., and these again should be counter-balanced by the deeper colours in the shades arranged according to their office as contrasting colours, so as to produce harmony and consistency in the whole. The sky and back ground will be found powerful auxiliaries in producing harmony in a picture. Thus a grey cloud may be opposed to a white object, and by gradually resolving itself into blue becomes a contrast to the yellow. In deep colours or broken tints, as brown, dull green, blue grey, &c., harmony may be less sparingly used. Thus much we have said on the practice of colouring to illustrate the application of the theory we have endeavoured to lay down, which will be found consistent with the practice of the best masters. Although the laws of harmonious colouring have not as yet been fully treated of, they are founded on the unchangeable laws of nature, and have been floating in the minds of the leading artists of all ages, particularly those of the Venetian school, who have excelled all others in the beauty of their colouring. The silk dresses of France and Britain, exhibit some of the best. The designs of Messrs. Chalmers, based on these principles, which have been known and acted upon by the designers of patterns for many years, as may be seen by reference to an excellent article on design, in Murphy's Art of Weaving. The judicious decoration and painting of apartments, as likewise the selection and arrangement of coloured articles of dress, can only be well performed by following the laws of harmonious colouring. (See Hay on Harmonious Colouring adapted to House Painting, Edin. 1828.)

Colours of Plants. We find in Plants eight fundamental colours, which are called pure and unmixed colours—white, grey, black, blue, green, red, and brown. As no plant has a pure red, these
regarded from only one point of view; conformably to which the natural colour is modified according to the supposed distance. By tints we understand, in a more restricted sense, the gradations of the clear and obscure, which lights and shadows produce on the coloured surface. (See Chiaro scuro.) In no true painting, do we find the old chisel of the ancient artists in greater delicacy and diversity than in the naked human body, which is, consequently, the most difficult subject for a painter. Colouring, in as far as it is an imitation of the colour and character of flesh (the naked body), is called carnation (q. v.). If, in addition, we do from the wonder of the natural colours, local tones and tints of a painting, with its original, the artist hits the expression of the peculiar character of the substance of which the object consists, the colouring is called true. But to truth should be joined beauty, which is attained by the harmonious union of all the tones of the painting into one leading tone. The colouring must conform to and promote the object of the painting, as a work of art, and, by the harmony of the colours and lights, as well as by the truth of the local colours, and of the individual parts, of the subject, constitute one beautiful whole. In the choice of lights and the distribution of colours, the artist should aim, not only at clearness of representation, but, at the same time, at the production of a pleasing harmony, which should aid the general impression of the piece. Consequently, keeping and chiaro scuro are comprehended in the idea of correct and beautiful colouring. We often see pictures, in which the colours are true to nature, but which have little merit as works of art, because they are deficient in that harmonious union of excellences which is essential to a beautiful painting.


colquhoun, Patrick; a metropolitan magistrate, noted as a writer on statistics and criminal jurisprudence. He was born at Dumarton, in Scotland, in 1745, and, early in life, went to America to engage in commerce. In 1766, he returned home, and settled as a merchant at Glasgow, of which city he became lord provost, and was likewise chairman of the chamber of commerce. Having removed to London, he was made a police magistrate, in 1792, in which situation he distinguished himself by his activity and application; the result of which was, a Treatise on the Police of the Metropolis, published in 1796. This work procured him the honorary degree of LL.D. from the university of Edinburgh at part. In 1800, he published a work on the police of the river Thames, suggesting a plan, afterwards adopted, for the protection of property on the river, and in the adjacent parts of the metropolis. He was also the author of a Treatise on Indigence, exhibiting a general View of the National Resources for Productive Labour; a Treatise on the Population, Wealth, Power, and Resources of the British Empire; and a tract on the education of the labouring classes. Mr Colquhoun died April 25, 1820, aged 75, having resigned his official situation about two years previous to his death.

COLUMBIA, Sr.; a native of Ireland, founder of the monastery of Icolmilch. About 565, he visited Scotland and was favourably received by the king Bridius, who gave him the isle of Hy, where he established his famous seminary. He died in 597, having acquired great influence.

Columbanus, a missionary and reformer of monastic life, born in 560, in Ireland, became a monk in the Irish monastery of Bencho, went through England to France, in 589, with twelve other monks, to preach Christianity, and founded, in 590, the monasteries of Annegray, Luxeuil and Fontaine, of Burgundy. His rule, which was adopted in latter times by many monasteries in France, commands blind obedience, silence, fasting, prayers, and labour, much more severe than the Benedictine rule, and punishes the smallest offences of the monks with stripes, the number of which proves the barbarism of his times, and his savage character. He retained also the old custom of the monks not engaging in the life of the world, which is the celebration of Easter at a different time from the Roman church. Queen Brunehaut banished him on account of his inflexibility of character, 609; upon which he went among the heathen Aleman, and preached Christianity in the vicinity of Cologne. His works (that is, Gallus, founder of the monastery St Gal) obstrusted his success by his violence in destroying the monuments of the heathens, till a war, in 612, put a stop to his labours. Columbamus then went into Lombardy, and founded the monastery of Bobbio, in which he died, Oct. 22, 615. His intrepid, violent and heroic spirit is displayed in his letters to the popes Gregory I., and Boniface IV., in which he refused to celebrate Easter with the Romish church, warned the popes against heresies, and represented, in a strong light, the corruption of the church. His services in the cause of the monastic discipline, and the number of his miracles, caused him to be canonized. His writings are few, and of the ascetic kind. His rule was observed the longest in the large, rich monastery of Luxeuil, and was supplanted first, in the ninth century, by the Benedictine. The habit of his monks was white. See Benedictines.

COLUMBARIUM (Lat.), in ancient architecture, a pigeon-house or dove-cote. Columbarium festile; an earthen pot for birds to breed in. In the cemeteries of the ancient Romans, the apertures that were formed in the wall for the reception of the cinerary urns were also called columbaria, from their resemblance to the openings of a pigeon-house.

COLUMBIA; a town in South Carolina, and the seat of the state government; lon. 81° 7' W.; lat. 33° 57' N.; population, in 1820, 3000. It is situated opposite to the confluence of the Saluda and Broad rivers, which unite here to form the Congaree. From the river there is a gradual ascent for one mile; then commences a plain of between two and three miles in extent, gradually descending on every side. This elevated plain forms the site of the town, which presents a handsome and extensive prospect. The town was formed in 1787. It is regularly laid out. The streets intersect each other at right angles, and are 100 feet wide. The South Carolina college was founded in this town in 1802, but degrees were not conferred here until 1807. It is under the liberal patronage of the state legislature, from which it has received annually a grant of between two and three thousand pounds. It had, in 1824, a president, four professors, two tutors, and 102 students.

COLUMBIA college. See New York.

COLUMBIA, District of; a tract of country ten miles square, on both sides of the Potomac, about 120 miles from its mouth, ceded to the United States, by Virginia and Maryland, in 1790. It includes the cities of Washington, Alexandria, and Georgetown. Population in 1810, 24,023; slaves, 5295; population in 1820, 32,039. The exports of this district, in 1827, amounted to about $20,000; the shipping, in 1819, to 22,141 tons. This district is under the immediate government of congress, and is remarkable chiefly for containing the overlap of the United States, and part of the seat of the government of the United States, in 1800. The surface is uneven, but there are no high hills, and the soil is thin and sandy.

COLUMBIA RIVER; a large river of North America, which rises, according to Mackenzie, in the Rocky mountains, about lon. 121° W., lat. 54° 25'
COLUMBITE—COLUMBUS.

N., within a few miles of the source of the Unijah or Peace river, and, after a course of about 1500 miles, flows into the Pacific ocean between point Adams and cape Disappointment, lon. 129° 54' W., lat 40° 19' N. The three great tributaries of this river are the Multnomah's, Columbia's, and Lewis's river, flowing into it on the S. E. side; the Multnomah 130 miles from its mouth, Lewis's river 413, and Clark's 600 miles. At the point of the junction of Lewis's river, the Columbia is 990 yards wide. The tide flows up 183 miles, to within seven miles of the great rapids. Vessels of 300 tons may reach the Multnomah, and larger boats may ascend to the falls as the tides allow. Above the rapids, the navigation is good for sixty-five miles, when it is interrupted by the long narrow; and six miles higher up, that is, 261 miles above the mouth of the river, it is interrupted by falls of twenty feet perpendicular; above the falls, the navigation continues good to the junction of Lewis's river. The portages around these obstructions of the navigation amount, in all, to five miles. The entrance of the Columbia lies between breakers, which extend from cape Disappointment to a point on the southern shore, over a sort of bar or extensive flat. The entrance and the egress are said to be difficult at all seasons, and, from October to April, extremely dangerous; and, in the opinion of experienced navigators, it cannot, at any season, be entered by loaded vessels of 400 tons. The westerly wind prevails on this coast, and the sea breaks on the bar with great violence. The first modern navigator that entered this river was Mr. Grey, commander of the ship Columbia, of Boston. He entered it in 1791, and since that time the river has been known by the name of Columbia. It was before called the Oregon and River of the West. The country bordering on the Columbia, towards the ocean, is covered with heavy timber, consisting almost wholly of fir, of which captains Lewis and Clark mention seven species, some growing to a great height. The soil is fertile, composed of a dark rich loam. The length of the valley from north to south has never been ascertained. The climate is much milder than in the same parallel on the Atlantic coast.

COLUMBITE, or TANTALITE, is the name of the mineral in which the metal columbium is found. It occurs in single crystals, or in small crystalline masses, disseminated through granite. The form of its crystals is that of a rectangular prism, variously terminated at one or both of its extremities. It is black, or sometimes greenish, glassy, and transparent; its specific gravity varying from 6.46 to 7. It contains, according to Wollaston, oxide of columbium eighty, oxide of iron fifteen, oxide of manganese five. It sometimes contains, also, the oxides of tungsten and of tin. Columbite was first found in Connecticut, at New London, afterwards in Finland, and more lately at Bodenmais, in Bavaria. It is occasionally met with at Haddam, in Connecticut, and has very recently been discovered at Chesterfield, in Massachussets. Columbite, notwithstanding its numerous localities, is still an exceedingly rare substance.

COLUMBIA. This metal was discovered, in 1801, by Mr. Hatchett, who detected it in a black mineral, belonging to the British museum, which was originally sent to Sir Hans Sloane by governor Winthrop, of Connecticut, and was supposed to have been found near New London, in that state. About twenty years after, M. Ekeberg, a Swedish chemist, extracted the metallic substance from its compound, and described it under the name of tantalum. The identity of these metals, however, was established, in 1806, by doctor Wollaston.—Columbium exists in its ore as an acetic, united either with the oxides of iron, manganese and tin, as in the columbite or tantalite: or in combination with the earth yttria, as in the yttrio-columbite, or yttrio-tantalite. This acid is obtained by fusing its ore with three or four times its weight of carbonate of potash, and the fusion is reduced to a fine earth, from which columbic acid is precipitated by heating the earthy hydrosulphuric acid by being heated with potash or nitre. Columbium has hitherto been obtained in very minute quantities, and has never been applied to any economical purpose. Columbite, the ore from which it is obtained, has been discovered in several places in New England.

COLUMBUS; a city of Ceylon; 70 miles, S. W. Candy; lon. 79° 47' E.; lat. 6° 58' N.; population estimated at upwards of 50,000. It is the capital of the island, the seat of government, situated on the S. W. part. The plan of the city is regular, nearly square divisions, divided into four streets, the center being maintained by the government, and the town is built more in the European style than most garrisons in India, though but few of the houses have more than one story. Nearly all the foreign trade of Ceylon is carried on from Columbo; but the harbour is difficult of access, and unsafe for large vessels. Scarcely any place in the world displays a greater variety of nations, manners, and religions.

COLUMBUS, CHRISTOPHER (in Spanish, Cristofer Colon; in Italian, Cristoforo Colombo, which is his real name), one of the greatest men mentioned in history, was born in Genoa, about 1435, and not, as some assert, at Cuccaro, in Montferrat. His father, Domenico Colombo, a poor woolcomber, gave him a careful education. He soon evinced a strong passion for geographical knowledge, and an irresistible inclination for the sea, and, at fourteen years of age, he began to navigate in the Mediterranean. We afterwards find him in command of a vessel, in a squadron which a relation of his had fitted out against the Mohammedans and Venetians. In one of his engagements with the Venetians, the vessel which he commanded took fire, and Columbus saved his life by swimming ashore. Portugal at that time attracted the attention of Europe by her maritime expeditions, and Columbus, who by this time was fully possessed of the geographical knowledge which he had gained, and of the relations and countrymen. Here he married the daughter of Bartolomeo de Palestrello, a distinguished navigator, who had participated in the discovery of Porto Santo, and had left many charts and nautical instruments. Columbus made use of these materials, and his opinion that the other side of the globe contained land, belonging to Eastern Asia, and connected with India, which was, as yet, little known, became more and more fixed. Whilst the Portuguese were seeking for it by a south-east course round Africa, he was convinced that there must be a shorter way by the west. He applied in vain to his native city, Genoa, for assistance, and equally fruitless were his endeavours to interest John II. of Portugal in the enterprise. He then determined to apply to the Spanish court. His brother Bartholomew sailed for England, but was captured by pirates. Columbus explained his plan to his admiral and confidant, Ferdinand of Spain, after an eight years' struggle with the obstacles thrown in his way by ignorance and malice, he received three small vessels, with 120 men. Two of the vessels were light barques, called caravels, like the coasting craft of modern days, with fore-castles and cabins for the crew, but without a
deck in the centre. These caravels, called the Pinta and the Nina, were commanded by two brothers named Pinzon. The third vessel, on board of which was Columbus, was completely decked. The dignity of high-admiral and viceroy of all the countries he might discover was conferred on him, the former to be united in his family. A certain share of the profits was secured to him by a written contract with the sovereigns.

It was early in the morning of Friday, on the third of August, 1492, that Columbus set sail from the port of Palos. Eighteen years had elapsed since he had first conceived the idea of this enterprise. Most of that time had been occupied in a hopeless solicitation, amidst poverty, neglect, and ridicule; the prime of his life had been wasted in the struggle, and when his perseverance was finally crowned with success, he was about fifty-six years of age. Nor should it be forgotten that it was to Isabella (q. v.) alone that he was finally inducted for the means of executing his project, which had been coldly rejected by the prudent Ferdinand. Having provided himself, at the Canary Islands, with fresh water, he sailed south-west into an ocean never before navigated. But when twenty-one days had elapsed without the sight of land, he was in almost hopeless solicitation. It was certain, they said, that they should perish, and their visionary commander ought to be forced to return. Some of them even proposed to throw him overboard; and Columbus had to exert all the powers of his daring and commanding spirit, to prevent an open rebellion. A phenomenon, which surprised even him, filled his pilots with consternation: the needle deviated a whole degree. But the sea appeared suddenly covered with grass, and again showed symptoms of shoals and rocks. Numbers of birds were also seen. Columbus sailed in the direction from which they flew. For some days the voyage was continued with revived courage, until, at last, the dissatisfaction of the crews began to break out into open violence; but Columbus, after endeavouring in vain to pacify his men by promises, finally assumed a different tone, and told them it was useless to murmur; that he was determined to persevere. Fully convinced that he must be near the land, he promised a reward to whosoever should first discover it. All hands remained on deck during the night, and, after Columbus had himself discovered land, Oct. 11, and pointed it out to some of his friends, the cry of land was raised at midnight from the Pinta, which was in the lead, and Columbus' vessel the COLUMBUS. It was the island of Guanahani. On land, Columbus threw himself upon his knees and kissed the earth, returning thanks to God. The natives collected round him in silent astonishment, and his men, ashamed of their disobedience and distrust, threw themselves at his feet, begging his forgiveness. Columbus, drawing his sword, planted the royal standard, and in the name of his sovereigns, took possession of the country, which, in memory of his preservation, he called St. Salvador. He then received the homage of his followers, as Admiral and viceroy, and representative of the sovereigns. Being informed by the natives that there was a rich gold country towards the south, Columbus directed his course towards that region, and discovered Cuba on the 28th October, and Española (Hispaniola, Hayti) on the 6th December; but as one of his vessels was wrecked, and the courage of his men deceptive, he was resolved to carry the news of his success to Spain. Having built a wooden fort from the wreck of his vessel, he left in it thirty-nine volunteers, and set out on his return, January 4, 1493. The day after he left the island, he met the Pinta, which had been missing. Both vessels were afterward nearly wrecked in a tremendous storm. Columbus, more interested in his discovery than for himself, wrote an account of his voyage on a piece of parchment, which he secured in a cask, and threw the whole overboard, in the hope that it might be carried ashore. He had hardly finished this work when the gale subsided. March 12, he encountered the first of the many encomiums of the people, the thunder of cannon, and the ringing of bells. He hastened immediately to Barcelona, where the court then was, and entered the city in a triumphal procession, with the productions of the newly-discovered countries carried before him. A charter was placed in the hermitage of St. Mary, and he gave an account of his discoveries. He was created a grandee, and all the marks of royal favour were lavished upon him.

September 25, 1493, he set sail from Cadiz with three large ships of heavy burden, and fourteen caravels, carrying 1500 men. Nov. 2, he arrived at Hispaniola. Finding the colony he had left destroyed, he built a fortified town, which he called, in honour of the queen, Isabella, and of which he appointed his brother Diego governor. He immediately left the island, in order to make new discoveries, visited Jamaica, and, returning after a voyage of five months, with few men, and beguiled by a period of inaction, to sink. It was certain, they said, that they should perish, and their visionary commander ought to be forced to return. Some of them even proposed to throw him overboard; and Columbus had to exert all the powers of his daring and commanding spirit, to prevent an open rebellion. A phenomenon, which surprised even him, filled his pilots with consternation: the needle deviated a whole degree. But the sea appeared suddenly covered with grass, and again showed symptoms of shoals and rocks. Numbers of birds were also seen. Columbus sailed in the direction from which they flew. For some days the voyage was continued with revived courage, until, at last, the dissatisfaction of the crews began to break out into open violence; but Columbus, after endeavouring in vain to pacify his men by promises, finally assumed a different tone, and told them it was useless to murmur; that he was determined to persevere. Fully convinced that he must be near the land, he promised a reward to whosoever should first discover it. All hands remained on deck during the night, and, after Columbus had himself discovered land, Oct. 11, and pointed it out to some of his friends, the cry of land was raised at midnight from the Pinta, which was in the lead, and Columbus' vessel the COLUMBUS. It was the island of Guanahani. On land, Columbus threw himself upon his knees and kissed the earth, returning thanks to God. The natives collected round him in silent astonishment, and his men, ashamed of their disobedience and distrust, threw themselves at his feet, begging his forgiveness. Columbus, drawing his sword, planted the royal standard, and in the name of his sovereigns, took possession of the country, which, in memory of his preservation, he called St. Salvador. He then received the homage of his followers, as Admiral and viceroy, and representative of the sovereigns. Being informed by the natives that there was a rich gold country towards the south, Columbus directed his course towards that region, and discovered Cuba on the 28th October, and Española (Hispaniola, Hayti) on the 6th December; but as one of his vessels was wrecked, and the courage of his men deceptive, he was resolved to carry the news of his success to Spain. Having built a wooden fort from the wreck of his vessel, he left in it thirty-nine volunteers, and set out on his return, January 4, 1493. The day after he left the island, he met the Pinta, which had been missing. Both vessels were afterward nearly wrecked.
mean time, endeavoured to convince his sovereigns that he had abused his power, and that his plan was to make himself independent, till, at last, even Isabella yielded to the wishes of Ferdinand, who had previously become convinced of the truth of the slanders. Francisco de Bobadilla was sent to Hispaniola, with orders to inspect the conduct of Columbus. But all was in vain. As soon as he reached the island, he summoned Columbus to appear before him, and put him in irons. His brothers were treated in the same manner. All three were sent to Spain, accompanied by a number of written charges, drawn up from the statements of the natives, and the correspondence of Columbus. Columbus endured this outrage with noble equanimity, and wrote, as soon as he had arrived in Cadiz, Nov. 23, 1500, to a lady of the court, vindicating his conduct, and describing, in eloquent and touching language, the treatment he had received. Orders were immediately sent, directing him to be set at liberty, and inviting him to court, where his sovereigns received him with the same distinction as formerly. Isabella was moved to tears, and Columbus, overcome by his long-suppressed feelings, threw himself upon his knees, and, for some time, could not utter a word. He then reflected on the misfortunes of his family. He then defended himself by a simple account of his conduct, and was reinstated in his dignities. Ferdinand even consented to dismiss Bobadilla, which was intended for the first step towards the promised restoration of the great discoverer to his dignities. But these dispositions in the monarchs were soon changed. There was much talk of great expeditions, and, in the mean time, Nicholo de Ovando y Lares was sent as governor to Hispaniola. Columbus still urged the fulfilment of the promises solemnly made to him; but, after two years of delay, he became convinced that there was no intention to do him justice. His noble mind had now learned how to suffer, and he was principally desirous of completing his work. Supposing the continent which he had seen to be Asia, he did not doubt that he should find, through the istmus of Darien, a way to the East Indies, from which the first fleet of the Portuguese had just returned, richly laden. In four slender vessels supplied by the court for this purpose, Columbus sailed from Cadiz, in his fourth and last voyage, March 9, 1502, with his brother Bartholomew and his son Fernando; arrived contrary to his wishes, off St Domingo, June 29, and was denied permission to enter the port, for the purpose of refitting his vessel, an apparent storm. Of course he succeeded, however, in anchoring his small squadron in a place of safety, and rode out the storm, whilst eighteen vessels, which had put to sea in spite of his warning, were almost entirely destroyed. He then continued his voyage to Darien, but without finding the expected passage. Two of his vessels were destroyed by a gale; the two others were wrecked off Jamaica, where he was scarcely able to save himself and his companions. Here the severest trials awaited the constancy of Columbus. Separated from the other part of the world, his destruction seemed to be certain. But he succeeded in procuring a few canoes from the natives, and prevailed on some of his boldest and best men to attempt a voyage to Hispaniola, in two canoes, in order to inform the governor of his situation. Several months elapsed without a glimpse of hope. Part of his companions, reduced to despair, rebelled, repeatedly threatened his life, separated from him, and took possession of another part of the island. Here they alienated the minds of the natives, by their cruel treatment, so much that they ceased to bring them supplies. The death of all seemed inevitable; but Columbus, whose courage rose with the danger, preserved his men in this crisis.

He had ascertained that a total eclipse of the moon was about to take place, and threatened the natives with the vengeance of his God if they should persist in their enmity. As a proof of his assertion, the moon, he said, would lose its light, in token of the chastisement which awaited them. When they beheld this phenomenon, they believed it to be a provisory, and implore his intercession with the Deity. But hostilities now broke out between him and the rebels, in which several of the latter were killed, and their leader was taken prisoner. After remaining a year on the island, relief at last appeared. Columbus, on the 12th of October, 1503, with twenty vessels laden with guns, wheat, iron, and other supplies, arrived at his lands in the West Indies, and was received with open arms, and with the most splendid treatment, by the governor of St Domingo, but, in 1795, on the cession of Hispaniola to the French, they were removed, with great pomp, to the cathedral of Havana, in Cuba. The claims which he had worn, he kept holding in his cabinet, and requested that, when he died, they might be buried in his grave. A splendid monument was erected in honour of him, in a Carthusian convent at Sevilla, where his body was first deposited.

In the vigour of manhood, Columbus was of an engaging presence, tall, well formed, and muscular, and of an elevated and dignified demeanour. His visage was long his nose aquiline, his eyes light-grey, and apt to kindle. His whole countenance had an air of authority. Care and trouble had turned his hair white at thirty years of age. He was moderate and simple in diet and apparel, eloquent in discourse, engaging and affable with strangers, and of great amiability and savoir faire in domestic life. His temper was generally irritable, his judgment by the benevolence and generosity of his heart. Throughout his life, he was noted for a strict attention to the offices of religion; nor did his piety consist in mere forms, but partook of that lofty and solemn enthusiasm, with which his whole character was marked. As a genius, a lofty and noble ambition, his conduct was characterized by the grandeur of his views and the magnanimity of his spirit. The two men who have probably done most, in modern times, to change the face of the world have been Italians—Columbus and Napoleon.—For further information respecting the life of Columbus, we refer the reader to the life of Columbus (in Italian), by Bossi (French translation, Paris, 1824); Columbus and his Discoveries, by Spotorno; Memoirs of Columbus (original writings of Columbus, translated from the Spanish and Italian, London, 1824); and Codex Diplomaticus Columbus Anno Gregorii, etc., 1823, 4to. Navarete's Collection of the Voyages of Discovery made by the Spaniards (collected from the archives), Madrid, 2 vols. 4to, and French, Paris, 1825, contains the journals of Columbus, and many letters, then first printed.

The latest account of the great discoverer is Ingoldsby's Life of Washington Irving, 3 vols. 8vo, London, 1828, abridged by the same, 1 vol. 12mo, New York, 1829.

COLUMBUS: a post-town of the United States, the seat of the government of the state of Ohio, in Franklin county, on the east bank of the Scioto.
near the centre of the state; lat. 39° 47' N.; lon. 53° 8' W.; population in 1828, about 1500. It was visited by the Greek in 1812. The Doric and Ionic columns are abundantly shown on rising ground, just below the confluence of Whiston river with the Scioto.

COLUMELLA, Lucius Junius Moderatus, the most learned practical writer on agriculture among the ancients, born at Cadiz, in Spain, lived about the middle of the 1st century, and wrote twelve books, which are still extant, De Re Rustica, one of which, on gardening, is in verse. He treats, in this work, of all the branches of agriculture. He also wrote a book on the cultivation of trees. The best edition is by Gesner, in his collection Scriptores Rei Rusticae, Leipzig, 1755, 2 vols. quarto.

COLUMN (columns Lat.), in architecture; a round pillar. In the earliest periods of the world, the column was merely the trunk of a tree, or its imitation in stone, used to support the roof. The parts of a complete column are its base, on which it rests, its body, called the shaft, and its head, called the capital. Columns are used to support the entablature of an order, which has also its proper division. (See Architecture and Order.) In the most ancient times, columns of wood were the most usual, as being the most easily wrought. In countries like Egypt, where timber fit for construction is scarce, and where abundance of stone is the material for columns, and those of Egypt are remarkable for the beauty of their workmanship, and the durability of their materials. The Greeks used marble of the finest kind, with which their country abounded, for their columns; and other nations, the stone or material of their country. The Greeks properly considered the column as an essential part of the architecture of their temples and never used it as a mere decoration. The manner of constructing the columns of all the orders rests upon similar principles. They are all divided into three primary parts or divisions, the base, the shaft, and the capital, except the Doric order, which has no base. The lowest or thickest part of the shaft is used by architects as the universal scale or standard whence all the measures which regulate and determine heights and projections are taken; and this standard or scale must be understood in the several parts of the columns which can be comprehended. The universal architectural scale is called a diameter, and is the diameter of the lowest or the largest part of the column; and, unlike the foot, inch, or yard, is as various as the size of columns. By the diameter, of course, is meant that of the circle which forms the base or abacus of the column. Half of this diameter, or the length of the radius which forms the circle, is called a module, and is used, as well as the diameter, as a primary standard of mensuration, by some writers upon architecture. These measures of length are subdivided as follows, namely, the diameter into sixty parts, a module into thirty parts, each part being the same in length which are called minutes. Both mensurations are the same, only under different denominations; as, for instance, one author says a column, which always includes the base, shaft, and capital, is six diameters, twelve minutes high, while another would say of the same column and its dimensions, that it is twelve modules and twelve minutes, both meaning the same. The Doric column has no base. The Ionic column has one peculiar to itself, called the Attic, which, with that of the Corinthian, is one of the orders included beneath the capital. The Attic, Grecian Style of. The shafts of the different orders differ in height, and even in various examples of the same order, as may be seen in the articles Architecture and Order. The capitals are also as various.

Columns are either plain or fluted; and the flutes and manner of dividing them are different in the Doric and Corinthian orders. The Ionic flutes resemble the Corinthian, and, in many instances, are exactly similar. Twisted, spiral and rusticated columns, like those of Borromini, in various buildings in Rome, and the Baldocchino of St. Peter's, are in bad taste, and to be avoided. Columns are also often used for monuments, as well as for architectural supports; like the Trojan and Antonine columns in Rome, and that called the Monument in London. There are also astronomic columns, like that which Catarine de' Medici erected at the Halle au Blé, in Paris. The Romans had their columns belica, of which was near the temple of Jupites, and from which war was proclaimed by the consul casting a javelin from it towards the country of their enemy; also chronologic columns, wherein they inscribed historical events according to the order of time. They had also a tactical column, which was erected in the vegetable market, and contains in its pedestal a receptacle for infants that were abandoned by their parents. (See Juvencal, Satire vi. 601.) The legal column was one on which the ancients engraved their laws; the limitative or boundary column marked the boundary of a state or province; the monuminal column was erected with trophies and spoils taken from the enemy, the triumphal columns became the trophies which adorned the prow of the ships erected in a similar manner. The first column of this description was that which was erected in the capitol, on the occasion of the naval victory which Caius Duillus obtained over the Carthaginians. It is now on the balustrade of the main staircase of the Campidoglio. Augustus raised four, decorated with the prow of the vessels which were taken from Cleopatra. Two were also erected to the honour of Caius Menius, for a naval victory over the Latins and Antiates. The sepulchral column was elevated upon a sepulchre or tomb, with an epitaph engraved upon its shaft. The triumphal column was erected by the Romans in commemoration of a conqueror to whom had been decreed the honours of a triumph. The joints of the stones were concealed by crowns obtained by military conquests. The columns of Trajan and Antonine, besides their specific objects, are also triumphal columns. The British parliament, when they voted the magnificent palace of Blenheim to the great duke of Marlborough, also erected a triumphal column in the park. On the four sides of the pedestal are inscribed descriptions of the victories of that great commander, and his statue is upon the arches, supported by figures of captured enemies, and surrounded by trophies.

The military column, or militarium aurreum, of Rome, was originally a column of white marble, which Augustus erected near the temple of Saturn, in the forum, as a centre whence the account of the miles began in the calculation of distances from the city. This celebrated column is still in existence, being placed on the stylobate in front of the Campidoglio, the modern capitol of Rome. It is a short column, with a Tuscan capital, and has a ball of bronze, as a symbol of the globe. It was called golden, either because it was once gilded all over, or at least the globe and ornamental accessories. As a companion to it is a similar column, bearing on its summit a vase, containing the ashes of Trajan.

Among the principal insulated commemorative or triumphal columns are those of Ptolemy's pillar, or column, at Alexandria in Egypt. Opinions have differed much as to the date of its erection, and to whose memory it was raised. Its style is that of the age of Diocletian and of the lower empire. Engravings and descriptions of this ancient monument may be
found in the works of Ptolemy, and other travellers in Egypt. It is of Thebaic granite, of the Corinthian order, and according to the best authorities, measures sixty-four feet in the shaft, about five feet in the base, ten feet in the pedestal, and from ten to eleven in the capital. A Greek inscription was discovered by the British artist, Ralp h Allen, and amongst the column as it was surmounted by the emperor Constantine, as is indicated by an inscription in Greek.

Of modern columns, that called the Monument, at London, which was erected in commemoration of the great conflagration of 1666, is at once the loftiest, the best constructed, and the most beautiful. It is 202 feet high from the bottom of the pedestal, which is ornamented with bassi reliefes of Charles II, and his court giving protection to the fallen city, and various inscriptions, to the top of the vase of flames, by which it is surmounted. There are, also, several smaller columns, but of beautiful proportions, in various parts of England, in imitation of the above, but mostly of the Grecian or pure Doric order, as the Anglesea column, erected in commemoration of the battle of Waterloo and the noble earl of that name, in the island of Anglesea; the column at Shrewsbury, erected in commemoration of the same event and of another noble general, Lord Hill; the Nelson columns, at Yarmouth, and at Dublin; the Wellington column, at Trim, in the county of Meath, Ireland, &c. To the above list we may add the Washington monument, at Baltimore, on which a colossal statue of Washington is placed. The pillar is of the Grecian Doric order, and of very massive proportions. It stands on a grand base or socle, and is surmounted by a circular pedestal, on which the statue rests. This base or socle of the monument is fifty feet square, and twenty-five feet high; the column twenty feet in diameter, and, with its sub-base, 130 feet high; the capital is twenty feet square. The statue is fifteen feet high, and the whole height of the monument, from the pavement, including the statue, will be 176 feet. As it stands on a hill 100 feet high, this structure rises 276 feet above tide. It is constructed of white marble, which is slightly variegated, and is a very conspicuous object to every one approaching the city. Where the pedestal is 176 feet high, 200 feet square.

COLUMN, IN MILITARY TACTICS; a deep, solid mass of troops, formed by placing several bodies of men behind each other (sections, platoons, companies, squadrons, and even several battalions). The column is either an open or a close one (with intervals of musketry between the ranks, or even between the files of the two columns on either side); it may be formed either for marching or for attack. By means of columns, it is possible to march in places where it would be impracticable to move with unbroken lines. They also increase the force and steadiness of troops, both in attack and defence. The drawing up of the infantry in line is advisable, where there is no obstacle in the ground to prevent advancing in this order, or when the enemy is to be received with the fire of musketry, and when cannon-balls and grenades are more to be feared than case-shot and musketry. The order in mass is to be preferred when you have to move in a broken or hilly country, where a charge is intended, in which physical force, given by the depth of the column, is necessary, and the fire of the enemy is to be avoided as much as possible (which, on account of the small breadth of the column, is comparatively less than in a column of battle, and also, particularly of cavalry, is apprehended). Though a cannon-ball, and still more a grenade, in the midst of the mass, causes a greater havoc, the probability of being hit is diminished, on account of the small front exposed. An objection to columns, founded on the difficulty of moving so dense a mass, and of
changing it into a line, has been removed, in modern times, by the practice of making the columns consist of only one battalion, and by disposing these single battalions near each other in such a way as to support one another by their fire, instead of arranging them uselessly behind each other. But the usual way of columns is to place the centre, those have received such a movability and facility of development, that a line may be restored in two or three minutes. Almost all battles are fought, at present, by such small columns, which, when the order in line is judged more for the purpose, may be changed into lines, and which besides the battalion squares for resistance against attacks of cavalry, by presenting a front to all sides, and unite many other advantages. In the case of cavalry, also, attacks may be made either in column or in line. The charge in close columns, which is in use particularly with the French, is of the greatest effect when it succeeds; but when it fails the whole body of assailants is exposed to annihilation, or to rout, as no support, no development, nor orderly retreat, is possible. The attack with columns at some distance from each other has this advantage, that, if the first division fails, the subsequent ones may succeed; moreover, the facility of manoeuvring is much greater. This mode of attack is particularly advisable in assaulting squares of infantry. Marching and fighting in lines, however, are the modes usually practised by cavalry.—Columns—roads are such roads as may be passed with all kinds of arms; when the ordinary road is ruined, they are laid out across the fields, and marked by poles with straw (jalouses). COMB (comb, Saxon); an instrument to separate and adjust the hair, too well known to need description. We have no certain authority, either from busts or medals, that either the Græco or Roman canophs were used; but this useful and ornamental appendage to their hair, although, in most of them, it is carefully and gracefully adorned. Nor in the articles that have been disinterred at Volterra and other Etruscan cities, where abundance of utensils and instruments of the female toilet have been found, has there been a single comb discovered. There is, therefore, no authority, with which we are at present acquainted, to inform us from whom the Romans borrowed this article of the toilet. Many of their sepulchral inscriptions are dedicated to their dressing maids (ornatrixes). It is probable that the comb of the lines, and of the armies, was but that of a silver; but, according to Guasco, they were also of iron and of bronze. In the work of that author, Dette Ornatrixi, there are several representations of ancient Roman combs. One, in particular, at page 63, that was in the museo Setaia, at Milan, is a long one of box, of which the handle is overlaid with ivory, and appears to have been ornamented with a small meander in gold. It has two rows of fine teeth, delicately wrought and well proportioned. Canova and other modern sculptors have made great use of the comb in their female busts, to which they add a grace and elegance unknown to those of the ancients.

COMBAT, in law, or Single Combat, doth denote a formal trial, between two champions, of some doubtfull cause or quarrel, by the sword or bafoon. This barbarous way of deciding controversies was, in the middle ages, very common; not only in criminal but also in civil cases. The form and ceremony in which the combat are described is in the Grand contumuir of Normandy. The accuser first swore to the truth of his accusation; the accused gave him the lie; upon which he threw down a pledge of battle, and the parties were committed to prison till the day of combat. The legal combat belongs to the same class of absurdities as the formal trial of witches. See Duet and Champion.

COMBINATION, in Mathematics, is the variation or alteration of any number of figures, letters, colours, sounds, &c., in all the different manners possible. The details of which are called elements. The doctrine of combination is that branch of mathematics which teaches the results arising from all possible combinations, and gives rules respecting them. Combinatory analysis is the application of the doctrine of combination to analysis, and constitutes a branch of science often very involved. A system of characters is appropriated to this purpose. The district of Liepzig, of Leipsic, in 1787, gave it the character of an independent science; and it has been of important service in relation to the higher branches of mathematics. (See Weingartner's Lehrbuch der combinatorischen Analysis, Leipsic, 1801, 2 vols.) Permutations are those combinations in which, in each time, all the elements are used, and the object is to determine how often they change their place, for instance, \(a\ b\ c\ d\ a\ c\ b\ d\ a\ c\ &c\). The number of possible changes or combinations is found by multiplying the terms 1, 2, 3, &c., continually into each other; thus, the number of permutations of five quantities is 120. The changes may be put on twelve bells amount to 479,001,600; and the twenty-four letters of the alphabet admit of \(62,044,840,173,323,943,936,000\) changes or combinations.

COMBUSTION. It is not easy to give a correct definition, or to assign a general cause, of this familiar phenomenon. It may, however, be described as the result of the combination of two or more bodies, attended with a disengagement of heat and light. This description distinguishes combustion from ignition, which only implies the raising of an elevation of the temperature, with no chemical combination. Fire was formerly considered as an element, which had the power of converting certain bodies into its own nature; but the progress of chemical science soon showed the error of this notion. Stahl's celebrated theory was founded on the hypothesis of the existence of a substance which he called phlogiston. Every combustible body was supposed to contain this substance, which was disengaged by combustion; the loss of the phlogiston was the cause of the residuum being incombusible. The heat and light were attributed to the violent agitation of the phlogiston at the moment of its change into gases and vapours. The experiments of Black and Priestley opened the way to the system of Lavoisier, which, in 1785, entirely supplanted the theory of Stahl. During the conversion of solids into fluids, and of fluids into vapours, there is a considerable absorption of heat: when, on the contrary, vapours and liquids are restored to the fluid and solid form, the heat which they contain is evolved, and passes from the latent to the sensible state. (See Caloric.) These views were assumed by Lavoisier as the basis of his theory. Oxygen was considered as a compound of a peculiar basis, united to the matter of light and heat, and combustion was the combination of oxygen with the burning body. During the combustion, the basis, combining with the combustible, augmented its weight and changed its properties; while the imponderable elements of the gas—light and heat—were developed in the form of flame. But it was found that this theory incorrect. In the first place, all the phenomena of combustion take place, in many cases, without the presence of oxygen. In the second place, there are many cases in which oxygen unites with bodies, without the evoction of light and heat, as during the change of some metals on exposure to the air. And, further, there are many instances in which combustion takes place without the change of any matter into gas.
COMEDY—COMETS.

place not only without condensation, but where gaseous matter is actually produced from solid matter, as in the formation of gunpowder. Besides, the evolution of light, if it were derived from the gas, should be proportional to the quantity supplied, whereas it depends chiefly on the combustible. The first of these objections to Lavoisier's theory, which is yet generally received, has been partly removed by modifying the definition so as to extend it to several other bodies, hence called supporters of combustion.

(See Chemical Classification and Nomenclature.)

The definition which we have given of this phenomenon at the beginning of this article is merely a description. The question arises, Whence come the light and heat? They are generally referred to other luminous bodies, hence called comets, and the condensation which is almost always a necessary consequence of a chemical combination; but we have already seen that, in some cases, they are produced where the component parts actually pass from a solid to a gaseous state. It seems probable, in the present state of our knowledge, that they may be attributed to the disengagement of the electric fluid.

"In every chemical combination," says Berzelius, "there is a neutralization of opposite electricity, and this neutralization produces the light and heat in the same manner as it does in the Leyden jar or the galvanic battery; hence it is evident that, if electricity were the cause of the disengagement of the heat and light, they would always bear a fixed proportion to each other. This is not the case: the combustion of oxygen and hydrogen disengages a very great quantity of caloric, but very little light; that of phosphorus and oxygen produces opposite results. There is, then, no theory of combustion at present received, which will explain all the circumstances of this phenomenon. If there be any one general cause, it must be because, which, like affinity, is modified by the nature of the agents and the peculiar circumstances of their mutual action.

COMEDY. See Drama.

COMENIUS, John Amos, a benefactor of mankind, by the improvements which he introduced into education, was born March 28, 1592, in the village of Comna, near Brumau, in Moravia; hence the name which he assumed; his real one is not known. His parents, belonging to the Moravian denomination, had him educated at Herborn. In 1616, he received an appointment as teacher, in Fulnek, which, in 1618, was plundered by the Spaniards. Comenius lost his papers, and all that he possessed, and fled to Poland, where, in 1632, he was elected bishop of the Moravian church at Przemyśl. In 1637, he published, at Lissa, his Janua Linguarum rererata, a work which was translated, within twenty-six years, into twelve European languages, also into Persian, Arabic, and Mongolian. In this, he laid down a new system for teaching languages to children by the use of visible signs, in order to facilitate the learning of others. His Orbis pictus, or the Visible World, was first published, in 1659, at Nuremberg. In 1641 he was invited to England, in order to introduce a better organization into the schools; but, as the civil war prevented the accomplishment of this plan, he went to Sweden, where the chancellor Oxenstiern became his patron. In 1656, he returned to Lissa, where he once more lost all his books and manuscripts on the burning of the town after the retreat of Charles X. Comenius died at Amsterdam, Oct 15, 1671. In the latter part of his life, he gave himself up to religious dreams, and published his dream that the comet of 1577 had no diurnal parallel, which he could detect,—that is, that its place, when viewed from the surface of the earth, was not different from what it would have been if viewed from the centre; he properly concluded...
that its distance from the earth must be greater than that of the moon, in which this paradox was apparent to him. This was one of the important one: it removed comets to such a distance from the earth, that their use could not well be supposed to be for it, or their influence upon it very great. The general law of the motion of bodies in free space, as well as his own particular observations on the comet of 1680, led Newton to conclude that the orbits of the comets must, like those of the planets, be ellipses, having the sun in one focus, but far more eccentric, and having their aphelions, or greatest distances from the sun far remote in the regions of remote space. Its period was certainly longer than the 13th of March, 1759. Clairault, however, fixed certain limits, within which his calculations might probably be erroneous. It was eventually found that the difference between calculation and observation was less than that which he assigned. Clairault read his investigations to the academy of sciences in November, 1758; and, in little more than a month afterwards, the comet made its appearance; and it reached its perihelion on the 13th of March, in the following thirty very accurate, and he set about observing it with great care, in order to determine the elements of its orbit. Having done so, he found that there was a wonderful resemblance between it and three other comets that he found recorded—the comets of 1456, of 1531, and of 1607. The times of the appearance of these comets had been at very nearly regular intervals,—at least, the differences had been only fractional parts of a year, —the average period being between 75 and 76 years. Their distances from the sun, when in perihelion, or when nearest to that luminary, had been nearly the same, being nearly six-tenths of the earth, and not varying more than one-sixtieth from each other. The inclination of their orbits to that of the earth had also been nearly the same, between 17° and 18°; and their motions had all been retrograde. Putting them together, Dr. Halley concluded, that the comets of 1456, 1531, 1607, and 1682, were appearances of one and the same comet, which revolved in an elliptic orbit round the sun, performing its circuit in a period varying from a little more than seventy-six years to a little less than seventy-five; or having, as far as the observations had been carried, a very nearly uniform period. From the inclination of its orbit, and its average distance from the sun, measured according to that of the earth. For this variation in the time of its revolution, Dr. Halley accounted upon the supposition that the form of its orbit had been altered by the attraction of the remote planets, Jupiter and Saturn, as it passed near to them; and thence he concluded, that the period of its next appearance would be lengthened, but that it would certainly re-appear in 1758 or early in 1759. Its doing so was, of course, the fact that was to be decisive of the orbits of comets, and that they were regular and permanent bodies, obeying the general laws of matter. Halley did not live to see the verification of his prediction; he died in the year 1742, at the advanced age of eighty-four.

Soon after his death, Clairault, D'Alembert, and Euler, three of the most eminent mathematicians of Europe, turned their attention to that problem, called the "problem of the three bodies," that is to determine the paths described by three bodies, projected from three given points, in given directions, and with given velocities, their gravitating forces being directly as their quantities of matter, and inversely as the squares of their distances. This question has its analogies in certain other branches of natural philosophy, where the principle of the action at a distance does not belong to that system; and, as this is determined, it is a problem of great importance, as it enables us to set down values for the masses of the planets. M.
COMETS.

Lobock, has also investigated the subject, and the Nautical Almanack, for 1835, gives the results accordingly to all then opposed. The comet of Halley has a period of about seventy-six years.

Besides the comet of 1759, of which there have been four authenticated returns, there are two others, of which something like a return has been traced at long intervals. One of these passed it in opposition on the 4th of April, 1805. It has been observed on the morning of the 6th of July, 1261, reckoning mean-time at Greenwich; and again, at a little past eight o'clock, on the evening of the 21st of April, 1556. Thus its period is about 292 years, and it may be expected in 1848. The perihelion distance, however, of this comet, which was more than half that of the earth, in 1261, had diminished an eighth part by 1556; and, as this must have caused a great elongation of its orbit, and as, from the length of its period, it must go far into the regions of space, there is no knowing how both the time of its revolution, and the form and position of its orbit, may have been altered.

The other comet, in the elements of whose orbit there is a similarity, from which its identity might be with probability inferred, appeared in 1532, and again in 1601, inlying thus a period of about 129 years. The return of that comet should, therefore, have been about 1790. In that year, three comets unlike in their appearance, and three resembling the comet of 1601. Two of them moved in the opposite direction; and the remaining one was more than twice the distance from the sun in its perihelion, and its orbit at nearly double the angle with that of the earth.

The comet denominated Encke's comet, which has engrossed the public mind generally, and the scientific world in particular, has justly claimed and received the careful attention of astronomers, since its appearance in 1818 engaged professor Encke to consider the elements of its orbit. He was enabled to identify it with a comet described by Messrs Mechain and Messier in 1789, in the constellation Aquarius; also with a comet discovered in 1795, by Miss Herschel, in the constellation Cynosurus; and with the comet in 1805. The investigation of this diligent professor enabled him, from his observations on its appearance in 1818, to foretell its reappearance in 1822, and to state the probability of its not being observable in our climate. This anticipation was realized by its discovery in New South Wales, in the observatory of the governor, Sir Thomas Brisbane, June 2, 1822; and the accurate observations of its revolution, affording the means of reconsidering the true elements of its orbit, and with additional confidence computing its return for 1825. This occurred as was expected. The fresh data afforded by that return were carefully collated by the professor. It was observed again on October 30, 1825. This comet affords particular interest to the mind of the astronomer, though it does not offer a splendid object to his eye. Its orbit is an ellipse of comparatively small dimensions, wholly within the orbit of Jupiter; its period is 2920 days, or about three years and three-tenths—a much shorter period than that hitherto appeared to comprise the revolution of any other comet, with the exception of one seen in 1770, which did not satisfy, as far as observation has been able to show, the prediction of the period of five years and a half, which was attributed to it. In the opinion of Encke and other astronomers, this comet may afford an opportunity of proving that the heavens oppose a resistible return to the motion of bodies. The subject has been discussed in the Transactions of the Astronomical Society of London by the able mathematician Massotti; and that gentleman offers reasons for considering comets capable of affording a demonstration of a resisting medium in the heavens, though planets may give no confirmation of it.

Another comet, which encourages the anticipation of much astronomical gratification, is one which Biela discovered, Feb. 27, 1826, and which was afterwards seen by Gambart and others. It seems to possess claims to the attention of astronomers similarly confusing, in that it is designed to revolution above the sun in about six years and seven-tenths, and to be the same as the comet which appeared in 1772, and that which appeared in 1806. Encke's comet was in its perihelion, by computation, Jun. 10, 1839. Two other comets remain yet to be noticed, the elements of which have been calculated, but which have not as yet been confirmed by returns. The orbit of the first was calculated by Newton, from its appearance in 1890, and he estimated the periodic time to be 575 years. It may therefore be expected in 2855. The second appeared in 1550, is supposed to have a period of 292 years, and will therefore return in 1848.

The comet of 1770, to which allusion has been made, would lead us to conclude that we are still ignorant of many of the causes by which the form of the orbits of comets, and the times of their revolution and return, may be disturbed. One comet moved almost as near the equator of the earth's orbit as the inclination of only about a degree and a half; it had been observed with great care; and the result of the observations was, that it should return about every five years and a half. Instead of going out of the system, as may be presumed to be the case with those comets that have long periods and eccentric orbits, its greatest distance could not be much greater than that of Jupiter, while its mean distance from the sun was not much more than three times the perihelion distance of the earth. No comet, at all answering to that one, has, however, been again discovered; and therefore the conclusion is, that there are, within the system itself, causes which can completely alter the motions of these bodies; but what those causes are, other than the attraction of the planets, has not yet been ascertained.

One remarkable difference between the comets and the planets is in the angles which their orbits make with that of the earth. Leaving out the small planets that have recently been discovered, all the others are contained within a zone extending only 7° on each side of the earth's orbit; and, with the exception of Mercury (by far the smallest of the old planets), the angle within half that which the orbits of the comets are at all possible angles; and the number increases with the angle, so that they approximate to an equal distribution, in all directions, round the sun as a centre. The numbers that have been observed are as follows:—Under 10° of inclination, 8; under 20°, 19; under 30°, 26; under 40°, 37; under 50°, 47; under 60°, 63; under 70°, 79; under 80°, 88; and under 90°, about 100. Thus by far the greater number of the comets have their paths out of the direction of those of the planets; and hence, though they be bodies of such consistency as that their collision with the planets would produce serious consequences, there is but little chance that such collision can take place. The comets that have been observed have made their passages through very different parts of the solar system: 24 have passed within the orbit of Mercury; 47 within that of Venus; 25 have been in the same position as that of Mars; and the whole within that of Jupiter. Of a hundred, or thereabouts, mentioned by Lalande, about one-half have moved from west to east, in the same direction as the planets, and the other half in the opposite direction. The direct and retrograde
COMETS—COMFORTABLE.

ones do not appear to follow each other according to any law that has been discovered. From 1299 to 1532, all that are mentioned were retrograde; and five that were observed from 1771 to 1780 were all direct.

Being quite ignorant both of the size of the comets, and their quantities of matter, we can form no conclusion as to their effects, even upon the positions of the planets. Hitherto, their influence, if anything, has been very small; for, within the limits that must be allowed for error, even in the best tables that are calculated upon an approximation, the effects of the irregularities are explainable upon the hypothesis of planetary disturbance alone; and the system appears to have gone on just as if there had been no comets in it. That the comets are formed of matter of some sort or other we know, from the dense and opaque appearance of their nucleus, as well as from the action of the planets upon them; but, as their action upon the planets has not been great, or even perceptible, we are led to the conclusion that they are not bodies of the same density or magnitude as even the smallest and rarest of the planets. When a cometary nucleus possesses a certain degree of power, there appears a dense nucleus in the centre of the luminous and apparently vaporous matter, of which the external parts are composed; and the opacity of this nucleus varies in different comets. On its first appearance, and again when it recedes, the luminous part of the comet is faint, and does not extend far from the nucleus; but, as it moves on towards the perihelion, the brightness increases, and the luminous matter lengthens into a train, which, in some cases, has extended across a fourth of the entire circumference of the heavens. But, though the general fact of the increased brightness of comets, and length of their tails, with their approach to the sun, and the consequent inclination of their motion, has been established, the observations have not been uniform or minute enough for proving what proportion the increase of brightness bears to the increase of the velocity, and the diminution of the distance from the sun. No doubt, all the comets of which there are well authenticated accounts, of great brightness and length of tail, have passed near the sun in their perihelion. Thus the comet of 1769, which was not a fifth of the earth's perihelion distance, and which was not seen at Paris; while that of 1759, which was distant more than half the earth's perihelion distance, had a train of only 2° or 3°. The length of the tail varies, however, not only with the time at which it is observed, but with the place of observation—a difference probably depending on the difference of clearness and purity in the air. The tail of the comet of 1759 was 25° long, as measured at Montpellier, in the south of France, and considerably more than that as measured at the Isle of Bourbon, in the Indian ocean. That of 1769 was 60° at Paris, 70° at Boulogne, 80° being reckoned, and 90° at Bourbon. Generally speaking, they appear to be brighter and larger when seen at sea than on land, and in the warmer regions than in those nearer the poles. When the superstitious fear of comets, as portending harm to the inhabitants of the earth, had vanished before the light of philosophy, that light was, in some danger of giving rise to fear of another sort—fear of physical harm to the earth itself, by the collision of some comet that might cross its path. We have no evidence, however, that such a collision ever did happen, either with the earth or with any other planet, and it is not pretended that any means of so calculating the place of a comet as to be able to say with certainty that, on a given day, during a given month, or even during a given year, it shall cross the orbit of a planet. The motion of the earth in its orbit is, in round numbers, more than a million and a half of miles in a day; and as Clairault, with all his care, did not come nearer the truth than nineteen days, though the collision of a comet and the earth should be calculated from the conditions of the earth might, in fact, be, at the time, far enough from the comet. Indeed, though the fact of the return of two comets established, namely, Halley's and Encke's, and the return of every one, if not affected by physical causes that lie beyond the limits of our present knowledge, has been rendered exceedingly probable, yet we can observe them for so short a portion of their courses, and these seem so very apt to be altered, that we ought not to speak of them with anything like the certainty with which we speak of the planets. As far as we have been able to examine them, they appear to obey the same laws as the other distinct masses that make up the known part of the system of the universe. Beyond this we know nothing of their nature; and as for their effects, moral or physical, we need give ourselves no trouble about them; for there is not a trace of the existence of such effects in the authenticated history of comets.

Respecting the hypotheses relating to the structure of comets, and particularly to their tail, professor Fischer, of Berlin, has given valuable information in Bode's Astronomisches Jahrbuch (Astronomical Yearbook), 1826, p. 90. See also, the French edition of Schubert's Astronomy (Petersburg, 1829, vol. 2, p. 510). To learn their mathematical relations, see Nouvelles Méthodes pour la Détérmintation des Orbites des Comètes, by Legendre (Paris, 1806, 4to); and Olbers' Neue Methode die Bahn eines Kometen aus eigner Beobachtung zu berechnen (Weimar, 1797).—La Place's Théorie du Mouvement et de la Figure des Planètes et des Comètes has become rare; but Biot, in the Additions to the third book of his Astronomy, p. 185, extracts the part relating to the theory of comets entirely from it.

COMFORT, POINT.

COMFORTABLE; a very expressive word among the English, and people of English descent. It is also found even in recent French publications, probably carried to Paris by the innumerable English who visit the capital of France. Every nation has not only certain words which cannot be rendered precisely by any term in any other language, but also certain ideas growing out of its customs, wants, &c., which do not exist with other nations, and which are the real cause of this peculiar significance of particular words. Such a word is comfortable, which signifies more than a mere physical feeling of gratification. In fact, it has something of the same indefinable and untranslatable character with the word home—a word which expresses a vast deal of feeling, of a faithful and tender attachment. A comfortable home is an expression, of which it would be impossible to approach to a translation, in some other languages, for instance, in Italian, as it is in French, and in English it is in the open air in his lovely climate, and has little regard for the pleasures of home. Many circumstances may have co-operated to produce, among the English, their love of comfort, and the means for ensuring it which we find in their houses. In fact, the comforts of an English dwelling surpass every thing of the kind among other nations. We would confine our observation to the dwelling, because, as respects the whole manner of living, the degree of enjoyment is certainly much greater in France. It is always highly interesting to study those expressions by which a nation describes those matters of particular likings or dislikings, because they disclose, at once, the general disposition of the people. Such a one is comfortable. The German, in a pleasant state of mind, says he feels gemütlich. 
lich, or, of a person, er ist ein genaustlicher mensch. The American, in praise of a person, says, "He is an excellent fellow." An intelligent and thriving community is his ideal. The Frenchman, to express great aversion, says, Je m'ennuie. The Italian dolce far niente (sweet idling) is very characteristic of the disposition of the nation. Not only nations, but also ages, have their peculiar expressions, which are highly interesting.

COMINES, PHILIPPE DE (seigneur d'Argenton), a celebrated historian of his own times, was born, 1445, at the castle of Comines, near Meun, in Flanders, and passed his youth at the court of the dukes of Burgundy, Duke Charles the Bold. He enjoyed the confidence of the latter, and contributed essentially to his reconciliation with Louis XI. He conducted other negotiations with equal sagacity, and, in 1472, entered the service of Louis XI., probably on account of the rash and violent character of Charles, and is haughty promise of Louis, who loaded him with marks of favour. After the death of Charles the Bold, Louis took possession of the duchy of Burgundy, sent Comines there, and, soon after, appointed him ambassador to Florence, where, during his year's residence, the conspiracy of the Medici was defeated. He exhibited the confidence of the latter, and contributed greatly to the reconciliation of the Medici. He was then sent by Louis to Savoy, for the purpose of seeing the young duke Philip, and of placing him entirely under the guardianship of the king his uncle. In 1483, Louis XI. died. Under the following reign, Comines did not enjoy the same favour. Under the regency, he was made a member of the council, and took part in the princes in their plots against the mild and wise government of Anne de Beaujeu. He was involved in all the intrigues of the duke of Orleans, and was intimately connected with the old constable, Jean de Dunois. A conspiracy in which he was engaged, having been discovered, he was confined eight months in an iron cage at Loches. He was afterwards tried before the parliament in 1488, and pronounced guilty of having an understanding with several rebels, and of other crimes. By the sentence passed upon him, which seems not to have been executed, he was exiled for ten years to one of his estates, and the fourth part of his fortune was confiscated. Charles VIII. employed him in several negotiations in Italy; but this monarch was too wavering and imprudent; the advice of Comines was disregarded, and he was reproached by the court, and dissatisfaction. Under Louis XII., he seems not to have taken an active part in affairs. He died at Argenton, 1500. His Memoirs (most complete edition, London, 1747, 4 vols., 4to) are valuable contributions to the history of the time. He relates, in them, the events which occurred during his life, and in most of which he had an active share, with great veracity, in lively, natural, and displays everywhere a correct judgment, acute observation, and a profound knowledge of men and things. His memory is revived in the sentence of "Quintus Durward, ed.

COMITIA, with the Romans; the assemblies of the people, in which the public business was transacted, and measures taken in conformity with the will of the majority. They existed even under the kings. In the time of the republic, they were convoked by the censors; in their absence, often by the dictator, sometimes even by the pontifex maximus. Their chief objects were, the choice of persons to fill the highest offices, legislation, the making of war and peace, and the punishment of crimes against the state. For the first purpose, they were divided into four classes: Censors, Consul; for the others, in the forum, capitol, or the comitium. The emperors retained these assemblies for the sake of appearance, but used them only as instruments for the accomplishment of their purposes. From the division of the Roman people into centuries, curia, and tribes, the comitia were distinguished into the comitia centuria, curiata, and tributa. The most important were the comitia centuria, in which the people voted by centuries. They could be held only on certain days. Seventeen days before, per triennium, the people were called together by an edict. On the day of the comitia itself, the presiding magistrate, with an augur, went into a tent before the city, in order to observe the auspices. If the augur declared them unacceptable, the comitia was dissolved; if not, it was postponed to another day. Before sunrise and after sunset, no business was transacted in the comitia. The presiding magistrate, on his curule chair, opened the assembly by a prayer, which he repeated after the words of the augur. Then the subject of deliberation was communicated to the people, who afterwards separated into tribes and centuries. In earlier times, first the equites, then the centuries of the first class, &c., were called upon to vote. In latter times, lots were cast for the order of voting. The opinion of the century which first voted was usually followed by the rest. In the earliest times, every century voted verbally; in later times, by tablets. What was concluded, in each century, by the majority, was proclaimed, by the herald, as the vote of this century. The comitia was interrupted if any one in the assembly was attacked by a fit of epilepsy (which was called, for this reason, morbus comitia), or if a tribune of the people pronounced his veto, and under some other circumstances.

COMMIA. See Punctuation.

COMMANDERY, or COMMANDY, among several orders of knights, denotes a certain district, under the direct authority of one member of the order, who receives a part of the income thence arising, for his own use, and accounted for the rest. There are strict and regular commanderies, obtained by merit or in order, and others are, of grace and favour, bestowed by the grand master. There are also commanderies for the religious, in the orders of St Bernard and St Anthony.

COMMELIN, ISAAC, born 1598, in Amsterdam, was a historian, among whose works, the history and description of Amsterdam is still much valued. He died in 1676, at Amsterdam.

COMMELIN, JOHN, and CASPER, uncle and nephew, learned botanists in Amsterdam. The former died in 1698, his nephew in 1740.

COMMENCEMENT. In Cambridge, it signifies the day when masters of arts and doctors complete their degrees. In the colleges of the United States, this term denotes the day when the students commence the business of arts.

COMMENSURABLE; among geometers, a notion, an application given to such quantities or magnitudes as can be measured by one and the same common measure. Commensurable numbers, whether integers or fractions, are such as can be measured or divided by some common number, without any remainder; such as are twelve and eighteen, as being measured by six or three.

COMMERCER THE WORLD. This embraces the whole subject of the traffic and intercourse of nations, and shows how mutual wants, occasioning the exchange of natural riches for the creation of art, unite savage nations with civilized, and spread
moral and social cultivation over the earth. In former times, commerce subdued the steppes of Scythia and the deserts of Libya, and it is now clearing away the primitive forests of America, and draining the waters of Australia. For thousands of years, it has pervaded the interior of the ancient world; for centuries it has had its path on the mighty ocean; and, of late, it has learned how to cut through the isthmus of Darien, and to break through the ice of the poles. In the history of the nations, it is a perpetual Argonautic expedition, and, from the first period of commerce down to our own times, its Colchis has been India. The limits of our work do not allow us to exhibit the productions of the planting, commercial, and mining colonies; those of the last, however, only in part, for the precious metals and stones can hardly be designated by that name. This is also true of the productions of the colonies more strictly agricultural: spiccs, East India goods of all kinds, dye-woods and cabinet-woods, drugs, cotton, and especially coffee, sugar, rice, tea, &c., are properly understood by this term. The East Indies furnish chiefly cotton, sugar, coffee, rice, fabrics of various kinds, spices, and tea (from Chinh); the West Indies, coco, coffee, sugar, and cotton; South America, the precious stones and metals, dye-woods, cabinet-woods, drugs, &c. The consumption of these articles, which was formerly possible only for the rich, has increased immensely since the ocean became the highway for trade with the East Indies and America, in the course of the 15th century, and, more especially, since the Britich and Dutch assumed the first station among the colonial nations of Europe, in the beginning of the 18th century. Instead of being, as before, mere objects of luxury for the higher ranks, colonial goods became necessary articles even for the lowest classes of Europe; and an entire revolution was produced in the commerce of the different parts of the world. Commerce thus acquired an incomparably higher importance, and a more general interest. The class of merchants, which was, by this means, increased in an extraordinary degree, soon formed a body of men, spread over the whole cultivated world, and animated by one purpose—to maintain commerce; and even among belligerent nations, the governments endeavoured in vain utterly to abolish the mutual dealings of merchants. Thus, as the intercourse of nations became more lively, the exchange of ideas was promoted, men's views became enlarged, a cosmopolitan spirit united distant communities, and formed of the nations of Europe, as it were, one great, civilised family. Equal results were produced by the increased importance of the colonial powers (in late times, the two maritime states of Britain and Holland, in particular), arising from the increasing commerce of the world. By this we understand the productions of the colonies, whether produced chiefly by the native inhabitants or by Europeans, and, though in an inferior degree, for the other colonial powers of Europe, the trade in the productions of the colonies was an important source of wealth and power. Their great political importance has exercised an extensive influence on the whole political condition of Europe. Britain, in particular,

COMMERC. 345

l, has become continually more powerful by its extensive trade. It is therefore natural to infer, that, when the immense power of France was developed by the revolution, and that country, under Napoleon, strove for predominance on the European continent, the greatest struggle should take place between France and Britain, a consequence of which was the Continental system of Napoleon, who declared his purpose to be, to free Europe from the tribute which it was obliged to pay to Britain for the colonial goods which it received from her. Britain, deeming it absolutely essential to her interests to prevent the establishment of a universal mercantilism on the continent, despised the exertion to procure the restoration of the former order of things, so that she might have a free intercourse with the continental ports. Without going into the points at issue between the two countries, the fact deserves to be stated, that the continental system called into action many kinds of industry on the continent, and, in this way, has produced important changes in the course of trade, resulting from the great increase of manufactures. If we examine whether it be actually true, as asserted in the time of the continental system, that the great use of colonial goods has necessitated the consumption of these goods, it is easy to prove the contrary, which has been already fully confirmed by experience. New wants gave rise to new energy and new branches of industry, in order to gratify these wants, thus increasing the productiveness of labour, and simultaneously, the prosperity of the nations. But it is objected that money, or the produce of labour, which would otherwise remain in the various countries, is sent away from them in exchange for colonial goods. Very true; but, even if the express purpose of acquisition were not to procure new enjoyments, the object of all trade and all activity is, not to accumulate money, but to augment the sum of happiness. If this object be attained, industry and trade have effected all that they should do. Of course, no account can be reasonably taken of the small number of idle spendthrifts, who, without labouring, consume their capital in gratifying their pleasures. But it was soon perceived that, in the existing state of Europe, entirely to exclude colonial articles was utterly impossible, though recourse was had to all kinds of substitutes. The enormous duties imposed on the importation of colonial goods, as far as the French power then reached, is, therefore, not merely all equal to the consumption of the goods, but considerably essential to render its nation poorer; for these duties had to be paid, while nothing of value could be given in return; from which circumstance originated a most pernicious and immoral smuggling trade. But Napoleon asserted that the British would not allow him to make peace, in which case the whole system would naturally have been changed.—In the 18th century, Great Britain* became the first colonial power. It therefore, stands at the head of the commercial nations, who are all more or less tributary to British art and industry. With more than 23,199 merchant vessels, containing 2,400,600 tons, in 1827, it exported, in the year ending Jan. 5, 1827, to the amount of £60,399,356, and from Ireland, to the amount of £967,312; the imports, during the same time, amounted to £565,258,961, and to £565,450,000, as an average, a great measure, managed by companies. These companies are the Russian, the Levant, the African, the South sea,*

* We can give, in the following pages, only a brief account of the commerce of the different nations, and must refer the reader, for fuller information in regard to the different countries, to the different articles.
Hudson's bay companies, the East India company (q. v.), and the Borneo, Solo, and Banca company (for working the gold and diamond mines of Borneo, pursuing the pearl fisheries at Solo and Banca, and working the tin mines on the last-named island). The chief exports of Great Britain are, to the north of Europe, cotton, woolen, and glass manufactures; lead, tin, coal, East India and colonial wares, dyestuffs, salt, and refined sugar. In return, Great Britain receives from the north, corn, flax, hemp, iron, tartar, tallow, timber, linen, pearl and potash, cordage and log's bristles. To Germany, Holland, France, Italy, and Portugal, yew, rose, silk, fruits, fine oil, dyestuffs, carpets, &c. To North America it sends woollen and cotton manufactures, hardware, linen, glass, and other wares; the imports from thence are flour, cotton, rice, tar, pitch, pot and pearl ashes, provisions, ship-timber, &c. The chief imports from South America are cotton, hides, skins, tallow, cochineal, dye-wood, sugar, indigo, cocoa-gums, &c. and the exports from England are the same as above mentioned. The same exports are likewise sent to the West Indies; and in return, Great Britain receives rum, coffee, tobacco, sugar, ginger, pimento, lime, dyestuffs, indigo, drugs, gums, cotton, mahogany, Campeachy wood, &c To the East Indies, China, and Persia, it sends woollen goods, iron, copper, lead, tin, foreign silver money, gold and silver, in bars, hardware, and a variety of manufactures (amounting, in 1828, to £4,877,125); for which it obtains molasses, calicoes, silks, muslins, tea, spices, arrack, sugar, coffee, rice, salt-petre, indigo, opium, drugs, guns, quicksilver, precious stones, perris, &c., amounting, in 1828, to £8,002,786. To the colony of New South Wales, the common English manufactures and colonial goods are exported and exchanged for furs, Vera Cruz shipping, &c. And the last-named company possesses a monopoly of the fur trade between the West Indies, South America, and the South Sea Islands. The exports of the Company of the Indies are rice, tobacco, and various Indian productions. The exports of the East India company were to the amount of £633,740, in 1828, and the imports £643,210. The trade between Great Britain and India was, in 1828, £1,402,693. Among themselves, the three British kingdoms trade in the following commodities. From Scotland, England and Ireland receive corn, cattle, woolen and cotton goods, potash, granite, canvass, and iron manufactures; the Scottish fisheries also furnish an important article of commerce. For these things, Scotland receives the productions of Ireland, and articles of luxury, of all kinds, from England. Ireland buys of England and Scotland, woolen, cotton, and silk goods, East and West India goods, pottery, hardware, and salt: and in exchange, gives its linen, hides, potatoes, and other provisions, &c. The foreign commerce of Ireland is, besides, very extensive. It exports its productions and manufactures to France, Spain, Portugal, the West Indies, and North America, for wine, fruit, sugar, rum, &c. The commercial intercourse between Ireland and the north of Europe is carried entirely through England, and its trade with the East Indies follows the same channel. The chief articles of export from Ireland are linen, potatoes, and other provisions, corn, whiskey, herrings, and salmon.

The foreign possessions, settlements, and colonies of Great Britain, of which it possessed twenty-six prior to the French revolution, and has gained seven more by conquest, are Heligoland, Gibraltar, and Malta, with Gozo and the Ionian isles, in Europe; its possessions in India, under the administration of the East India company, and Ceylon, in Asia; the Isle de France, or Mauritius, with the Sechelles and Amirante isles, the Cape of Good Hope, Sierra Leone, the Cape Colony, the Ionian isles, the French possessions in the Senegalese islands, the Dutch possessions between the Senegal and Gambia, the Ionian isles, the Cape of Good Hope, and the East Indies, are all now British colonies. The trade of the British dominions in India to the United States of America is very extensive. The following table shows the consumption of articles of foreign and colonial produce in Great Britain, from 1820 to 1831.
## COMMERCE.

<table>
<thead>
<tr>
<th>Year</th>
<th>Europe, including Etruria, the Levant, Hanover, Holland, Gibraltar, Malta, and the Ionian Isles</th>
<th>Asia, including India, China, the Isles of Manus, Borneo, the coast of west Africa, and the Cape of Good Hope</th>
<th>Africa, including the Barboary States, the coast of west Africa, and the Cape of Good Hope</th>
<th>America, North and South</th>
<th>Ireland, Isle of Man, Guernsey, Jersey, Alderney, and Sark</th>
<th>Grand Total of the Commerce of Great Britain</th>
</tr>
</thead>
<tbody>
<tr>
<td>W 1799</td>
<td>$3,340,063</td>
<td>$3,110,912</td>
<td>$1,250,350</td>
<td>$1,676,635</td>
<td>$9,342,460</td>
<td>$10,849,810</td>
</tr>
<tr>
<td>P 1800</td>
<td>$3,798,429</td>
<td>$3,613,436</td>
<td>$1,658,865</td>
<td>$1,928,387</td>
<td>$10,768,965</td>
<td>$11,197,432</td>
</tr>
<tr>
<td>P 1801</td>
<td>$3,695,497</td>
<td>$3,671,160</td>
<td>$1,703,306</td>
<td>$1,801,676</td>
<td>$10,820,594</td>
<td>$11,128,931</td>
</tr>
<tr>
<td>P 1802</td>
<td>$3,477,647</td>
<td>$3,435,698</td>
<td>$1,742,825</td>
<td>$1,665,925</td>
<td>$10,770,408</td>
<td>$11,114,939</td>
</tr>
<tr>
<td>P 1803</td>
<td>$3,485,639</td>
<td>$3,463,583</td>
<td>$1,759,450</td>
<td>$1,668,265</td>
<td>$10,783,509</td>
<td>$11,120,435</td>
</tr>
<tr>
<td>P 1804</td>
<td>$3,192,803</td>
<td>$3,074,828</td>
<td>$1,519,355</td>
<td>$1,446,542</td>
<td>$9,158,523</td>
<td>$9,756,178</td>
</tr>
<tr>
<td>P 1805</td>
<td>$3,125,600</td>
<td>$2,968,272</td>
<td>$1,337,983</td>
<td>$1,329,645</td>
<td>$8,594,930</td>
<td>$9,399,685</td>
</tr>
<tr>
<td>P 1806</td>
<td>$2,593,816</td>
<td>$2,443,272</td>
<td>$1,119,771</td>
<td>$1,160,175</td>
<td>$7,452,582</td>
<td>$8,612,608</td>
</tr>
<tr>
<td>P 1807</td>
<td>$2,253,994</td>
<td>$2,092,212</td>
<td>$979,801</td>
<td>$994,122</td>
<td>$6,394,732</td>
<td>$7,403,241</td>
</tr>
<tr>
<td>P 1808</td>
<td>$1,971,411</td>
<td>$1,794,211</td>
<td>$755,500</td>
<td>$811,793</td>
<td>$5,465,884</td>
<td>$6,311,613</td>
</tr>
</tbody>
</table>

### Notes
- The Total Imports include the produce of the Whales Fisheries at Greenland and in the South Sea, and Prizes of War and Merchandise sold for current-horse duty.
TABLE OF THE CONSUMPTION IN GREAT BRITAIN OF VARIOUS ARTICLES OF FOREIGN AND COLONIAL PRODUCE, from 1821 to 1831, inclusive.*

<table>
<thead>
<tr>
<th>Articles</th>
<th>Number</th>
<th>Weight, or Measure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almonds</td>
<td>3,432</td>
<td>2,949</td>
</tr>
<tr>
<td>Anchovies</td>
<td>259,979</td>
<td>101,379</td>
</tr>
<tr>
<td>Alcohol</td>
<td>69,989</td>
<td>90,803</td>
</tr>
<tr>
<td>Apples</td>
<td>8,122</td>
<td>45,536</td>
</tr>
<tr>
<td>Apple Root</td>
<td>290,380</td>
<td>352,479</td>
</tr>
<tr>
<td>Ashes</td>
<td>31,120</td>
<td>171,192</td>
</tr>
<tr>
<td>Beans</td>
<td>211,039</td>
<td>294,216</td>
</tr>
<tr>
<td>Bees Sugar</td>
<td>432,644</td>
<td>622,375</td>
</tr>
<tr>
<td>Beverages</td>
<td>7,461</td>
<td>3,435,581</td>
</tr>
<tr>
<td>Beaver Skins</td>
<td>110,690</td>
<td>5,970</td>
</tr>
<tr>
<td>Buckwheat</td>
<td>171,260</td>
<td>101,379</td>
</tr>
<tr>
<td>Beurre Normandy</td>
<td>96,099</td>
<td>8,130</td>
</tr>
<tr>
<td>Buffaloe &amp; Brisket</td>
<td>227</td>
<td>289</td>
</tr>
<tr>
<td>Butter</td>
<td>226</td>
<td>173</td>
</tr>
<tr>
<td>Butter Silk</td>
<td>134,032</td>
<td>151,552</td>
</tr>
<tr>
<td>Butter, remote</td>
<td>1,333</td>
<td>1,796</td>
</tr>
<tr>
<td>Cabbage</td>
<td>1,333</td>
<td>1,796</td>
</tr>
<tr>
<td>Cauliflower</td>
<td>69,083</td>
<td>160,633</td>
</tr>
<tr>
<td>Carrot Oil</td>
<td>110,427</td>
<td>69,208</td>
</tr>
<tr>
<td>Castor Oil</td>
<td>20,648</td>
<td>29,160</td>
</tr>
<tr>
<td>Cedar</td>
<td>211,221</td>
<td>2,812</td>
</tr>
<tr>
<td>Chestnuts</td>
<td>1,256</td>
<td>6,168</td>
</tr>
<tr>
<td>Cinnamon</td>
<td>12,067</td>
<td>14,597</td>
</tr>
<tr>
<td>Cider</td>
<td>32,572</td>
<td>18,697</td>
</tr>
<tr>
<td>Cocoa</td>
<td>283,733</td>
<td>215,490</td>
</tr>
<tr>
<td>Coffee</td>
<td>446,671</td>
<td>249,314</td>
</tr>
<tr>
<td>Coffee, remote</td>
<td>2,831</td>
<td>7,350</td>
</tr>
<tr>
<td>Cotton</td>
<td>3,962</td>
<td>3,500</td>
</tr>
<tr>
<td>Cotton, remote</td>
<td>2,831</td>
<td>3,500</td>
</tr>
<tr>
<td>Currants</td>
<td>40,168</td>
<td>41,760</td>
</tr>
<tr>
<td>Eggs</td>
<td>39,202</td>
<td>4,091,785</td>
</tr>
<tr>
<td>Elephant's Teeth</td>
<td>2,772</td>
<td>2,772</td>
</tr>
<tr>
<td>Eastern Sugar</td>
<td>33,592</td>
<td>52,071</td>
</tr>
<tr>
<td>Fats</td>
<td>12,347</td>
<td>13,499</td>
</tr>
<tr>
<td>Fish</td>
<td>165,807</td>
<td>141,279</td>
</tr>
<tr>
<td>Fitch &amp; Wood</td>
<td>415,428</td>
<td>607,546</td>
</tr>
<tr>
<td>Flour</td>
<td>130,700</td>
<td>234,271</td>
</tr>
<tr>
<td>Ginger</td>
<td>4,179</td>
<td>4,930</td>
</tr>
<tr>
<td>Green Tea Ground</td>
<td>44,074</td>
<td>4,649</td>
</tr>
<tr>
<td>Hair, sheep, or horse</td>
<td>76,348</td>
<td>55,345</td>
</tr>
<tr>
<td>Hemp</td>
<td>193,000</td>
<td>5,102,586</td>
</tr>
<tr>
<td>Hops</td>
<td>2,005,459</td>
<td>2,019,799</td>
</tr>
<tr>
<td>Kid Silk</td>
<td>633,671</td>
<td>580,393</td>
</tr>
<tr>
<td>Lime</td>
<td>162,219</td>
<td>594,520</td>
</tr>
<tr>
<td>Linseed Oil</td>
<td>317,249</td>
<td>349,397</td>
</tr>
<tr>
<td>Logwood</td>
<td>11,357</td>
<td>1,414,150</td>
</tr>
<tr>
<td>Madder root</td>
<td>44,369</td>
<td>46,499</td>
</tr>
<tr>
<td>Mastic Oil</td>
<td>14,312</td>
<td>13,499</td>
</tr>
<tr>
<td>Maize</td>
<td>125,815</td>
<td>175,714</td>
</tr>
<tr>
<td>Marigold Flowers</td>
<td>36,416</td>
<td>33,073</td>
</tr>
<tr>
<td>Mace</td>
<td>32,373</td>
<td>275,786</td>
</tr>
<tr>
<td>Maupass Sugar</td>
<td>157,257</td>
<td>102,017</td>
</tr>
<tr>
<td>Nitre</td>
<td>87,777</td>
<td>201,692</td>
</tr>
<tr>
<td>Nutmeg Oil</td>
<td>23,791</td>
<td>75,465</td>
</tr>
<tr>
<td>Olive Oil</td>
<td>290,380</td>
<td>762,937</td>
</tr>
<tr>
<td>Opium</td>
<td>14,894</td>
<td>1,938</td>
</tr>
<tr>
<td>Other Oils</td>
<td>18,479</td>
<td>2,791,150</td>
</tr>
<tr>
<td>Pepper</td>
<td>2,125,568</td>
<td>1,286,653</td>
</tr>
<tr>
<td>Poppy Oil</td>
<td>225,404</td>
<td>261,412</td>
</tr>
<tr>
<td>Potato Chips</td>
<td>14,509</td>
<td>6,513</td>
</tr>
<tr>
<td>Puffed Rice</td>
<td>29,278</td>
<td>18,457</td>
</tr>
<tr>
<td>Quinine</td>
<td>136,277</td>
<td>260,838</td>
</tr>
<tr>
<td>Raisins and other</td>
<td>5,328</td>
<td>6,898</td>
</tr>
<tr>
<td>Raisins, raisin, or macer.</td>
<td>4,367</td>
<td>4,367</td>
</tr>
<tr>
<td>Rice, malt</td>
<td>121,779</td>
<td>121,779</td>
</tr>
<tr>
<td>Rosemary</td>
<td>62,308</td>
<td>21,994</td>
</tr>
<tr>
<td>Safflower</td>
<td>1,880</td>
<td>3,578</td>
</tr>
<tr>
<td>Sawdust</td>
<td>10,509</td>
<td>15,197</td>
</tr>
<tr>
<td>Sisal</td>
<td>55,553</td>
<td>389,091</td>
</tr>
<tr>
<td>Sisal, remote</td>
<td>6,816</td>
<td>6,816</td>
</tr>
<tr>
<td>Sugar</td>
<td>3,066,882</td>
<td>2,967,020</td>
</tr>
<tr>
<td>Tea</td>
<td>7,065,771</td>
<td>5,050,353</td>
</tr>
<tr>
<td>Tobacco</td>
<td>12,590,860</td>
<td>12,521,668</td>
</tr>
<tr>
<td>Tobacco, chewing</td>
<td>7,045,766</td>
<td>7,001,857</td>
</tr>
<tr>
<td>Tobacco, snuff</td>
<td>5,567,525</td>
<td>5,513,575</td>
</tr>
<tr>
<td>Tobacco, snuff, remote</td>
<td>9,508,387</td>
<td>9,508,387</td>
</tr>
<tr>
<td>Walnuts</td>
<td>8,665</td>
<td>4,644</td>
</tr>
<tr>
<td>White Oil</td>
<td>26,881</td>
<td>22,154</td>
</tr>
<tr>
<td>Ylang Ylang</td>
<td>18,886,333</td>
<td>18,752,983</td>
</tr>
</tbody>
</table>

*Some of the articles given in this Table, such as apples, eggs, plums, &c., are, being a home as well as foreign produce, the reader can have no notion of their real consumption in Great Britain from the numbers specified, but merely of the extent of their importation from abroad.

With regard, however, to articles purely foreign, such as almonds, castor-oil, &c., as the number determined, is as the numbers specified indicates the real extent of their consumption.
The most important commercial cities of England, besides London, are Liverpool, Bristol, and Hull; the ports of Manchester, Birmingham, Leeds, Nottingham, Halifax, Rochdale, &c. In Scotland, the principal commercial places are Glasgow, Greenock, Leith, Dundee, and Aberdeen. The foreign trade of Glasgow and Greenock extends to the West Indies, the United States, and Brazil, and to the towns and cities of Manchester, Birmingham, Leeds, Nottingham, Halifax, Rochdale, &c. In Ireland, the principal commercial places are Dublin, Cork, Waterford, and Belfast.

The commerce of Vienna is extensive. On account of its navigable rivers, the commerce of this country is considerable. The chief articles of export are linen, linen-yarn, raw wool, rags, quicksilver, corn, timber, flax, hemp, wax, lard, salt, wine, and metals. Its imports are woollens, cottons, and silks, hardware, watches, tanned leather, leather goods, tea, cocoa, dye-woods, hides, colonial and East India goods. The principal ports of Germany are Hamburg, Lubeck, Bremen, Trieste, and Danzig. In the interior, the chief commercial cities are Vienna, Magdeburg, Leipzig, Frankfort on the Main, Nuremberg, and Munich. The principal ports on the Baltic are Bremen, Hamburg, Lubeck, and Rostock.

The commerce of Hamburg consists, in part, of the consignments of foreign merchants, and, to a great extent, of the purchase and sale of domestic and foreign goods. Its money transactions are very considerable. Bremen has important articles of export in the products of Westphalia and Lower Saxony, which it sends to England, Spain, and Portugal; and with America it has more intercourse than any other seaport of Germany. The trade in linens, which foreign countries carry on with Germany, passes wholly through the hands of the Hamburg and Bremen merchants, to whom all foreign orders are directed. The importation of tobacco from America into Germany is carried on almost entirely by these cities. The chief centre of European trade with the interior of Germany, and the place of deposit for foreign and Saxon goods, is, besides other mercantile privileges, three fairs, at Easter, Michaelmas, and new year, to which merchants resort from all parts of Europe, and from Asia, and of which lasts three weeks; there is, besides, at this place, a considerable market for Saxon wool. The chief articles of traffic are Bohemian, Silesian, and Saxon linen; leather hides, wax, and wool, from Poland; woollen goods and pigments, from Prussia; silks, velvets, and corns, from Italy; leather, various manufactures, and dye-stuffs, from Austria and Hungary; laces, silk goods of all kinds, ribbons, porcelain, watches, bronze, and other manufactures, including fancy articles, from France; leather, hemp, and flax, from Russia; colonial commodities and manufactures, from England and Holland; and, lastly, flax, hemp, goods, and manufactures, from America, Beulindia, and Brazil. There is, also, in Leipzig, an important horse market. Augsburg, by means of its agents and bankers, is the medium of mercantile communication between Germany and the south of Europe. The exchange business of Vienna is commonly transacted by drucks on Augsburg. It also derives considerable advantage from the forwarding of goods, to and from Italy, Frankfort on the Main, the place of great activity, especially at the time of its two great fairs, in the spring and autumn, has, besides, a very important business, owing to the opulence of its old and new banking houses. It was the central point of all the Rodschuls. In Brunswick, considerable business is transacted in its sugar productions, and manufactured articles, as well as in foreign goods. Its two great yearly fairs rank immediately after those of Leipzig and Frankfort. Great quantities of raw thread are sent thither by the Dutch merchants, and the strong beer, called musm, is exported to various parts of the world.

Austria is entirely separated from Germany by its system of imposts, and its commercial regulations. Its trade is mostly carried on by land, or on the rivers. Vienna, the store-house of the inland trade of all Austria, has quite an extensive commerce with Britain, the Netherlands, and France, and important dealings with Italy, Hungary, Poland, and Turkey. By the way of Vienna, Germany receives great quantities of raw cotton from Turkey. The commerce of Trieste, in the littoral, consists chiefly in the exportation of German productions, and of colonial goods, which go from the Levant, and the coast of the Black Sea. Trieste may be regarded as the depot of the productions of the Levant. It is, also, actively engaged in the importation of British wares, and of the produce of the fisheries of Newfoundland. Except this city, the commerce of Austria is confined to Venice and Florence. The most considerable places of inland trade in the monarchy, besides Vienna, are Lemberg, Prague, Brumy, Botzen, Pest, and Cronsstadt. The allowed imports consist mainly of raw produce, cotton and wool, silk, rice, oil, spices, colonial articles, leather, cattle, &c. The articles of export are woollen cloths, linens, cordage, mineral productions, grain, and glass. Great profit is derived from the transportation of goods, especially of those of the Levant. In Bohemia, far the greater portion of the trade is in the hands of the Jews, who are numerous in the country. The trade is chiefly in exports—linens, woollens, silks, dyewood, leather, and glass. The glass is superior in polish and cheapness to that of other countries, and the exportation of it is very considerable. It is thought that the goods exported to Spain, Russia, the Levant, and America, amount to 2,500,000 gilders, annually. The countries with which Bohemia has the most considerable intercourse are Holland, Spain, Portugal, Italy, and Turkey. The exports are rated at above a million pounds, and the imports (colonial goods, articles of luxury, &c.) at something less. Prague is the first commercial city of the country, Reichenberg, the second.

Prussia has likewise, by its system of prohibition, been separated from Germany with respect to free commercial intercourse, especially since 1818. The commerce of this monarchy is promoted by the Baltic, by many navigable rivers, and by canals. The commerce in domestic productions is more important than the transportation and commission trade, which flourishes mainly in Cologne, Magdeburg, Stettin, Minden, Danzig, Königsberg, Breslau, &c. The exports by sea are grain, wax, tallow, wool, linseed, flax, hemp, wood, linen, yarn, woollen, and cotton goods, fine works of art, including articles made of amber. The importations from Europe are, by the port on the Oder has three considerable fairs. Magdeburg sends corn, linen, cotton goods, cloths, leather, salt and copper to Hamburg, and to the fairs of Leipsic and Brunswick. It has, besides, a transit trade in colonial goods, wine, grain, &c. Wheat is exported from Danzig, which possesses the largest
granary in Europe; from Elbingen, Stettin, Königsberg, Anclam, and Berlin, timber; saws and ashes from Danzig, Memel, and Stettin; hemp, flax, and linseed from Memel and Königsberg. Tallow carries on a brisk trade in corn, linseed, hemp, and flax. The exports of Bruns-berg are woolen yarn, corn, and flax. Colberg exports corn, and the other produce of Poland. The trade of Stralsund, likewise, consists chiefly in the exportation of corn. Of all the articles of Prussian commerce, the Silesian linen holds the first rank, and for the manufacturing of it, the Silesian town of Hirsch-berg, Landsdort, Schmöckwitz, Friedland, Wal-enburg, Schweidnitz, and the Prussian section of Upper Lusatia, are celebrated. This linen is particularly in demand among the Hamburg, British, Dutch, Italian, and South American merchants. The imports which have the readiest sale in Prussia are colonial goods, dye-wood, salt, tobacco, groceries, wine, silk, cotton goods, hardware, &c.

The exporter is not distinguished for its mercantile activity. The exports consist of horses, horned cattle, lead, wax, linen, leather, salt, oats, barley, timber, boards, and the ferruginous copper of the Hartz mountains. The lines are ordinary; the table-cloths and Osnabrück damask are inferior in quality to those of Stockholm and Copenhagen. The principal imports are woolen goods, damask, and seaport of the Hanoverian merchant brings with him from the fairs of Brunswick, Lépizig, and Frank-fort on the Main. The chief commercial towns are Bremen, Hanover, and Munster.

The commerce of Saxony, Bavaria, Wurttemberg, Hesse, &c., may be comprised under the general head of German commerce, as there exists no reciprocal system of prohibition. See Germany, Trade of; also the separate articles on these countries.

Denmark and Holstein. Although the Danish merchants have formed connexions with all the commer- cial nations, and play an important part in the commerce both of the Mediterranean and the Baltic, their own country possesses but few productions, important as articles of export. Most of what they export are the productions of their East and West India possessions. To the ports of Petersburg, Riga, Stettin, and Memel, Denmark carries the valuable goods of Iceland and the Faroe islands, salt from Spain, France, and Portugal; and the productions of the East and West Indies and of China. To Germany it sends its horses, its cattle, colonial and West India goods, and woolen stockings, receiving in return linen, wool, brandy, and wine. To Holland it exportstape-seed, fish, &c., in exchange for groceries. To France, Spain, and Portugal it carries horses, fish, and other articles from Russia, in exchange for salt, wine, fruits, sweet oil, brandy, silk, &c. Its trade with Britain consists, mainly, in exchanging timber, &c., for British manufactures. To Iceland it exports rye-meal, rye, barley, barley, and other spiritu- ous liquors, together with the common articles of consumption, returning in the exchange for fish, flax, tallow, fish, trade, oil, tallow, cider, down, wool, and woolen stockings. It supplies Greenland with flour, spiritu- ous liquors, &c., in return for grain and seal-oil, seal-skins, cider, down, and peltry. The largest commer- cial town is Copenhagen; and Elsinore in Zealand, Anborg in Jutland, Flensburg and Tran- ningen in Slesvig, Altona and Kiel in Holstein. The West India colonies of Denmark are St Croix, St Thomas, and St John's. On the coast of Coromandel, it possesses Tranquebar; on the coast of Guinea, Christianborg and other small places. It has also small factories on the Nicobar Islands. In Europe, it possesses Iceland. The chief commercial com- panies in Denmark are the Asiatic or East India company, the Iceland company, the maritime insurance company, the African or Danish West India, and the general commercial society. In 1824, there were in Denmark 2,929,720 tons of grain, 36,562 tons of flour, &c.

France. The commerce of France extends to every country of the world. The exports are wine, brandy, oil, corn, meal, liquors, snuff, silk, woolens, fancy goods of all kinds, watches, porcelain, crystal, leather, and the most elaborate articles of de- sign. The staple consumptions imported are tobacco, hemp, flax, fruits, capers, salt, jewellery, paper, &c.; and France receives the raw produce of all countries, but very few manufactured goods. In 1824, the value of all the exports of France was 440,512,000 francs, of which 163,926,000 were in natural products, and 277,486,000 in manufactured goods. In the same year, goods were exported into France to the amount of 189,353,000 francs in 3,387 French vessels, to the amount of 108,397,000 francs in 4,183 foreign vessels, and to the amount of 156,929,000 by land; the whole importation amounted to 454,891,000 francs. The principal ports are Bordeaux, Marseilles, Nantes, Havre de Grace, St Malo, L'Orient, and Dunkirk. The commerce of Marseilles is mostly with the Levant and the West Indies; that of Bordeaux, with Asia, the West Indies, and the north of Europe. Calais and Dunkirk carry on a very active commerce with England, and have daily a large exchange of goods with England. Havre de Grace is the seaport of Paris, which has a very extensive indirect trade, and dealings in bills of exchange with foreign countries. Amiens exports great quantities of velvet; Abbeville, Elbeuf, Lou- vier, and Sedan trade mainly in cloths; Cambrai, Cambes, and Amiens supply the manufactures of the city. The chief ports are Strasburg. Its excellent turf is an important article of trade. Lille has a direct intercourse, not only with all the commercial states of Europe, but also with the French and Spanish colonies, and with the Levant. The other commercial towns of importance are Rheims, Troyes, Grenoble, Nîmes, Angouleme, Cognac, Nantes, Rouen, Rochelle, and Caen. Grenoble supplies France, Italy, Spain, and even Great Britain with fine gloves. Beaune has an important fair. The French colonies are Marti- nique, Guadaloupe, St Lucia, and Marie-Galante in the West Indies; Cayenne in South America, and Cay- ry, Chaudieremore, and some other possessions in the East Indies, with several factories on the western coast of Africa and on both sides of cape Verde.

Italy. Although Italy possesses the most excel- lent harbours on the Mediterranean and Adriatic seas,
and has a geographical situation uncommonly favourable for commerce, its trade, both domestic and foreign, is consequently enormous, and the impediments, heavy duties, in consequence of which the commercial cities are subjected to, is most fruitful, but, for the most part, badly governed country.
The chief articles of export from Italy are corn, olive-oil, wine, brandy, silk, cotton, wool, hemp, flux, velvet, damask, barilla (seda), sulphur, sumach, gall-nuts, madder, velain or valonia, and other dyes.

The commerce of the island of Cyprus is considerable. It exports cotton, wool, silk, wine, salt, turpentine, Turkish leather, &c. Its largest commercial cities are Larnica and Rhodes.

The imports of Canea, which, by its situation, is designed for the trade of the European, Asiatic, and African trade, consist of oil, soap, wax, wine, linseed, raisins, almonds, laudanum, St. John's bread (the fruit of the ceratonia siliqua), &c.

Belgium and Holland. The chief commercial cities of Belgium are Antwerp, Ghent, and Ostend. Antwerp is the mart of the commerce of the North of Europe, and is the chief commercial city of Flanders.

The export of Antwerp consists, principally, of wheat, beans, clover-seed, linen, ines, carpets, tapestry, and all the manufactures of Brussels, Mechlin, Ghent, and Bruges.

The commerce of Holland, the commerce which has revived since 1814, and employs, every year, 4000 vessels of various descriptions, is, butter, cheese, flax, clothes, drags, and paints, fish, wheat, linseed, clover-seed, geneva (gin), dyes, stuffs, paper, &c.

The principal commercial cities in Holland are Amsterdam, Rotterdam, and Groningen; then follow Liege, Middelburg, and the ports of Briel, Delfshaven, Dort, Enckhuysen, Medenblick, &c. Before the decline of Dutch commerce, Amsterdam was one of the greatest commercial cities of the world, the mart of goods from the East and the West, and from the principal states of Europe. At the time when the Dutch were in exclusive possession of the privileges of the East, of the silks of the East Indies and China, and of the fine East India cotton goods, they dressed in coarse cloth, and were satisfied with a very frugal mode of living. The fine cloths which they themselves manufactured, they destined wholly for foreign countries, and, for their own use, purchased coarse cloth in England.

At that time, they likewise sold the superfluous butter and cheese which they made, and, for their own use, bought the cheaper sorts from England and Ireland.

To the exchange and banking business, of which the channel was Amsterdam, the Dutch were also, in part, indebted for their great prosperity. With Hamburg, Amsterdam is yet the centre of the exchange business, and the commercial communications, although, from the time that the credit of the bank of Amsterdam diminished, this branch of business has declined, a great portion of it being transferred to Hamburg and London.

The imports are grain, wood, coal, tallow, wax, rags, &c. For the colonial trade of Holland, the possessions of Batavia, Ambon, Bandi, Ternate, and Macassar, in the East Indies, is of importance, as are also the commercial settlements on the Coromandel and Malabar coasts, and those at Bantam, Padjad, Japan, &c.

In Africa, Holland has some forts in Guinea; in America, she possesses Surinam, and the West India islands of Curacoa, St Eustatia and St Martin.

The exports of Poland consist of corn, hemp, flux, flax, lumber, linseed, tallow, and salt. Its commerce is considerable, and is almost wholly in the hands of the Jews. Warsaw and Cracow are the two largest commercial cities. The former has two fairs every year. The trade of Poland is

The Ionian islands (Cephalonia, Zante, Corfu, Santa Maria, &c.) export wine, brandy, olive-oil, raisins, currants, citrus, melons, pomegranates, honey, cotton, and salt. The raisins and currants are superior to those of the Morea in quality. The wine is Muscadine.

The commerce of the island of Crete is considerable. It exports cotton, wool, silk, wine, salt, turpentine, Turkish leather, &c. Its largest commercial cities are Larnica and Rhodes.

The imports of Canea, which, by its situation, is designed for the trade of the European, Asiatic, and African trade, consist of oil, soap, wax, wine, linseed, raisins, almonds, laudanum, St John's bread (the fruit of the ceratonia siliqua), &c.
supplied with manufactures, and all articles of lux-
ury, in exchange for hair-skins and other produc-
tions.

Portugal. The Portuguese exports are, chiefly, white and red Port wine, Lisbon and Calcavella wine, salt, oranges, lemons, and other fruit, cork, silk, wool, sweet oil, &c. To England are sent Port wine, Lisbon, Calcavella, Madeira, and Canary wines, salt, oranges, lemons, &c., in return for which the Portuguese obtain British manufactures and colonial goods, provisions, corn, meal, copper, lead, coal, &c. Their exports to the North of Europe are wine, salt, fruit, &c.; for which they receive hemp, flax, corn, iron, timber, tar, pitch, stock-fish, and Russian and German wax, &c. The chief commercial cities are Lis-
bon, Oporto, and Setubal, commonly called St Ubes.
The foreign possessions of Portugal are, the cities of Goa and Diu in the East Indies, together with a part of Timor, the factory of Macao in China, the Azores, Madeira and Puerto Santo in the Atlantic, the cape Verd islands, those of St Thomas, Angola, and some settlements in Guiana and on the western coast of Africa, with Mozambique, Melinda, and other settle-
ments on the eastern coast.

Russia. Russia exports, principally, iron, hemp, 
flux, cordage of all kinds, tallow, hides, fir and oak 
timber, boards, planks, laths, spars, pitch and tar, 
tomatoes, grains of grain and other grains, flax, 
canvas of various kinds, wax, honey, bristles, 
suet, soap, isinglass, caviare, leather, tin-foil, hemp-
seed, linseed, and tobacco. The chief commercial 
cities are Tobolsk, Irktsk and Tomsk, in Siberia; 
Astracan, Orenburg, and Kasan, in Asiatic Russia; 
Moscow and Novgorod, in the interior of Russia; 
Archangel, on the White sea; Libau (though very 
much decayed) in Courland; Taganrog, Caifa or 
Theodosia, Odessa, Cherson, Sebastopol and Azoph, 
on the Black sea and the sea of Azoph; Riga, Pernau, 
Narva, Revel, Petersburg, Viborg, Fredericshamn, 
and Aremburg; the places where the fairs are held, 
at Nizw-Novgorod, Irbit, &c., connecting the car-
vans trade of the East with the inland trade of 
European Russia, which is promoted by canals and 
rivers. By the Black sea and the sea of Azoph, 
Russia carries on a very lively trade with various 
Turkish ports; The Caspian sea, with Persia; by 
way of Kinsah, with Chusan; and on the whole 
coast of America, it is at present laying the founda-
tion of its trade in the Pacific. Russia has lately 
sent an expedition from Kodiak northward, to make 
topographical surveys in the interior of North Ameri-
cas, and to establish a commercial intercourse with 
the natives of this unexplored country. Her colonies 
in North America are well provided for. Her offi-
cers are gaining nautical knowledge in England, 
and numbers have been sent to the United States of 
America, where models of nautical architecture 
and vessels celebrated for sailing have been purchased on 
Russian account.

Sweden and Norway. The articles exported from 
the twenty-eight Swedish ports are iron, steel, copper, 
pitch, tar, fir, alun, and fish. The chief com-
mercial cities are Stockholm, Gottenburg and Gefle. 
Carlsbronc carries on considerable trade in iron, timber, 
pitch, tar, tallow, potash, linseed, &c., which 
articles are sent mainly to the French, Spanish, and 
Italian ports, commonly in exchange for salt. The 
exports of Gottenburg are fish, iron, steel, and boards. 
The institutions of Sweden for the promotion of 
commerce are the bank, the East India company, the 
West India company, the Levant commercial com-
pany, the unison and co-operation of industry from 
Norway, which are exported, fish, oak, and fir timber, 
deal boards, mast, alun, vitriol, fish, and seal oil, pitch, hides, 
woollen stockings iron, copper, and tar. The chief 
commercial cities are Christiana, Bergen, Drammen, 
Christiansand, Drammer, and Stavanger.

Switzerland. Switzerland has an extensive foreign 
trade. Its exports consist, chiefly, of fine linen, 
silks, velvets, imitations of East India goods and 
shaws, fine calicoes, clocks, watches, ribbons, wine, 
cheese, honey, &c. The most important articles of 
importation are colonial and East India goods, from 
Holland, and raw cotton, silk, &c., from Italy; manufactures, 
of various kinds, from England; wine and brandy from 
France. The principal commercial cities of Switser-
land are Bâle, Berne, Zurich, Geneva, and Neufchat-
el.

Spain. For three centuries, with the decrease of 
the industry of Spain, its trade has been on the 
decline. This country might have monopolized the 
commerce of the world, if it had understood and 
Improved its situation. The natural wealth of the soil 
is, nevertheless, still the prop of its trade. The most 
important productions are wool, silk, salt, iron, cop-
er, coal, bricks, oil, orzo, barilla, rice, salt-petre, 
ammonds, olives, oranges, lemons, figs, wines, brandy, 
and fruit. In Segovia and Leon, about 1,000,000 
arakols (q. v.) of fine wool are annually collected, of 
which about four-fifths are disposed of to the French, 
Dutch, and English. The excellent Spanish wines, 
besides, have an important share in the commerce for 
the country. From the port of Barcelona, excell-
ent silks, coarse cloths and cotton goods, with wine, 
brandy, almonds, nuts, and other productions, are 
exported; in return for which, the same port receives 
the silks of Lyons, the hosiery of Nismes, various 
kinds of stuffs and cotton goods, German linen and 
dried stock-fish from England, amounting to about 
£675,000. The exports of Valencia consist, princi-
 principally, of silk, barilla (sodd), coarse wool, dried fruits, 
wine, and brandy. The latter is exported, chiefly, 
by the Dutch, and carried to Normandy and Bretagne. 
The English carry to Spain, chiefly, woollen Cloth; 
the French, linen, woollen cloth, cutlery, groceries, 
&c. From the port of Alicante, the Spanishards export, 
chiefly, dried fruits, silk, wool, barilla, wine, Castile 
sopa, olives, saffron, a kind of cochineal called garona, 
and salt; of which last, the English and Spanish an-
ually take upwards of 9,000,000 reals. The trade 
through Spain to the north of the country is strait-
ish, but the commerce is considerable. From the 
latter, wines, dried fruit, almonds, sumach, 
anchovies, olive-oil, &c., are exported. Cadiz 
has been one of the principal marts in the world, 
both in ancient and modern times. In 1793, its exports 
to the two Indies amounted to the sum of £70,000,000 
reals, and its imports to upwards of 700,000,000 reals 
(eight reals make one dollar). Madrid, the royal 
residence, is likewise an important commercial place 
and depot. Seville carries on a considerable trade 
in oil and oranges, which are exported from Cadiz. Al-
most the whole Spanish coasting trade is in the hands 
of the Dutch, French, and English. The independ-
ence of Spanish America has almost totally annihil-
it the colonial power of Spain. The situation of 
Cuba may be considered dubious, like that of the 
Philippines. See Philippines and South America.

Turkey. The Turks are, as yet, very far from be-
ing a commercial nation, although their commerce 
with Austria, France, Italy, Great Britain, Holland, 
&c., by means of the Jews, Armenians, and Greeks 
living in Turkey, who have the trade of this country 
almost wholly in their hands, is by no means insigni-
ficant. The insurrection of the Greeks did, indeed, at 
first, interrupt very much the commerce of Austria 
with Turkey; but the British were also formidable 
rivals on the Ionian islands; but Vienna, the centre 
of the Greek trade, has, nevertheless, retained its 
connexion with Turkey, while the productions and
the demands of the free Greeks must soon increase. They offer for linen, silk for clothes, gold for iron. Nature and habit recommend to them intercourse with Austria. On the other hand, the commerce with European Russia, by way of Constantinople to Odessa, was very much restricted by the Treaty of 1829, by the necessity of being relaid, to which it subjected the European vessels destined for Odessa, and by other burdensome regulations. This, however, has been changed by the peace concluded with Russia in 1829. Every vessel can, at present, pass the Dardanelles un molested. This must soon have a great influence upon the Turkish trade also. In the Archipelago, the Greek struggle for freedom has given rise to many dangers to the commerce of neutrals. The chief commercial place is Constantinople, particularly in regard to the trade with Russia. Till within a short period, it distributed the Russian products through the ports of the Mediterranean. The exports of this city, which, under a wise and active government, might become the true mart of the world, are of such little importance, that the great quantities of goods, imported for the Porte, subsequently to 1829, by the necessity, are carried wholly with gold and diamonds. In this port, the English, French, Italians, and Dutch obtain the produce of Poland; the salt, the honey, the wax, the tobacco, and the butter of the Ukraine; the hides, the tallow, the hemp, the currans, the peltry, and the metals of Russia and Siberia, and, in exchange, give the products of their own countries. This business is transacted without the Turks having the slightest part in it.

Hungary. Hungary is considered by Austria as a foreign country, and is circled in by a line of customs offices. The trade of Hungary, therefore, is under different regulations from that of the rest of the empire, and is any thing but favoured by the government. Its foreign commerce is, nevertheless, by no means insignificant. The exports are wine, tobacco, gall-nuts, anthimony, alum, potash, horned cattle, wool, iron, copper, wheat, rye, and barley. The exports by far exceed the imports. Goods can only be introduced through Austria and Turkey, the government having prohibited every other way that might be selected for the purpose.

II. Asia. The commerce of Asia is mostly inland, carried on by caravans. Asia is by means of those caravans (called, by a poet, the Beasts of the desert), in which, sometimes, more than 50,000 merchants and travellers are collected, while the number of camels is far greater. The central point of this trade by caravans is Mecca, which, during the presence of the caravans, offers to the eye of the traveller a more active trade and a greater accumulation of merchandise than any other city in the world. The muslins and other goods of the East Indies, the productions of China, all the spices of the East, the shawls of Cashmere, &c., are transported on the backs of the camels, and, when occasion occurs, whence they are scattered over, not only the Asiatic, but also the African continent.

The Arabs, who were, before the discovery of the passage to the East Indies around the Cape of Good Hope, the first commercial people of the world, have now no commerce of consequence. Coffee, aloes, almonds, the balsam of Mecca, spices, and drugs, and their African imports of myrhh, frankincense, and gum-arabic, are their chief articles of export. Yemen, rich in the costly productions of nature, resorts for a market to Mecca. The Arabian gulf and the Red Sea commerce, and the commerce of Arabia, that of Africa, especially that of Egypt and Abyssinia.

From Musauss, the capital of Abyssinia, are ex-

COMMERCE. 353
Since the year 1814-5, the East India Company have exported nothing from China except tea. The whole exports of tea to Britain and the North American colonies, in 1828-29, amounted to 29,847,234 lbs. For further details, see East India Company, and Tea Trade.

Next to the British, the people of the United States have the most trade with China. In the following years, their imports into, and exports of tea from, Canton, were as stated below, the value of the imports being given in dollars, the amount of tea exported being stated in pounds.

<table>
<thead>
<tr>
<th>Year</th>
<th>Teas exported.</th>
<th>Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1815-16</td>
<td>7,945,999</td>
<td></td>
</tr>
<tr>
<td>1816-17</td>
<td>6,692,852</td>
<td></td>
</tr>
<tr>
<td>1817-18</td>
<td>7,070,828</td>
<td></td>
</tr>
<tr>
<td>1818-19</td>
<td>10,017,151</td>
<td></td>
</tr>
<tr>
<td>1819-20</td>
<td>9,988,089</td>
<td></td>
</tr>
</tbody>
</table>

Average export to 1819-20, 7,353,900;
of 1814-15, 7,314,449
having increased 357 per cent. in 25 years. The imports of the nations on the continent of Europe into China consist chiefly of gold bullion, for which tea is received; but these imports are small, since most of them obtain their tea from the British and American colonies. Cuba, Colombia, China, the Asiatic islands, and Japan, China has a very close intercourse, and, of late, with Russia also, both by land through Kutch to Irkutsk, &c., and by water. The Dutch, British, and Americans have factories at Canton, the French an agent there or at Macau, the Spaniards an agent at Macao, where the Portuguese have a colony.

From Siam and Tonquin are exported tin, ivory, diamonds, and other precious stones, gold dust, copper, salt, betel, pepper, wax, silk, timber and lacered wares, and the commerce of these two countries is mostly in the hands of the Chinese and Portuguese.

The trade of Cochin-China is mostly in the hands of the Chinese. The exports are sugar, silk, gold, betel-nuts, ebony, Japan-wood, buffaloes' horns, dried fish, and fish skins. The Chinese empire is so vast, and the variety of the products of the different provinces so great, that the inland commerce of this world within itself has withdrawn the attention of the people from the foreign trade, which oppressive regulations have injured. Formerly, however, Chineese vessels went to Arabia, and even to Egypt.

Japan. Since the expulsion of the Portuguese from Japan, the commerce of this country has been almost wholly domestic. The only foreigners, with whom the Japanese still have any trade, are the Chinese and the Dutch, and these are limited to the single port of Nagasaki. The Chinese supply the Japanese with rice, common porcelain, sugar, ginger, ivory, silks, nankeen, lead, tin plates, alum, &c; and, in return, receive copper, camphor, lacered wares, pearls, corals, and a metallic composition called souch, consisting of copper and a small quantity of gold. The Dutch obtain chiefly copper, camphor, lacker, and lacered wares. Only two Dutch and twelve Chinese vessels are allowed to enter the harbour of Nagasaki mutually. After the arrival of a vessel, and the performance of the preliminary ceremonies, the goods are sent on shore. Then come the imperial officers (for the trade with foreign countries is the monopoly of the emperor), who examine the quality and the quantity of the goods, deliberate together, and fix the price of the native commodities that are demanded in return. Foreigners must submit to these conditions, or keep the goods which they have brought. The Japanese merchants can obtain foreign goods only by purchasing them of the emperor. In the manufacture of silks, &c., they are very skilful and inventive, but the Japanese are in no degree inferior to the Europeans. In the manufacture of hardware, they have also attained great skill. The Japanese sabres and daggers

COMMERCE.

The British East Indies, and the Molucca Peninsula.

For the long period of 4000 years, the products of India, so important in commerce, have remained the same; for all the commodities and treasures of India, mentioned by the ancients, are, to this day, those for which the nations of the other quarters of the world resort thither, viz., rice, indigo, cochineal, and other dyestuffs, opium, cotton, silk, drugs, common, cassia, cocan-nuts, &c. The East India trade is mostly in the hands of the British, under the management of the East India Company. Next to the British, the United States are most extensively engaged in the East India trade. Denmark carries on an extensive trade with the East Indies, and that once carried on by Sweden is now almost annihilated, although, prior to the late great changes in the government of that country, the Swedish East India company was, of all the commercial societies of Europe, the best regulated, and the most successful in its operations, next to the British. The trade of Portugal with the British possessions in the East Indies is of importance; that of Spain, on the other hand, inconsiderable. Calcutta is the most important commercial city of the East Indies. Besides it, Benares, Guzerat, Oude, and Moluken are worthy of note, among the commercial cities of north-western India. Madras and Pondicherry, on the eastern coast; Bombay, Surat, and Cochin, on the western; Goa, &c. From Quedua, on the peninsula of Malacca, are obtained tin, rice, wax, fish maws, and shanks' fins; at Salengoe, Pulimut, and Trangano, cloves, nutmegs, pepper, camphor, betel, ivory, gold dust, tortoise shell, tin, &c. Gold dust is exported chiefly from Malacca. Since 1819, the British government in Calcutta, through Sir Thomas Stamford Raffles, has founded, according to his plan, a new commercial town on the fertile, well-wooded island of Singapore (q. v.), on the southern extremity of the peninsula of Malacca, on the straits of this name, which is of extreme importance to the British trade with China, and must destroy the China trade of the Dutch. If Singapore is made a free port, England will be able to supply from thence all of Further India with the productions of its industry.

China. The trade which China carries on with Europe, British India, the United States of America, Coch n-China and Siam, with Japan and the other Asiatic islands, is very considerable. The British imports into China are partly shipped by the East India company, partly by private merchants. From 1780 to 1821, the company sent the amount of £3,471,521 in goods, and £2,588,564 in bullion; from 1792 to 1809, £16,528,388 worth of goods, and £8,466,916 in bullion. One of the chief articles of import is opium, which, although prohibited, is now used in China in great quantities. The exports which the company made to Britain amounted, from 1793 to 1810, including duties, freights, &c., to £41,203,422, and they were sold for £57,896,274, leaving the company a net profit of £16,692,622. As the British East India company trades more extensively with the Chinese than any other body, we shall subjoin the following official statement of its exports of tea and raw silk from the port of Canton, for each of the following ten years, as given in the appendix to the report of the committee of the house of lords, printed in 1821.

<table>
<thead>
<tr>
<th>Year</th>
<th>Silk, pounds</th>
<th>Tea, pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800-11</td>
<td>31,826</td>
<td>10,719,727</td>
</tr>
<tr>
<td>1811-12</td>
<td>25,161,521</td>
<td>87,074</td>
</tr>
<tr>
<td>1812-13</td>
<td>26,074,123</td>
<td>145,899</td>
</tr>
<tr>
<td>1813-14</td>
<td>24,717,439</td>
<td>140,129</td>
</tr>
<tr>
<td>1814-15</td>
<td>26,165,144</td>
<td>269,073</td>
</tr>
<tr>
<td>1815-16</td>
<td>23,843,387</td>
<td>37,022</td>
</tr>
<tr>
<td>1816-17</td>
<td>29,353,073</td>
<td>67,318</td>
</tr>
<tr>
<td>1817-18</td>
<td>26,141,297</td>
<td>55,507</td>
</tr>
<tr>
<td>1818-19</td>
<td>21,065,280</td>
<td>49,607</td>
</tr>
<tr>
<td>Average of 1825-67, 37,060,808</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
are very excellent, and are perhaps surpassed only by the salves of Damascus. In polishing steel and other hard substances, they are invaluable. The fine porcelains are much superior to the Chinese. In the beginning of the 17th century, the English began to trade with Japan; but the Portuguese missionaries, and afterwards the Dutch, succeeded in prejudicing the government against them. In 1673, the attempt to renew the trade was again frustrated by the Dutch. On account of the great advantages which it was thought this trade would ensure to Britain, a third attempt was made in 1689, and the factory at Canton was instructed to enter into connection with Japan, if by any means possible. The result, however, was only one journey, and further attempts have been given up. In 1813, however, when Java was subjected to Great Britain, the East India company had some slight intercourse with Japan. The Russian mission to Japan, under Krusenstern, in 1805, was no less unsuccessful than the British had been. See Colovesin.

The Islands of Ambon, Benc, the Bandas, Java, Sumatra, Borneo, &c.—From Ambon they are exported cloves, to confine the cultivation of which solely to this island, the Dutch took great pains to extirpate all the clove-trees on the neighbouring islands. For this purpose an army was kept in Ambon. With a numerous retinue, still makes a journey every year to the other Dutch islands. Banca is celebrated for its tin mines, and the exportation of this tin to China is of much importance, as the Chinese prefer it to the English, on account of its malleability. About 4,000,000 pounds of tin are obtained annually. The Sandy islands produce nutmegs and mace. The staple exports from Batavia, where all the goods of the Dutch East India company are deposited, are pepper, rice, cotton, sugar, coffee and indigo. 6,250,000 pounds of pepper, part of which is raised on the island itself, part brought from Bantam, Sumatra, Borneo, and the other islands, are annually stored in the magazines. Both coffee and sugar have also been cultivated here, of late years, to the amount each of 10,000,000 pounds. Borneo has, besides pepper, gold in dust and bars, wax, sago, camphor, the last of the most excellent quality. In addition to the Dutch and English, the Chinese have here an active trade. The exports of Ceylon are cinnamon, pepper, coffee, tobacco, betel, cocoa-nuts, drugs, timber, pearls, precious stones, corals, &c. Of the Philippines, the principal are Lucam or Manilla, and Manila. The exports are areca nut, abaca, hemp, sugar, silk, gold dust, quassia, pepper, tortoise-shell, wax, precious stones, silver, sago and tobacco. The trade of the Philippines with China and South America is considerable. Manilla produces sugar, the best Asiatic tobacco, indigo, and a kind of hemp. The Prince of Wales' island, from its situation between India, China, and the Eastern Isles, has an important trade. Its exports are chiefly benzoin, pepper, betel-nuts, groceries, metals, East India zinc, cochineal, eagle-wood, Japan-wood, elephants' teeth, sugar, and silver bullion. Sumatra carries on considerable trade. The exports are gold dust, betel, benzoin, pepper, camphor, Japan-wood, sultanas and raffles, wax, gum-lac, groceries, tin, &c.

III. AFRICA. The want of navigable rivers, and the inmeasurable deserts by which the fruitful regions of Africa are separated, form an insurmountable obstacle to the perfection of the arts of husbandry. The great fertility of this quarter of the globe would promise. In addition to the intercourse of the interior, the commerce of Africa has its sources in Egypt, the Barbary states, on the west coast in Guinea, in the neighbourhood of the rivers Gambie, Niger, and Senegal, at the Cape of Good Hope and

the Portuguese colonies, and on the coasts of the Red Sea. The inland trade is carried on by means of caravan. The great import of caravans to the Red Sea coast has been 500 to 2000 camels. The three principal countries from which they proceed are Morocco, Fez, and Egypt. The chief articles of the inland trade of Africa are salt, gold, and slaves. The greatest caravans go from the western coast and from the interior by way of Timbuctoo, the great mart of the inland trade, and other places of depot, to the eastern coast, where the most important commercial places are Natal (on the coast of Lagoon), Sofiah, Quillimane, Mozambique, Querimba, Quiloa, Mombasa, Melinda, Brave, Mogadux, Berbera, Zeila, and Adel. Of this kind of merchandise, and gold, further attempts have been given up. In 1813, however, when Java was subjected to Great Britain, the East India company had some slight intercourse with Japan. The Russian mission to Japan, under Krusenstern, in 1805, was no less unsuccessful than the British had been. See Colovesin.

The Barbary States. The commercial intercourse of the Barbary states with Europeans is very inconsiderable and oscillating, and the little business which is transacted is mainly with the French, British, and Americans. The exports consist of olive-oil, wax, wool, wheat, gums, almonds, dates, aromatic seeds, ivory, leather, hides, and ostrich-feathers. Even the coral fisheries on the coasts (from Cape Rosa to Cape Rous) are in the hands of French merchants; and the annual produce of about 50,000 pounds of coral is about £100,000. But far more important commerce is pursued by the Barbary states with Arabia, Egypt, and the interior of Africa. Their caravans are met with in Mecca, Cairo, and Alexandria. The chief commercial cities are Algiers, Tunis, Tripoli, Sallee, and Agadez, or Santa Cruz, and in Morocco, Mogadore. Before the French revolution, the commerce of Algiers was wholly in the hands of a company of French merchants at Marseilles, who had regular settlements in the ports of Bona, La Calle, and Il-Col. But, in 1806, the day conveyed, for £11,230, the possession of those ports to Britain. The chief ports of export of Algiers are Bona and Oran. Tunis is the most important commercial state in Barbary. Its chief harbours are Bisserta, Susa, and Soliman. Tripoli has little trade, and its exports consist mostly of saltpetre, corals, ambers, and a few goods of indigo. Morocco and Saloukee is also of little importance. Agadez, or Santa Cruz, is the most southerly harbour of Morocco, and was once the centre of a very important trade. Fez is still such a centre between the ports of Morocco, the Mediterranean sea, and the interior of Africa. See Timbuctoo and Hausannah.

Cape of Good Hope. The trade with the Cape of Good Hope is extremely advantageous to Great Britain. In 1809, the importation of British goods exceeded £330,000, while the exports of the colony (mostly Cape wine) did not amount to £8000. The amount of the trade has since been very much enlarged by the increase of colonization. The average exports from Great Britain to the Cape of Good Hope amount to £476,770, and the imports into Britain from the Cape to £351,225.

Egypt. From its uncommonly favourable situation, it is the centre of three of the largest empires of the globe, and this country seems destined by nature to be also the centre of their commerce; but it has altogether lost its former high rank in the commercial world, since it has ceased to be the channel of the India trade. It has, nevertheless, considerable inland trade, which extends into the interior of Africa. Three caravans
go thither every year, from Egypt. One goes to Seman, and collects the productions of this country and Abyssin; another to Darfur, and the third to Fez, whither the productions of Bornor, and all the countries lying along the Nile, are brought. Other caravans exchange Egyptian commodities for those of the East Indies and Arabia. But the most considerable is that which consists of the united caravans of the Wadies of Egypt, and goes annually to Mecca. The exports of Egypt are rice, corn, cotton, myrrh, incense, opium, dates, mother-of-pearl, ivory, guns and drugs of various kinds, hides, wax, &c., most of which go to Constantinople, the Barbary states, Great Britain, Venice, and Marseilles. It also exports other productions of Arabia, e. g., Mocha coffee. The chief commercial cities are Cairo and Alexandria, since 1819 united again by a canal. Cairo has two ports, Rosetta and Damietta. France sends to Egypt woollen cloth, red caps, fringes of all kinds, and ornaments of dress, ordinary china ware, arms, &c. Britain sends muslins, and cloths of different kinds, lead, lead, guns, &c. From Florence, silks are imported.

Guinea. Sierra Leone, and the Pepper, Ivory, Gold, and Slave Coasts, where the Dutch, French, British, and Danes have settlements, export gold dust, ivory, guns, hides, &c., and formerly slaves, in exchange for gunpowder, cotton, arms, and gunpowder, &c. The coasts of Lower Guinea (Congo, Angola, &c.), and the Guinian islands, mostly occupied by the Portuguese, export grani, provisions, cotton, indigo, sugar, &c. The slave trade (q. v.) is here prosecuted still by the Portuguese. Among the other islands, the Azores are of importance, for the exportation, wine and fruits. About 20,000 pipes of the former are annually exported by the British and Americans, chiefly to the East and West Indies. The island of St Michael sends, every year, to Britain and the United States 60—80,000 boxes of oranges. The oranges of the island of Pico are remarkable for their superior quality. This island also produces a beautiful kind of wood, which is almost equal to mahogany.—The staple productions of the Canaries are archil, in its raw state, rose-wood, brandy, and wines. The last the West Indies and Britain, in the latter country it is also sold for Madeira wine.—The Cape Verde islands export archil in a raw state, and coarse cotton cloths for the Africans.—The staple product of Madeira is valuable wine, which is divided into five kinds, according to the market for which it is designed. The most excellent is called London particular. The next in quality is also sent to the London market. Of inferior quality is that destined for the India market. The kind that goes to America holds the fourth rank, and the fifth is designated by the name of cargo. Of this wine, the British annually receive more than 7000 pipes; the United States about 3000.—The Isle of Bourbon produces coffee, cloves, white pepper, cotton, gums, benzoin, and aloes. Its trade is confined almost wholly to Madagascar, Isle de France, the Comoro islands, and the settlements of the Arabs on the eastern coasts of Africa.—The Isle de France, or Mauritius, exports coffee, indigo, cotton, sugar, nutmegs, cloves, ambergis, &c.—The exports of Madagascar are cowries, betel-nuts, ambergis, wax, cocoa-nuts and corn.

IV. America. The extensive coasts of America give all the commercial advantages of the ancient world, free from the obstacles presented by those masses of continents, the interior of which is so remote from the sea and destitute of navigable rivers, like the whole of Africa and the borderless tracts of Asiatic Tartary and Siberia. In the abundance of navigable rivers, both North and South America have an immense advantage over the other quarters of the world. The long chain of great lakes, and numerous navigable rivers in North America are already the theatre of a very active commerce. The great inland countries of South America are rendered accessible by rivers of gigantic magnitude, and from the mountains, which face to the gulf of Darien, an inland navigation may be effected, almost without having recourse to the aid of art. But there still remains, for the promotion of American commerce, the execution of a great work—the digging through the narrow isthmus of Darien—by which, a connection between the Pacific and Atlantic would be effected, the advantages of which would be incalculable.

The western passage to India, which Columbus sought for, would then be effected. Alexander von Humboldt points out three places as most adapted to the execution of such a project. Nature herself seems willing to assist, for, though the mountains forbid the site of forming a canal and half the isthmus, yet, by starting in lat. 12° N., joining the head of lake Nicaragua to a small river which runs into the Pacific ocean, and forming a canal thirty miles long, through a low, level country, a communication between the two oceans might be effected. Those two countries being interested in making such a canal, are at present too weak and too unsettled to be able to carry it into effect.

The United States of North America. The rapid progress which the United States have made, in commerce and navigation, is unparalleled. Hardly had this people appeared on the ocean, before every coast of the earth was visited by their navigators. While they are seen covering the ocean with their vessels, throughout the Atlantic coast, even to Cape Horn, whence they enter the broad Pacific; in the other direction, they press onward to the ice of the north pole, and penetrate the deep recesses of Hudson's bay and Davis's straits. The coasts of the whole southern hemisphere, the western coast of America, and the eastern coasts of Asia, are visited by them. It is a very common thing for an American merchantman to make a voyage round the world, in less time than it takes the chief, last, and first of the United States. They go from the Cape Horn to the north-west coast of America, taking in furs, sailing to China, and going thence, with tea, &c., to the ports of Europe. The American whalers are distinguished for skill and boldness.

Agricultural Exports. The trade of the United States for the year ending September, 1828, may be assumed as the basis of the remarks to be made upon the subject of this commerce. The exports of domestic products for that year, according to the custom-house estimates, were 50,069,699 dollars.* Those of cotton, the great staple of the country, were 22,487,369 dollars, and, accordingly, nearly half of the entire amount. The next greatest export is that of tobacco, which amounted to 5,299,960 dollars. Of rice, the export amounted to 2,620,069 dollars.

* In this and the other statements connected with American commerce, as they are somewhat minute in their details, the currency of the country is retained, for the sake of accuracy.
ished by the Middle and Western States; namely, beef, tallow, hides and cattle, butter, cheese, pork, bacon and hogs, horses, mules, sheep, flour, biscuits, corn-meal, rye-meal, oats, potatoes and apples, flax-seed and hops. Of these articles, the principal is flour and biscuit, the value of which was 4,404,774 dollars, being the third article in value among the exports. The fifth article in value is that of sawed timber and their products, viz., bacon, pork, and lard, the value of which was 1,405,630 dollars, making about one third-and-third part in value of the whole export. The articles of corn-meal and rye-meal amounted to 881,894 dollars, constituting a little more than one-sixteenth part of the whole. Coarse flax-products, including butter and cheese, exceeded the last amount, being 806,316 dollars. This species of export is of far less comparative importance in the trade than formerly, being limited to its present amount, not by the capacity for production, but by the extent of demand in the foreign markets; for an increase of the foreign demand would very soon double and treble the quantity. Some of the articles comprehend-ed in the above list, though agricultural products, yet involve some process of manufacture; such, for example, as butter, cheese, bacon, flour, biscuit, meal, and part of the tobacco. A great many, however, of these commodities are exported together, though they may not include in them the value of materials supplied by agriculture, such as the cotton fabrics, those of leather, and spirits distilled from grain; so that on the whole, the strictly agricultural products of the country constitute a larger proportion of the whole exports than the tables represent; and yet the proportion represented by the tables is very large, being 38,500,000 out of the 50,000,000; and, if we add the value of the materials supplied by agriculture for the manufactured exports, we shall have at least six-sevenths of the whole domestic exportation consisting of the raw products of agriculture.—Products of the Sea. The products of the whale, cod, mackerel, and herring fisheries, exported mostly from the Northern States, amount to 1,693,080 dollars, being nearly a thir- 


tieth part of the whole domestic export. Nearly one half of this value consists of codfish, and more than one thirtieth part of the whole export. The fish of the Pacific Ocean, including those of the Floridian and Bahamas, is estimated to amount to 3,889,611 dollars. A large proportion of the trade in these articles, as well as in those of codfish and bread-stuffs, is carried on with the West Indies, Mexico, and South America. The skins and the furs go to Europe and Canton, the gin- 
seng to Canton, but in less quantity than formerly, being in 1828 but 91,164 dollars; and the pot and pearl ashes are sent to Britain and France.—Manufactures. The manufactures are, as yet, of the coarser sort, consisting partly of articles made of the products of the country, and partly of those fabricated from foreign materials. But it is obvious that the arts of the country, in their early stages, will be most naturally directed to the working of the raw materials of domestic production; and we accordingly find, that a very small part of the value of exported manufactu-


ces consists of the cost of raw materials previously imported. The articles in which the foreign materials form a considerable part of the value, are spirits manu-


faced, cork, chocolate, gunpowder, umbrellas, and parasols, gold and silver coin, and jewelry. The whole estimated value of exports of home manufactures is about 5,600,000 dollars, being about 13 per cent of the whole domestic exports of the country. About 700,000 dollars of this amount ought to be struck out of the list of domestic exports, being gold and silver coin, consisting, mostly, of metals imported from abroad, and, after being coined at the mint, again ex-


ported. The labour put upon these materials, in-


consequent upon their being coined, is no consideration a part of their value, for the value of the coin of the country exported ought not to be included in the estimate of the value of domestic exports. Considerable quantities of gold, it is true, have been produced in North Carolina, but by no means enough, as yet, to supply the demand for the coin of the country; and, though not considered, at the same time, that this article, as far as it can be supplied from the domestic mines, will tend directly abroad, being drawn into this channel by the higher price of gold, compared with silver, in Britain and France than in the United States; the value being, in Britain, as 15-6, in France, as 15-5046, and in the United States, as 15-407 to 1. Consequently, the gold, whether in coin, or bullion, tends strongly to leave the country. Some of it is ar-


rested for use in jewelry and the arts, but very little in the currency, or in the vaults of the banks. Omit-


ting this article, then, the other articles above emu-


lated, being only entered upon in the list, have been made up, in any considerable degree, of foreign ma-


terials, are valued, in the returns, at 683,000 dollars. The value of materials imported, and then wrought up in manufactured articles, and exported, and in-


cluded in the list of domestic manufactures, may be estimated at about 200,000 or 250,000 dollars; leaving the net exports of manufactures from the raw products supplied by the country about 5,750,000 dollars. As cotton fabrics form a large item in this list of exported manufactures, and those fabrics are mostly of the coarser kind, the raw material will con-


stitute a very considerable part of their value, and the proportional value of the direct wages of manu-


facturing labour, incorporated in these exports, will be proportionally less. If, for instance, a plough, or 


trunk, or quantity of combs, be sent abroad, almost the whole value of the export consists of the wages of the manufacturers; and a still greater proportion of the value of the wood and stone, which make a very considerable item in this list, is of this descrip-


tion; whereas an export of spirits distilled from West India molasses comprises a comparatively small pro-


portional value of manufacturing labour. Taking the whole list of domestic manufactured articles to-


together, and deducting their value in the raw, they constitute, in the largest state, after they are taken from the ground or from animals, and assume the character of merchandise, by deducting their value from the gross amount of that of the exported manufactures, the remainder, which is the result of the manufacturing labour, interest of capital, and prof-


its incorporated into these materials, to bring them into the state in which they are exported, may be es-


imated at about 4,000,000 dollars. We will now glance hastily at the descriptions of articles on which the arts of the United States are employed for the supply of foreign markets; and the most considerable of them is cotton twist, thread, and fabrics, the ex-


ported value of which, for the year 1828, was 1,000,000 dollars and a fraction under, being one fif-


th part of the whole domestic exports, the principal markets of which are South America, Mexico, and the Mediterranean. The value of leather, and its various manufactures, exported, is a little over 500,000 dollars, making one per cent. of the entire exports of the de-


scription of which we are speaking. The value of hats exported during the same year was about 333,300 dollars—a very large amount, considering
the short period since this article has been sent to foreign markets. Soap and candles have long been supplied for the foreign markets, the amount for the year in question being about 900,000 dollars. The various articles manufactured, for the most part, of wood, such as furniture, or of wood, leather, and iron, such as coaches and carriages, besides various agricultural implements supplied to the West Indies and South America, constitute a very important branch of trade, which amounted to between 600,000 and 700,000 dollars. American glass is also exported to a small extent. The value sent abroad in 1828 was 51,452 dollars, and it bids fair to be increased. The other exports consist of a variety of small quantities, among which are, wearing apparel, combs and buttons, brushes, fire-engines and apparatus, printing-presses and types, musical instruments, books, maps, paper and stationery, and trunks. It is apparent, from the above enumeration and estimates, that the manufactured articles, of which the export is most considerable and the most flourishing, are those of which the raw materials consist, mostly, of cotton, wood, and leather.

**Foreign Exports.** The foreign articles imported and again exported from the country, during the same year, amounted to 21,395,617 dollars. This transit trade forms a very important part of the American commerce. But one-third of this whole amount consists of an article which affords very little freight, namely, specie, the export of which, during the same year, was about 7,500,000 dollars. Another large item in value, of this transit trade, consists of cotton fabrics, the exports of which were 5,000,000 dollars. The foreign silks exported amounted to about a quarter as much. The value of wines exported was about 333,300 dollars; that of tens about twice as much; and that of coffee and cocoa 1,500,000, and of sugar nearly 1,000,000 dollars. These are the most important articles of foreign export. The other exports of foreign articles previously imported amounted, during the same year, to about 8,000,000 dollars in the whole; but it is not necessary to enumerate them.

**Imports.** The imports, for the same period, according to the returns of the Customs, amounted to 88,589,824 dollars, and exceed the estimated value of the exports by about 16,250,000 dollars. There should, of course, be an excess of value of imports, according to those returns, whether their value is estimated at the cost in foreign ports, or at the market-price in the American ports; for these goods are the produce of foreign countries, and the value estimated at the rate of the markets in the United States; and, unless a greater value of merchandise can be obtained in exchange for the foreign ports, the ship-owners would obtain nothing for outward freight; and still more ought the value of the imports in the American markets, after deducting duties, to exceed that of the exports; for this excess is the only fund for paying the two freights and interest on the capital employed. This excess, for the year in question, was about 22 per cent., which cannot, however, be considered very exact, but is probably below the actual rate. That it must be a large amount, in order to save the merchants from loss, is evident; for the registered tonnage, which is mostly employed in foreign trade, is about 750,000 tons, so that an excess of 16,000,000 dollars in the value of imports over that of exports, supposing an exchange of one for the other, would give only about 21 dollars per ton per annum for the shipping employment—an amount scarcely sufficient to defray the expenses of the navigation, including port-charges, and leave a surplus for interest on the capital invested in the cargoes, and a small profit to the merchant. But the rate per ton for the shipping actually employed in the foreign trade, if we estimate the accession at 16,000,000 dollars, and suppose the whole trade confined to American ships, will exceed that above mentioned, since the registered vessels are partially employed in the coasting-trade, as vessels often take a cargo from one home port to another, and perform a voyage in the shipping of a cargo. But a part of this trade requires none of the excess, of which we have been speaking, to defray the expense of the navigation, for about one-thirtieth part in value is carried on in foreign bottoms, the imports in which were about 6,500,000 dollars. If the whole trade in the coasting-trade was carried on in foreign bottoms, the whole were a barter trade, without credits, as the trade between any two nations, or any number of nations, must, in effect, be, in the long run, the value of exports and imports, estimated at the prices in the home market, after deducting duties paid on importation, must be just equal; for, in the case supposed, all the expenses for transportation are defrayed by the foreign ship-owners. In proportion, therefore, as foreign shipping is employed in the trade, the excess of the value of imports over that of exports will be reduced; since if a country employs foreign shipping in its trade, it must export an amount of goods to a foreign country greater than it imports, or import a smaller value of merchandise in exchange for the same exports. In regard to the various kinds of goods imported, without pretending to give exactness, which is the less important as the proportions vary considerably from year to year, it appears that some of the principal articles have constituted nearly the following proportion of the whole imports, previously to 1828; viz.—wool and woollen fabrics, 11 per cent.; cotton stuffs, 12; silks, 10; hemp and flax, and manufactures of them, 5; iron and steel, and manufactures of them 5; spirits, 1 1/2; molasses, 25; teas, 4; coffee, 3 1/2; sugar, 2 1/2; and indigo, 1 1/2 per cent.

The principal trade, both import and export, is with Great Britain and its dependencies, whence, in 1826, the imports were forty-two-sixths of the whole importation. But to state, even in a general way, the quantity of merchandise which the commerce to and from each country principally consists, would extend this part of the present article to too great a length. Before closing it, however, we should not omit to remark, that the domestic trade of the country is more extensive and more important than the foreign. That it is more extensive, appears from the returns of the shipping, a greater quantity of tonnage being employed in the coasting trade and fisheries than in the foreign commerce; and as these vessels make from 3 to 10, 12 or 20 passages in a year, according to the distance of the ports between which they trade, the amount of commerce, and exchanges along the coast, and up the rivers to the head of sloop navigation, without including the trade between the coast and the interior, must greatly exceed the foreign commerce.

From the official report of the treasury department, it appears, that the imports into the United States, during the year ending September 30, 1829, amounted to 74,492,527 dollars, of which amount 69,325,552 dollars were imported in American vessels, and 5,166,975 dollars in foreign vessels; that the exports, during the same year, amounted to 72,358,671 dollars, of which 55,700,103 dollars were of domestic produce, and 16,658,578 dollars of foreign produce; that of domestic articles, 4,074,554 dollars were exported in American vessels, and 8,785,559 dollars in foreign vessels; and of the foreign articles, 15,114,587 dollars were exported in American vessels, and 1,543,591 dollars in foreign vessels; that
COMMERC£.

359

872,946 tons of American shipping entered; and 944,739 cleared, from the ports of the United States; and that 130,743 tons of foreign shipping entered, and 133,006 cleared, during the same period. (See the valuable Statistical Tables, by Watterston and Van Zandt, Washington, 1829.)

The Canadas, Nova Scotia, and New Brunswick. This trade, while the two Canadas was long confined to the bare produce of the fisheries and the fur trade; but, in consequence of the improvement of the British colonial system, and the embargo which was imposed on the American trade during the last war of the United States with Great Britain, it has much increased. The chief exports are wheat, flour, corn, biscuit, fish, oak and pine timber, staves, masts, lumber, Canadian balsam, spruce beer, pot and pearl ashes, cast-iron, furs and skins, castoreum, ginseng, &c. The imports are wine, rum, sugar, molasses, coffee, tobacco, salt, coal, British manufactures. Since 1836, the trade of Canada has increased rapidly. (See Canada.) The trade is mostly with the British West India colonies and with the mother country. They do some business, however, with the United States (q. v.).

The trade which they have with the Indian tribes, consists merely of barter.—Nova Scotia and New Brunswick are the habitat of the Micmacs, so their trade, according to Haliburton's Nova Scotia, vol. i, p. 233, is an interesting table of the prices of different articles, estimated in spring bearer, as settled by government in 1761. The trade of Nova Scotia has lately again increased, particularly with the West Indies, (See the statistical table in Th. C. Haliburton's History and Statist. Account of Nova Scotia, 2 vols., Halifax, 1829.)

Mexico. The commerce of Mexico is, at present, checked by natural and political causes. The want of river communication is a great impediment to its internal commerce. Roads lead from the plateaux to the seaports, but they are very imperfect, and beasts of burden, therefore, are preferred to carriages, which would not be able to make their way. A much easier communication between the Mexican Atlantic seaports and those on the coast of the Pacific, would be effected in case of the execution of the great canal across the isthmus of Tehuantepec, so much spoken of. The principal objects of export, are gold and silver, either in bullion, coined, or worked up in various ways; cochineal, sugar, flour, indigo, salt meat, dried vegetables, tanned hides, saraparilla, vanilla, jatap, soap, Campeachy wood, and pimento of Tabasco. Among the articles imported, are silk, calicoes of China, Indian cotton, calicoes from Germany, white and printed calicoes from France, Britain, and the United States, paper, china, spirits, cacao, quicksilver, iron, steel, wine, wax, jewelry, watches and clocks, and all kinds of ornaments. In 1826, 1827 vessels entered the ports of the republic. The chief port of Mexico is Vera Cruz. Mexico, the capital, is a commercial place; we might easily suppose to be the case in a country in which very little is manufactured, and which is so fertile. A part of the commerce of the United States with Mexico is carried on by means of caravans, which go from the state of Missouri to Santa Fe, in Texas. The smuggling trade in Mexico is very great. The chief commercial cities of Mexico are Acapulco and Vera Cruz. Acapulco, or Los Reyes, carries on a considerable trade with the Philippines, and the coast of Quito and Peru. To Manilla a consignment is sent this port every year, freighted with silver, cochineal, campeachy, and Span- ish wool, and European toys. This brought back muslins, printed linens, silks, Chinese goods, grocer- ries, spices, and precious stones. Guatemala is cele- brated for its indigo, which is noted for its hardness, lustre, and weight.

South America. South America has many ar- ticles of trade. The mineral treasures of the coun- try are boundless. In the sixteenth century, gold and silver existed in such profusion, that, for twenty-five years, 13,000,000 dollars are said to have been annually exported to Spain from Peru alone, exclu- sive of what was sent in bars. These precious me- tals are found throughout Peru, Chile, and the upper section of Tucuman, especially in the Cordilleras; but, in addition to gold and silver, this inimmensurable chain of mountains affords copper, lead, iron, and platinum. The richest mines of South America are those of the province Las Claras, in the territory of the former city of Lima, where the Cordilleras, in that district, thirty gold mines, twenty-seven silver mines, seven copper, one tin, and seven lead mines. The richest of these mines are those of Potosi, which are situated near the sources of the La Plata. Acosta's account, that, during forty years that the mines had been wrought, they had yielded 12,000,000,000 dollars, is much exaggerated. But we gather from official reports, that, from the time of the discovery of America, till 1538, the fifth part, accruing to the king, of all the silver obtained from the mines of Potosi, and registered, amounted to 395,019,000 dol- lars. But, during 35 years, the discovery of Peru, the discovery of America, 41,255,043 dollars were obtained annually, exclusive of the considerable quantities which undoubtedly were conveyed from the country secret- ly, and without the payment of duties, and of that which was used for making silver vessels, images, and ornaments for the monasteries and churches, which must have amounted to an immense sum, since all the religious establishments in the country, and es- pecially in the city of Potosi, were very rich in silver vessels. But, whether owing to the exhaustion of the mines themselves, or the faulty management of them, the profits have since diminished. The other exports from South America, although the Spanish and Portu- guese directed their chief attention to the obtain- ing of metals, are very considerable. The following are the principal: cochineal, indigo, cacao, the Per-uvian bark, hides, ox horns, tallow, wax, cotton, wool, flax, hemp, tobacco, sugar, coffee, ginger, pi- miento, jatap, saraparilla, papayacuamaru, dragon's blood, and various other medicinal gumps, dye-wood, ebony, mahogany, emeralds, various kinds of balsams, &c.

The chief commercial cities of South America are Rio Janeiro, Buenos Ayres, Lima, Carthagena, Cara- cas, and Bogota. Buenos Ayres, generally. Disconnection of the transit trade of all the Spanish posses- sions in America, and, before the beginning of the re- volution, was the mart of the trade of the mother country and its colonies. The principal source of gain for Caracas is the cacao plant, as it supplies nearly two-thirds of the European demand. The hides and skins which it exports are superior to those of Buenos Ayres; and the rich ore from the copper mines of Aroa is superior to the Swedish, or to that of Coquimbo, in Chile. The internal trade of South America, especially between Buenos Ayres and Peru, is very considerable. That with the Indian tribes is chiefly in the way of barter; axes, knives, scissors, swords, necklaces, mirrors, and coarse cot- ton and woolen goods, being exchanged for the pro- ductions of the country, especially the celebrated Paraguay tea, and some fine furs.

Brazil has three great commercial cities—Rio Janeiro, Bahia, or St. Salvador, and Pernambuco. The exports are, chiefly, cotton, indigo, sugar, coffee, rice, tobacco, tallow, mahogany, Peruvian bark, ipecacuanha, hides, gold, cacao, vanilla, the diamond, the topaz, chrysolite, amethyst, and other precious stones, and a great variety of dye-stuffs, balsams and
gums, dried beef, and India-rubber shoes. The greater part of the Brazilian trade is in the hands of the British. The imports are iron, steel, copper utensils, cutlery, manufc. hats, shoes of all kinds, china, glassware, trinkets, books, paper, watches, clocks, and particularly East India goods, such as are not raised in Brazil. Portugal sends to Brazil, wine, oil, spirits, hats; the United States, flour, turpentine, and furniture. Naval munitions British send to Brazil are likely to be imported.

Colombia, consisting of Venezuela and New Grenada, says Alexander Humboldt, has received from nature a greater and richer variety of vegetable products, suited for commerce, than any other country of Spanish America; yet its commerce has been declining every year since its separation from Spain. In Colombia, Peruvian bark is found of the best quality and in the greatest quantity. Coffee, indigo, sugar, cotton, cacao, ipecacuanha, the tobacco of Varius, hides, and dril meat, pearls, gold, and platinum, &c., are obtained in this highly easily alienated by the export of the precious metals of manufactured goods, oil, soap, ropes, paper, in fact almost everything which is wanted by the indolent inhabitants, and made by the hands of men: for the people themselves manufacture hardly anything. Humboldt has estimated the exports of Colombia in dollars, at 11,200,000. M. Mollien estimates the former at 8,000,000 dollars, and the latter at 10,000,000 dollars. The state of this country, at the present moment, prevents the possibility of obtaining accurate information on this subject. The ports of La Guayra (harbour of Caracas), Rio del Hacha, St. Marth, Cardhagena, Claerges, Porto Cabello, Panama, and Guayaquil are the most frequented by strangers. The British, from Jamaica, the Americans and French, are the nations who trade principally with the Colombians in the Atlantic ports; the Peruvian vessels carry on the coasting trade on the Pacific.

Buena Ayres, like all the other South American states, is in an unsettled condition. The chief exports of this country are horse and ox hides; in fact, Buenos Ayres may be called, by way of eminence, the country of cattle. Its imports include all the manufactured articles which the inhabitants make use of and which cannot be readily made by them. Woollen cloth, cutlery, hardware, furniture, saddlery, hats, lometers, and cheese; the United States, lumber, cool-fish, mackerel, and herring, leather, gunpowder, provisions; from Brazil are sent sugar, coffee, cotton, rum; steel and iron from the north of Europe; and France sends her manufactures. The exports and imports are estimated at 9,000,000 dollars.

The commerce of Chile is, at present, in a low condition. Its rich mines are poorly managed, and the political state of the country prevents its commerce from acquiring that activity which it might easily attain by the export of the precious metals of the country to the East Indies, to give in return for sugar and cotton. It could also provide Peru with salt meat, and take in return coffee, sugar, &c.

Caldclough estimates the British importations into Valparaiso, in 1822, at 4,071,250 francs, and Lowe at 47,248,525 francs, for the same year. The United States send thither four.

Peru trades with the United States, with Europe, the Philippine islands, Guatima, and Chile, and, by land, with Buenos Ayres. Its exports are chiefly gold and silver, wine, brandy, sugar, pineapple, Peru-ovine,制作 hay, wool, and coarse woollens. It receives, in return, from the United States, by land, &c., and manufactures of various sorts; from Europe, manufactured goods, particularly silks, fine cloth, lace, fine linen, and other articles of luxury and show; from the Philippine islands, muslins, tea, and other East India goods; from Guatima, indigo; from Chile, wheat and copper; and from Buenos Ayres, manufactures and Paraguay tea. Callao is the port of Lima.

The commerce of Central America, or Guatima, is increasing in activity. Colonial commodities, chiefly sugar, coffee, cacao, cotton, indigo, cochineal, ebony, and logwood (from the bay of Honduras), are the chief exports, and import trade of the United States. The imports are linen, from Germany and France; woollen cloths, silks, and wines, from France; British and French calicoes; flour, and some manufactured goods, from the United States. This country is well adapted for commerce on account of its fine harbours and several navigable rivers. A canal across the isthmus would be of vast benefit to this country; in fact, the execution of such a canal would bear a similarity to some of those great inventions, which have changed the face of the world.

The British, Dutch, and French possessions in South America are Demerara, Berbice, Essequibo, Surinam, and Cayenne. From Cayenne are exported cloves, Cayenne pepper, annatto, sugar, cotton, coffee, and cacao; from Berbice, rum, sugar, cotton, cacao, &c.; from Demerara, Surinam, and Essequibo, sugar, rums, and molasses. West Indies. The chief islands which constitute the West Indies are Cuba, St. Domingo, or Hayti, Jamaica, Barbadoes, Dominica, St. Christopher, or St. Kitt's, Curaçao, and Guadaloupe. They have all very nearly the same productions, viz. sugar, coffee, wax, ginger, and other spices, mastic, aloes, vanilla, quassia, man unreliable, maize, cacao, tobacco, indigo, cotton, molasses, mahogany, long peppers, lignum-vitae, Campeachy wood, yellow wood, guns, tortoiseshell, rum, pine, &c. Before St Domingo or Hayti became an independent government of blacks, it was the depot of the goods brought from Havanna, Verm Cruz, Guatima, Cardhagena, and Venezuela; but, since that event, Jamaica has been the magazine of all goods from the Gulf of Mexico. Trinidad is the great seat of the contraband trade with Cumania, Barcelona, Margarita, and Guiana. The imports are manufactures of all kinds, wine, flour, and, formerly, sugar, which are sent into many of the islands. The West Indies form one great source of the commerce of the world; and we must refer the reader, for more particular information, to the articles on the different islands.

A new path has been laid open to the commerce of the world by the British, to the Southern ocean, where, of late, the Sandwich, the Friendly, and the Society islands have been taken within the circle of European and American intercourse; and in Australia and Van Diemen's land, a great market has been established for the exchange of British manufactures for the productions of nature; while the North Americans have attempted to found commercial settlements on the Washington (Nukahiva) and other islands of the Pacific. (See Moreau de Jous Du Commerce extérieur du XIXme Siècle, 2 vols. Paris 1826.) In 1828, the imports from New Holland and the South sea islands, into Great Britain, amounted to £253,552, and the exports to £267,529.

Commercial Courts are tribunals distinct from the ordinary civil courts, and are established in commercial towns, or within certain districts, to settle disputes with regard to rights and obligations between persons engaged in trade, and the decision of experienced merchants, by a brief process, according to equitable principles. It is doubtful whether the commercial nations of antiquity had any commercial tribunals of this sort. The general introduction
of them began in the middle ages. The first of these tribunals was probably that established at Pisa, in 1560, which was, with some reservations, the code of maritime laws with Pisa, confirmed by pope Gregory VII., in 1075, from which the Consolato del Mare may have been, in part, borrowed.

At first, the commercial tribunals were not so much courts established by government as arbiters of disputes, usually chosen by the merchants of a place, at a period of their appointment, and when nearly all are convened, they appoint, not by lot, but by vote, two worthy men, experienced in all maritime affairs, for their consuls, and another, of the same occupation, as judge of appeal. To him are made all appeals from the sentence of the consuls. Under the name of commercial consuls, such committees of arbitration were appointed in all the great commercial cities of Europe; and, in the course of time, they really became tribunals of justice, and were, in part, at least, administered by men of legal learning and experience. Pope Paul III. confirmed the commercial courts of the West, in 1556, granted to the Parisian merchants particular arbiters for the adjustment of commercial disputes, and in 1563 was established the Parisian court of commerce, consisting of a judge and four consuls.

The same thing soon followed in all the important commercial towns of France. In London, Henry VIII. appointed particular commercial judges. The president of the commercial tribunal for the Hanse towns, established in 1447, bore the name of alderman. At Nuremberg, in 1621, a similar tribunal was instituted under the name of inspectors of the markets (Marktinspektoren). There was one, also, in Botzen, in 1620. The diets of the empire even called upon the German princes and commercial cities to follow this example, as the decrees of the empire of 1654 and 1668, and the decree of the imperial commission of October 10, 1663, show. In many of these cities, as in Frankfort on the Maine, and in Leipsig, they were not so much independent authorities as delegates from the city councils. When commercial courts take cognizance particularly or solely of disputes relating to maritime affairs, they are called courts of admiralty. Such a court was erected in Hamburg in 1623. Among the tribunals mentioned there is the one in 1808, according to the provisions of the Code de Commerce; and the new Hamburg commercial court, of the same kind, which dates from the time when Hamburg was the chief city of a French department; this was, in 1816, retained with some modifications. Their internal regulations commonly required a part of the members, or, at least, the presidents, should be lawyers: the rest are, for the most part, experienced merchants, who are better adapted than regular judges to give counsel on commercial affairs, with which they are more acquainted, and which, very often, are not to be reduced to simple principles of law, but are to be decided according to commercial practice. Their jurisdiction commonly extends over all commercial disputes, whether occurring during the fairs, or at other times, matters of exchange, insurance, freight, bottomry, average, &c., and, further, over bills of exchange, charter-parties, wages, and apprentices, the debts of those who receive goods from merchants upon credit; and all natives and foreigners who traffic in the place, and are found there, all ship-owners, contractors for transporting goods, brokers, factors, &c., are obliged to submit to their decisions. They do as much as possible by oral investigation; and the intention of their institution is, that they shall avoid the long and formal process of other tribunals. But when the occasion is such as to force a decision, there is no appeal from their final decision, and the parties are bound to submit to their judgment.

Chapter VII.

Of Arbitration.

An impression which has been prevalent on the subject of arbitration is, that this is the great means by which commercial disputes are settled. This is not the case. In the first place, the commercial tribunals have no means of compelling either of the parties to submit to their decisions. Then, the parties may, if they wish, appeal from a commercial tribunal to another tribunal, where the same subject is in dispute. There are also many kinds of cases in which the commercial tribunals have no jurisdiction.

The commercial tribunals are not the only means by which commercial disputes are settled. In some countries, they are not even the means by which most important commercial disputes are settled. In England, for example, the great commercial disputes are settled by the Admiralty Court; and in most countries, the commercial disputes are settled by the ordinary courts.

The commercial tribunals are not the only means by which commercial disputes are settled. In some countries, they are not even the means by which most important commercial disputes are settled. In England, for example, the great commercial disputes are settled by the Admiralty Court; and in most countries, the commercial disputes are settled by the ordinary courts.

Chapter VIII.

The Commercial Law of France.

The commercial law of France is the most important of all the commercial laws. It is the law of commerce, as it is usually understood, and it is the law of nations, as it is usually understood.

The commercial law of France is the result of a long and laborious process. It is the product of the efforts of many nations, and it is the result of the efforts of many nations. It is the result of the efforts of many nations, and it is the result of the efforts of many nations.

The commercial law of France is the result of a long and laborious process. It is the product of the efforts of many nations, and it is the result of the efforts of many nations. It is the result of the efforts of many nations, and it is the result of the efforts of many nations.
recognition the title of Rhodian Laws, published at Basle in 1651, and at Frankfort in 1596, being generally considered as spurious. This title and that of De Nautico Favoire recognize the first broad principles on the subject of seisin and maritime law. The law de exercitioria actione, in the Digest, also transmits to us the whole body of the law of maritime law in the Roman laws, but the low estimation in which trade was held by the Romans, who prohibited men of birth and rank from engaging in commerce, of which the code (4. 63. 3) speaks contemptuously; and Cicero says it was not fitting that the same people should be both the porters and the masters of the world. The Greeks, being the merchants and navigators of the ancients, adopted the Rhodian laws, with modifications. The Athenian law, on the subject of maritime loans, is stated particularly in Bocchi's Economy of Athens, b. 1, sec. 25, from which it appears that the relations of marriage were very definitely settled. The laws of trade naturally followed the laws of marriage, as they were designed to regulate. Accordingly, we find them first revived in the middle ages, on the shores of the same sea, in one of the islands of which they had their origin; a collection of them being made at Amalfi, a city within the limits of the present kingdom of Naples, about the time of the first crusade, towards the close of the eleventh century, called the Amalfitan Table, the authority of which was acknowledged throughout Italy.

The origin of the compilation of sea laws, which passes under the title of Consolato del Mare, though involved in some obscurity, is most generally assigned to the city of Barcelona, in Spain. Some writers, however, and particularly Azuni, claim the honour of this collection also for Italy. But Casregis, a profound commercial jurist, who published an edition of it, in Italian, at Venice, in 1737, and M. Boucher, who published a French translation in 1808, from what he considers the original edition of Barcelona of 1494, both admit the Spanish claim. These laws are supposed by M. Boucher to have been adopted and in use as early as the ninth century, and their authority was acknowledged in all the maritime countries of Europe, and some of the articles of this collection form a part of the present commercial law of all civilized nations. It has been translated into German, also, but no entire English translation has yet been made. It is an ill-arranged, confused compilation; and, though it is interesting as a historical record of the marine laws and customs of the middle ages, a large proportion of its provisions do not apply to the modes of transacting business and making contracts in modern times. The Jugemens d'Oleron (or Laws of Oleron) are supposed to have been compiled about the time of Richard I.; and the honour of this collection, like that of the Consolato, from which it is partly borrowed, is in dispute, being claimed for the French by Valin, Emerigon, and Cleriac, who say it was made by order of queen Eleanor, duchess of Guinnen, for the use of that province, and adopted by her son Richard I., duke of Cornwall. We are not assured that it is an English work, published by Richard I., in his character of king of England. The maritime codes of Wisby and the Hanse towns are also of historical celebrity, and constitute a part of the legal antiquities of this branch of jurisprudence. These were the first published in the sixteenth century. In 1574, the first date of the French ordinance of commerce, which

C. A. LAW.
search, comprehensive views, and logical power displayed in his masterly compositions, is such as to per
port a comparison with those of their European con
emporaries, who might derive very useful additions
to their own adjudications, particularly in the sub
jects of merchants' shipping and insurance, from the
American reports. Among the most eminent of the
planter, the celebrated American jurist, was Marshall,
and justices Washington and Story, of the supreme court of
the United States, and chancellor Kent of New York.
COMMERSON, PHiLLiPs, a botanist, born 1797,
at Chartres-les-Dombes, was a doctor of medicine in
Montpellier. In 1767, at the command of the French
crown, the latter accompanied the expedition of
Vincennes (q. v.) on his voyage round the world. From the name of a
young French lady, Hortense Barré, who accom-
panied him in a man's dress, he called a flower, now
well known, Hortensia. During this voyage, he
died on the Isle of France, in 1773. He wrote,
among other things, a botanical martyrology—a
biography of those who have fallen victims to their
efforts in the cause of botany. He left his plants,
drawings, and papers to the royal cabinet at Paris.
COMMITTES. See Comités.
COMMITTEE. Large deliberative assemblies,
which are formed before them, are un
able to discuss and investigate, sufficiently,
many subjects on which they are obliged to act.
Committees, therefore, are appointed, to examine and
to report to the assembly. Committees have a right
to choose their chairman. In the British parliament
and the legislatures of the United States, as, in
fact, in all legislative bodies in representative go
vernments, there are select and standing committees.
The French chambers are divided into bureaux.
The standing committees are appointed, in Britain,
and the United States, by the speaker or president
of the house, at the beginning of each session. In the
British parliament, the standing committees ap
pointed at every session are those of privileges and
elections, of religion, of grievances, of courts of jus
tice, and of trade, though only the first mentioned
acts. In the congress of the United States, the
standing committees are very numerous; some of
the most important are those of elections, of ways
and means, of commerce, of public lands, of the
judiciary, of public expenditures, of Indian affairs,
of foreign affairs, of manufactures, &c. In fact,
business is done by means of committees, much more
in the American congress than in the British parlia
ment. The French chamber, on the request of five
members, must resolve itself into a secret com
mittee.
Committee of the Whole. Matters of great con
cernment are usually referred to a committee of
the whole house, where general principles are digested
in the form of resolutions, which are debated and
amended, till they take a shape which meets the
approval of the majority. These, being reported,
and confirmed by the house, are then referred to one
or more select committees, according as the subject
divides itself into one or more bills. The sense of
the whole assembly is better taken in committee,
because in all committees every one speaks as often
as he pleases. They generally acquiesce in the
chairman named by the speaker, but, like all other
committees, have a right to elect their chairman,
and, by consent, putting the question. When the
house is desirous of forming itself into a
committee, the speaker, on motion, puts the question
whether the house will resolve itself into a committee
of the whole, to take into consideration such a
matter, naming it. No previous question can be put
in a committee; nor can this committee adjourn, as
others may; but, if their business is unfinished when
the time of adjournment arrives, a motion is made for
rising, and the chairman reports the state of the
whole house, according to order, had under
their consideration such a matter, and have made
progress therein, but, not having had time to go
through the same, have directed him to ask leave to
sit again. The motion for adjournment of the house
shall be granted, and, if so, what time the house
will again resolve itself into a committee.
But, if they have gone through the matter referred
to them, the chairman reports, either immediately,
or, if the house wish, at a later period.
COMMITTEE OF PUBLIC SAFETY (Comité de Salut Public). Under this name, the Mountain
party or Terrorists (see Terror, Réigné of), in the
national convention (see France), concealed the dic
tatorial power which they had assumed to overthrow
the Girondists (q. v.) and the moderate party, that
the Mountain party might rule, and the republic tri
umph over its domestic and foreign enemies. The
revolutionary tribunal was subservient to this com
mittee, which was at first composed of nine, then
of twelve members. The committee was established
April 6, 1793, in the stead of the comité de défense générale, which had existed hardly ten days; and
the convention, from the midst of which its members
(among them Dunton, Barrère, Cambon) were
chosen, intrusted it with unlimited power of secret
deliberation, and of supervising the ministers. It
was, in every case, to provide for the public welfare
as its own judgment should dictate; and therefore,
after the lapse of a few months, the right of im
prisonment was also given it. The prevailing party
acted on the ground that France, threatened from
within and without, could not be governed as if at
peace (as the Girondists wished), but could only be
saved by desperate measures, as in times of the
greatest danger. But, after the downfall of the
Girondists, June 1 and 2, 1793, when the Mountain,
on the recommendation of the committee of safety,
declared that the population of France consisted of
but two parties, patriots and enemies of the revolu
tion, and consigned the latter to the persecution of
all good citizens, terror took the place of law.
Robespierre, in his conclusion, July 27, 1793,
became a member of the committee of safety, the members of which were appointed monthly; but the
old members were, at this period, commonly re
selected. From this time, the committee governed
the Mountain party, and, through it, the convention.
As the sole guardian of the constitution, Robespierre
declared that the main-spring of a popular government in a
state of revolution was la vertu et la terreur! With
him, and in accordance with his views, St Just,
Couthon, Billaud de Varennes, Collot d'Herbois,
and Hémiot de Séchelles acted in the committee.
Car
not (q. v.), likewise a member of the committee
of public safety, confined himself to the direction of the
armies, and left to his colleagues the affairs of the
interior. At the motion of these men, the new con
stitution was suspended for a time, and the revolu
tionary government conferred on the committee of safety,
by a decree of the convention, of Dec. 4, 1793. The
committee now instituted in all the communes of the
republic, as judges of the suspected, revolutionary
committees, composed of the most furious zealots:
the number of these new tribunals was as great as
20,000. The last remaining forms of regular pro
cesses were abolished; the republic was supplied by
violence, and often by avarice and folly. In this
time of internal revolutions, and danger from without,
it was not in the power of man to restrain the exas
perated fury, which, probably, alone prevented France
from being conquered. Finally, Danton, who had
COMMODORE—COMMODUS.

abseinted himself for a time from the committee, on account of the influence of Robespierre, declared himself guilty of the commission of bloodshed; and Robe-
spierre himself acquiesced in the condemnation of the
ringleaders of the Paris mob (March 24, 1794),
among whom was Hébert (q. v.), but, soon after (April 5), Danton, with Hébrail de Sédille, was himself overthrown by Robespierre. Till July 28, 1794, he remained in the bureau of the thousand millions of men. He appointed Fouquier-Tinville public
accuser. Prisons were multiplied and crowded;
the prisoners were cruelly treated, betrayed by spies, and condemned without being allowed the privi-
lege of defence; the property of all imprisoned on suspicion, was confiscated, and the guillotine remained
ed permanent. The same violence was practiced in
the provinces by some of the delegates of the com-
mittee of safety, especially Collot d’Herbais, Carrier
(q. v.) and Jos. le Bou. Among the numberless vic-
tims of the system were the noble Malesherbes and the celebrated Lavoisier. The members of the com-
mittee of public safety, Robespierre, Couton, and St Just ("gens de la haute main") found in Billaud Varennes, Decary, Collot d’Herbois ("les gens revolutionarys"), another; and Carnot, Precurd, and Linel ("les gens d’examen"), a third. In the comite de surete generale, one party comprised Vadier, Amor, Jugot, Louis (du bas Rhin), and Volandel (the "gens d’expedition"); to a second belonged Denon and Lebas ("contreurs"); to the third, Moise Bayle, Lavionicere, Elie Lacoste, Duf-
tarnan ("les gens de contrepoints"). Robespierre
attempted to remove the unyielding Carnot from the
committee of safety. On the other hand, Billaud de
Varennes labourd to effect Robespierre’s downfall.
Couton, St Just, the Jacobins, and the commune of
Paris, alone adhered to Robespierre. But when St
Just actually proposed, in the committee, a dictator-
ship for the safety of the state, an opposition was
raised against Robespierre, in the national convention,
by Vadier, Collot d’Herbais, Billaud de Varen-
nes, Dufour, J. P. Talley (q. v.) and Freron; the dictator and his faction were proscribed, and the
victory of Barras (q. v.), on the 9th Thermidor, (July
27), brought Robespierre, his brother, St Just, Cou-
thon, &c., 105 in all, to the scaffold, July 28. The
convention now recovered its authority; the Jacobins
and partisans of terror (la queue de Robespierre) were
completely overthrown; at the same time the conven-
tion gave the committee of safety and the re-

volutionary tribunal a more limited power and juris-
diction. The bloody despotism ceased; and when a
new constitution introduced (Oct. 28, 1794) a direc-
torial government, (see Directory) the convention was
dissolved; and with it was removed the most consid-
erable of the revolutionary government, the reign of terror, and the committee of public safety.

See Memoires inedits de Senar (secretary-general of the committee, who died in 1796), or Revelations puiblisees dans les Cartons des Comitees de Salut Public et de Surete Generale (2d ed.; Paris, 1824). The Memoires Historiques de M. de la Bussiere (1 Legendre’s private secretary) narrate how ingeniously this em-
ployed au comite de salut public preserved a number of
the arrested from condemnation.

COMMODORES (corrupted from the Spanish com-
mandador), a general officer in the British marine,
invested with the command of a detachment of ships
of war destined for any particular enterprise. He
retains this title only during the continuance of the
expedition during which he has the rank of a briga-
dier-general in the army, and his ship is distinguished
from others in his squadron by a broad, red pendant.
The chief captain of the more vessels cruising in this
country is often called commodore by courtesy. In
the United States, the title commodore is only
given by courtesy, not officially.

COMMODORE, ship, a fleet of merchants, is the
convoy and principal ship, which leads the other
vessels, and keeps them together, bearing a light in
her top.

COMMODOUS ANTONINUS (L. Elius Aureli-
us), son of Marcus Aurelius and of Anna Faustina,
dughter of Antoninus Pius, was born A.D. 161, and
gave early proofs of his cruel and voluptuous charac-
ter. When a sett of twelve years old, he ordered the
overseer of his bath to be thrown into the fur-
nace, because his bath was too hot. His father, who
hoped to correct him by mildness and his own ex-
ample, permitted him early to partake in the govern-
ment, conferred on him the office of tribune, and, in
his sixteenth year, the office of consul, and soon after-
wards, gave him the first command of his army. He
married him to Crispina, daughter of Bruttius
Prasens. On the death of Marcus Aurelius, A. D.
180, Commodus ascended the throne, and showed
himself a more execrable monster than even Caligula,
Domitian, or Nero. For his amusement, he cut
down and mutilated many of the richest and the most
amusing persons and cut off their noses; and even the
walls of the temple of Jupiter were defaced by his
orders. He enlisted a hundred, and perhaps more,
men to amuse himself with their own blood; and he
had even an incestuous intercourse with his sisters,
and killed one of them (Lucilla), who had refused to
submit to his wishes, and had concerted a conspiracy
against him. To fill the treasury, exhausted by his
extravagances, he imposed unusual taxes upon the
people, sold governments and offices to the highest
bidder, and pardoned criminals for money. To dis-
play his strength and skill in arms, he appeared pub-
licly on the amphitheatre. He is said to have fought
in this way 735 times, and always to have been vic-
torious. Immediately after ascending the throne, Commodus, accompanied by his favourite, the Quadi
and with other German nations. In Britain, his
valiant general Ulpius Marcellus gained impor-
tant victories over the Caledonians; on account of
which Commodus took the titles of imperator and
Britannicus. The administration of affairs had been,
at first, left to this freedman Antonus, but he was
accused of having seduced the emperor, and was killed
by the commanders of the body guard. Commodus,
after taking a bloody revenge for the death of his fa-
vourite, placed another freedman, Clesander, at the
helm of state. A part of the city having been con-
sumed by fire, and the people having been reduced to
despair by the tales of disturbances broke out, and the em-
peror was obliged to consent to the death of his min-
ister, who was charged with being the author of these
calamities. On the 1st of January, A.D. 193, he in-
tended to appear at the same time as consul and gla-
diator, after having put to death the two consuls elect.
He was so much enraged by the opposition of his
friends to this design, that he resolved on their death.
The tablets upon which he had written their names
were found by accident, and given to one of his con-
cubines (Marcia), who, with surprise, found herself
among the victims of们的. She consented, by the wish of
the emperor, against the life of the emperor. They administered poison to him, and, as the poison operated too slowly;
he was strangled by the hands of his favourite gladi-
ator, Narcissus (Dec. 31, 192). On the news of his
death, which was reported to be the consequence of

an apoplectic, the senate declared him an enemy of the state, ordered his statue to be hewn to pieces, and his name to be erased from all public inscriptions. He perished at the age of thirty-one years and nine months, after a reign of twelve and a half years. Rome was indebted to him for her handsomest baths — the thermae Antoninianae. He established, also, an annual festival to celebrate its victory, for the purpose of supplying the city with corn.

COMMON CARRIERS. See Carriers.

COMMON, RIGHTS OF. There are various kinds of rights of common recognized by the common law, namely, of pasture, of piscary or fishing, of estovers or fuel, and rights of abode. The first, the phrase usually means the right of pasturage cattle, horses, &c., in a certain field, or within a certain territory. And this again is of different kinds; as common in gross, when the grantee is not in the occupation of lands with which this right of pasturage is connected; and appurtenant, where a person, occupying a certain piece of arable land (or appurtenant, where he occupies such land or a house), has the right of pasturage in a certain other piece of land; and also a right of common par cause de vicinage, or by reason of vicinity, — the right which the tenants of a lord in a certain field have to keep their cattle with those of the tenants of another lord in another town. These rights, in England, have been mostly determined by prescription or immemorial usage; by which also was regulated, in most instances, the kind of animals which might be turned upon the land (which were usually horses, oxen, cows, and sheep, but not goats, hogs, or geese), and the number, and the time of the year when they might be turned in. In the United States of America, there are not wanting instances of right of common, appurtenant and in gross; but the regulation of this species of rights does not occupy a great space in the laws. A law of the province of Massachusetts, of 1803, regulates the rights of common belonging to the freeholders of a town or village, by prescribing the number of cattle that each commoner might put upon the common; and there are rights of common appurtenant in New York, but these are most commonly rights in gross, and the phrase...
The common law is usually divided into three kinds:—1. General customs, which are the universal rule of the whole kingdom, and form the common law in its more usual signification; 2. Particular customs, for the most part, derived either by the influence of particular districts; 3. Certain particular laws, which, by custom, are adopted and used by some particular courts of pretty general and extensive jurisdiction. (1 Bl. Comm. 67.) The first embraces the general maxims and principles of English jurisprudence, such as the regulation of the descent of estates, the exposition of contracts and wills, the remedies for civil injuries, and the definition and punishment of crimes, &c. The second embraces the jurisprudence of a peculiar nature existing in certain local districts, such as the custom of gavelkind, in Kean county, where all the sons inherit the estate of their parent, and not (as is the general law of England) the eldest son; so the custom of Borough English, where the youngest son inherits the estate; such, also, are the peculiar customs of the city of London. The third embraces those portions of the civil law and the common law which are of force in the ecclesiastical and admiral courts, and have long constituted the system which regulates the rights and remedies administered in those courts. This subject will be found discussed at large in 1 Bl. Comm. from p. 63 to p. 92, and in Lord Hale's History of the Common law. A further discussion here would occupy too much space.

The common law of England constitutes the general basis of the jurisprudence of all the United States of America, except only Louisiana, where the civil law prevails. This common law consists only of the first and third kinds of customary law above mentioned, there being no local or provincial law existing in any particular county or district of any state, as contradistinguished from that which prevails in the state at large. When we say that the common law constitutes the basis of American jurisprudence, we do not mean that the whole common law, as it exists in England, is adopted here. The general doctrine is, that such portions of the common law only as were adapted to the situation of the colonies at their first settlement, and were therefore used and recognized, are now of force in the states. But many portions were never in force at all in America. For instance, the ecclesiastical courts, and the courts of the sea, were never in the United States. Hence much of the law growing out of it, was never introduced or recognized here. We, too, consider that all the statutes made in England before the emigration of our ancestors, which were in amendment of the law, and in improvement of it, constitute a part of our common law, and, as such, were brought hither by our ancestors, at their emigration. But statutes since enacted have no force at all here, unless they have been sanctioned by the legislature, or have been adopted into our local practice, by general usage, as amendments of the law. And, indeed, many of the fundamental principles of the common law have been altered, repealed, or modified by positive legislation of the various states, as well while they were colonies as since their independence; so that, though the general basis is the same, there are almost infinite shades of difference in the actual jurisprudence of the different states.

There is another sense in which we speak of the common law, in contradistinction to what is called equity jurisprudence. The administration of a distinct system of jurisprudence by distinct tribunals of this nature seems peculiar to Britain and the colonies which derive their origin from her. Blackstone (3 Bl. Comm. 50) has well observed, that the distinction between never to be the jurisdiction of courts, is not at present known, nor seems ever to have been known in any other country at any other time; and yet the difference of one from the other, when administered by the same tribunal, was perfectly familiar to the Romans; the jus praetorium, or jurisdiction of praetors, being to any who were not citizens, or standing laws. It would occupy too much space to enter into a full development of this distinction in the actual administration of justice in England. In general, courts of equity administer remedies ex aquo et bono only in cases where the courts of common law cannot administer an adequate remedy. Hence a very familiar expression is, that a right is an equitable right, or an equity; by which we mean, that it is a right recognized only in courts of equity, and for which the common law, in its ordinary tribunals affords no remedy, and of which it takes no notice.

See Courts and Equity.

COMMON PLEAS. See Courts.

COMMON SCHOOLS. See Schools.

COMMONERS. See Colleges.

COMMUNES. The communes of Great Britain, in a general sense, consist of all such men of property as the kings of England have constituted by the grants of their lands, or by the act of one or more of their parliaments, either personally, or by his representatives. Common in parliament, are the lower house, consisting of knights elected by the counties, and of citizens and burgesses by the cities and borough towns. In these elections, anciently, all the people had votes; but in the 4th and 10th of King Henry VI., for avoiding tumults, laws were enacted, that none should vote for knights but such as were freeholders, did reside in the county, and had 40 shillings yearly revenue, equivalent to nearly £20 a-year of the present money; the persons elected for counties to be sedites notabiles, at least esquires, or gentlemen fit for knighthood; native Englishmen, at least naturalized; and twenty-one years of age; no judge, sheriff, or ecclesiastical person to sit in the house for county, city, or borough. The house of commons, in Fortescue's time, who wrote during the reign of Henry V., consisted of upwards of 300 members; in Sir Edward Coke's time, their number amounted to 403. At the time of the union with Scotland, in 1707, there were 513 members for England and Wales, to which 45 representatives for Scotland were added; so that the whole number of members amounted to 558. In consequence of the union with Ireland, in 1801, 104 members were added for that country; and the whole house of commons therefore consisted of 658 members. By the reform bill of 1832, the number of members was altered as follows: 500 for England and Wales, 53 for Scotland, and 105 for Ireland. See Corporation of British, subdivision Parliament.

COMMONS, DOCTORS. See College of Civilians.

COMMUNION. See Lord's Supper.

COMMUNITY. The two chief parties into which the theoretical politicians of modern times are divided, approach each other in no point more nearly than in their opinion upon the organisation of communities. For those who think that the state should insure an equality of rights to all its members, and those who believe that the common good of the whole is most safely attained by means of an unequal distribution of civil rights and privileges, both agree in this truth, that communities cannot exist in order to private families, in the formation of the great bond by which mankind are united in church and state. They differ, indeed, in their views upon the formation of communities, and their relation to the general government,
COMMUNITY.

as well as to their individual members, as widely as they do in their principles in regard to the state, and the claims of citizens upon it. History shows that the establishment of communities has been one of the greatest advances in human improvement; and they have proved, in different ages, the cradle and the support of freedom. By the formation of communities, the patriarchal or family government was broken, which arose from the natural connexion of families, but had terminated in most unnatural restraints and inequalities. In the family, individual interest predominated; and even when increasing numbers gave rise to tribes, the same motives still prevailed. But as the species of tribe became elevated to unrestricted authority. In after years all employments were distributed among the branches of the family by inheritance; then arose fixed castes—the grave of all human improvement; for their influence falsifies individual effort; every man is shut up in one fixed circle, be his talents and accomplishments what they may. That the branch of the tribe which was originally predominant, viz., the caste of priests, or the priesthood, should, in the end, give way, and become inferior in influence to the second order (the military caste or rank), is so natural a consequence, that it has occurred in almost every instance of society constituted in the way which we have described, and is shown, with great probability, to have occurred, not only in Egypt and among the Hindoos, but in all the islands of the Indian ocean, in Japan, in the early ages of Greece and Rome, and among all people of Gaelic origin. Some writers, such as Eschhorn, for example, have thought, and with much reason, that they found traces of an original and hereditary superiority of the priesthood, in the relation of the ancient German priests to the military and other orders of society. This constitution of society derived from tribes and families, with the institutions belonging to it,—a patriarchal government, a hereditary priesthood, and a fixed arrangement of castes,—existed among the earliest nations, and was probably the first form of government which went into operation upon the earth. With it was usually connected a common right of the whole tribe to the ground which they occupied. This was transmitted to the head of the tribe, first as the common representative of the members, and for the purposes of fair distribution, but finally became the individual property of the chief. This is found to have been the case not only in Egypt and among the Hindoos, but also in the ancient laws of the Franks, with which the Scottish Highlanders, among whom, more especially, the old Gaelic constitution of tribes and family races has been preserved in their clans, even till a very late period. It will be easily perceived, that such a state of society must have been very oppressive to men of energetic, ambitious spirits, and, therefore, that emigrations would frequently occur; and, as bold adventurers from all castes would join the leaders of these expeditions, it is evident that the original divisions of the castes could as little be kept up among themselves, as they could be forced upon the foreign nations among whom the wanderers, by reason of their higher civilization or superior force, might obtain an influence. In the domestic history of Greece and Rome, we can discover a long-continued contest between the old family constitution of government, which gave particular races particular claims to power, and the new constitution of the community in general, which terminated, after many hard-fought battles, with the entire overthrow of the former. The first shock given to the old system took place almost contemporaneously, in Athens and Rome, by the substitution of divisions founded on property, in the room of the old divisions according

to tribes and families. The removal from landed property of all restrictions in favour of families, and the equal inheritance of women, were among the most important consequences of this change in Rome.

Among the Germans, the system of communities, when they had the beginning of a settled form of government, their political constitution, has remained essentially the same to the present time. The common people (Gefolge), who had voluntarily joined a certain leader, acknowledged him as their commander in war, but not as their sovereign in time of peace; as the defender of the laws, but not as their executive. In affairs of general interest, even to the determination upon a new campaign, were decided by the people themselves; and this custom was retained in all the states which they established, in which all the free members enjoyed equal rights. A hereditary distinction of ranks, in the earlier periods of these institutions, is neither certain nor probable. It is only possible, at the most, that some tribes, who had already possessed institutions recognizing these distinctions, may have transferred them to their new seats. The military associations were again subdivided into smaller portions, which were perhaps divided in the common military form, as the division into hundreds were the only ones strictly observed; and, as new possessions were acquired, the new geographical and political divisions naturally took the form and title of titheings, hundreds, and counties. The free inhabitants of these societies were so far connected, that they were responsible one for the other. They had courts, and chose their own judges. This form of society continued nowhere so long as in England, although it is not entirely given up in any of the states of Germanic origin. The freemen of the county formed in England a particular community, whose head—the oldest esquire, esquire, or governor—was appointed by the king; but the second in command, the receiver of the royal taxes (shire-gerfa, grave, graf, sheriff), equivalent to the German Schultheiss, exactor, was for some time elected by the people. The royal boroughs, which were scattered through the counties, were occupied by burgesses, who formed communities distinct from the tithings, consisted of freemen (nobles), and, like the counties, were represented at the assemblies convoked by the king. The lands which did not belong to the king, or were not given to his followers, seem originally to have been the property of the county, a part or lot in which belonged only to the capable of doing military duty, and constituted the common property; the folk-land, allotment, or revetland of the Anglo-Saxons; the salland of the Franks; while the lords' property, or thane-land, or book-land of the Anglo-Saxons, was conferred only upon the followers of the king, or of the great territorial lords, upon condition of the performance of personal service. This last union of the king and the great lords with their vassals threatened the overthrow of the freedom of the communities, as all who were not thus dependent on the great were left without protection from violence; but, after the tenth century, the commons rose again, in consequence of the influence of several causes, partly from the wealth accumulated by the practice of arts and trades, partly from the growth of towns around the castles of the knights. In these towns, which had obtained their freedom, artisans of various sorts, who had been collected, were able, from the spirit and boldness. It frequently happened, that, in the course of time, the knights—the original protectors of these communities—were expelled. In some cases, however, they became mingled in the mass of citizens. Many traces of this state of society are still to be found, especially in Britain, exhibi-
ed in the various constitutions of the cities and towns, and in the representation of boroughs in parliament. Only those towns which were in existence at the establishment of these Germanic institutions, or which remained as relics of the Roman and British times, owe their representation in parliament to their importance as towns. All other places hold their privileges as royal boroughs, which were originally the sole possessors of the corporate rights of towns. As these boroughs were created for the defence of the country, and the protection of the royal interests, we may see in this reason why they are so much more numerous in the frontier counties, and especially in Cornwall and Devon.

The formation and constitution of municipal communities, in other European states, has taken a nearly similar course, although the description of this course, as given by Eichhorn, is not of universal application. The Burgwardien, which are found to have existed in Meissen and Brandenburg in the tenth century, are nearly related to the English boroughs, in like manner as the older towns and cities, which have remained as specimens of the Roman times and institutions, have served as models for towns of modern origin, and for the establishment of their city-plans (Burgstädte). The municipal communities seem to have taken an important part in the representation of the country; in the establishment of which, the old notions respecting the character and rights of a community seem to have had as great or a greater share than the modern and most unjust notion of a representation of the landed interests. England is the only country in which the boroughs and the free possessors of landed estates have continued to form one body or clump of representation—the commons—to which they have always belonged; while, in other countries, the gentlemen or knightly have united themselves to the nobility, and thus become separated in their interests from the towns. But, in almost all parts of the European continent, the representatives of the towns appear to have lost much of their influence, to which various causes seem to have contributed. The most important among them has been the internal corruptions of the institutions of the towns themselves. The constitution of the German towns has generally suffered an injurious change, by the establishment of a chief magistrate for life, who has the power of appointing his inferiors in office, who are naturally selected from among his own friends and dependents. The ancient town, the independent character of the burgesses, and their republican institutions, have been strong obstacles to these abuses, or the occasion of their being quickly corrected (as has been the case in all the imperial cities, and in the large towns of other countries); on the other hand, there has grown up, in the small towns, a contracted policy and cast of feeling, in accordance with the diminutiveness of their influence and importance, which has made them proverbial, in Germany, for narrowness of spirit. In this manner, all true public spirit has been lost. The mismanagement and corruption of the governments of the towns have destroyed their prosperity, and, with it, the old citizen spirit; and few towns are to be found in Germany, where just complaints are not heard of the corruption of old institutions, and the waste of the property of the place. These defects in the government of the towns, and the constant contests between the burgesses and their magistrates, after the attention of government still more, from the fact that another branch of the popular authority—the administration of justice—had entirely departed from its original character. This portion of their authority had been wrested from the burgesses by the increasing subleties of the law, and had passed into the hands of functionaries who were seldom able to command public confidence and respect; and the town-officers could, in truth, be no longer regarded as the agents of the municipality, even before they began, both in name and in reality, to assume the character and duties of state and police-officers. This occurred first in Prussia, whereas in royal towns, particularly in a short time, supplied by the sale of these offices. This example was followed by other states, especially in Germany, after the time of Frederic II. of Prussia, where it was first seen, that, upon every reform of the towns and their institutions, something valuable had been taken from them, not for the cause of absolute authority. In Prussia, an approach to a freer government of municipalities took place by the ordinance of Nov. 10, 1808, which has served as a model for several other German states but, if carefully examined, will appear valuable only as demonstrating how necessary some approach to popular institutions is, even in an absolute monarchy. It is the work of the Prussian minister Stein. In publics, the organization of the municipalities, the establishment and due regulation of popular rights and privileges, is of the greatest importance. See the Charte der freien Gemeinden.

COMMENEN an extinct family of sovereigns, according to an unsupported tradition, of Italian origin, which numbered, on the throne of Constantinople (from 1057 to 1204) and on that of Trebisond (from 1204 to 1463), eighteen emperors, besides nineteen kings, and numerous independent princes. See Byzantine Empire, and Trebisond. When the crusaders had overturned the throne of the Commeni in Constantinople, and established the Latin empire there, in 1204, a prince of the ancient house of the Commeni founded an independent state at Trebisond, in Asia Minor, where he was governor. The last sovereign of this house was David Comnenus. From him, it is said, was descended Demetrius Comnenus, a French captain of dragoons, who died without children, at Paris, in 1821, with the title of maréchal de camp. But his descent cannot be historically traced. Ducange, an accurate, faithful, and learned historian, asserts, without hesitation, that Mohammed II., the conqueror of Constantinople, after he had obtained the empire of Trebisond, so called (which was scarcely as large as a French department), from the emperor David, by a treaty, sent for this prince and his seven children to Constantinople. In order to get possession of them, he sent to the king of the Greek empire, he ordered him to be put to death, with all his children, at Adrianople, in 1462, under pretence of a conspiracy. This is confirmed, according to Ducange, by all contemporary writers—Chalcondylas, Ducis, Phranzes. A later historian maintains that one of his children was carried off unhurt to Laconia (Maine), where the family maintained a war with the Turks, generation after generation, for 200 years. Betrayed, but not conquered, Constantine Comnenus emigrated at last from Maine, landed in 1676, at Genoa, accompanied by several Greeks, and planted a colony in the Isle of Corsica. His posterity governed this district, inheriting the dignity and title of capitano; but, when Corsica was joined to France, they lost their possessions. This account, however, is not credible; for no mention whatever is made in contemporary history, either of a child of David Comnenus, or of his posterity; the king of 1462, the numerous children, who pretend to be the last branch of the family of Comnenian colonists (born in Corsica, in 1750), was recognized by the French government as a descendant of David Comnenus, by a royal decree of 1782, registered duly by the parliament; but this recognition was effected
by M. de Vergennes, merely from political motives. The fall of Constantinople was then supposed to be at hand, and it was for the interest of France to secure the claim of legitimate inheritance to a descendant of that family in France. If the sceptre of the grand sultan had then been broken, France would have acted, in the British, for a period of 5000 francs, which Napoleon had assigned. Louis XVIII. confirmed this stipend, and made him maréchal de camp, and knight of St. Louis. He died September 8, 1821, and left a manuscript work, in which he laboured to show that the Greeks had risen from a state of barbarism even before the time of Homer. A remarkable member of the family was the princess Anna Comnena, daughter of the emperor Alexius I., who flourished in the first half of the twelfth century. In the history of her father, whom she praises with all the affection shown by Madame Sévère towards her parents, she gives a lively description of the manners and customs of the state of the court of Constantinople. See Gibbon's

Roman Empire. c. 48.

COMO, LAKE (lago di Como; anciently lacus Laris). a lake in the Lombardo-Venetian kingdom, at the foot of the Alps. Towards the middle it is divided into two branches, by the point called Bellagio. The branch extending towards the S.W., to the city of Como, goes under the same name: that which turns to the S.E., to Lecco, takes the name of lake Lecco. The length of the lake to Bellagio is five leagues; that of the S.W. branch, six leagues; and that of the S.E. branch, four leagues. The greatest width is one league. More than sixty rivers and rivulets empty into it, and the Adda passes through it. It is about 700 feet above the level of the sea, and 191 feet above the territory of Milan. Lake Como, the most delightful of all the lakes at the foot of the Alps, is surrounded by mountains 8 or 9000 feet high, which descend towards the lake, and terminate in hills surrounding terraces. It is bordered by delightful gardens and country seats. Many delicious fish, particularly trouts, are taken in the lake. The neighbouring country is rich in minerals, iron, copper, and lead.

COMO (anciently Comum); capital of the province of Como, in the Lombardo-Venetian kingdom, nine leagues N.N.W. of Milan, in a delightful valley on lake Como (q.v.); lat. 45° 45′ 20′′ N.; lon. 9° 3′ 12″ E. It is a bishop's see. The number of the inhabitants is about 7500, many of whom travel about with little manufactures, such as mirrors, spectacles, little pictures. Even in the time of the Roman emperors, this taste for emigration manifested itself. The inhabitants of Como were then to be found in all parts of Italy, in the capacity of monks. This city contains some antiquities, and twelve beautiful churches; also a cabinet of natural history and natural philosophy. The eleventh and twelfth centuries were the flourishing period of Como. It was then at the head of the Giubelina party, and the rival of Milan. The province of Como, which constituted the department of Lario, in the kingdom of Italy, includes 315,634 inhabitants, in 599 communities.

COMORO, or COM MOR O, or GOMARA ISLANDS; islands in the Indian ocean, between the northern extremity of Madagascar and the continent of Africa. They are four in number—Anjovef, called also Comoro, Mobilla, Johanne, and Mayotte. The inhabitants are uncivilized, but harmless. Europeans have never formed settlements there. These islands are extremely fertile, well stocked with cattle, sheep, hogs, and birds of various kinds. They produce, likewise, sweet and sour oranges, citrons, bananas, honey, sugar-canes, rice, and figs. There are 50 miles of coast; lat. 11° 20′ and 13° 5′ S., and lon. 43° 10′ and 45° 30′ E. The population, consisting of negroes and Arabs, is estimated at 20,000.

COMPANY, in military language; a small body of foot or artillery, the number of which varies, but, generally speaking, is generally composed of 50 men, commanded by a captain, a lieutenant, and an ensign, and sometimes, by a first and second lieutenant, as in the artillery and flank companies of the line. In the Austrian and Prussian armies, companies are stronger. In France, the strength of a company has varied very much. In former times a company consisted of from 25, 30, 40, up to 200 men; in 1793, of 80 men; in 1806, they had 137 men; in 1814, 72 men; in 1823, 50 men. In 1826, a French battalion was composed of eight companies, and a regiment of three battalions.

COMPANIES, JOINT Stock. See Joint Stock Companies.

COMPARATIVE ANATOMY is the science which investigates the anatomy of all animals with the view to compare them, to explain one by means of the others, and to classify the various kinds, according to their anatomical structure. As comparison, and the formation and extension of genera and species, are the delight of the naturalist, comparative anatomy is one of the most interesting sciences. The want of an organ in certain classes of animals, or its existence, under different modifications of form, structure, &c., cannot fail to suggest interesting conclusions concerning the office of the same part in the human subject. Thus comparative anatomy is of the highest importance to physiology. Haller observes, very justly, "Physiology has been more illustrated by comparative anatomy than by the dissection of the human body." Without comparative anatomy, the natural history of animals would always have remained in a confused state; &c. It is more than mineralogy without the aid of chemistry. And it is to comparative anatomy that we owe, in a great measure, that more liberal view of nature, which belongs to modern times, and considers all nature, man included, as one broken whole. Cuvier's Lecous d'Anatomie comparée (in 4 volumes), &c. is a large work, and an excellent work. Blumenbach's works on comparative anatomy, also, are highly valuable. His Handbuch der vergleichenden Anatomie und Physiologie (Gottingen, 1804), has been translated by Mr. Lawrence, under the title of a Short System of Comparative Anatomy (London, 1807—1808, 4to.) Gail has rendered great service to science, by investigations in comparative anatomy, though he has sometimes fallen into extravagant conclusions in reference to phrenology.

COMPASS, THE MARINE'S. The seamen, whose only guides on the trackless waters were the heavenly bodies, so often covered by clouds, could not venture far from shore. It is the compass which has enabled men to steer boldly across the deep. The inventor of this great instrument shares the fate of the authors of many of the noblest inventions. He truly cannot be named, as he cannot be traced. Some call him Flavo Gioja; others, Gir, a native of Amai, in Naples, at the beginning of the fourteenth century; but there are proofs, that the use of the magnetic needle, in pointing out the north, was known at an earlier period in Europe, and that a contrivance similar to a compass went under the name of marinette.
COMPASSES—COMPLEXION.

in France, as early as the twelfth century. The British first suspended the compass, so as to enable it to retain always a horizontal position, and the Dutch gave names to the divisions of the card. The earliest missionaries to China found the magnetic needle in use in that country.

The card, or compass, is essentially a magnetic needle, suspended freely on a pivot, and containing a card, marked with the thirty-two points of direction to which the horizon is divided, and which are termed called points of the compass. The needle always points to the north (excepting slight variations) and the naviga which the ship shall maintain in steering the vessel, is therefore determined by a mere inspection of the card. This apparatus is enclosed in a brass box, with a glass covering, to allow the card to be seen without being disturbed by the wind. This again is freely suspended within a larger box, so as to prevent, as much as possible, the needle from being affected by the motion of the vessel. The whole is then placed in the binnacle in sight of the man at the helm. On the inside of that part of the compass-box which is directly on a line with the vessel's bow, is a clear black stroke, called the lubber-line, which the skipper observes in his requirements; that is, he must always keep the point of the card, which indicates his course, coinciding with the lubber-line. The compass here described is called the steering compass. Several other sorts are used for different purposes, but the principle on which they are constructed is the same. Some land compasses are of the size of a watch-seal, and actually fixed in such seals; others of the size and external form of a pocket watch. Sometimes a little sundial is affixed to compass-boxes. The box, of whatever material it is made, must have no particle of iron in its construction. See Magnetic Needle.

COMPASSES, or PAIR OF COMPASSES; a mathematical instrument, used for the describing of circles, measuring lines, &c. The common compasses consist of two branches or legs of iron, brass, or other metal, pointed at bottom, and joined by a rivet, whereon they move as on a centre. We have compasses of various kinds, and contrivances accommodated to the various uses for which they are intended.

COMPIEGNE; a French town, in the department de l'Oise, 157 leagues N. E. of Paris. It has gold and silver mines, remarkable streets, and some manufactures and commerce. Formerly, it was supported only by the court, which occasionally resided here. It has two fairs, one in April, and one in November. Charles VI. took this town from the duke of Burgundy in 1415. In 1430, Joan of Arc was taken prisoner here by the English.

COMPLEXION. The human skin, till the time of Malpighi, was supposed to consist only of two parts—the cuticle, epidermis or scar-flesh, and the cutis or real skin; but that anatomist, about the middle of the seventeenth century, discovered between these a cellular texture, soft and gelatinous, to which the names of rete muscosum and corpus reticulare have been given. He demonstrated the existence of this membrane, at first in the tongue, and in the inner parts of the hands and feet; but, by his subsequent labours, and also by those of Ruyssch and other anatomists, it has been proved to exist, between the epidermis and cutis, in all parts of the human body. Malpighi, on the discovery of this membrane, offered a conjecture respecting the cause of the colour of negroes. He supposed that this membrane contained a juice or fluid of a black colour, from which their blackness is derived. This theory has received a signal support from the discovery of a hair pigment has been since ascertained, but has never been procured in sufficient quantity to admit of minute and analytical examination. The rete muscosum is of very different colours in different nations; and the difference of its colour so completely agrees with the difference of their complexions, that there can be no doubt that it is the sole, or, at least, the principal, seat of the colour of the human complexion. Its thickness, likewise, in different parts of the body, is in proportion to its thickness. The black colour of the negroes is destroyed by several causes; indeed, whatever destroys the rete muscosum destroys it, as wounds, burns, &c.; and, as this membrane is never reproduced, the skin remains without its covering, and the whole appears without its pigment. Travels into the Interior of Africa, p. 120) mentions that the land-cloud of Africa, called, by the Portuguese, ferra, changes the black colour of the negroes into a dusky grey; according to some other authors, the change is into a red copper colour. At Darfur a species of leprosy prevails among the natives, which they call borsas, and which gives them the appearance of being piebald, changing to a white colour parts both of their skin and their hair. There are, also, several instances of the colour of negroes being either entirely or partially changed, from the hopelessness of their condition. One of these cases was well explained. A boy, who was born in Virginia, of black parents, continued of his native colour till he was three years old: at that period, a change of colour began to take place, though the health of the boy continued good, and there was no assignable cause for the alteration, in his food or mode of life. At first, white specks made their appearance on his neck and breast, which soon increased in number and size; from the upper part of his neck down to his knees, he was completely dappled; his hair was also changed, but not to the same degree, since, though some parts of it were as white as the worst whitewash, in general it retained its black and crocus of the negro. The colour of those parts of his body which had undergone the change was of a more livid white than is found among the fairest Europeans; nor did the flesh and blood appear through these parts of his skin so clear and lively as through the skin of white people. He was not liable to be tanned.—Philosophical Transactions (vol. xix. p. 781). For the classification of the varieties of the human complexion, see the article Man; see also Facial Angle.

The nature and colour of the hair seem closely connected with the colour of the skin. The coarse, thick, and unkempt streets, and the thinness of the skin, and the fairness of the complexion, the hair is soft, fine, and of a white colour; this observation holds good, not only in the great varieties of the human race, but also in the Colours. Next to them, in fairness of complexion, is the Gothic race, the rutile come di whom were a distinguishing characteristic, even in the time of the Romans. The Celtic tribes are not so fair as the Gothic, and their hair is darker and more inclined to curl; so that the observation which Tacitus makes respecting the Silures still applies to them—Coloravt cultus, torti cornes. But, though the colour of the hair is evidently connected with the complexion, yet its tendency to curl does not appear to be so. The brown complexioned Celts have curled hair; the Mongolian and American varieties, of a much darker complexion, have hair of a darker colour, but long and straight. Among that portion of the Malay variety which inhabits the South sea islands, soft and curled hair is frequently met with. The colour of the eye is also connected with the complexion. In the Africans, professor Sommering remarks that the tenui adusta, or white of the eye, is not so bright and transparent. Ty was, or of a yellowish-brown, something similar to what occurs in the jaundice. "The iris, in the negroes, in general, is of a very
COMPLEXION

dark colour; but, according to Pigafetta, the iris in the Congo negro is frequently of a bluish tinge; and it is believed that the complexions of the black are in some measure affected by this. The complexions of these negroes have not the thick lips of the Nubians. The Gothic tribes are not more distinguished by their fair complexion than by their blue eyes (ocorvei ocult), while the iris of the darker colourd Finn, according to Linnaeus, is brown, and that of the still darker Laplander, blue. The colour of the eyes also follows, in a great degree, in its changes, the variations produced by age in the complexion. Blumenbach informs us that newly-born children, in Germany, have, generally, blue eyes and light hair, both of which become gradually of a darker hue, as the complexion of the individual grows darker; and Ligon, in his True and Exact History of Barbadoes (p. 52), says that the children of the negroes there, when they are born, "have the sight of their eyes of a bluish colour, not unlike the eyes of a young kitten; but, as they grow older, they become black." The most singular race of men, in point of complexion, are the Albinos. (See Albino.) A middle complexion is produced where children are born from parents of different races. If the offspring of the darkest African and the fairest European intermarry successively with Europeans, in the fourth generation, the complexion, if the circumstances are reversed, the result is reversed also. Along with the successive changes of complexion is also produced a change in the nature and colour of the hair; though, in some instances, the woolly hair remains when the complexion has become nearly so fair as that of brown people in Europe. It does not, however, always happen that the offspring is the intermediate colour between that of the respective races to which the father and mother belong; it sometimes resembles one parent only, while, perhaps, in the second or third generation, the colour of the other parent makes its appearance. White, On the Regular Gradation of Man, mentions a negro who had twins by an Englishman: one was perfectly black; its hair was short, woolly, and curled: the other was white, with hair resembling that of an European. And Parsons, in the Philosophical Transactions, gives an account of a black man who married an English woman; the child, the offspring of this marriage, was quite black. The same author gives another instance, still more remarkable: a black, in Gray's Inn, married a white woman, who bore him a daughter, resembling the mother in features, and as fair in all respects, except that the right and left eyes were black as the father's. (Philosophical Transactions (vol. i., p. 45).

The generally-received opinion, concerning the varieties of complexion, which are found in the different races of man throughout the globe, is, that they are caused entirely by the influence of climate. Respecting the primary colour of man, the supporters of this opinion are not agreed. The opinion that climate alone will account for the various complexion of mankind is very plausible, and supported by the well-known facts, that in Europe the complexion grows darker as the climate becomes warmer; that the complexion of the French is darker than that of the Germans, while the natives of the south of France and Germany are darker than those of the north; that the Italians and Spaniards are darker than the French, and the natives of the south of Italy and Spain darker than those in the north. The complexion they become paler, when the climate of the east Indies, is brought forward in support of this opinion; and from these, and similar facts, the broad and general conclusion is drawn, that the complexion varies in darkness as the heat of the climate increases; and that, therefore, climate alone has produced this variety. But it can be shown that the exceptions to this general rule are very numerous; that the dark-complexioned and the fair-complexioned are found in the coldest climates, people of fair complexion in warm climates, people of the same complexion throughout a great diversity of climate, and races differing materially in complexion among the same people.

1. In the coldest climates of Europe, Asia, and America, we find races of a very dark complexion. The Laplanders have short, black, coarse hair; their skins are swarthy, and the irides of their eyes are black. According to Crantz, the Greenlanders have small, black eyes; their body is dark-grey all over; their hair brown or olive, and their hair coal black.—Cranz's History of Greenland (i., 132.)

The complexion of the Samoines, and the other tribes who inhabit the north of Asia, and of the Esquimaux, is very similar to that of the Laplanders and Greenlanders. Humboldt's observations on the South American Indians illustrate and confirm the same fact. If climate rendered the complexion of such of these Indians as live under the torrid zone, in the warm and sheltered valleys, of a dark hue, it ought, also, to render, or preserve fair, the complexion of such as inhabit the mountainous part of that country, certainly. In the coldest point of climate, there must be as much difference between the heat of the valleys and of the mountains in South America as there is between the temperature of southern and northern Europe; and yet this author expressly assures us, "that the Indians of the torrid zone, who inhabit the most elevated plains of the Cordillera of the Andes, and those who, under the forty-fifth degree of south latitude, live by fishing among the islands of the archipelago of Chonos, have as coppery a complexion as those who, under a burning climate, cultivate bananas in the narrowest and deepest valleys of the equinoctial region.—Political Essay on the Kingdom of New Spain (i. 14, &c.).—He adds, indeed, that the Indians of the mountains are clothed, but he never could observe that those parts which were covered were less dark than those which were exposed to the air. The inhabitants, also, of Terra del Fuego, one of the coldest climates in the world, have dark complexions and hair.

2. Fair-complexioned races are found in hot climates. Ullon informs us that the heat of Guayquil is greater than at Carthagena; and, by experiment, he ascertained the heat of the latter place to be greater than the heat of the hottest day at Paris; and yet, in Guayquil, "the oldest negroes in the most heat of the climate, its natives are not tawny," indeed, they are "so fresh-coloured, and so finely-feathered, as justly to be styled the handsomest, both in the province ofquito, and even in all Peru."—Ullon (l., 171).—"In the forests of Guiana, especially near the sources of the Orinoco, are several tribes of a white complexion,—the Guincas, the Guanaribis, and Arigue,—of whom several robust individuals, exhibiting no symptom of the asthenic malady which characterizes Albinos, have the appearance of true Mestizos. Yet these tribes have never mingled with Europeans, and are surrounded with other tribes of a brown-black hue." The inhabitants of Boron, a tribe in the heart of Araucania, are white, and, in their features and complexion, very like Europeans. Even in Africa, darkness of complexion does not increase with the heat of the climate in all instances; this is the existing state of facts in the third quarter of the globe is noticed by Eli Haukul, an Arabian traveller of the tenth century, and has been confirmed by subsequent travellers.

3. The same complexion is found over immense tracts of country, comprehending all possible varie-
COMPLEXION.

ties of climate. The most striking and decisive instance of this is on the continent of America; all the inhabitants of which, with the exception of the Esquimaux, exhibit the copper-coloured skin, and the long and straight black hair. New Holland is an instance of a similar nature, though on a less extensive scale: over the whole of the island, even in the very cold climate of the southern parts, the complexion of its inhabitants is of a deep black, and their hair is curled like that of negroes.

4. Different complexions are found under the same physical latitude, and among the same people. Illustrations and proofs of this have already been given. The inhabitants of the countries in which the Norwegians, the Icelanders, the Finns, and the Laplanders live, scarcely differ; and yet their complexions, and the colour of their eyes and hair, are widely different. There is a great diversity of colour and features among the Morlachi, who inhabit Dalmatia. The inhabitants of Korat, and of the plains of Selgoi, and Kunie, have fair blue eyes, broad face, and flat nose. Those of Duare and Vergornaz, on the contrary, have dark-coloured hair; their face is long, their complexion tawny, and their stature tall.—Fortis's _Travels in Dalmatia_ (p. 51).—M. Sanchez, who travelled among the inhabitants of the remote and desolate regions of Russia, describes a nation, called the Kabendeskei, as having countenances as white and fresh as any in Europe, with large black eyes.—Smellie's _Philosophy of Natural History_ (ii., p. 167).—The inhabitants in the neighbourhood of the cape of Good Hope differ in their complexions much more than in the nature of the climate under which they respectively live. The Caffres are black; the Bushmanae of a bronze colour; and the Hottentots a light brown, or brownish-yellow. In the island of Madagascar there are three races, distinctly marked. The first are black, with frizzled hair, supposed to be the original inhabitants of the island. The second race inhabit the interior provinces: they are tawny, and have long hair, like the Malays. The third race reside near Fort Daupliris, and on the west coast; they are supposed to be descended from some shipwrecked Arabs, and retain a resemblance to that nation.—Somnerat's _Voyages to the East Indies and China_ (translated from the French, iii., p. 30).

People with the negro complexion and features are also found in the interior of the Philippine islands; and in Java, the Hindoo and Malay character may be clearly traced in the complexion and features of the two latter races, which are found in that island. In several of the Moluccas is a race of men who are blacker than the rest, with woolly hair, inhabiting the interior hilly parts of the country. The shores of these islands are peopled by another nation, whose individuals are swarthy, with curled long hair. In the interior hilly parts of Formosa, the inhabitants are brown, frizzle-haired, and broad-faced, while the Chinese occupy the shores.

Forster observes that there are two great varieties of people in the South seas; the one more fair, the other blacker, with their hair just beginning to be woolly and crisp. The first race inhabits Otaheite and the Society isles, the Marquessa, the Friendly isles, Easter island, and New Zealand; the second race peoples New Caledonia, Tanna, and the New Hebrides, especially Mallicolo. If we examine the relative situation and latitudes of these islands on a map, we shall be convinced, not only that darker complexioned people are found where the climate is comparatively colder, but that the same complexion is found under very different latitudes. It is not meant to be denied that a burning climate will render the complexion very dark, and that a climate of less extreme heat will bronze the complexion of the fairest European; but there are some material points, in which the dark complexion of the Caucasian, or naturally fair-skinned variety of mankind, caused by climate, differs from the dark complexion of all the other varieties of the human race.  

1. The offspring of the Caucasian variety is born fair; the offspring of the other varieties is born with the respective complexion of their parents, but the offspring of Caucasian parents may be fair, and Russell informs us that the children born in Guayquial of Spanish parents are very fair.—Ullon (i., 171).—The same is the case in the West Indies. Long, in his History of Jamaica, expressly affirms, "that the children born in England have not, in general, love-lier complexion than the offspring of white parents in Jamaica." But it may be urged, that this is not the case with respect to the other nations of the Caucasian variety, who have settled in warm climates from time immemorial, and that the question ought to be decided by the Moors, Arabsians, &c. Their children, however, are also born fair-complexioned, as fair as the children of Europeans, who live under a cold climate. Russell informs us that the inhabitants of the country round Aleppo are naturally of a fair complexion, and that women of condition, with proper care, preserve their fair complexion; whilst the children of the Moors, according to Shaw, have the finest complexions of any nation whatsoever; and the testimony of Poiret is directly to the same effect:—"The Moors are not naturally black, but are born fair, and when not exposed to the heat of the sun, remain fair during their lives."—Shaw (p. 394); and Poiret's _Voyage en Barbarie_ (i., 31).

2. Individuals belonging to the Caucasian variety, that inhabit warm countries, preserve their native fairness of complexion if they are not exposed to the influence of the climate; while there is a uniform black colour over all the parts of a negro's body. The hue which Europeans assume is the same, though the tinge may be lighter or darker, whether they settle in Africa, the East Indies, or South America. They do not become, like the natives of those countries, black, olive-coloured, or copper-coloured; their complexion merely resembles that of a tanned person in this country, only of a darker tinge. The negroes that are settled in the West Indies, or America, do not assume the copper colour of the Indians, even though a milder climate may have some effect on the darkness of their complexions. The children of Europeans, of negroes, and of Indians, are all born black. The negro children of a Dutch huse, but, in a few days, those of the negro begin to assume the black complexion of their parents, those of the Indian the copper complexion, while those of the European either continue fair, if kept from the influence of the sun, or become tanned; not black like the negro, or copper-coloured like the Indian, if exposed to its influence. Europeans who settle in Canada, or in the northern parts of America, where the climate resembles that of their native country, do not assume the complexion of the Indians, but continue fair like their ancestors. The same observation may be made respecting the Russians, who are settled among the Mongolian variety, in those parts of the Russian empire in Asia, the climate of which resembles the middle or northern parts of European Russia. Indeed, the wide extent of country over which the Mongolian variety is spread, including the extreme north of Asia, has caused the mild temperature of the middle parts of that continent, and the warmth of the southern parts of China, in itself, a proof that dark complexion does not arise either from the influence of heat or cold.

Lastly, radical varieties of complexion are always accompanied with radical varieties of features. We
do not find the olive colour of the Mongolian variety with the features of the Malay, nor the black skin of the Ethiopian variety, or the red colour of the American, united with any set of features but those which characterize their respective varieties. It, however, by no means follows that the hypothesis of different races having been originally formed, must be adopted, because climate is not adequate to the production of the radical variations of complexion which are found among mankind. Man, as well as animals, has a propensity to form natural varieties.

COMPLETENSIAN POLYGLOT—CONCEPTION.

Those bodies which occupy their former space, when the mass of which they are composed is destroyed.

COMPRESSIBILITY; instruments for compressing or condensing elastic fluids. Such, for instance, is an air-pump with cocks, by which the air can be condensed in tight vessels. For the compression of liquids (for instance, water), Abich has constructed a metallic cylinder of twenty inches five and ten-twelfth lines high, three and a half inches seven and a half lines in diameter, one inch, two and a half lines thick. This cylinder is filled with water, and an iron piston, covered with leather, and, exactly fitting the bore, is pressed into it. For this pressure, a screw was first used; but, in order to produce a better application of the power, a lever was afterwards employed to force down the piston. A mark on the piston shows, by its distance from a little ledge across the cylinder, how far the piston has been forced down, and, when the force subsides, how far it has been driven up. See Zimmermann on the Elasticity of Water, Leipsic, 1770. The latest experiments on the compressibility of water, we owe to Oersted (Annales de Chimie et de Physique) and Mr Perkins, so distinguished for his mechanical invention.

COMUS (from the Greek); the name of a merry company of young people, who came singing into a town, and took the houses of their friends and mistresses, to entertain them with their music. Comus was also the name of the songs sung at festive entertainments. This name is not given, by early ancient writers, whose works have been preserved, to a divinity presiding over such meetings, who is a creation of later times, which gave him the name of the festive songs in which were celebrated the praises of the giver of social Joys. He is first mentioned by Philostatus.

CONCAVE. See Convex.

CONCAVE LENS; an epithe for glasses ground hollow on the inside, so as to reflect on the hollow side.

CONCENTRATION (in Chemistry); the act of increasing the strength of fluids, by volatilizing part of their water.

CONCENTRIC; an epithe for figures having one common centre.

CONCEPTION, IMMATURE. The belief is entertained by a Roman Catholic church, that the virgin Mary was born without the stain of original sin. St Bernard, in the twelfth century, rejected this doctrine, in opposition to the canons of Lyons, and it afterwards became a subject of vehement controversy between the Scotists and the Thomists. The Dominicans denied the assumption of St Thomas, the Franciscans that of Scorton. Sixtus IV., himself a Franciscan, allowed toleration on this point. In the fifth session of the council of Trent, it was resolved, that the doctrine of the conception of all men in original sin was not intended to include the Virgin. The controversy was revived in the university of Paris towards the close of the sixteenth century. During the times of Paul V. and Gregory XV., such was the dissension in Spain, that both Philip and his successor sent special embassies to Rome, in the vain hope that this contest might be terminated by a bull. The dispute continued to be so high in Spain, that, in the military orders of St James, of the Sword, of Calatrava; and of Alcántara, the knights, on their admission, vowed to maintain the doctrine. In 1708, Clement XI. appointed a festival to be celebrated throughout the church in honour of the immaculate conception. Since that time it has been received in the Roman church as an opinion, but not as an article of faith. This belief is held by the Greek church also, which celebrates the feast under the title of the conception of St Anne. Petrus de Alva et Astorga pub-
lished more than forty volumes on this subject. He died in 1667.

CONCEPTION, LA, or PENCÓ: a city and seaport of Chile, on the coast of the South Pacific ocean, capital of a jurisdiction, formerly the capital of Chile; lon. 73° 3’ W.; lat. 36° 43’ 10” S.; population, 13,000. The bay of Conception is one of the most commodious harbours found in any part of the world. The city is of great extent, because the houses are built only one story high, that they may be the better able to resist the earthquakes that happen every year. It is the residence of the bishop, and of the major-general, who is at the head of the military department. Conception was founded in 1520 by Peter Valdivia, in 1530. In 1823 the Indians devastated a part of it.—There is not in the universe a soil more fertile than that of this part of Chile. Grain yields sixty for one; the vineyards are equally productive, and the plains are covered with immense flocks, which multiply astonishingly, though abandoned entirely to themselves. All the inhabitants have to do is to set up fences round their respective possessions, and to leave the oxen, horses, mules, and sheep in the enclosures. The common price of a fat ox is eight dollars; that of a sheep three-fourths of a dollar; but there are few purchasers, and the natives are accustomed, every year, to kill a great number of oxen, of which the hides and tallow are alone preserved, and sent to Lima. There is no particular disease incident to this country. There are at Conception several persons who have completed a century.

CONCERT: a musical performance, in which any number of practical musicians, either vocal or instrumental, or both, unite in the exercise of their respective talents. The concerts of the ancient Greeks were executed only in the unison or octave.

CONCERTO; a kind of musical composition, which is an imitation of the solo song with accompaniments—in short, an imitation of the arie. In the concerto, one chief instrument is distinguished, and leads the rest. In the case of such concerts, the performance is called after this instrument, or it is called, in general, concerto di camera. The term double concerto is used if there are two chief instruments.

Concerto grosso is an expression applied to the great or grand chorus of the concert, or to those places of the concert in which the ripienos and every auxiliary instrument are brought into action, for the sake of contrast and to increase the effect.

Concerto spirituale was a concert at Paris, performed every Thursday, with sacred music and a closed. The pieces performed, however, were not always of a spiritual kind. It was introduced in 1725, by Anne Dauic, called Philidor.

CONCETTI; sparkling but strained sentences, far-fetched plays on words, &c., which have become famous, in particular since the use of them by the Italian poet Marino. The taste for them is a disease which has manifested itself in the development of almost all literatures. The Spaniards and British suffered from it for a long time. Marino, who introduced them into Italy, caught this poetical infection in France, where a poet called the wind the corrier of Eolus, the sun the prince of tapers. Germany has had its Lohenstein; and, even now, there, is, in every country, writers afflicted with this passion for a false brilliancy.

CONCHYLIOLOGY (derived from siphyn, a shellfish, and siphon, word, more correctly, Conchylologia; derived from siphyn, all some of shell-fish, and siphon), is that branch of natural history which describes those animals which produce shells, and teaches the art of arranging the shells themselves.

The beginnings of this science are to be found in the writings of Aristotle, who established some of those divisions which are in use among modern authors. He divided shells into monostra and diastria; that is, univalves and bivalves. The monstra were turbinate, or not turbinate; they were terrestrial or aquatic; both were marine or fluvial, fixed or free. To the facts recorded by Aristotle, other ancient authors have added little; to his distinction, nothing. The first modern author who attempted a systematic arrangement of shells, seems to have been Daniel Major, who, in 1765, published Synoptical Tables, containing a few Genera, naturally arranged, and established upon the species described by Fabricius and Breyn. He was followed by the works of Lohenstein and multiiales, placing the bivalves among the latter. In 1814, Grew, in his Museum Regium, added a division analogous to our bivalves, and indicated most of the subdivisions that have since obtained. About 1857, the celebrated Lüster published his Historia sive Synopsis Methodicus Conchylorum, Libri quatuor. This work contains a great number of accurate figures of shells, pays great attention to the hinge of bivalves, and considers them as equivalent or not. Tournefort, who died in 1708, seems to have first suggested, in bivalves, the distinction of chesa or dithyra, and his works laid the foundation to the conchyliological catalogue many shells from the Indian seas, and indicated some good generic divisions. In 1750, Breyer pointed out a character in univalves, until then not noticed; namely, that some of them possess more than one compartment or chamber. This character divides the univalves into monostrala and polythalamia. After 1750, no improvements of much value were made in the science, until 1757, in which year the publication of Adan- son's Voyage to Senegal took place, and probably suggested many considerations, that became fixed principles of conchylology by the adoption of Lin- neus. In studying the univalves (limaques), Adanson considered the spire, the apex, the aperture, the oper- culum, the mure, the peristome; in the bivalves (conques), the valves, whether equal or unequal, whether shutting close or gaping; the beaks (commate), whether prominent or not, and according to their relative position with respect to the middle of the valve; the hinge, according to the number of the teeth and cavities; the ligament, according to its shape and situation; the muscles, according to their figure, size, and number. In forming his conchylolo- gical arrangement, Adanson adopted an important general principle, that the shells had a spiral development before, namely, that the consideration of the animal is as necessary as that of the shell, in order to form a natural system of conchylology. He described and figured the different species of shell-fish that he found in Senegal, and thereby formed a store from which the most valuable materials have been drawn by later authors to enrich the science.

Contemporary with Adanson was the celebrated Linnaeus, whose genius has exercised such great in- fluence over the arrangements of the vegetable and animal kingdoms. The ninth edition of the Systema Na- tura of Linnaeus was published in 1746, eleven years before the appearance of Adanson's work, forming only an octavo volume of 236 pages, in which Lin- neus does not appear to have used the term multi- scopic, the animals now thus designated being distrib-
CONCHOLOGY.

375
don had swelled to 1327 pages. This edition was published twenty years after Adanson's work, the perusal of which had probably awakened the views of Linnaeus. Linnaeus divides his sixth class of animals into five orders, in the second of which are eight genera of true mollusca, viz., ascidia, limax, aplysia, doris, tethys, sepia, cito, and segulaea. The third order is almost entirely devoted to testaceae.* It divided into 1. multivalves, the shell having more than two pieces; 2. bivalves, having two pieces; 3. univalves, having one piece. The first division contains three genera, chiton, lepas, and pholas. The second contains fourteen genera; mya, solen, tellina, cardium, mastra, donax, venus, spondylus, chama, area, ostrea, anamia, mytilus, and pinna. The third division, separated into two sections, according as the spire is regular or not, contains nineteen genera—argonauta, nautilus, conus, cypraea, bulha, volute, buccinum,strombus, murex, trochus, turbo, helix, nerita, haliotis, patella, dentarium, serpula, te- rodo, and sulella. In giving the characters of his genera, with respect to the animals, Linnaeus is always satisfied with citing the name of a naked molluscus described in the preceding order, which he supposes to be analogous to the animal of the genus under consideration; therefore it is probable that the influence exerted by Adanson's work over the latter editions of the Systema Naturae extended only to increasing the number of genera, and causing them to be more rigorously marked out and described. Some of the approximations of the Linnean system are unnatural and inconvenient, and some genera, nearly related, are too far separated in the arrangement; but its nomenclature, and the clearness and precision of its technical terms, gave it a predominance that it has maintained almost to the present day. A detailed explanation of the conchological system of Linneus may be found in a dissertation by I. Murray, published in the eighth volume of the Academical Amenities.

The Neues systematisches Conchylien Kabinett—a great work commenced by Martini in 1769, continued by Chemnitz, and finished by Schroeter in 1793—may be considered rather as a magnificent collection of figures of shells, well drawn and coloured, than as a system of conchology. As its figures are constantly referred to by the modern authors, it will be found very useful to students in identifying species and arranging their cabinets. The whole work consists of 12 volumes 4to. In 1776, Da Costa published his Elements of Conchology, in which more attention was paid to the characters of the characters of the aperture in univalves, and to the hinge in bivalves, than had been done by his predecessors; and the science is indebted to him for some valuable hints on the delicacy of some of the terms employed by Linneus to designate particular parts of bivalve shells. In 1766, Fal- las had published his Miscellanea Zoologica, the prin- ciples of which, perhaps, entitle him to be considered as the founder of that new school which the French conchologists have since so successfully supported. He indicated the imprropriety of separating the testaceae from the naked mollusca, in the arrangement of Linneus, and showed that a natural method could only arise from the consideration, not of the shells, but of the generic differences of the animals inhabiting them.

Notwithstanding the light struck out by Pallas, Bruguiere, one of the modern authors to whom the science is most indebted, in 1792, still followed so closely the Linnean arrangement as to admit the di- vision of the mollusca into two orders. His order testacea is nearly the same as that of Linneus, excepting that he has considered them somewhat more numerous and better defined. This order contains three divisions, according to the number of the valves. He divides the genus lepas of Lin- neus into balanus and anatifia, dropping the term lepas altogether, which has been followed by Lamarck. This is so ungracious a proceeding, that we would recommend to American conchologists always to use the term lepas instead of anatifia. Besides the two genera above-mentioned, he places among the bivalves, chiton, teredo, fustulana, pholas, anamia, and oriana. Among the univalves, his new genera are, placuna, perna, trigonia, unio, tridacna, cardita, and terebratu- la. Among his univalves are the following new genera: faunella, siliquaria, aspergilum, ovula, oliva, purpura, casis, terera, fusus, oerithia, bulinum, periclimena, natica, canarium, ammonites, and orthocera. In 1791 appeared the first volume of Testacea utri- usque Sicilie, corumque Historia et Anatomie—a splendid work, by Pali, an Italian physician, who first attempted to establish the genera of mollusca from the consideration of the animal only, without reference to the shell. This work may be considered as forming a revolution in the science, and as laying the foundation of the classification of the mollusca and of the bivalves has become more much conformable to nature. The subjects figured in the superb plates of this work had been previously modelled in wax by the scholars of the author. In 1798, G. Cuvi- er proposed a new classification of mollusca animals. (Tableau élémentaire de l'Histoire naturelle des Ani- maux.) In this, he acknowledged himself indebted to the critical observations of Pallas, and carried nearer to perfection the inventions of Poli. In this arrange- ment, also, may be found the improvements success- sively introduced by Bruguiere into the distinction of the genera, which Lamarck was then increasing every year, in his course at the.jardin du roi.

Lamarck did not begin to publish the results of his labours, until 1798, when a memoir on the divi- sion of the genus sepia into three genera sepia, laogo and octopus, appeared in the Journ. d'Hist. Nat., t. 1. Early in 1798, Lamarck published his Procrustes of a new classification of shells, laying down, more precisely, the generic characters, and establishing many new genera, and still continuing the old divi- sion into univalves, bivalves, and multivalves. Up to this time, Lamarck does not seem to have profited much by the labours of his predecessors, in the establishment of a natural conchological method, but acknowledges that he has adopted the principles and views of Bruguiere. Late in 1799, Cuver pub- lished a table of the divisions of the class of mollusca, at the end of the first volume of his Lessons of Com- parative Anatomy. We see, in this, that Cuver had derived light from the Procrustes of Lamarck. In- deed, these two great naturalists, by their successive works, seem to have afforded light alternately to each other for a number of years. In 1801, Lamarck published his Animaux sans Vertébres, in which, not confusing himself entirely to the shells, he has, like Cuver, paid attention also to the animals. From this period until 1822, when he finished publishing the second edition of Animaux sans Vertébres, under the title of Histoire naturelle des Animaux sans Vertébres, many authors,* both continental and British, had pub-

* As Linnaeus has said so little about the animals, if we translate testacea by the term shells, perhaps the error will be scarcely appreciable.

* De Ferussac, Draparnaud, Denys, de Montfort, de Ro- isay, Rose, Pétrot, Lessertre, De Blainville, Dumeril, Cha- missu, Kuhl, Von Moli, Von Fichet, Megerie, Oken, Rafnes- que, Desmarest, Sayning, Leach, Olfers, Sowerby, Schwar- ger, Swainson, Rauzauel, Say.
CONCHOLOGY.

lished memoirs and treatises on conchology, and many interesting facts have been collected, shedding much additional light on the science. Part of the 5th and the whole of the 6th and 7th volumes of the Histoire naturelle des Animaux sans Vertebres, are devoted to the conchyliphorous animals, the proper subjects of conchology. In this excellent work, Lamarck has limned upon the views of his friend Bruguière in the following particulars:—not confining himself to the consideration of the shell; viewing the shell as forming part of an animal; introducing into conchology a great number of new generic groups; using a very rigorous and exact terminology; and treating as well the principal families among the mollusks, valves, the number of the muscular impressions. He has also abandoned the divisions, multivalves, bivalves, and univalves, which had been followed by most of the preceding conchologists, and has increased the number of genera to 201, to which we have added 20, marked by an *, and given brief generic characters of the whole. The specific descriptions of Lamarck, although short, are admirable for their precision, and the skill displayed in them in distinguishing clearly minute specific differences. The study of them will be found, by young naturalists, very agreeable and instructive.

In 1812, H. M. Ducrotay de Blainville read, before the philanthemus society, a memoir, pointing out a necessary relation subsisting between the shell and the respiratory organs, and drawing therefrom a new principle of arrangement, depending on the existence or non-existence of a symmetry or regularity of form in those organs, and the protecting body, the shell.

In 1825, De Blainville published his Manuel de Malacologie et de Conchyliologie—a very valuable work, to which we are indebted for most of the historical facts recorded in this article. The first chapter of the second section of this work, consisting of eighty pages, treats of shells, or the principles of conchology, and recommends itself strongly to students by the fulness, accuracy, and clearness of its definitions, and the consistency of its general views.

In modern times, the study of the mollusca and their conchology has become very important from geological considerations. As particular genera are known to belong to particular strata of the earth's crust, and as the positions assumed by the living animals are known, the ascertained position of the fossils determines, with sufficient certainty, whether the stratum has undergone removal, disruption, or subversion since the time when the animal lived. The considerations are presented to the inquiring mind by some of the gener of microscopic shells; and the magnitude of the results produced by their infinite multiplicity causes their importance in the economy of nature to be felt with astonishment and admiration. Take, for instance, the millioliæ, thus commented on by Lamarck: "The millioliæ is a shell of most singular form, and perhaps one of the most interesting to study, on account of its multiplicity, in nature, and the influence which it has upon the condition and size of the masses at the surface of the earth, or which compose its external crust. It is one of those numerous examples which prove, that, in producing living bodies, what nature seems to lose in size, she fully regains in the number of individuals, which she multiplies to infinity, and with a readiness almost miraculous. The bodies of these minute animals exert more influence on the condition of the masses composing the earth's surface, than those of the largest animals, such as elephants, hippopotami, whales, &c., which, although constituting much larger individual masses, are infinitely less multiplied in nature. In the environs of Paris, some species of millioliæ are so numerous, that they form almost the principal part of the stony masses of certain ranges." The naturalists of America have also contributed much valuable matter to the science in question, and some new genera and many new species have been added by their labours. Among the scientific gentlemen in America who have written on this subject, are Thomas Say, of Philadelphia, the late D. H. Barnes, of New York, doctor Hildreth, doctor Jacob Green, and Isaac Lea, of Philadelphia. In Britain, Drs Leach, Turton, and Fleming, Messrs Sowerby and Swainson, General Bingham and Captain Brown, have added many new genera and species of existing shells; and Sowerby's work on fossil shells will be a lasting memorial of his skill and research.

Synopsis Table of the generic characters of Lamarck’s Conchological System; arranged according to the descending scale; with some additional genera.

CLASS I.—MOLLUSCA UNIVALVES.

ORDER I.—HYPERPoda.

Having a head; two eyes; no arms; body free; swims horizontally; destitute of a foot; fins, but irregular.

Phlegas, Placostraca, destitute of shells.

Corunmius, Cybamus, pl. 17, fig. 1. Conical, compressed, univalve, convoluted; some are keeled; aperture oblong.

ORDER II.—CEPHALOPODA.

Division I.—CEPHALOPODA SEPARIAS.

Family I.—AMMONIDAE.

Mantle bag-shaped; head protruding from the bag, with articulate arms, having suckers around the mouth; two eyes; mouth with horny mandibles.

The genera are Sepia, Loligo, Loligoidea, and Octopus, all destitute of shells.

Division II.—CEPHALOPODA MONOTHALAMA.

Argonauta, Argus, pl. 17, fig. 2. Univalve, involute; keel double, the inner one being detached.

Division III.—CEPHALOPODA POLYTHALAMA.

Family I.—AMMONECIDE.

Baculites, Turritelles, Ammonoceras, Orbitelles, and Ammonites, are fossil.

Family II.—NAUTILACE.

Nautilus pompilius, pl. 17, fig. 3. Multiloculae, volutions concealed; septa perforating the disk.

Naumithites, Pteroscelis, Polytonella, Siderolites, and Discorbis, are fossil.

Family III.—RADIOLACE.

Placentula, Lenticula, and Rotula, fossil.

Family IV.—SPHERULACE.

Melonis, fossil.

Micromelus, cellae transversa, surrounding the axis, aperture at base of last volution.

Family V.—CEPHALACE.

Oriculina, Cylindrites, and Remnantes, principally fossil.

Family VI.—LITUDIO.

Littorina and Spirula, fossil.

Family VII.—ORTHOCERAT.

Comitites and Hippurites, fossil.

Nodosaria radicula, pl. 17, f. 5, straight, or slightly bent, rotones; septa perforated.

Orthoceras rapana, straight, or slightly bent; grooved longitudinally; coils divided by septa, perforated by a tube.

Bolaster, fossil.

ORDER III.—TRECHELIPODA.

Section I.—Zoopagides Trenchelipoda.

Body of animal spirally convolute posteriorly, septated from the foot; shell spiral, enveloping the animal. This order is divided into three classes.

Family I.—INVLUTA.

Comus betulatus, pl. 17, f. 6. Turbonite, convolute, aperture longitudinally, effuse.

Olivia strigosula, pl. 17, f. 7. Subhyalinides, spire short, with channelled nature; columella obliquely plaited.

Anodiscus grahami, pl. 17, f. 8. Subhyalinides, spire short; aperture hardly emarginate at the base; columella, with a white vicle on the last sound; the mass of the shell composed of small, tabulaté, subulaté, and oblong, margins involute; aperture deeply emarginate on each side, pl. 17, f. 9, spire nearly imperceptible.

Cyprea tenuis, pl. 17, f. 11. Torpid, margins convolute, the left one toothed; aperture longitudinal, extremities effuse.


**CONCHOLOGY.**

**FAMILY II.—COLUMELLIARIA.**


**FAMILY III.—PURPURIPERA.**

_Terebra oitata_, pl. 17, f. 17. Elongated; aperture turreted; acuminate; aperture short; base of columella contorted. _Eburna spirata_, pl. 17, f. 18. Lengthened, aperture longitudinally emarginated; columella with an umbilicus above, and a canal beneath. _Buccinum lineolatum_, pl. 17, f. 19. Oval, aperture longitudinally margined by a row of coarse teeth. _Dolium testaceum_, pl. 17, f. 20. Ventriose, transversely ribbed; outer lip created; aperture longitudinal, base emarginate. _Harpa nobilia_, pl. 17, f. 21. Oval, turrid, with compressed longitudinal ribe; spire short, aperture longitudinal, emarginated; columella smooth, depressed. _Concholepas Perucatus_, pl. 17, f. 22. Oval, ventricose sub-spiral; apex inclined towards the outer lip; aperture expansive, with a notch at base of outer lip.—_Monocreta globulosa_, pl. 17, f. 23. Oval, aperture longitudinal; outer lip with a conical tooth at its base. _Turbonilla bimaculata_, pl. 17, f. 24. Oval, aperture dilated, base emarginate, with a subuinus; columella depressed, acute beneath. _Buccinula acrovoeides_, pl. 17, f. 25. Tubercular; aperture longitudinal; canal short, recurvate, with an oblique notch; columella with a seam of usual teeth. _Canis areolus_, pl. 17, f. 26. Bulging; aperture longitudinal, compressed with a short, abruptly reflected canal; columella transverse; outer lip from base. _Consideria echinophora_, pl. 17, f. 27. Oblong; aperture longitudinal, compressed with an ascending canal; outer lip folded back, inner lip covering the columella.

**FAMILY IV.—ALATA.**

_Stormbus succintus_, pl. 17, f. 29. Ventriose, with a short rounded buch carinated, crested above, a sinus beneath, separated from the canal. _Perccura millepeda_, pl. 17, f. 28. Oval; canal long, usually pointed, ar outer lip with a sinus near the base; spire short, resting on the lip. _Hostilarius colombina_, pl. 17, f. 29. Fusiform, with a beak-shaped carina, and a sinus near its outer lip, dilated, sometimes dentated.

**FAMILY V.—CAMALIPA.**

_Triton scorbycalis_, pl. 17, f. 31. Oblong; a canal at the base; varices alternate or solitary; aperture oblong. _Jurac acanthophorus_, pl. 17, f. 32. Oblong, with a canal; varices spinous and rough; aperture sub-oval. _Ranella granulata_, pl. 17, f. 33. Oblong, with a canal; varices spiral.—_Ampullaria ovata_, pl. 17, f. 33. Roundish, base transverse. _Strathboida nodulosa_, pl. 17, f. 34. Oval, spire long; aperture sinusous and oval; canal short, straight; leaf margin cauliis, spreading. _Psylla reticulata_, pl. 17, f. 25. Somewhat pear-shaped; canalis smooth; aperture transversely ribbed. _Fusus longicostata_, pl. 17, f. 35. Fusiform, having a canal; ventriose; spire lengthened. _Turbinella univittata_, pl. 17, f. 27. Sub-fusiform, canalicolated, with two or three oblique folds. _Turbinella marginata_, pl. 17, f. 30. Transversely ribbed, sub-canaliculated; columella plicated transversely, lip furrowed internally. _Turbinella calyculata_, pl. 17, f. 28. Sub-fusciform, canaliculated; columella, with from 2 to 3 transverse transversus points. _Flustrellus Babylonia_, pl. 17, f. 40. Fusiform, with a longish straight canal; outer lip with a flaire near its junction with the body. _Cerithium albus_, pl. 17, f. 41. Turreted; body small, a short canal, and long spire; upper lip with a furrow at its toe.

**SECTION II.—PHYTOPHAGA.**

**FAMILY I.—TURBINACEA.**

_Turritella duplicata_, pl. 17, f. 42. Turreted, aperture round, margin detached above; lip with a sinus. _Phasianella varia_, pl. 17, f. 43. Conical, aperture entire, oval, with margin disunited; lip acute, not reflected. _Terebra marginata_, pl. 17, f. 44. Conically-ovate; aperture ovate; columella depressed and truncated, separated from the lip by a line of distention. _Turbo margaroides_, pl. 17, f. 45. Sub-turritullated; aperture round, disunited above; columella arched and depressed. _Murchisonius albidus_, pl. 17, f. 66. Sub-turritellated, aperture round, disunited above; columella arched, base truncated. _Tylostephus papillatus_, pl. 17, f. 47. Conical, spire usually pro-duced; outer lip acute, with a rounded point on its inner lip; base -like, arch, base somewhat oblique. _Phasianellus orbicularis_, pl. 17, f. 46. Orbicular, destitute of epipleurals; spire sub-ovoid, very short; aperture roundish. _Sarcoloma variegatum_, pl. 17, f. 49. Orbicular, spire much depressed; lip a large, flared, a double series of white spots; aperture wide, quadrangular.
CONCHOLOGY.

SECTION I.—NO LIGAMENT

FAMILY I.—Brachiopoda.

Lingula anatina, pl. 18, fig. 1. Oblong; subequivalve, de
posed, summit truncated; base acute, with a peduncle; no teeth.

Terebratula vitrea, pl. 18, f. 3. Inequivalve, adhering by a peduncle; perforated at summit and having a projec-
ting hook: hinge with two teeth; disk of small valve with two
osseous processes.

Chiton Norwegica, pl. 18, f. 2. Inequivalve, roundish; no
hinge; lower valve flat, upper valve subconc.

Crania striata, pl. 18, f. 4. Roundish, inequivalve; lower
valve flat, with oblique holes; upper valve convex, with two
interlocking projections.

Discina oestrus, pl. 18, f. 5. Inequivalve, flattish, with
central disc; lower valve with a flange.


SECTION II.—LIGAMENT MARGINAL

FAMILY I.—Ostracacea.

Anomalina Ephyphina, pl. 18, f. 6. Inequivalve, lower valve
flat, performed, adhering by a testaceous plug; upper valve
convex.

Pleura tetra, pl. 18, f. 7. Depressed, irregular, nearly
equivalve; hinge with two divergent ribs, impressed into the
opposite valve.

Palosolium sputatiformis, pl. 18, f. 12. Inequivalve, beaks
unequal; teeth large, rugose; hinge with two strong recurved
tooth; ligament in an intervening hollow; ligam-
ent external.

Plecostola cristata, pl. 18, f. 13. Inequivalve, adherent; no
ears; base narrowed; upper margin platted; beaks unequal;
two teeth in each valve, with an intermediate hollow for the
ligament, which is external.

Pecten evoluta, pl. 18, f. 14. Free, equivalve, naked; no
beaks; ligament internal.

Plagiotoma semilunaria, pl. 18, f. 15. Slightly eared; base
transverse, parallel; no teeth; ligament partly internal, re-
ceptacle conical.

Lima fragilis, pl. 18, f. 16. Subequivalve; longitudinal;
ears; no teeth; beaks divergent; ligament external.

Pedum spongiosum, pl. 18, f. 17. Inequivalve, ears
minute, lower valve convex; no teeth; ligament partly exterior,
placed in the internal wall of the beaks, which are unequal;
lower valve notched.

SECTION III.—LIGAMENT ELONGATED AND MARGINAL

FAMILY I.—Ilyocypeidae.

Melogramma margaritifera, pl. 18, f. 18. Subequivalve; oval
extended, with a sinus in the bases; bayous; no teeth; ligament
nearly external.

Anomalina subequivalve, pl. 18, f. 19. Inequivalve; base parallel, ex-
tremities projecting; left valve notched; hinge with one tooth
in each valve, under the beaks; ligament external.

Mactra, pl. 18, f. 20. Subequivalve; distorted; base frequently subeled; beaks divergent; no teeth, a furrow
under the beaks.

Ferna inequivalve, pl. 18, f. 21. Subequivalve; depressed;
slightly distorted; teeth of hinge sulciform and parallel; a
muscle for the byssus.

Crenatula phyllopontina, pl. 18, f. 22. Subequivalve; de-
pressed; foliaceous; hinge lateral, created and hollow to re-
of the ligament.

FAMILY I.—Mytilacea.

Plana elegans, pl. 18, f. 23. Equivalve; wedge-shaped; beaks
straight; no teeth.

Mytilus edulis, pl. 18, f. 24. Longitudinal; equiva-
le; beaks pointed; adhered by a byssus; vessel any teeth; ligament
partly interior; muscular impression elongated.

Mollusca papillosa, pl. 18, f. 25. Subtransverse, equiva-
le; posterior side very short; no teeth.

FAMILY III.—Tridacnidae.

Hippopus manulatus, pl. 18, f. 26. Equivalve, inequivalve,
transverse; two separate compressed teeth.

Tridacna squamosa, pl. 18, f. 27. Equivalve, inequivalve,
transverse: at the hinge a subrounding opening.

ORDER II.—DIMYRIA.

Muscular impressions two, separate and lateral.

SECTION I.—Irregular and always inequivalve.

FAMILY I.—Camaacea.

Etheria eliptica, pl. 18, f. 28. Adherent; beaks short, in-
volved in the oesophagus; ventriculus short and depressed.

Chama arcuata, pl. 18, f. 29. Adherent; beaks bent, un-
equal; one valve with a thick tooth penetrating the opposite
valve.
NAYADES.  

**Family I—NAYADES.**

Inhabit fresh water.

**Diceras atrina**, pl. 18, f. 30. Aderent, inequivalve; beaks very large, conical, divergent, irregularly spiral; greater valves with a large thick tooth.

---

**SECTION II—LAMELLIPIDES.**

**Family I—NAYADES.**

**Diceras atrina**, pl. 18, f. 31. Equivalve, inequilateral, transverse; beaks small, nearly straight; hinge coagulated; tubercles; ligament exterior and internal.

**Diodora eugenia**, pl. 18, f. 32. Inequivalve, equilateral, transverse; hinge linear; no teeth.

**Unio erosis**, pl. 18, f. 34. Equivalve, transverse; two teeth in each valve, one short, divided; the other elongated, compressed.

**Family II—TRIGONACEA.**

**Causticia ambiguus**, pl. 18, f. 35. Equivalve, inequilateral, beaks posteriorly recurved; two lamellar teeth; posterior re-  

**Trigonia strahlii**, pl. 18, f. 36. Equivalve, inequilateral, trigonal, or orbicular; primary teeth oblong, divergent, and flattened on the sides; two in the right valve and a groove on one side; ligament external.

**Family III—ARCACIA.**

**Nucula tenax**, pl. 18, f. 37. Equivalve, inequilateral, trigonal, or orbicular; primary teeth oblong, divergent, and flattened on the sides; one in the right valve and a groove on one side; ligament external.

**Fucata Melita**, pl. 18, f. 41. Equivalve, ventricose, heart-shaped; beaks much apart, divergent, spirally twisted; primary teeth triangular or flat-sided, united under the ligament, which is exterior.

**Hastula acetabulosa**, pl. 18, f. 42. Equivalve, inequilateral transverse; upper margin produced; two teeth, and internal indistinct, fitting into cavities in the opposite valve.

**Gastropus Orissa**, pl. 18, f. 43. Equivalve, inequilateral, obliquely divided; 3 primary teeth; a lateral tooth under the beak.

**Gastropus transversa**, pl. 18, f. 44. Equivalve, inequilateral; 2 unequal teeth; one short and straight, the other oblique.

**Cardium elongatum**, pl. 18, f. 45. Equivalve, suborbicular; beaks produced; internal margins occluded; 4 teeth in each valve, two primary ones, approximate and oblique, lateral ones distant.

**Family V—CONCHACEA.**

**Frenicularia virlicosta**, pl. 18, f. 46. Equivalve, equilateral; suborbicular; generally lingually ribbed; 2 oblique primary teeth.

**Cymatium sulcatum**, pl. 18, f. 47. Equivalve, transverse; three teeth in each valve, two approximated; ligament subexternal.

**Pseudocostata sulcata**, pl. 18, f. 48. Equivalve, inequilateral; 3 primary teeth; teeth contiguous; ligament external.

**Ephyra argenticata**, pl. 18, f. 49. Equivalve, inequilateral, generally suborbicular; 4 primary teeth in the right valve, 3 of which are divergent; other valve with three diverging primary teeth.

**Exoleta lenta**, pl. 18, f. 50. Equivalve, orbicular, inequilateral; beaks much turned to one side; three primary teeth; two teeth produced, others lateral.

**Cymatium elongatum**, pl. 18, f. 51. Equivalve, inequilateral; obliquely coniform; beaks oblique; three primary teeth, unequally, approximate at their base, divergent above; one a remote lateral tooth.

**Lanista muratus**, pl. 18, f. 52. Equivalve, inequivalve;umbo prominent; hinge with two nearly obsolete primary teeth; lateral distinct tooth.

**Galaxea radiata**, pl. 18, f. 53. Equivalve, subtrigonal; two primary narrowed teeth in the right valve, three in the left; lateral teeth remote, ligament external.

**Cyrena funesta**, pl. 18, f. 54. Trigonal, ventricose, thick; three teeth in each valve; two lateral teeth contiguous to the primaries; ligament external.

**Cylus cornu**, pl. 18, f. 55. Equivalve, oval, gibbous; transverse; primary teeth, two in each valve, extremely small, one divergent; lateral tooth elongated, lamelliform; ligament external.

**Piarium obliquum**, pl. 18, f. 56. Equivalve, transverse; right valve with one, and the left valve with two small primary teeth behind and before two lamellar teeth, clutched in the right valve.

---

**SECTION III—TENUEPIDAE.**

**Family I—NYPHACEA.**

**Crasina sulcata**, pl. 18, f. 57. Equivalve, suborbicular, transverse; two primary teeth strongly oblong; left valve two unequal ones; ligament external.

**Egeria Brasiliensis**, pl. 18, f. 58. Equivalve, transverse; right valve two teeth, a bifid tooth in the left; ligament external.

**Donax denticulata**, pl. 18, f. 59. Equivalve, transverse, inequilateral; one or two primary teeth in each valve, and one of the two lateral ones; ligament exterior, suborbicular; two primary divergent teeth, one of them bifid; two lateral teeth; ligament external.

**Mytilus rotundata**, pl. 18, f. 61. Suborbicular, inequilateral; hinge with two primary teeth, united at their base and divergent; behind them a groove, and a broad crescentic callus, ligament external.

**Corbula lamellata**, pl. 18, f. 62. Equivalve, transverse; beak bent inwards; two primary teeth and two lateral ones; muscular impression simple.

**Corvicineus**, pl. 18, f. 63. Equivalve, transverse; valves subdepressed, two primary teeth in each, the larger ones cleft; both projecting lateral teeth, fitting into clefts in the opposite valve; muscular impressions very large.

**Tellina setosa**, pl. 18, f. 64. Inequilateral, transversa; depressed; two lateral teeth; one rarely obtuse; two useless teeth in each valve.

**Tellina punctata**, pl. 18, f. 65. Orbicular or transversa; unusually depressed; anterior side angular; margin flexuous; one or two primary teeth in the same valve; two lateral teeth.

**Pammelaea exinguis**, pl. 18, f. 66. Transverse, ovate-oblong; gaping slightly at the sides; one primary tooth in each valve, or two in one only; ligament external.

**Pamnion barnesi**, pl. 18, f. 67. Transverse ovate; upper margin produced; cleft with numerous small clefts in each valve.

**Family II—LITOPHAGA.**

**Penenepis testacea**, pl. 18, f. 69. Transverse inequilateral; posterior side slightly produced; 2 primary teeth in the right and three in the left valve; sometimes three in each; ligament external.

**Pectunculus distatus**, pl. 18, f. 70. Equivalve, inequilateral, sub-  

**Corbula sulcata**, pl. 18, f. 72. Equivalve, inequilateral; one primary anterior tooth, and two lateral teeth, one in a hollow pit at its side; no lateral teeth; ligament internal.

**Family IV—MACRACEA.**

**Amphidesma Linnaeus**, pl. 18, f. 74. Inequilateral, transverse; subovate; sometimes gaping at the sides; one or two teeth; ligament double.

**Pleuropoma Mediterraneum**, pl. 18, f. 75. Inequilateral, transverse; ends obtuse; one compressed primary oblique tooth in each valve; ligament subexternal.

**Tellinopsis suborbicularis**, pl. 18, f. 76. Inequilateral, suborbicular, or transverse; right valve with two recurved primary teeth; left natural.

**Univalve transversa**, pl. 18, f. 77. Nearly equalilateral, longitudinal or transversa; two primary teeth, one in the right valve; one in the left; primary tooth, and a divided groove; ligament internal.

**Eucania striata**, pl. 18, f. 78. Subimbricate, transversa; sometimes gaping; two divergent primary teeth, with an interposed hollow; two oblong lateral teeth; ligament internal.

**Crasina australis**, pl. 18, f. 79. Inequilateral; roundish; sometimes transverse; two primary teeth, sub-divergent, a hollow pit on their side; no lateral teeth; ligament internal.

**Ligia testacea**, pl. 18, f. 80. Inequilateral; two transverse teeth, with a central cavity for the reception of the ligament.

**Macractinia triangularis**, pl. 18, f. 81. Subimbricate, unequalateral, left valve with a strong triangular slightly bifid tooth; and on each side any pits for the reception of two depressed lateral teeth in the opposite valve, which have a pit interpenetrating ligament external.

**Mcraea Stellata**, pl. 18, f. 82. Subimbricate, subtransversa, suborbicular; sides slightly gaping; each valve with one primary conjoined tooth, and two secondary teeth; a heart-shaped cavity contiguous to the umbo; ligament internal.

**Ladarius compressus**, pl. 18, f. 83. Inequilateral, transverse-oblong, exteriorly angulate, transverse; ligament external, and an oblique deltoid transverse hollow; ligament internal.

---

**SECTION IV—CRASSIPEDAE.**

**Posterior margin gaping.**

**Family I—MYRIA.**

**Anacina convexa**, pl. 19, f. 2. Subimbricate, transverse, gaping at one or both sides; one horizontal spine shaped projecting tooth in each valve, on the terminal plate beneath; ligament internal.

**Mya arenaria**, pl. 19, f. 4. Equivalve, transverse; gaping at both ends; left valve with a vertical, projecting tooth; none in the other; ligament internal.

**Galeisimna**, pl. 19, f. 5. Equivalve, transverse; front margin with a gap; no teeth; ligament external.

**Mugilis striata**, pl. 19, f. 6. Equivalve, transversely ovate; gaping at one end; no teeth; hinge provided with a
CONCHOLOGY.

unconnected plate, attached to each valve by an internal cartile, in an oblique descending groove.

*Mylitta striata*, pl. 19, t. 7. Sub-parallelly-ridged, transverse valves, anterior, more or less subequal in size, some, at least, nearly circular, with a spathulate tongue at its termination; operculum conical, equal in size, a notch at the base, and a tongue at the end.

*Permitia triquetra*, pl. 19, f. 61. Tubular, cylindrical, posteriorly, narrowed, somewhat elongated, adier to marine bottom, the aperture circular, the valves truncated from one to three teeth.

*Sororius tubarius*, pl. 19, f. 42. Tubular, irregularly contorted, grouped or solitary, adier to aperture circular and terminal.

*Spirorbis spirillum*, pl. 19, f. 43. Tube spirally twisted into an orbicular shape, depressed, and adier to beneath.

FAMILY II.—AMPHITHECIA. Amphithes cirrhosus, pl. 19, f. 40. Tube cylindrical, tapering towards the base, membranous or coraceous.

*Spondylus* sp., pl. 19, f. 43. Tube cylindrical, elongat ed, attenuated, and adier to the base, the aperture of agglutinated grains of sand, or tentacular fragments.

Subellaria cristata*, pl. 19, f. 43. With numerous tubes, united in a common mass, of sandy or sandy fragments; orifices cup-shaped.

*Cymatia*, pl. 19, f. 47. Tubes in the form of a reverse cone, consisting of agglutinated grains of sand.

FAMILY III.—MALDANIA. Dentalium enterolit, pl. 19, f. 48. Tubular, tapering, regular, slightly crested; open at both extremities.

*Pholadopsis*, pl. 19, f. 40.0. Cylindrical, tapering slight ly, sub-crested; imperforate at the summit; rectum placed at the larger end; orbicular.

*Ceratium*, pl. 19, f. 20. Cylindrical, tapering, the smaller end spiral and closed, broad end with a circular aperture.

Clupea. Tube slender, open at both extremities, and incrusted externally with grains of sand and fragments of shells.

FAMILY IV.—DORSALE. Sigillaria angulata*, pl. 19, f. 51. Tube irregularly twisted, posteriorly tapering, sometimes spirally; open at the ante rior extremity, with a longitudinal cleft, extending along its whole length.

Arctica. Institute of shell.

EXPLANATION OF THE PARTS OF SHELLS.

OF THE OPERCULA OF UNIVALVE SHELLS. The opening, or aperture of many univalve shells, is covered, when the animal is withdrawn within, by an operculum or lid, intended for the protection of the inhabitant. This is attached to the foot of the animal, and is either a horny substance, or is testaceous, being as hard as the shell itself. This appendage will be familiar to all who have seen the common periwinkle which is aboundant on most rocky shores. Its texture is of a horny nature.

Operculum of Neritula Undulata, pl. 19, f. 52. Phasianella Bulinolida, 53. Trochus Pharrachia, 54. Melania Byromensis, 55. Spondylus Patella, 56. Patellina, 57. Patella patella, 58. Turbo Pica, 59. Turbo littoreus, 59. Murex Brandarius, 60. Bucinum undulatum, 61. Strombus Aura-Diane, 62. Turbo littoreus, 63. Animal of the Monodonta Pica. f. 64, t. 6, the testacala or shell valve, which is divided into the pedicles, with the exception of its tip; *dd*, the branchial or gills; *ee*, mantle; *ff*, the operculum; *hh*, the tail, or that extremity of the animal which occupies the position of the tip of the shell.


In this figure *t* is the tail, or that extremity of the animal which occupies the position of the tip of the shell, and the aperture, the tip of the vertex below the apex. Examples of the base in a depressed shell, pl. 19, f. 74, 4. The apex of the shell which the aperture is placed, pl. 19, f. 65—m, m.

The shell is in the place where the aperture is situated. Rock, the opposite of the front, opposed to that in which the aperture is situated.

Front, the most bulging part of the shell, front. pl. 19, f. 65—c.

Side, the extreme edges of the shell, pl. 19, f. 65—d.

Hinge is the opposite to that in which the aperture is situated.

Aperture opening or opening—r.

Head, the elongated process at the base of many genera of univalve shells, or gastropods, pl. 19, f. 75—r.

Canal, the inside of the peak, pl. 19, f. 65, h, 75—b.

Pillar or columella, is that process which runs through the spiral lines of the volutions, f.

Plated columella, is when there are folds at the base of the pillar, pl. 19, f. 75—b.

Pillar tip, a continuation of the enamel process which
CONCHOLOGY.

PARTS OF BIVALVES.

Equilateral Shells, are those whose sides are alike, that is, both equal in length and breadth. Inequilateral Shells, have unequal sides, and of different shapes, as in Donax Littoreus, &c., pi. 19, f. 77. Septa, are partitions which divide the chambers in multilocular shells, f. 68-c, c, &c. Transverse laminae, are those which cross the valves in some species of Murex, Triton, Buccinum, Cassis, &c., f. 68-aa. Ribs, longitudinal and transverse projections, f. 72-ae, an example of which is seen, f. 33. Teeth, some projecting lamina in the aperture of univalves as revealed in the aperture of Tellina, f. 76. Umbilicus, a perforation in the base of the shell, of Helicis, Trochis, &c., pi. 19, f. 78-ae.

PARTS OF BIVALVES.

Equatorial Plane, is the plane which the animal was affixed to the shell, pi. 19, f. 77-ee; fig. f. 70; d, f. 81-e. Lumen, the crescent-shaped depressions in the posterior and anterior slopes, pi. 19, f. 77-f. Hinges, part by which the shells are united. It is externally constructed of teeth; those of the one valve fitting into the socket in the other. Some shells have no teeth, but are mortised together. The hinge is exhibited in the latters called inarticulata; when they many teeth, they are called multituberal. The Hinge is that part which affords the most convenient generic distinction in bivalves. Teeth of the hinge. The number, relative situation, and construction of these, afford the best specific distinctions in bivalves. A spatuliform central tooth is exhibited, pi. 19, f. 78. Primary teeth, are those situated in the centre of the hinge. They are also termed the cardinal teeth, pi. 19, f. 77-a. Lateral teeth, are those divergent from the umbo; are usually long, flat, and frequently divided, or divided by a groove, pi. 19, f. 80-a. Double teeth. When teeth are very deep cleft they are termed incurved. Incurved teeth, are those which are bent round as in the Spiriferidae, Solen Silus, &c., pi. 19, f. 78-e. Recurved teeth, such teeth as bent backwards are so termed, as in the hinge of the Panopae Aldrovandi, pi. 19, f. 11-a.

Numerous teeth, are generally set in rows, either straight or curved as in Bedia, pi. 19, f. 26, 27. Cany of the hinge, is a pit or hollow in which the ligament is inserted in the Unio, &c., as may be seen in pi. 19, f. 50. In the Circumvaltus the cartilaginous substance by which the valves are held together, is situated under the hinge of the shell, as in Venera, pi. 19, f. 80-a. The cavity in which it is inserted, f. 83-a, f. 83-b.

Beak, the extreme point or summit of bivalves, which, when the shell is closed, extends above and projects above the greater part of the bivalve. Nautilus, a shell that satiated immediately under the beak, pi. 19, f. 84-a.

Ears or Auricles, are those processes, situated on one or both sides of the head, as in the scallops, pi. 19, b. Superior ear, 85-a.

Margin, the extreme edge of the entire shell.

Crescented margin. When the margin is notched as in the common edible cockle it is so termed, pi. 19, f. 80-c.

Striae, are fine thread-like lines, which traverse the exterior edge of the shell, as in the universal, pi. 19, f. 84.

Spines, are exterior acutely pointed, protrusions composed of shelly material, as in f. 9, f. 114, &c.

Right valve, may be distinguished by the anterior slope, pointing to the right hand, when the valve is viewed with the edge of the shell, as in the under valve, in many species, is flattened, as in the estree.

Left valve, may be distinguished by the posterior slope, or where the anterior slope points to the left hand, pi. 19, f. 46.

Length of the shell—always understood to be from that point on the hinge to which the ligament is attached, to the opposite extremity. Bivalve shells are classified longitudinally, when their greatest length is from the hinge to the ligament, when in case they are broader than 65, in 80 and 85, from c to b; and transversely, when their breadth exceeds their length, f. 77, from c to c, and fig. 79, to that at a.

Buccinum, or beard. An accessory filamentous appendage of a bony texture, with some shells, attached to rocks, stones, &c. as may be instanced in the common mussel.

Sides—the right and left parts of the valves; pi. 19, f. 77-c, c.

Ribs are longitudinal or transverse protuberances, generally running parallel to each other on the external surface of bivalves. Longitudinal ribs, pi. 19, f. 83-a. Transverse ribs, pi. 84.

Accessory valves are small, unattached valves in the genus Pholus, pi. 19, f. 86-d. Valves of Conchylea, are placed transversely along the back of the animal, usually eight in number, in pi. 19, f. 84-a, d, &c. Fig. 91, a central valve; 92, a terminating valve.

Peduncle in the forms which have a shell or flabby border which surrounds the valves, pi. 19, f. 90-b.

PARTS OF CIRRIPEDES. Multivalves.

Operculum—consists of from two to four small valves, placed in the opening of the shell of the Balanidae. Balanus, pi. 19, f. 87-d; e, f. 80-a. Base—the part by which the shells of the genus Balanus, &c. are attached to rocks, pi. 19, f. 87-e; f. 80-a.

Ridges—are convexities in the Balani, &c., sometimes longitudinal and transversely disposed.

Peduncle, or pedicle—a sort of stem, or hollow membraneous tube, on which the Balani are supported, as in the genus Fodora, or tentacula—are those arms by which the animals of the Balani and Anasul secure their food, pi. 19, f. 87-a.

CONCLAVE (a room); the place where the cardinals assemble for the election of the pope; also the electoral assembly of the cardinals themselves. Pope Gregory X., whose election had been delayed for three years, established, in the council at Lyons (1274), the regulations of the conclave. It was settled, that if the pope should die in a city where he had resided with his court, the cardinals present should not be obliged to remain longer than ten days for their absent brethren. After the lapse of ten days, all the cardinals present should assemble in the palace in which the pope had died. Here they were all to be shut up in one room (conclave), without partitions or curtains, which, with the exception of one outlet, were closely closed. No one was to enter the room, except by the pope, or the one who should speak with them, nor be admitted into their presence, except those who were called, with the consent of all the brethren, for the purpose of assisting, in some way, in the election. No one was to be permitted either to send in a messenger, or to write to the cardinals; but a window was to be left open in the room, through which the necessary food could be handed to them. If, in three days after entering the conclave, they had not chosen a pope, they were, on the five following days, to receive but one dish at noon and in the evening; and after this, nothing but bread, wine, and water, till the election should take place. These regulations of Gregory X. have been observed in their essential provisions in recent times, though not always in every particular. As most of the popes have died in Rome, the conclave has usually been held in the Vatican, in the galleries of the cardinals, as many of the cardinals who are there cardinals to be present. There the cardinals repair, two by two, the day after the funeral of the pope, or on the tenth day after his death, after having heard a mass, which is called Missa Spiritualis sancti, and remain till the election is finished. The conclave which chose pope Pius VII. was held
Venice by the assembled cardinals, as Pius VI. died far from Rome.

CONCLAVIST: the companion, either lay or clerical, whom the cardinal is allowed to take with him into the conclave (q. v.) during the election of a pope, or to send for if he should fall sick. The conclavists are, in this case, subject to the same laws as the cardinals; they are not permitted to leave the conclave except in a case of severe sickness; they partake at the same table with the cardinals, and have a cell of the same size. The place of conclavist is honorable, and very much sought for. The conclavist of the cardinal who is chosen pope seldom fails to make his fortune. As every cardinal generally becomes a member of the committee of regency, consisting of three cardinals, who are changed daily, each of the conclavists of the cardinals thus engaged has an opportunity to display his talents before the cardinal and his colleagues, as secretary of the committee.

CONCORD (also called accord, from the Italian accordare, and this from the Latin chorda); an expression used in music. It denotes an association of sounds, founded on the natural relations of simultaneous tones. Upon this association depends all harmony; in fact, every proper chord is of itself harmony; hence, e.g., the expression harmony of the dominant. In its proper acceptation, harmony is the result of connected tones in consecutive chords. With regard to their simultaneous expression, however, tones differ in their relations. Some, by the mere act of being sounded together, convey to the ear a sense of pleasure. They harmonize in themselves, and are therefore termed consonant chords, or concords. Take, for example, one tone as the fundamental tone; then, to form a concord, all the other tones must harmonize with it and with each other. The idea of a chord has no reference to the number of consonant tones of which it is formed. The most simple and least perfect concord is made by the combination of two tones, and is formed by connecting the interval of the third with the fundamental tone. The most perfect consonant chord is the harmonic triad, which is formed by the addition of another third, and constitutes the perfect fifth from the fundamental tone; it is usually termed the dominant. From the character of the first third, or mediant, these combinations are either major or minor; thus major C, E, G, or minor, C, E flattish, and G. The minor triad is so distinguished from the diminished triad, which, by some, is called the false or dissonant, and is formed by two minor thirds, or by the fundamental tone and the minor third and minor fifth; thus, C, E, flat, G, flat. There is also a redundant trichord, constituted by two major thirds. By the transposition of the tones composing these trichords into higher or lower octaves (changing the positions or inverting the intervals), all other consonant chords are formed. It is usual to fix the designation of chords by counting the intervals ascending. Thus arises, 1. the chord of the sixth (hexachord), in which the fundamental tone is placed an octave higher, so that the third becomes a fundamental tone; the fifth is then the third, and the transposed fundamental becomes the sixth; thus, E, G, C, designated by the figure 6. 2. The chord of the fourth and sixth, where the fundamental tone and its third are both placed in a higher octave, so that the fifth becomes the fundamental, the original fundamental is changed to the fourth, and the transposed third becomes the sixth. Hence the name, from the characteristic intervals and the notation thus.

The dissonant chords are first obtained by adding to the triad another third, which, consequently, stands in the relation of a seventh to the fundamental, and produces a quadrichord. The seventh is the dissonant interval, and to relieve the ear requires to be resolved. The chord of the seventh is formed of the fundamental, the third, the fifth, and the seventh. The first, and most usual, is constituted by the major triad with the minor seventh; thus C, E, G, B flat. It is called the principal, sometimes the essential chord of the seventh, and is simply designated thus, 7. It rests upon the dominant of that key in which it is formed; for the minor seventh resolves itself downwards, thus, 1, while the major dissonant ascends. Hence it may also be called the dominant chord of the seventh, or the chord of the dominant seventh. If we transpose the intervals of these chords, in the same manner as with the trichords, we form, 1. the chord of the fifth and sixth (denoted by 6), consisting of the minor third, the minor fifth and major sixth, thus,

\[ \begin{array}{c}
    G \\
    A \\
    C
\end{array} \]

2. the chord of the third and fourth (\( \frac{4}{3} \)), in which the seventh and the fundamental tone of the essential chord of the seventh become the third and fourth, thus,

\[ \begin{array}{c}
    G \\
    C \\
    E
\end{array} \]

The other chords of the seventh,

which Godfr. Weber terms by-chords of the seventh, in opposition to principal chords of the seventh, are, the chord of the seventh, formed by the minor triad and the minor seventh, again, by the diminished triad, with the subsisting minor seventh of the chord of the seventh, the major triad and seventh major, By the transposition of these by-chords of the seventh are formed the chords of the fifth and sixth, the third and fourth, and the chord of the second. We have thus, as appears from this review, nine fundamental triads, and four chords of the seventh (the essential chord and the by-chords of the seventh). However complicated the harmony may be, it is reducible to these chords. There is yet a five-toned chord, the quintichord which is a union of simultaneous tones,
and is formed by the addition of another third (major or minor) to the chord of the seventh, which, conse-
quently, makes the ninth from the fundamental tone;
and is termed the chord of the ninth. But if, from
the adverse concurrence of the seconds, we omit the
fundamental tone, as is usual in close harmony, and
transpose the notes as above, we obtain thus the pro-
ced divisions of major and minor. For example, the
eharmonic chord of C, E flat, G flat, A; C sharp, E, G, B. These chords, then, are capa-
bility of being presented in the most diversified forms,
in immediate collision, or broken, so that the tones
communicating them are heard in succession. Further,
these chords are sectional groups, for they are trans-
mitted through distant and different octaves. This
forms the groundwork and the distinction between
close and dispersed harmony, according to the close
or dispersed position of the chords. Further, the ap-
lication of the intervals composing the chords is
governed by the variety of positions, inasmuch as the
music may be adapted for two, three, four, five voices
or parts. In the former, some intervals must be
omitted; in the latter, doubled. One of the first sys-
tems of chords was offered by Rameau, grounded on
the ideas of D'Alembert, and afterwards elucidated in
Marpurg's system, which much resembled Vogel-
ser's. Another is by Tartini, which is given in
Rousseau's Dictionnaire de la Musique. The one de-
tuces and explains the chords from fundamental keys
of the bass, the other from melody (the upper tones).
Another very simple system of chords is that of Kiri-
berger, which is much followed by Godfr. Weber, in
his treatise on thorough-bass. From music, the idea of
harmony is transferred to colours, and we may speak
of the harmony of colours, as opposed to the harsh
dazzling contrast of them, which is avoided
by a judicious middle tone of colouring.
CONCORD; a post-town of the United States, in
New Hampshire, and the seat of the state government;
53 miles N. N. W. Boston; lon. 71° 29' W.; lat. 43°
12' N.; population, in 1810, 2391; in 1820, 2838. It
is pleasantly situated, extending along the western bank
of the river Merrimack nearly two miles in length.
CONCORD, FORM OF OR (fornaria concordis); one of
the most ancient bishoprics, which was erected by
Augustus, Elector of Saxony, by several distinguished theolo-
gians. Augustus had long suspected the existence of
secret adherents to the doctrine of Calvin; and, being
confirmed in this suspicion by investigation, he there-
upon, with the advice of his counselor Amsden, which in
should definitively set the form of doctrine to be
received, would be the best means for terminating
the religious troubles. Twelve divines were invited to
Lichtenburg, who, in the assembly afterwards con-
voked at Torgau, examined and settled the principal
points, and finished the work in Kloster-Berken, in
1577; after which followed the solemn signing by the
seven electors, princes, counts, states of the
empire, and the printed publication of the work in
1580. It is said that this affair cost the elector about
£12,000. See Symbolical Books.
CONCORD, GEMMAE OF. See Concordia.
CONCORDANCE; a book containing the prin-
cipal words in the Holy Scriptures, in alphabetical or-
der, with a designation of the places in which they are to
be found. They are concordances of subjects and
of words; and, for both kinds, either the Greek or
Hebrew text, or a universally received translation,
may serve as a basis. Works of this kind are useful
for the exegetical theologian, because the comparison
of parallel passages is one of the most important
auxiliaries of exegesis; and not less so for the preache-
er, because they enable him to examine, at once, all
the passages of scripture which treat of the same sub-
ject. The first work of this kind was published by
Hugo Sancto Caro, who used the universally-received
Latin translation of the Bible, called the Vulgate.
Some of the most approved concordances in English
are those of Cruden, Butterworth, Brown, and Tay-
lor. The name concordance might be given, without
impropriety, to similar indices of other works. Many
of the writings of Homer and Shakspere. In fact, it is so
applied in Germany. The index of Samuel Ayscough to
Shakspere is a concordance.
CONCORDATE; a convention between the
bishop of Rome, as head of the church, and any
of the prince-bishops of secular government, for
the disjunction of ecclesiastical relations. Treaties
which the pope, as a secular sovereign, concludes with other princes respecting
political concerns, are not called concordates. One
of the most important of the earlier concordates is
that of Worms, called, also, the Calixtine Concordate,
made in 1122, between pope Calixtus II. and the
emperor Henry V., in order to put an end to the
long contest on the subject of investiture, and which
has since been considered a fundamental ordinance in
respect to the relations between the Catholic church and the government in Germany. Most of
the concordats have been extorted from the popes
by the different prince-governments. This was done
as early as the 15th century; for, when the
Council of Constance urged a reformation of the papal
court, Martin V. saw himself obliged, in 1418,
conclude concordates with the Germans, and soon
afterwards, also, with other nations. The popes,
however, succeeded, even in the 15th and 16th
centuries, in concluding concordates for their advantage.
This was the case with the concordats of Aschaffen-
burg. That, also, which was made by Leo X. and
Francis I. of France (1516), was chiefly to the advan-
tage of the pope. In later times, in particular, to-
towards the end of the 18th century, the papal court
could not any longer maintain a struggle with the
spirit of the times and with the secular powers,
and was obliged to resign many privileges by concordates.
Bonsaparte, when first consul of the French republic,
concluded a concordate with pope Pius VII., July
15, 1801, which went into operation in April, 1802.
This may be considered as the re-establishment of Catholic church in France, and
has become the basis of the present ecclesiastical
constitution of that country. The government
obtained by it the right to appoint the clergy; the
public treasury gained by the diminution of the large
number of metropolitan and episcopal sees to sixty;
the pope was bound to give to the French state the
spiritual orders, and the influence which he exer-
cised by means of delegates, but retained the right
of the canonical investiture of bishops and the revenues
connected with this right. The interests of religion
suffered by this compact, inasmuch as most of the
dioceses became now too large to be properly admin-
istered; and the lower clergy, the very soul of the
church, who were in a poor condition before, were
made entirely dependent on the government.
Louis XVIII. concluded at Rome, with Pius VII.
(July 11, 1817), a new concordate, by which that of
1816, so injurious to the liberties of the Gallican
church, was again revived; the concordate of 1801
and the articles organiques of 1802 were abolished;
the nation subjected to an enormous tax by the de-
mand of endowments for forty-two new metropolitan
and episcopal sees, with their chapters and seminaries;
and free see was afforded to the intolerance of the Roman
court by the indefinite language of article ten, which
speaks of means against the prevailing obstacles to
religion and the laws of the church. This revival of
old abuses, this provision for the luxury of numerous
clerical dignitaries at the expense of the nation, could
please only the ultra-royalist nobility, who saw in it means for providing their sons with benefices. The nation received the concordate with almost universal disapproval, and the parliaments of the greater cities raised against it (Griegoire, L'histoire des concords, 2,400,000 sees 5th ed., Paris, 1818; Lanjouwainas, L'appréciation du projet de loi rel. aux trois concords, Paris, 1818, 3 vols.); and the new ministers saw themselves obliged to withdraw their proposition.

The most fortunate in the concordate made with Naples (Feb. 16, 1818), at Terracina, in which stipulations were made for the exclusive establishment of Catholicism in this kingdom; for the independence of the theological seminaries on the secular power; the free disposal of benefices to the value of 12,000 ducats, in Naples, in favour of Roman subjects; the reversion of the revenues of vacant places to the church; unlimited liberty of appeal to the papal chair; the abolition of the royal permission, formerly necessary for the pastoral letters of the bishops; the right of censorship over books; became possessed by the new king.

The king obtained the right to appoint bishops, to tax the clergy, to reduce the number of the episcopal sees and monasteries, which existed before Murat's reign. The quiet possession of the estates of the church, which had been alienated, was also secured to the order.

In the concordate concluded with Bavaria, July 5, 1817, two archbishoprics were established for the 2,400,000 Catholics in Bavaria. These were Munich (with the bishoprics of Augsburg, Passau, and Ratisbon) and Bamberg (with the bishoprics of Wurzburg, Eichstadt and Spire). Seminaries, moreover, were instituted and provided with lands; the nominations were left to the king, with the reservation of the papal right of confirmation; the limits of the civil and ecclesiastical jurisdiction were precisely settled, and the erection of new monasteries was promised. This concordate was published in May, 1818, together with the new political constitution, by which all apprehensions for the Protestant church in Bavaria were allayed. (Respecting the concordate between Prussia and the pope, see German Church and Prussia.)

The other German princes have formed a plan for a common concordate with the pope. The concordate which has been carried on for more than 800 years between the secular power and the church is as little settled as it was in the times of Gregory VII. and the emperor Henry IV., and the concordates are to be considered only as temporary agreements, which are followed as long as either party is obliged or thinks it best to observe them. In fact, it is vain to think of putting an end to the dispute, while secular governments maintain that it rests with them to appoint the officers and instructors of the people, and the pope maintains that the authority of the church is prior in time and superior in degree to any other. The light in which the Roman court views the cessions made in concordates appears from a letter of pope Innocent 1., in 1416: Ergo quod pro remedio necessitas requirit, cessante necessitate debet utique cessare, quia alius est ordo legitimus, alia usurpation, quam ad praevis tantum fieri tempus impedit. The governments, on the contrary, add reservations to the concordates, as in the case of the articles which the French government prefixed to the concordate of 1801, before it was promulgated. Against the appeal to a divine institution, on which the pope founds his authority, the sovereigns maintain the following claims:—1. The sovereign of the state is, at the same time, the secular head of the church, and all the power of the church to make regulations and appoint clerical functionaries has been given by him, and remains under his superintendency; 2. the temporal possessions of the church are properly subject to the state, which has a right to protect them from becoming excessive; 3. the secular government is the custodian of such acts of worship as are opposed to the interest and peace of the state, and interfere with the rights of other religious societies; 4. the state has the right of protecting new sects; 5. the civil rights of subjects (even with regard to the validity and consequence) are frequently violated by the laws of the state. It is easily understood that no such contest between church and state can take place where the church does not claim any political authority, and the sovereign does not consider religion as an instrument for state purposes.

CONCORDIA; or concord, personified and worshipped as a goddess in Rome, where she had several temples, the most important of which was that in the capitol, erected by Camillus. An annual feast was celebrated, in her honour, the 10th of January. She was represented with wreaths of flowers on her head, and in one hand two cornucopias, in the other, a bundle of rods or a pomegranate. Symbolically, Concordia was represented by two hands clasped together, or by the caduceus. See Grecian Mythology.

CONCRETE; a technical word in logic. If we conceive of certain qualities as existing in an object, we must regard them as real in the technical language, as qualities; but if we think of them separately from the object, we then regard them in abstracto; for example, a just man is a concrete conception, but justice is an abstract idea. See Philosophy.

CONCRETIONS, Moorall, in animal economy; hard substances that occasionally make their appearance in different parts of the body, as well in the solids as in those cavities destined to contain fluids; in the former case, they are denominated concretions or ossifications; in the latter, calculi. The concretions that make their appearance in the solids of the animal body are denominated pinedal concretions, from their being found in that part of the brain called the pinedal gland; or salivary concretions, as being discovered, occasionally, in the salivary glands; or pancreatic concretions, which are hard substances found in the pancreas; or pulmonary concretions, which are sometimes coughed up as stones by persons; or uterine concretions, of which the liver is sometimes full. Concretions have also been found in the prostate. These have all been examined by chemists, and found to consist of phosphate of lime and other substances. Concretions have been discovered in the intestines and stomach of man, but more frequently in the bodies of other animals. Those found in the intestines of a horse were examined by Fourcroy, and found to consist of magnesia, phosphoric acid, ammonium, water, and animal matter. See Calculi.

CONCUBINAGE; the cohabitation of a man with a concubine. Among the Greeks, concubinage was allowed even to married men: the number of their concubines, also, was unlimited. Among the Romans, concubinage was neither unlawful nor disgraceful. It was, moreover, formally permitted to unmarried men, by the Lex Julia, and by the Lex Papirius Poppeus, but with the provision, that it should be limited to a single concubine, and that only women of mean descent, as freed women, actresses, and the like, should be chosen for the purpose. The children begotten in concubinage were not considered as legitimate, but were called naturai, and the right of inheritance of the concubine and her children was very much limited. With the introduction of Christianity, concubinage ceased; and, indeed, Con-
stantine the Great made laws against it. The Code Napoleon did not expressly forbid concubinage, but the lawful wife could sue for a divorce (since the restoration of the Bourbons, only for separation), in consequence of which many married ladies continued to live with their husbands in their common residence. The Prussian code does not allow concubinage, as some authors have asserted, but it establishes two kinds of marriages, one of which does not confer the rank, &c., of the husband on the wife, nor give the children the same status as those enjoyed by the children born of the other kind of marriage. This form of marriage seems to have been allowed by the code chiefly for the benefit of poor officers of government, whose rank far exceeds their salary; but, though it stands in the code, it never has received from the King the authority of law. The ruling family, however, sometimes contract such marriages. The present king is married to the princess of Lignitz in this form. There is no want of legality in the connexion; it is merely to prevent the wife from becoming a queen, and her children royal princes.

In 1734, Conde was the father of a son, born in Paris. See Earth. He was a great naturalist, was born at Paris in 1701, and died at the same place in 1774. With an ardent spirit and a powerful frame, the young Condamine, who had entered the military profession, gave himself up to pleasure; but he soon renounced the military career, and devoted himself to the sciences. He was a great admirer of the chemists. His desire of knowledge induced him to apply himself to several sciences, without advancing very deeply in any particular one. After he had visited the coasts of Asia and Africa on the Mediterranean, he was, in 1736, chosen, with Godin and Bouguer, to determine the figure of the earth, by a measurement to be made in Peru. See Earth. He there made the discovery, that mountains attract heavy bodies, and give them a direction different from that which they would take according to the simple law of gravity—a truth which was afterward confirmed by Maskelyne and Cavendish. Having finished his labours in America, and escaped a thousand dangers, he returned to his native land, after an absence of eight years, and soon after went to Rome, where Benedict XIV. gave him a dispensation to marry one of his nieces. Of his curiosity the following anecdote is related. At the execution of Damiau, he mingled with the crowd in order to let no circumstance of this horrible manner of death pass unobserved. They were about to send him back, but the chief executioner, who knew Condamine, prevented them with these words: "Laissez, messieurs, c'est un amateur." His principal works are his account of his travels, his work on the figure of the earth, and that on the measurement of three degrees of the meridian in the equatorial regions. Besides these he published treatises on inoculation for the small-pox.

CONDÉ; a fortress of France, in the department du Nord, nine leagues and a half S. E. of LIsle. Inhabited, 1807, 1800; it is, according to the French military terminology, a place de guerre de premiere classe. During the Revolution, it was called Nord-Libre. Its port is much frequented.

CONDÉ, Louis de Bourbon, prince of (the great Condé); born in 1621; a general of distinguished talents, great advantages of person, and very attractive manners. During the war with Pichon, he was noted for the title of duke d'Enghein. He immortalized this name at the battle of Rocroi, in which, at the age of 22, he defeated the Spaniards (1643). After he had arranged everything for the battle, on the evening previous, he fell into so sound a sleep, that it was necessary to awake him when the time for engaging came on. Wherever he appeared he was victorious. He was so fortunate as to repair the consequences of a defeat of marshal Turenne. He besieged Dunkirk in sight of the Spanish army, and gained this place for France, in 1646. He was equally fortunate in putting a stop to the civil war which Mazarin had occasioned. Having afterwards resigned his command, his support of Condé. Jealous of the glory of the prince, and fearing his pride, Mazarin, in 1650, caused his deliverer to be brought captive to Vincennes, and did not restore him his freedom until after the expiration of a year. The offended Condé now entered into negotiations with Spain, and fought against his native country with such success, that he advanced almost to the gates of Paris. He obtained possession of the neighbouring places, while Turenne was approaching the capital in order to cover it. Both generals fought with great valour, very near the suburb St Antoine, and added to their former reputation (July 2, 1652). A short time after peace was concluded, in which, however, Condé did not concur, but went to the Netherlands. The peace of the Pyrenees in 1659, at last restored this great general to France. After Turenne's death, in 1675, he was made one of the first of the order of the Holy Spirit. His death was very sudden. He died in 1867 at Fontainebleau. In the church of St Louis, at Paris, a monument was erected to him.

CONDE, LOUIS JOSEPH DE BOURBON, prince of; born at Chantilly, in 1736; only son of the duke of Bourbon and the princess of Hesse-Kheimels. By the death of both his parents he came, in his fifth year, under the guardianship of his cousin, the count of Chalons, his uncle. The prince was educated with great strictness, and made some progress in the sciences. In 1753, he married the princess of Rohan-Soubise, who in 1756, bore him the prince Bourbon-Condé. In the seven years' war, he distinguished himself by his courage and skill, and, in 1762, gained a victory, at Johannisberg, over the hereditary prince of Brunswick. True to the old constitution, he opposed Louis XV., on account of the introduction of a newly formed parliament, and was, on this account, banished, but soon recalled. His leisure he devoted to study, in friendly cotemporary with men of his time, and to the embellishment of Chantilly, where Paul I. visited him. He was wounded in a duel with count Agoul. In the revolution, he emigrated, in 1790, to Brussels, and from thence to Turin: he afterwards formed in 1792, at Worms, a little corps of emigrant nobility, 600 men strong, which joined the Austrian army under Wurmser. After an interview with Gustavus III., of Sweden, at Aix-la-Chapelle, in 1791, on the subject of measures to be undertaken, he was summoned to Worms, by a deputy of the national assembly, and by the king himself, to return to France within fourteen days, under penalty of the loss of his estates. With the other princes, he returned an answer of refusal, from Coblenz. On the breaking out of the war, his corps distinguished itself; but the Austrian plan of operations did not agree with the views of the emigrants; therefore the connexion of prince Condé with his corps into the English service. In 1796, he fought in Sumbia. In 1797, he entered the Russian service, and marched with his corps to Russia, where he was most hospitably received into the residence of Paul I.; and returned, in 1799, to the Rhine, under Sulzgraff. In 1800, after separation of Russia from the coalition, he re-entered the English service. The campaign of 1800 ended the military
career of the prince. He lived in England till 1813, in which year his second wife, the princess of Mon- 
caco, died. He returned to Paris, May 14, 1814, 
recrossed the Rhine with the line of the officers 
of colonel-general of infantry, as also that of grand 
fille de France, and the protectoress of the order of 
St Louis. He attended the celebrated royal 
council, March 17, 1815, fed with the king to Ghent, 
and returned with him to Paris in July, where, being 
appointed president of a bureau of the chamber of 
peers, he remained some time, but at last retired to 
Chantilly, where he had formerly written the inter-
estant "Essai sur la Vie du Grand Condé, par L. J. de 
Bourbon, son 4ne Descendant, of which two editions 
have appeared since 1806. He died at Paris in 1818, 
His grandson was the duke d'Englhien.

CONDÉ, Louis Henry Joseph, duke of Bourbon, 
son of the preceding, born April 13, 1755, was 
educated to the profession of arms. He had early 
passed the age of childhood, when he was inspired 
with the most violent passion for Louise Maria 
Theresa of Orleans, It was resolved that he should 
leave France and join his mother there, but the 
impatience of the prince would not 
condemn to this delay. He carried off his mistress 
from the convent where she resided, married her, 
and, in 1772, she bore him the prince d'Englhien. 
Condé's impetuousness occasioned a duel between 
him and the count of Artois, in 1775, which 
was followed by his banishment to Chantilly. He likewise quar-
relled with his wife, and, in 1780, separated himself 
from her; she died in 1822. In 1782, he was pre-
sent, with the count d'Artois, at the siege of Gibral-
tar, distinguished himself there, and was appointed 
natural. The pride of his name, the magnificence of his 
character, and his confidence in the power of the 
king, caused him, in the beginning of the revolution, 
to treat with contempt a people in a state of violent 
fermentation. He continually advised the use of 
force. In 1789, he emigrated, with his father, to 
Turin, joined the corps of French emigrants, and, in 
1792, 1793, and 1794, showed the ancient courage of 
the Condé. In 1795, he embarked at Bremen for 
Quiberon, in order to make a diversion in Lo Vendée, 
but was obliged to return to England without suc-
cess. In 1797, he went with the corps to Russia, 
and, in 1799, returned to the Rhine. After the dis-
solution of the Spanish army in which had taken place, 
and had promised to re-
pair to Paris to take the oath to the new government, 
on the morning when he was found dead in his cham-
ber, suspended by his own handkerchief. By his will, 
written with his own hand, and dated Aug. 30, 1829, 
his whole fortune passes to the duke d'Ammaile, son 
of Louis Philippe, king of the French, and to Mrs. 
Dawes, baroness de Feuchères, an English woman 
with whom he lived. The legacies to this lady, in-
cluding several chateaux and seats were valued at 
about fifteen millions of francs, the residue of his for-
tune being left to the duke d'Ammaile. This will will 
show that the baroness de Feuchères had used improper 
influence over the prince; and it was contended by 
their counsel that the prince had been murdered by 
people interested. It was not till Feb. 22, 1832 
that the judgment of the court was finally pronoun-
ced in favour of the duke d'Ammaile and madame 
Feuchères.

CONDENSATION. Besides the mechanical 
powers (see Condenser), there are also chemical 
means for converting gaseous fluids into liquids 
by condensation; for example steam into water, 
by means of cold. Volta gives the name of condenser 
and electricity to an instrument invented by him for collec-
ting and measuring electricity in cases where it is 
freely developed; and an apparatus for the 
collection of sensible caloric is called a condenser of 
caloric.

CONDENSER; a pneumatic engine, or syringe, 
whereby an uncommon quantity of air may be 
crowded into a given space; so that sometimes ten 
atmospheres, or ten times as much air as there is 
at the same time in the same space without the engine, 
may be thrown in by means of it, and its egress 
prevented by valves properly disposed. See Pneu-

CONDILLAC, Stephen Bonnot de, among the 
French the founder of the sensual system, was born 
in 1715, at Grenoble, and lived like his brother, 
the abbe Mably, from his youth devoted to study. His 
"Essai sur l'Origine des Connaissances humaines 
(1746, 2 vols.) first drew the attention of the world 
to a system which, with much advantage of ideas 
ought to explain, by the law of the association of 
ideas, almost all the phenomena of the human mind. 
Although Locke's discoveries in the department of 
psychology, founded upon experience, might have 
had an influence on this work, yet no one can deny 
that Condillac laid the merit of having made more profound 
inquiries on many points. He, himself, however, 
thought that he had not sufficiently explained 
the first principles of the faculties of the human mind, 
and therefore wrote the "Traite des Systemes 
(1749, 2 vols.), in which he frequently referred to more accu-
rate observations. Any one would misunderstand 
Condillac, who should believe that he disapproved 
of all systems; but instead of those maxims and theories 
which Des Cartes, Spinoza, Malebranche, &c., 
had laid down as the basis of their speculations, he 
demanded observations of the simplest kind. His 
"Traite des Sensations (1754, 2 vols.) is interesting for 
the insight which it throws into the subtleties of our 
consciousness of impressions on the senses. Mortified 
by the supposition that he had followed the course of 
ideas in Diderot's and Buffon's works, he wrote his 
"Traite des Animaux (1773), in which he refuted 
Buffon's opinions, by principles which he had advanced 
in his "Traite des Sensations. The sagacity and the 
clarity which distinguish all Condillac's writings 
obtained for him the distinction of being chosen 
instructor of the infant duke of Parma, nephew of Louis 
XV. The intimate friendship which subsisted 
between him and his colleague, M. de Kérinal, made 
this situation the more agreeable. To this cause we 
are indebted for his acute work, the "Cours d'Etudes 
(1755, 13 vols.), in which with his peculiar talent of 
explanation, he investigates the external signs of 
ideas. Thus his Grammar necessarily became a uni-
versal one; his Art of Writing, a course of instruc-
tion for giving the most suitable expression to trains 
of thought. With the same view, he composed his 
"L'Art de juger, and "L'Art de penser, which consti-
tute a part of the "Cours d'Etudes. His history has 
been less successful than his other works. Consider-
ed apart from the tameness of its execution, it might 
be objected to it, that it rests in the end too much 
subservience to pre-established theories. Condillac 
returned, after the completion of the education of the 
young prince, to Paris, where, in 1768, he was ad-
CONSIGNMENT—CONDOR.

387

Alpine vegetation, these birds prefer to dwell, in-cluding an air too highly rarified to be endured, unless by creatures expressly adapted thereto. From such a manner of life they are delivered, and, passing upwards into the dark blue heavens, until their great bulk diminishes to a scarcely perceptible speck, or is lost to the aching sight of the observer. In these pure fields of ether, unvisited even by the thunder-cloud—regions which may be regarded as his own exclusive domain—the condor delights to sojourn, and with piercing glance surveys the surface of the earth, towards which he never stoops his wings, unless at the call of hunger. Surely this power to waft and sustain himself in the loftiest regions of the air; his ability to endure, unjibed, the exceeding cold attendant on such remoteness from the earth; and to breathe, with ease, in an atmosphere of such extreme rarity; together with the keenness of sight, that, from such vast heights, can minutely scan the objects below—are sufficiently admirable to entitle the condor to our attention, though we no longer regard it as a vivid standing altogether solitary in the scale of creation.

Notwithstanding the condor is a lover of the clearest and purest air, it must be confessed that he is a carrion bird, and is quickly lured to the plains by the sight or scent of a carcass, especially of a man or beast, the vulture, his natural rival in the bill, and the Pariah dog, elongated and straight at bise; the upper mandible is covered to the middle by the cere; the nostrils are medial, approximate, oval, parruous, and naked; the tongue is canaliculate, with serrated edges; the head is elongated, depressed and rufous; the tarsus rather slender; the lateral toes equal; the middle toe is much the longest, the inner free, and the hind one shortest; the first primary is rather short, the third and fourth are longest.

The natural history of the condor was in a fair way to rival the ancient fables of griffins, basilisks and dragons, or even of exceeding the roc of Sinbad the Sailor, in extravagant exaggeration, until that admirable and judicious observer, Von Humboldt, placed it upon the basis of truth. By divesting this bird of all fictitious attributes, and bringing it into its proper family, he certainly spoiled a great many of its native embellishments; but he amply compensated therefor, by giving this additional proof, that there are no monsters in nature, and that even when she appears to depart most from the ordinary standard, as to size, situation, or habits, her beings are parts of a single plan, in which all the agents are modifications of one great type. We therefore feel grateful to the indefatigable naturalist, whose residence of seventeen months in the native mountains of the condor enabled him daily to observe its peculiarities and habits, and to furnish us with satisfying statements of realities, in place of the wild and inconclusive fictions, so long imposed upon mankind. His careful measurements establish the fact, that the wonderfully gigantic condor is not generally larger than the lammergeyer, or bearded vulture of the Alps, which it closely resembles in various points of character. We shall soon see whether the rational student has lost by stripping the condor of qualities bestowed upon it solely by credulous ignorance, and whether the truth to be told of its history be no more interesting than all the fictions. Upon a chain of mountains, whose summits, lifted far above the highest clouds, are densely wooded, in which we find a race of birds, whose magnitude and might, compared with others of the feathered kind, is in something like the proportion of their vast dwellings to earth’s ordinary elevations. Above all animal life, and at the extreme limit of even
hammergeyer of the Alps ever carried off a child, though so commonly accused of such theft, but that the possibility of the evil has led to the belief of its actual existence. The condor is not known to build a nest, but is said to deposit its eggs on the naked rocks. The eggs are reported to be altogether white, and that they are laid in a nest of the female is said to remain with the young for a whole year, in order to provide them with food, and to teach them to supply themselves. In relation to all these points, satisfactory information still remains to be desired. We have seen that hunger impels the condors to descend to the plains, and it is also true that they are often seen alone, or in flocks, even on the shores of the southern ocean, in the cold and temperate regions of Chile, where the Andes so closely approach the shores of the Pacific. Their sojourn, however, in such situations, is but for a short time, as they seem to require a much cooler and more highly rared air, and prefer those lofty solitudes where the barometer does not rise higher than sixteen degrees. When they descend to the plains, they alight on the ground, rather than upon trees or other projections, as the straightness of their toes renders the first mentioned situation most eligible. Humboldt even saw one of the Andes near Quito, and Peru, but was informed that it follows the chain of the Andes from the equator to the seventh degree of north latitude, into the province of Antonio. There is now no doubt of its appearing even in Mexico, and the south-western territory of the United States.

The head of the male condor is furnished with a sort of cartilaginous crest, of an oblong figure, wrinkled, and quite slender, resting upon the forehead and hinder part of the beak, for about a fourth of its length; at the base of the bill it is free. The female is destitute of this crest. The skin of the head, in the male, forms folds behind the eye, which descend towards the neck, and terminate in a fabby, dilatable or erectile membrane. The structure of the crest is altogether peculiar, bearing very little resemblance to the cock’s comb, or the wattles of a turkey. The auricular orifice is of considerable size, but concealed by folds of thin temporal membrane. The eye, which is peculiarly elongated, and farther distant from the beak than the eagle’s, is of a purple hue, and very brilliant. The neck is uniformly marked by parallel longitudinal wrinkles, though the membrane is not so fabby as that of the male. The protracted elongation is caused by the frequent habit of drawing the neck downwards, to conceal or warm it within the collar or hood. The collar, in both sexes, is a fine silken down, forming a white band between the naked part of the neck and beginning of the true feathers, and is rather more than two inches broad, not entirely surrounding the neck, but leaving a very narrow naked space in front. The rest of the surface, the back, wings, and tail, are of a slightly grayish-black, though sometimes they are brilliantly black; the feathers are triangular, and placed over each other tile-wise. Humboldt never saw male condors with white backs, though descriptions of such have been given by Molina and others. The primaries are black; the secondaries, in both sexes, are externally edged with white. The wing covers, however, offer the best distinction of the sexes, being grayish-black in the male, white, in the female, and even half of the shafts, in white, so that the New Grenadines are ornamented with beautiful white spots. The tail is blackish, wedge-shaped, rather short, and contains twelve feathers. The feet are very robust, and of an ash blue colour, marked with white wrinkles. The claws are blackish, very long, and but slightly hooked. The four toes are united by an obvious but delicate membrane; the fourth is the smallest, and has the most crooked claw. The following are the dimensions of the largest male condor described by Humboldt (it was killed on the eastern declivity of Chimborazo)—length, from tip of the beak to the tail, seven feet five inches; length of the three toes (French); height, when perched, with the neck moderately extended, two feet eight inches; entire length of head and beak six inches eleven lines; beak alone, two inches nine lines; breadth of beak closed one inch two lines; enevoque, or from the tip of one extended, to the other, eight feet nine inches; breadth of the feet, eleven lines; number of nails, three on each toe, without the claw, three inches eleven lines; claw, two inches; length of two lateral toes, with their claws, three inches seven lines; claw, 2 inches three lines; shortest toe and claw, one inch eight lines. From this measurement, it is obvious that the condor does not exceed the average size of the largest European vulture; and Humboldt states that he never saw a condor whose enevoque measured more than nine French feet. He was also assured, by very credible inhabitants of the country, that they never saw one whose enevoque was greater than this. But there is an occasional specimen that fourteen feet is about the maximum size to which the largest condor would attain. Two or three specimens of the condor have been exhibited in Philadelphia and New York within the last seven years, and were evidently not full grown birds; yet the enevoque of the largest of them measured fourteen English feet. The enevoque of the specimen belonging to the Leverian museum, described by Dr Shaw, measured fourteen English feet. Notwithstanding, therefore, what is said by Humboldt, of the general correspondence in size of the Alpine hammergeyer and the condor of the Andes, we cannot avoid believing that a full grown individual of the latter species would be much more than a match, in every respect, for any European species. The condor is peculiarly tenacious of life, and has been observed, after having been hung for a considerable time by the neck, in a noose, to rise and walk away quickly when taken down for dead, and to receive several pistol bullets in its body without appearing greatly injured. The great size and strength of its plumage defends its body to a considerable degree from the effects of shot. It is easily killed when shot, or struck sufficiently hard, about the head.

CONDORCANQUI, JOSEPH GABRIEL; an American Spaniard, who, having been ill treated by a magistrate, and sustained an act of injustice from the audiencia of Lima, attempted to redress his own grievances, and the oppressions of the Indians, by inciting them to insurrection against the Spanish government in 1780. He was an artful and intrepid man; and, with a view to conciliate the Indians, he assumed the name of Tupac-Amaru, one of the ancient incas, professing a design to restore the ancient dynasty of Manco-Capac in Peru, a project which had been entertained by Sir Walter Raleigh, in the reign of queen Elizabeth. The scheme was, at first, very successful. The spirit of revolt extended far and wide into the interior of the country; the contest lasted three years, and the pretended Tupac-Amaru was lured inca of Peru. His conduct, however, proved obnoxious to the Spanish settlers, and the efforts of the Indians were of no avail. He finally concludes that fourteen feet long with the feet, and covered with white feathers, and ornamented with beautiful white spots. The tail is blackish, wedge-shaped, rather short, and consists of twelve feathers. The feet are very robust, and of an ash blue colour, marked with white wrinkles. The claws are blackish, very long, and but slightly hooked. The four toes are united by an obvious but delicate membrane; the fourth is the smallest, and has the most crooked claw. The following are the dimensions of the largest male condor described by Humboldt (it was killed on the eastern declivity of Chimborazo)—length, from tip of the beak to the tail, seven feet five inches; length of the three toes (French); height, when perched, with the neck moderately extended, two feet eight inches; entire length of head and beak six inches eleven lines; beak alone, two inches nine lines; breadth of beak closed one inch two lines; enevoque, or from the tip of one extended, to the other, eight feet nine inches; breadth of the feet, eleven lines; number of nails, three on each toe, without the claw, three inches eleven lines; claw, two inches; length of two lateral toes, with their claws, three inches seven lines; claw, 2 inches three lines; shortest toe and claw, one inch eight lines. From this measurement, it is obvious that the condor does not exceed the average size of the largest European vulture; and Humboldt states that he never saw a condor whose enevoque measured more than nine French feet. He was also assured, by very credible inhabitants of the country, that they never saw one whose enevoque was greater than this. But there is an occasional specimen that fourteen feet is about the maximum size to which the largest condor would attain. Two or three specimens of the condor have been exhibited in Philadelphia and New York within the last seven years, and were evidently not full grown birds; yet the enevoque of the largest of them measured fourteen English feet. The enevoque of the specimen belonging to the Leverian museum, described by Dr Shaw, measured fourteen English feet. Notwithstanding, therefore, what is said by Humboldt, of the general correspondence in size of the Alpine hammergeyer and the condor of the Andes, we cannot avoid believing that a full grown individual of the latter species would be much more than a match, in every respect, for any European species. The condor is peculiarly tenacious of life, and has been observed, after having been hung for a considerable time by the neck, in a noose, to rise and walk away quickly when taken down for dead, and to receive several pistol bullets in its body without appearing greatly injured. The great size and strength of its plumage defends its body to a considerable degree from the effects of shot. It is easily killed when shot, or struck sufficiently hard, about the head.
of one of the oldest families in Dauphiny. By the assistance of his uncle Jacques Marie de Condorcet, bishop of Lisieux, he was educated in the college of Navarre, at Paris. At a public examination, which was attended by D'Alembert, Clairaut and Fontaine, the manner in which he solved a mathematical proposition gained their applause, and the youth of sixteen was so much excited by their praise that, from that time, he resolved to devote himself entirely to the exact sciences. The duke of Rohanfocault was his patron, and introduced him into the world at the age of nineteen. But its allurements could not render him unfaithful to the severe studies which he had entered upon. One of the acts of his first dignity was to contribute to the academy of sciences an Essai sur le Calcul Integral, which caused Fontaine to observe, that he was jealous of the young man. His Memoire sur le Probleme des Trois Points appeared in 1767. Both works were afterwards united under the title of Essais d'Analyse. The merit of this work gained for him, in 1769, the distinction of a seat in the academy of sciences. With astonishing facility and versatility, Condorcet treated the most difficult problems in mathematics; but his genius inclined him rather to lay down beautiful formulas than to pursue them to useful conclusions. He introduced also in economics, as Fontenelle's talents in this department were very much missed. Although his Elégies des Académiciens morts avant 1699 (Paris, 1773) leave much to be desired, yet they were received with so much applause, that the place of secretary of the academy, in 1777, was not refused to him by his rivals. This office imposed on him the necessity of investigating the various departments of the sciences (the most distinguished promoters of which he was obliged to eulogize), in order to be able to exhibit the latest discoveries; but he did not allow himself to be drawn away from his mathematical studies. His theory of comets gained, in 1777, the prize offered by the academy of Berlin, and he enriched the transactions of the learned societies of Petersburg, Berlin, Bologna, Turin, and Paris with profound contributions in the department of the higher mathematics. The aversion of the minister Maurepas to Condorcet delayed his entrance into the Académie in 1776, and he was admitted in 1782. His inaugural discourse was on the advantages which society may derive from the union of the physical and moral sciences. Being intimately connected with Turgot, he was led into a thorough examination of the system of the economists, and his subsequent collaborations in the Histoire de l'Académie in 1788. His life was taken an active part in the Encyclopédie, for which he wrote many articles. He was the friend of most of the contributors to this great work. In all his writings he displays an exalted view of human nature—a circumstance much to his honour, considering the character of those with whom he was associated. This feeling determined him in favour of the cause of the American colonies during their contest with Britain. He was also a friend of the enslaved negroes, and was anxious for their restoration to freedom (Réflexions sur l'Esclavage des Negres). In 1787, Condorcet published Voltaire's Life, a sort of sequel to the complete edition of Voltaire's works, which he had given to the world with notes and illustrations, and therein expressed the admiration which the versatility of talent and the zeal in the cause of humanity of this great man had awakened in him. Meanwhile his opinions of the rights of citizens and of men, estranged him from the duke of Rohanfocault, his former benefactor. His enemies have asserted that the refusal of the post of instructor to the dauphin induced him to join the popular party. The real cause was his enthusiasm for the great and good. He wrote in favour of the popular cause,
wards the end of the middle ages, who sought for service in every war, and fought not for their country, but for pay and plunder, and offered their assistance to every party which could pay them. These bands originated in the careless wars and feuds of the Italian states and governments at that time, and the whole military power soon came into their hands.

They consisted principally of men too ignorant or too indolent to obtain an honest livelihood, or who wished to escape the punishment of some crime. They included, however, many people who had been deprived of their fortunes by these wars. As these men had not the slightest interest in those who hired them but that of being paid, and of finding opportunities for plunder, wars terminated with very little bloodshed, sometimes with none; for when the bands of condottieri met, the smallest in number not unfrequently surrendered to the other. The most ambitious among them, however, had higher views. Such was Francesco Sforza, who, being chosen by the Milanese to command their army, made himself, in 1451, their duke and lord, and whose posterity continued to possess sovereign power. There is little difference between most of the condottieri and some of the noblest kind of robbers. See Captain.

CONDUCTOR OF LIGHTNING is an instrument, by means of which either the electricity of the clouds, the cause of lightning, is conducted without explosion, into the earth, or the lightning itself is introduced and conducted, in a particular way, into the earth or water, without injuring buildings, ships, &c. This invention belongs to doctor Franklin. While making experiments on electricity, he observed that a pointed metallic wire, if brought near an electrified body, gradually deprives the latter of its electricity in such a manner that no sparks appear. Therefore, as clouds are electrified, he thought that they might be deprived of their electricity (which is the cause of lightening and of its striking), if a pointed metallic rod were fastened upon the highest part of a building, and a wire carried down from this into the earth, so that the electricity of the cloud, attracted by the point, might be conducted into the ground. Franklin's conjecture proved to be well founded, and conductors were soon after introduced into many countries. They at first consisted of an iron rod, running down the sides of a building into the earth, while its point rose several feet above the building. Experience, however, showed the want of such conductors to be this:—The conductor consists of a rod of iron, an inch thick, to the upper end of which is attached a tapering piece of copper, eight or nine inches in length, glazed, to prevent its rusting. This rod is fixed to the highest part of a building, in such a way as to reach at least five or six feet above it; to this are fastened strips of copper, three or four inches broad, and rivetted together, which must reach to the earth, and be carried into it a foot deep. The strips are to be carefully nailed upon the roof and against the wall of the building. The first conductors in Europe were erected at Payneshill, in England, by doctor Watson, in 1762, and upon the steeple of St James' church, at Hamburg, in Germany, in 1769. In modern times, conductors have been proposed to supersede those formerly in use. Among them is the cheap one of Nicollae, made of strips of tin, which has already been used; for instance, at Lohmen, near Pirm.

CONDUIT (French), in architecture; a long narrow passage between two walls, or under ground, for secret communication between various apartments, of which many are to be found in old buildings; also a conduit, a passage or gutter with a cover, as of subterraneous or concealed aqueduct. The construction of conduits requires science and care. The ancient Romans excelled in them, and formed the lower parts, wherein the water ran, with cement of such an excellent quality, that it has become as hard as the stone itself, which it was employed to join. There are conduits of Roman aqueducts still remaining, of from five to six feet in height, and three feet in width. Conduits in modern times, are generally pipes of wood, lead, iron, or pottery, for conveying the water from the main spring or reservoirs to the different houses and places where it is required.

CONE, in geometry; a solid figure having a circle for its base, and its top terminated in a point, or vertex. This definition, which is commonly given, is not, in mathematical strictness, correct; because no circle, however small, can become a mathematical point. But these deficiencies of mathematical strictness connected with constructive geometry, which is based on figures and diagrams, are avoided by analytical geometry, which operates without figures.

The figure might be called the round pyramid, according to the definition of a pyramid. Cones are either perpendicular, if the axis, that is, the line from the vertex to the centre of the base, stands perpendicularly on the base; or oblique, or slanting, if the axis does not form a right angle with the base. (1) If a cone be cut perpendicular to the base, the section is a triangle; (2) if a cone is cut parallel with its base, the section is a circle; (3) if the section is made obliquely, that is, nearer to the base at one end than at the other, a curve is obtained, which is called an ellipse; (4) if the section be made parallel with the axis, perpendicularly from the vertex, or so as to make a greater angle with the base than is made by the side of the cone, the curve obtained is called a hyperbola; (5) if the section be made parallel with one side of the cone, in such case the curve is called a parabola. These three lines, figures, and planes are called conic sections, and form one of the most important parts of mathematics, which is distinguished for elegance, demonstrating, with surprising simplicity and beauty, and in the most harmonious connexion, the different laws, according to which the Creator has made worlds to revolve, and the light to be received and reflected, as well as the ball thrown into the air by the playful boy, to describe its line, until it falls again to the earth. Few branches of mathematics delight a youthful mind so much as conic sections; and the emotion which the pupil manifests, when they unfold to him the great laws of the universe, might be called natural piety. Considering conic sections as opening the mind to the true grandeur and beauty of the mathematical world, whilst all the preceding study only teaches the alphabet of the science, we are of opinion that the study of them might be advantageously extended beyond the walls of colleges, into the higher seminaries for the education of females. The Greeks investigated the properties of the conic sections with admirable acuteness. A work on them is still extant, written by Apollonius of Perge. The English have done a great deal towards perfecting the theory of them. In teaching conic sections to young people, the descriptive method (resting on diagrams) ought always to be connected with the analytic method.
CONFEDERATION, German. See Germany.

CONFEDERATION OF THE PRINCES [of Germany; in German, Fürstenbund]. The occasion of the confederation of the German princes was the election of the new Elector of Bavaria, by the death of the elector Maximili-

91

an Joseph, Dec. 30, 1777. After his death his

territories fell to the nearest collateral relation,

Charles Theodore, elector of the Palatinate. This

prince being without children, had yielded to the

pressure of the nearest Electors, and obliged him

himself, by the convention of Vienna, Jan. 3, 1778,

unto no claim to the inheritance. This con-

vention was opposed by the presumptive heir of

the Palatinate, the duke of Deux-Ponts, and also by

the elector of Saxony, nephew to the deceased elector

of Bavaria. Both princes sought the intercession of

Frederic the Great of Prussia, who, after fruitless

negotiations on the subject with Austria, took up arms.

At the peace of Teschen, May 13, 1779, which end-

ed this short war for the Bavarian succession, the

convention of Vienna was annulled. Austria obtain-

ed of Bavaria merely the Innviertel, with Braunau, and

Carinthia, to which was added the rest of the terri-

tories, France and Russia, the allies of Prussia, guaran-

teed the peace. Some years after, the emperor Joseph II. again thought of enlarging and strengthen-

ing the Austrian monarchy by the addition of the state of Bavaria, and the empress of

Russia proposed the marriage of one of her nieces, the heirs of the

lands for Bavaria. The elector Charles Theodore was to have the Austrian Netherlands, with the excep-

tion of Luxemburg and Namur, with the title of

king of Burgundy. The elector was induced to agree to this by the Austrian ambassador, Von Lehr-

bach; the duke of Deux-Ponts, the presumptive

heir, by count Romanoff, the Russian ambassador;

and both were promised, in addition to what they

received by exchange, the sum of 3000 florins from the

Austrian coffers. At the same time, the duke was
told that the consent of the elector had been secured,

and that the exchange would take place, even with-

out its concurrence. But the duke afterwards re-

fused his consent to the exchange of the land of his

forefathers, and again had recourse to Frederic. This

monarch supported with zeal the remonstrance sent

by the duke to the empress Catharine of Russia, and

required of her, not only from the empress, that

she thought the exchange acceptable to both par-

ties, but that it ought not to take place without their

mutual consent. Although Louis XVI., who had

guaranteed the peace of Teschen, and would not con-

sent to the exchange, now caused the king of Prussia

to be assured that Joseph II., his ally, had given up

the plan, on account of the opposition of the duke of

Deux-Ponts, the court of Vienna still refused to make

satisfactory arrangements. Frederic II. therefore,

in March, 1785, induced the electors of Saxony and

Hanover to form a league, and, in spite of the oppo-

sition of Austria, the terms of union were signed in

Berlin, July 23, 1785, by Brandenburg, Saxony, and

Hanover, for the support and defence of the German

constitution, agreeably to the terms of the peace of

Westphalia and the treaties which followed, of the

electoral capitulations, and of the other laws of the

empire. The measures to be taken against the ex-

change of Bavaria were provided for by a secret ar-

ticle. In a few months, this league was joined by

the elector of Meutz and his conducer, Dalberg the

elector of Treves, the landgrave of Hesse-Cassel, the

marquises of Ansbach and Baden, and the dukes of

Deux-Ponts of Brunswick, of Mecklenburg, of

Weimar and of Gotha, with the prince of Anhalt-Des-

sau. The views of Austria were frustrated by this

open act of the king of Prussia, and both Austria and

Russia entirely relinquished their project. (See Von

Dolm, Uber den Deutschen Fürstenbund—on the

Confederation of the German Princes, Berlin, 1785;—

John Müller's Description of the Confederation of

the German Princes, 1809;—v. Kugler, Staats-

kanzlei, vol. 13.) This confederation is to be consi-

dered as one of the many proofs of the utter insuffi-

ciency of the German empire for the purposes of a

general government.

CONFEDERATION OF THE RHINE. In the war of 1805, which turned out so unfortunately for

Austria, several of the princes of the south of Germany

were obliged to ally themselves to France, or did it

voluntarily. The peace of Presburg (Dec. 20, 1805)
gave the first impulse to the entire dissolution of

the German empire, by conferring crowns on the elec-

tors of Bavaria and Wurttemberg, and on both, as well as

on Baden, complete sovereignty, such as had been al-

ready exercised by the other great German states.

Soon after (May 28, 1806), the first German elector,

arch-chancellor of the empire, announced to the diet

that he had appointed cardinal Fesch, uncle of

Napoleon, to be the new emperor, an act inconsis-

tent with the constitution of the empire. Ulti-

mately, sixteen German princes made a formal de-

claration of their separation from the emperor and

the empire, in the act of confederation signed at

Paris, July 12, 1806, by the kings of Bavaria and

Wurttemberg, the elector arch-chancellor of the empire, the

elector of Hanover, the electors of the other

mediaiisation, and the prince of Liechtenstein

(Voix (Joachim Murat), the landgrave of Hesse-Darmstadt,

the princes of Nassau-USingen and Nassau-Weilburg,

Hohenzollern-Hechingen, and Hohenzollern-Sigmar-

ingen, of Salm-Salm, and Salm-Kyrburg, the duke of

Aingen, the princes of Isenburg-Birstein and of

Liechtenstein, and the count Von der Leyen. This

was communicated to the diet Aug. 1, 1806. They

assigned, as the reason for this separation, the dis-

ciencies of the constitution of the German empire,

and invited the other members of the empire to join

their confederation. The French ambassador, Bachar, an-
nounced, on the same day, that his sovereign would

no longer acknowledge a German empire. (See

Germany.) The emperor Francis II. resigned his
dignity as head of the German empire, Aug. 6, being

induced to take this step, according to his declara-

tion, by the demands contained in several articles of

the peace of Vienna, and the new confederation of

the German states, which he considered inconsistent

with his rank as head of the empire. After the sign-
ing of the act of confederation, to which the name of

the prince of Liechtenstein was attached without his

knowledge, the elector or arch-chancellor received

the title of prince private; the elector of Baden, the

landgrave of Hesse-Darmstadt, and the duke of Berg,

received each the title of grand-duke, with royal pri-

ileges and rights; Nassau-USingen was raised to a

duchy, and Von der Leyen to a principality. The

emperor of France adopted the title of protector of

the confederation of the Rhine. By the establish-

ment of this confederation, the following states lost

their political independence—the imperial free city of

Nuremberg, which was ceded to Bavaria; Frankfurt,

the prince-primate; the principality of Heiters-

heim, belonging to the order of the knights of

St. John, which became subject to Baden; and the

burggraviate of Friedberg, to Hesse-Darmstadt. Fur-

more, by mediatisation, the princes of Nassau and

Orange-Pulda, of Hohenzollern-Schwarzenberg,

and many others; the landgrave of Hesse-Homburg,

the dukes of Coswarem-Looz and of Croy, many counts

of the empire, and all the former knights of the em-

pire, were subjected to the princes of the confedera-

tion of the Rhine. These mediatised members of

the empire only kept possession of their patrimonial
estates and private property, the jurisdiction in the first and second instances, the feudal rights, and mining privileges, &c.; but the power of legislation, essentially sovereign, was vested in a federal diet, to declare war and peace, of forming alliances, of regulating the police, and taxation, &c., devolved on the princes of the confederation, to whom these mediatised princes became subject. The object of this confederation was to secure external and internal peace. France, and the independent states of the confederation were to be closely allied, and, if one of them was threatened with war, or attacked, all the other confederates were to take up arms at the call of the protector, without further consultation, to assist the party threatened or attacked. Although, by the act of confederation Napoleon was called protector of the confederation of the Rhine, he was not recognised as a chief to whom the rulers of the several states were to be subject. To deliberate on the mutual affairs of the confederates, a confederate diet was to be established at Frankfurt on the Maine, with two divisions—the royal, in which the grand-dukes were likewise to have seats, and the prince-primate, was to be general president of the diet, and particularly of the royal chamber; in that of the princes, the duke of Nassau was to preside. At the death of every prince-primate, his successor was to be appointed by the princes in council. If no successor of Saxe-Coburg was willing, a member of the latter was to be allowed to enter the service of any state not included in the confederacy, or allied with the same, nor was any member to be allowed to cede his sovereignty in favour of any but a confederate. The disputes of the confederate princes were to be decided at the diets, and, for the sake of adjusting complaints among the members of the confederacy, two courts of justice were to be established. But neither these, nor the meeting of the confederacy, ever took place. Finally, Catholics and Protestants were to enjoy equal rights in all the confederated states. Thus, in the place of the German empire, which had existed nearly 1000 years, at least in name, a confederation was formed, which, transitory as it may seem in many respects, nevertheless brought about a total and lasting revolution in the political relations of the former German states of the empire and their subjects, and is eminently judged, under the aspect of the internal offices of foreign, of economic, and of national ambition, and not as the inevitable consequence of the internal dissolution of the ancient constitution of the empire. Sept. 25, 1806, the elector of Wurzburg joined the confederacy as a grand-duke. Prussia, on the other hand, to limit the increase of the power of France, by the further extension of this confederation, had formed the project of a similar union, under her protection, to be composed of the northern German princes. But an end was put to this project by the war of 1806—7; and, during this war, the elector of Saxony, after having separated from the confederacy and formed an alliance with France, at the peace concluded between SAXONY and France, at Posen (Dec. 11, 1806) entered the confederacy. His example was followed (Dec. 15, 1806) by the five Saxon dukedoms; and, by the treaty signed at Warsaw, April 13, 1807, the two princes of Schwarzburg, the three dukedoms of the house of Anhalt, and many other smaller princes, were admitted into the confederacy. The kingdom of Westphalia, formed out of the provinces conquered from Prussia and other states, and assigned to Jerome Bonaparte, was likewise added to the confederation of the Rhine, by the constitution, conferred by the emperor of France, Nov. 15, 1807. Finally, the duke of Mecklenburg-Strelitz (Feb. 18, 1808), the duke of Mecklenburg-Schwerin (March 22, 1808), the duke of Oldenburg and prince of Lueneck (Oct. 14, 1808), were admitted as members; so that the confederacy extended over a space of 125,160 square miles, with 14,608,577 inhabitants; and the number of subjects was increased from the originally stipulated number of 63,000 to 119,180. But the protector of the confederation of the Rhine, who had established the league, for the maintenance of internal and external peace, thought himself authorized to make inroads on the security and independence of his confederates, and, by a decree of Dec. 10, 1810, by which the rivers Schelde, Meuse, Rhine, Ems, Weser, and Elbe were added to France, deprived the following princes of the confederacy of their political existence, and of the independence secured to them by the act of confederation:—1. the duke of Oldenburg, on whose dukedom lie seized, leaving him only the principality of Lueneck; 2. the duke of Ahremberg, of whose possessions a part were added to France, and the remainder to the grand-duchy of Berg; 3. the possession of the prince of Salm-Salm and Salm-Kyburg were likewise added to France. Of the grand-duchy of Berg, and the kingdom of Westphalia, considerable portions were likewise joined to France. The territories thus appropriated amounted to 11,278 square miles, with 1,133,057 inhabitants; so that 114,140 square miles, and 13,475,826 inhabitants, remained to the confederacy. The year 1813 put an end to its existence. Bavaria and Wurttemberg, besides several less powerful princes, had already joined the confederacy, leaving the grand-duke of Hesse-Darmstadt, who had, by the Treaty of Dec. 22, 1806, the protectorate of Saxe-Meiningen, and Mecklenburg-Strelitz, the last, who, compelled by their situation, had joined the confederacy of the Rhine, were the first that renounced it, immediately on the alliance of Prussia with Russia against Napoleon. They were soon followed by the kings of Bavaria and Wurttemberg, besides several less powerful princes. Others hesitated longer, prevented partly by the situation of their countries, partly by other considerations, from making a free declaration. Among these were the king of Saxony, as also the grand-duke of Frankfort, the president of the confederacy. The former lost half of his country, the latter all. The king of Westphalia and the grand-duke of Berg (son of the ex-king of Holland) shared the same fate. For the same reason, by the resolutions arbitrarily passed at the congress of Vienna, the dominions of the prince of Isenburg and of the prince Von der Leyen, who, as princes of the former confederacy of the Rhine, were mediatised in the possession of the Duke of Ahremberg, and the other members of the confederacy of the Rhine, with the exception of the duke of Ahremberg and the prince of Salm, have joined the German confederacy as sovereigns.

CONFESION. This term is sometimes applied to a profession of faith; for instance, the confession of Augsburg. See Augsburg, and Reformation. It sometimes also signifies a religious sect; as the three Christian confessions—the Roman Catholic, the Lutheran and the Calvinistic. Confessor (I acknowledge) is the confession which the Catholic priests make before the altar, when beginning mass or public worship.

Confession, in law, is when a prisoner, after being arraigned, and hearing the indictment against him read, confesses the offence of which he is charged. Such confession is the most satisfactory ground of conviction. In the German states, the confession of the prisoner, to be conclusive, must not only be made in open court, but must be accompanied by a disclosure, on his part, of the circumstances under which the crime was committed. But the revised laws of New York, a prisoner, instead of being asked whether he is guilty or not guilty, is asked whether he will be tried by the jury.

Confession. Avuienlar, in the Romish church; the disclosure of sins to the priest at the confessional,
with a view to obtain absolution for them. The father confesses, inquires of the person, and.. the confession, the circumstances of the fault confessed, and
proportions his admonition, and the severity of the
penance which he enjoins, to the degree of the trans-
gression. The person confessing is allowed to con-

cern no sin of consequence which he remembers to
have committed, and the father, confessing, is bound to
perpetual secrecy. The absolution granted there-
upon has, according to the doctrines of the Catholic
and Greek churches, sacramental efficacy. But the
holy scripture does not contain an express decision on
this point, and the custom of confession before taking
the Lord's Supper, or at the time of its administration,
is not lawful to the Lutherans and other Christian congregations. Whoever was guilty of
great sins, made a public acknowledgment of them,
and a profession of repentance before the assembled
congregation. This was usually committed to writ-
ing, and read by the penitents. 

Pope Leo the Great,
in 450, altered this public confession into a secret one
before the priest. The fourth Lateran council (can.
21) ordains, "that every one of the faithful, of both
sexes, on coming to years of discretion, shall, in pri-

vate, faithfully confess all their sins, at least once a
year, to their own pastor, and fulfill, to the best of
their powers, the penance inflicted according to the
directing of the eucharist, unless, by the advice of their pastor, for
some reasonable cause, they judge it proper to abstain from it for a time, otherwise, they are to be ex-
cluded from the church while living, and, when they
die, to be deprived of Christian burial." While the
Catholic church thus requires from the penitent the
avowal of his single crimes, the Lutheran church
requires only a general acknowledgment, leaving
it, however, at the option of its members, to reveal their particular sins to the confessor, and to
relieve the guilty conscience by such an avowal; for
which reason, the Protestant priests are bound, as
well as the Catholic, to keep under the seal of secrecy whatever has been intrust-
ed to them in the confessional. The confession, in
the Lutheran church, is sometimes special, when
the penitents separately acknowledge their sins; sometimes general, when it is done by many, who
are assembled for the purpose, and confess according
to a certain formula. Where the priest is well ac-
quainted with the different members of his congrega-
tion, the special confession seems to be most suitable,
because it gives the confessor an opportunity of adducing
particular arguments, and adding observations of
moral and religious value to the wants of each individual, and thus of produc-
ing a stronger impression. The opportunity which
the confession gives the priest of directing self-ex-
amination, of raising, warning, exhorting, and con-
soling the penitent, becomes a means of adding to
the effect of the public religious services. But,
at the same time, it affords a dangerous opportunity
to the priest of abusing the confidence reposed in
him, of which the history both of nations and individ-
uals exhibits fearful examples. The practice of
confession is grounded on the imperfectness of human
virtue. The Lutherans, therefore, retained this cus-
tom, although they knew that it was not ordained by
Christ, but was only a part of the ancient church
discipline: they did not, however, maintain its abso-
lute necessity. (See Penitence.) The title of confe-
sors was anciently given to those who had endured
inquiries of the persons who had endured
summons to the defence of the Christian religion. It
was afterwards applied to confessors, but was subsequently
confined to those who, having been tortured, were
set free. Saints are also called confessors. So are
the priests, in the Roman Catholic church, who
absolve sinners. For an account of the intrigues of
confessors in political affairs, see Grégoire, Histoire
des Confesseurs des Empereurs, des Rois, &c.; Paris,
1824.)

CONFESION OF AUGSBURG. See Augsburg
Confession.

CONFESIONAL (from confessionis, Lat.), in
architecture; a cell in a Catholic church, wherein
the confessor sits to hear confessions. The con-

fessional, of which there are many in every Roman
Catholic church and chapel, is a species of cell, built of joinery, with a boarded back next the wall,
or against a pillar or a pier, divided into three niches
or small cells. The centre, which is for the recep-
tion of the priest, is closed half way up by a dwar-
fish partition, and the side-cells are granted an
open aperture in each of the partitions between him and the side-cells, which are for those who come
to confess, and have no doors. The sight of the nu-
merous confessional in St Peter's church at Rome
each with an inscription, setting forth in what
language penitents can confess within, is very im-
pressive.

CONFIRMATION; a ceremony intended for
the completion of baptism, and considered by some
churches as a sacrament. The council of Trent set-
tled several points concerning it (sess. vii. De Sa-
missione). It is administered by bishops. The cer-
emony consists in the imposition of hands on the head
of the person to be confirmed, accompanied with the
holy unction. No other priest can confirm. The
meaning of this sacrament may be best learned from
Paul (in Heb. vi. 1—5) speaks of the imposition of
hands as a custom to be perpetually observed among
Christians. Confirmation, however, is considered
by the Catholics a useful but not a necessary sacra-
ment. Baptism can be administered even by a here-
tic, but not confirmation. In the Greek church, and
other Oriental sects, the sacrament of confirmation
follows immediately after baptism, and is administer-
ed as in the Roman church. The Protestant Epis-
copal church, the Lutherans and Calvinists of Eu-

rope, have retained the practice of confirmation. It
is, with individuals of these sects, an assumption of
the obligations which others undertook for them at
their baptism. In Germany, confirmation among
Protestants is one of the most solemn acts, and takes
place only after a certain course of instruction in the
Christian faith. The Lord's supper is not taken by
these three sects, until after confirmation.

CONFUCIUS (also KON-FU-TSE, and KUNG-
FU-DA-SU), an Oriental philosopher, who, like Moses and Zarathustra, exercised an extensive in-
fluence on his own and succeeding times, and now,
after thousands of years, is still venerated by his
countrymen, and respected by other nations, lived
about 550 years B. C. He was of royal descent, and
held the rank of a mandarin at court, in his na-

tive land, in the kingdom of Lu (at present Shang-
tung, a province of the Chinese empire, which was
not till a later period formed into a single monarchy);
but, as the king would not follow his advice, he resign-
ed his dignity, went to the kingdom of Chian, and
became a teacher of morals. He led a quiet and temper-
ate life, and was distinguished for his wisdom. He
neither attempted to overthrow existing establish-
ments, nor to gain dominion by deceit over the minds
of men; but only to disseminate precepts of virtue
and wisdom. He taught in the cities and at royal
courts. Many hearers assembled about him, and he
became the founder of a numerous sect, which still
exists in China, and has extended to Cochinchina.
His religious opinions are very uncertain: it does not
appear that he changed or purified the prevailing
faith. It may be inferred, however, with great pro-
bability, that he taught the immortality of the soul,
and favoured and propagated the existing belief in fate and soulsaying, and in the worship of certain good spirits who watch over the elements and the various parts of the earth. It is certain that he calculated it as a duty on his disciples to revere their ancestors. We are better acquainted with that part of his doctrines which relates to common life, and contains most particular precepts of practical utility. In the most impressive manner, he enjoined universal benevolence, justice, virtue, and honesty, and the observance of all usages and customs which had been once introduced; it being proper that they who live together should live in the same manner, and sympathize in the same joys and sorrows. Sometimes he inculcates reverence of old age; sometimes he shows how the tendencies of children should be guided, and their rising passions corrected. Sometimes he speaks of the peaceful virtues of domestic life, and sometimes he exhorts monarchs to exercise justice and humanity. He praises the delights of friendship, and, by the forgiveness of offences. As a law giver, he deserves less honour. It cannot be denied that he extended the limits of paternal authority too far; for he allowed parents even the right to sell their children. It was a sophism unworthy of his wisdom, to say, as children can sell themselves, they would become better by this right, he referred this right to the authors of their existence. Confucius erred especially in viewing legislation as nothing but a branch of morals, and was satisfied, therefore, with giving general precepts on this subject. Moreover, esteem for the early lawgivers of his people hindered him from making careful investigations for himself; he acquiesced rather in the decisions of those celebrated men of whom he called himself the disciple. His conduct is worthy of praise, inasmuch as he encouraged marriage, and recommended agriculture: trade he did not positively denounce, but he was less favourable to it. Of the works ascribed to him, the Shu-King, or Shan-Shu, is the most important; but it is doubtful whether all parts of it were written by him. In comparing Confucius, Mohammed, and Zoroaster, Mohammed bears away the palm as the founder of a religion, Zoroaster as a lawgiver, and Confucius as a moralist. (See the Works of Confucius, original text, with an English translation, by the Rev. J. Marshman, Serampore, 1809, 4to). The first volume contains the Life of Confucius. Doctor Wilh. Schott has likewise translated the Works of the Chinese Sage and his Disciples, for the first time, from the original into German, with notes (1st vol. Halle, 1826). The writings of Confucius (Mencius) is to be chiefly noticed, who lived about ten years after Socrates, and died B. C. 314, aged eighty-four. He arranged the books of the She-King and Shu-King, and wrote a collection of conversations on moral philosophy. He resembled Socrates, in founding and defending up a pure system of moral philosophy. In 1824, Stanislaus Julien published in Paris, in the Latin language, the system of Meng-Tseu, with a commentary, translated from the Chinese.

CONGESTION (from the Latin congestio, the act of heaping; carrying together). The different parts of the human body do not always receive the same quantity of blood, but sometimes more, sometimes less. Thus, for instance, during digestion, it flows towards the stomach and the liver; during violent or long-continued speaking, singing, or running, it collects in the lungs and the heart; during close thinking, in the brain; and upon exerting the muscles of the bladder, the greater quantities into any part in proportion to the action of that part; but, in a state of health, it flows off with as much rapidity as it collects. Sometimes, however, too much blood accumulates in an organ and remains too long in it; and this injures the structure and the function of such an organ. This accumulation of blood arises from a diseased state of the system, and is called congestion. Congestion may be caused by whatever, in general, accelerates the circulation of the blood, and causes it to tend to a particular part; thus, for instance, among the causes of congestion of the coronary arteries, is the constant excitement of the human body, each of which requires some particular organ unusually active; the crisis of disease; and, lastly, the accidental excursions of certain organs. Under such circumstances, congestion is caused by an excited state of the arteries in general, and the internal parts of the body. If the current of blood to one organ is checked, it accumulates in another. Hence colds caught through exposure of the feet, also the suppression of the secretions, &c., so often cause congestion. Thirdly, the vessels which bring back the blood—the veins—are sometimes in a condition unfit to answer their destination; as, for instance, if they are already too full, if their power to receive the blood and to propel it is lost or diminished, or if they are prevented from performing their function by external pressure, or by tumours. Hence congestions are divided into active and passive; those of the arteries, and those of the veins. Active congestion is such that the blood becomes red and hot, the pulse beats more violently, and the veins expand; the part swells, and a feeling of sickness, pain, pressure, &c., comes on. The functions of the part change; if the congestion is slight, they become more active. In higher degrees of congestion, and if it is continued for a long time, the functions are checked, weakened, and sometimes entirely destroyed. Now, as every organ has its peculiar function, it follows, that the symptoms of congestion, resting on these grounds, must be very different, according to the different organs in which it takes place. During the congestion of blood in one organ, the other organs exhibit symptoms of want of blood. viz., coldness, paleness, diminution of size, and weakness. Congestion generally lasts but a short time; but if not early cured, and its return, which would otherwise be frequent, prevented, it is only the beginning of other diseases. Sometimes it becomes acute, and is deadly for it; sometimes it increases into inflammation; sometimes it becomes a chronic disease; that is, the blood accumulates for a long time, and expands the veins; the expansion becomes permanent, and the original excitement is succeeded by a state of torpidity and weakness, which is called Mening-Tuberculosis.

CONGLOMERATE. See Sandstone.

CONGO; a kingdom in Lower Guinea, under the sovereignty of the Portuguese; between lat. 2° 40' and 8° 22'S., and between lon. 12° 50' and 13° 30' E., bounded on the N. by Anzako, W. by the Atlantic, S. by Angola, and E. by a country very little known, and inhabited by savages. The river Zaïre (q. v.) forms the boundary of Congo in some parts and empties into the Atlantic. From the mountains east of Congo a large number of rivers descend, which do not dry up in the hot season. In those mountains (lat. 7° 50' S.), lies the lake which the Arabs call the Lake of Ten Thousand Lakes. The coast is unhealthy, on account of its low grounds and forests; the interior, however, has a temperate climate, and according to the missionaries, is populous, well cultivated, and considered by the inhabitants as a terrestrial paradise. There are two seasons, the dry and the rainy; the latter, beginning in October and ending in March; the rains, accompanied, by rains, thunder, and tempests. All travellers agree in describing the soil as covered with an exuberant vegetation. Several kinds of grain, unknown to Europe, are cultivated near the rivers; among them is the
lave or tuna, which furnishes a fine white bread. The soil produces three crops of maize annually. Among the trees, the tindah is mentioned: it is of enormous size, and its fruit is eaten by the natives. The soil produces an immense variety of plants. Iron and copper, pophry, Jasper, marble, salt, crystal, gold, and silver are found in the mountains; Congo, like the rest of Africa, abounds in wild life, chameleon, pel- phant, leopard, lion, bear, porcupine, jackal, zebra, different kinds of antelopes, and a great variety of apes; are the principal. The rivers contain crocodiles, hippopotami, and turtles. The coast swarms with fish. The inhabitants eat the eggs of birds, and of them venomous; among them are the gigantic boa, the chameleon, and the flying lizard or palm rat, which is worshipped by the natives. Ostriches, peacocks, parrots, &c., inhabit the deserts and forests.

A great number of nocturnal insects live likewise in this rich country, e. g., mosquitoes, the banzo (of which the sting is said to be mortal), formidable ants, the insoudi (which enter the trunks of elephants, and cause them to die with madness), &c. Bees are numerous. Almost all domestic animals, introduced by the Portuguese, thrive pretty well. Though this country abounds in all the productions of the tropics, there appears to be no commerce carried on, except that in slaves, of whom, vast numbers are annually carried to Brazil. The population is uncertain, because the missionaries seem to have exaggerated it, and other travellers have only visited a small part of the country. The natives of Congo are of a middle size; their colour and features are less strongly marked than those of the other Negroes. They kill a number of slaves over the grave of their so- vereign, who are intended to serve him in heaven, and to share his honours in the world to come. Their system of idolatry is more comprehensive, andadic, in which a similarity with the Egyptian physiognomy is said to have been discovered. Murder is punished by death; almost all other crimes by slavery. The kingdom is divided into several provinces, of which there seem to be six principal ones, the provinces of Papuango, Sauco, S. Salvador, Sandi, and Sonho. Chiefs, who have the titles of dukas, counts, marqueses, rule under the Portuguese. In each province is a capital or banzo. Banza Congo, which, by the Portuguese, is called S. Salvador, is the capital of the whole kingdom. Congo was discovered by the Portuguese, in 1487, under the command of Diego Cam, who ascended the river Zaire. Soon after, the Portuguese sent troops there, and obtained possession of the country, partly by force, and partly by cunning. Their missionaries met with much success, and there are still many Catholics in the country, but they may have returned to idolatry, which is more conforma-ble to their savage state. The government is despotic. This kingdom has been important to the Portuguese, on account of the slaves which it afforded. Among slave-dealers, the Congo men are generally not considered so strong and powerful as slaves from some other parts of Africa.

CONGO-BATTA; a city of Congo, thirty leagues N. E. of S. Salvador. It is celebrated for its slave-market.

CONGREGATIONS, in the papal government; meetings or committees, consisting of cardinals, and officers of the pope, to administer the various de- partments, secular and spiritual, of the papal dominion. To these belong the inquisition (congregation of the holy office), the congregation for the explanation and execution of the decrees of the council of Trent (de concilio), the congregation de propaganda fide. (See Propaganda.) Thus there is also a military con- gregation, the president of which is likewise a pre- late.

Congregation also signifies a society of several con- vents of the same rule, which, together, form an or- ganized corporation, hold chapters, and elect superiors. The province of an ecclesiastical order is also called a congregation.

Congregation is likewise used to signify an assem- bly met by the worship of the Lord, and for religious in- struction.

CONGREGATIONAL CHURCHES; such as maintain the independence of each congregation or society of Christians, as to the right of electing a pas- tor, and of governing the church.

CONGREGATIONALIST; a member of a Congregational church.

CONGRESS, in international politics; a meeting of the rulers or representatives of several states, with a view of adjusting disputes between different govern- ments. The history of Europe may, in a certain re- spect, be divided into three periods. From 1472 to 1562, it was split up into a great number of small divisions, which were in a state of perpetual contest. In the second, these were consolidated into larger masses, which continued the former conflicts on a larger scale. The third period is the present, in which nations have been run to understand their interest more clearly, and to hold the difference of language and the natur- al divisions of mountains and rivers as trifles, in com- parison with the great interests of liberty and human- ity. Europe is now divided into two great parties, who carry on a war of principles; the one may be called the party of legitimacy, feudalism, despotism &c.; the other that of liberty and equal laws. Thus the opposing masses in Europe have become continual- ly fewer and more comprehensive, and the nature of the contest more intellectual. Mr Cuming’s re- marks on this point, in his speech on the occasion of sending troops to Lisbon to assist the liberal party, do him honour. Congresses began on the second period, and they bear the character of the times in which they have been held. Of late years, they have become much increased in dignity and importance, and having been employed, since the commencement of the third period, which we may date from the con- gress at Vienna or the congress at Aix-In-Chapelle, to adjust political interests on a much larger scale than they were adjusted originally. See the last para- graph of this article.

A congress is a simple means of determining, in a diplomatic way, the conflicting claims of belligerent powers, or of states whose interests interfere with each other, and thus of preparing or concluding peace, or preventing a rupture, and of mediating between the different interests of different nations. At the same time, it is very common for a congress to assume il- legal power in respect to particular governments or nations, because a congress affords governments of the same way of thinking so much opportunity of concentrating their forces. The plenipotentiaries of the dissentient, or of the mediating powers, assemble at an appointed place to communicate neutral ground, and, partly by notes, partly by verbal communica- tion, carry on their negotiations. It is necessary to distinguish the preliminary congress, in which the preliminaries are settled (such as the consent and the representation of the different powers, the place and time of the meeting, the extent of the neutral ground, the security of ambassadors and public messengers, the ceremonial, and the method of transacting busi- ness), from the principal congress, which is to bring
the affair in question to a decision. These preliminaries are commonly settled in the diplomatic way, by the mediating powers, and then the principal congress assembles. The plenipotentiaries, when they meet, after mutual greetings, appoint, in a preliminary conference, the day on which the congress is to be opened, and the duration of the same, in which business is to be transacted, the forms of negotiation, the order of precedence among the different powers (in Europe, the alphabetical order has been followed since 1815; see Ceremonial), and the time of session. The congress opens by the exchange and perusal of credentials and plenipotentiary commissions, which, in cases, the negotiating parties have referred to the arbitration of a mediator, are given to him. The envos of the containing powers then carry on their negotiations directly with each other, or by the intervention of a mediator, either in a common hall, or in their own respective commissions, or, if there is a mediator, in his residence. These negotiations are continued either by writing or by verbal communication, until the commissioners can agree upon a treaty, or until one of the powers dissolves the congress by recalling its minister.

The history of the congresses is a history of European politics. It appears that Henry IV. and Sully, having conceived the idea of forming a union of the European states, the members of which, beholden to each other, might be withheld from rebel or appeal to a statute, first thought this manner of negotiation would be expedient. For this purpose the former French congresses had been held in Europe. Those at Roschild in 1598, at Stettin in 1570, and that convoked at the request of the czar John IV., by the pope, at Rivanova, in 1589, and the succeeding years; that at Stolbowa in 1617, at Vismas in 1613, at Stadhouder in 1655, and at Bromsebro in 1658, which were terminated by the treaties of peace, named from the places where they were held, regarded merely the political relations of the northern states. The history of the formal or real congresses begins for peace begins, therefore, with those at Munster and Osnabruck, 1648, and for war, to those of Ryswick, 1697, and that of Carlsbad, 1748.

A. From 1648 to 1713. 1. The congress at Munster and Osnabruck. It is remarkable that the pope (during the thirty years war, and among the powers of Europe, except the king of Spain, who refused to acknowledge the peace of Westphalia and the propositions of peace, in 1648, at Cologne, by his nuncio Ginetti. The emperor and Spain did indeed send ambassadors to Cologne, who were prepared to negotiate with France and Sweden, under the mediation of the pope; but, on this account of this congress, but, on the contrary, joined with Sweden in a common negotiation for peace, at Hamburg. The emperor, finally, in a preliminary treaty at Hamburg, in 1641, resolved to negotiate with both powers at Munster and Osnabruck. On account of the dispute between France and Sweden on the subject of rank, and to avoid collision during the congress all the powers, excepting France, were represented by plenipotentiaries, the three princes were chosen, which France had offered, being only six legations, each of which was to be divided in two; the two meetings should form but one congress. This great European council of peace was first opened in December, 1644. At Munster was carried on the speech of the nuncio of the pope, and the envoy of the republic of Venice: at Osnabruck, the negotiations were direct, and the Latin language was used. (See Westphalia, Peace of.) 2. The congress of the Pyrenees. France and Spain continued, until 1659, the war between them. There was an engagement at Westphalia to treat, but no conclusion was made in Germany. After a preliminary treaty concluded at Paris, May 7, the issue of the war was determined, and the peace was declared for three years, a place was chosen for a peace meeting; and cardinal Mazarin and the Spanish minister, don Luis de Haro, from Aug. 13 to Nov. 28, continued the negotiations, and, on the first day, the former used the Italian and the latter the Spanish language. The third year was extended till 1660, and a peace was made, for her political supremacy; Spain ratified the peace of Munster, and yielded Roussillon, Conflans, and some places in the Netherlands, to France, which restored the banished princes of

Conde to his honours and estates. Lorraine was also restored to her duke. 3. The congress at Breda, by the mediation of Sweden, France, England, and Brandenburg, and the Netherlands, France, and Denmark on the other, by the peace of Breda, July 31, 1667, which principally related to the territories of the United Provinces, and especially to the Dutch East India, and the island of Ceylon. 4. The congress at Aix-la-Chapelle, under the mediation of the emperor and Spain, in 1696, the treaty between France and England (hereby confirmed by the claim of Louis XIV. to a part of the Spanish Netherlands), by the peace of Aix-la-Chapelle, May 5, 1697, according to which France renounced the island of Ceylon, which she had conquered in the Spanish Netherlands, but restored France in the Netherlands, from 1672 to 1678. This congress was first opened at Cologne, in 1673, but was dissolved in the following year. The British ambassador, the elector of Cologne, and sent from that city to Vienna. The congress (among whom was the famous Sir William Temple) and the papal envoy there arrived. The mediators, the negotiations for peace between France, Spain, the Netherlands, the German emperor, Sweden, Brandenburg, and some small states, at the congress of Nimoguen, from 1676 to the conclusion of the peace of Nimiguen, in 1678, which consisted of several separate treaties of peace between France and the Netherlands; between France and Spain, called (in 1715) the peace of Utrecht; and in 1679, of which the peace with Brandenburg, at St. Germainen-Layne, and that with Denmark at Fontainebleau and Luneborg, were part of the peace of Nimiguen, but the French and English were the immediate consequences. Thus French diplomacy, by this means, had obtained the victory, the neutrality, and secured, for a long time, the political supremacy of Louis XIV.

The taking of Strasburg, which happened during the peace of Aix-la-Chapelle, and the re-union system of the great alliance of the Hague (of which William III. was the head), increased the restrictions and usurpations of England, and Holland first united with England, and Sweden, and some German circles joined the league, to support the peace of Aix-la-Chapelle, in 1698. This league was not ready engaged in a war against the Turks, recourse was had to negotiation rather than to arms. This was the object of the famous congress of Frankfort, in 1694, which broke the French, in December, 1692, but was afterwards continued at Aix-la-Chapelle, in 1699, where the Spanish succession issue was renewed. But in vain did the European powers seek, by alliances with each other, and particularly by the great league of Antwerp (association of the English, the Poles, the Dutch, and Holland, William III., to put limits to the ambition of Louis, and the other powers, to the chivalrous enterprises of the Rhine. This, and the expulsion of the house of Stuart from the throne of Britain by William III., in November, 1688, which was disastrous to the affairs of France, the Spanish succession issue Louis, though victorious, to attempt to divide the allies by separate treaties, and, not succeeding in this, he sought the mediation of Sweden; by means of which a congress was convened at Ryswick, a castle near the Hague, during May, 1695, Sweden, was now became the great power in Europe. The former peace congresses had been concluded, and so were the next, at Frankfort, in 1696, at Ryswick, in 1697, and that of Nimeguen, in 1679, but the Fins and Saxons were not engaged in these conferences, in a circular table, in the hall of conference, which prevailed all disputes upon precedence) on the principles of the peace of Westphalia, and by the grand bargain, of which the treaty of Aix-la-Chapelle between Poland and the Porte were settled. 8. The most famous is that which took place at Oliva, a monastery near Danzic, in May, 1701, between the emperor and Russia, and Sweden, and to which the German emperor, the elector of Brandenburg, and the magnates, and ambassadors of the electorate of Saxony, and the British, Dutch, and Hanoverian ministers. The plenipotentiaries of the Dutch republic, of Denmark, and of Sweden were not admitted. The peace of Oliva, May 3, 1690, confirmed the political superiority of Sweden in the north, secured to it the possession of Livonia, and established the independent states of Finland. At the same time, Britain, Hanover, Holland, and France meditated the extension of the peace of Copenhagen, concluded May 27, 1699, between Sweden and Denmark. The negotiations at Oliva were finally completed by the peace between Sweden and Russia, at Cardis, July 1, 1699. Particular congresses were convened to settle certain disputes, which were the consequence of the peace of Oliva, at Radzyn and Andrusov in 1694, which resulted in the definitive peace of Nanteuil, and the marriage of the Polish king and the Princess Sophia, at which the treaty of Oliva had already shaken, received a second blow. The boundaries between Russia and Poland were regulated by the mediation of Poland and Sweden, and the treaty of Oliva, October 10. The congress at Alba, in 1687, where the German emperor and the electors of Saxony and Brandenburg mediated in the disputes between Denmark and the house of Holstein Gottorp, terminated, after great Britain and the states-general had made peace with the Great Mogul, on the 10th of May, 1699, by which the duke of Holstein regained his territories with the title of being the king of Norway and Denmark. The three states of 1706 conferences at Carlowitz in 1685, where a Turkish sultan first learnt to employ the forms of Euopean diplomacy, accepting the title of a protector of that nation, in his way, and his first dragonet, Mavrocordato, exhibited a specimen of the diplomatic power which was to be exercised in the next age, as compared to political power, and the rank by a round table. In 1689, he concluded with the German emperor, Poland, Venice, and Russia, at Carlowitz, the treaties of peace, or truces, by which certain boundaries were first to be the
power of the Porte. Venice was obliged to give up Candia and the Ionian islands. England, Denmark, Russia, and Algeciras, the Ionian islands, and some places in Albania.

In the year 1745, the War of the Austrian Succession was ended by the congress at Utrecht, to which France, Britain, the States-general, Savoy, the emperor, Portugal, Prussia, the Republic of Venice, Austria, and Spain were parties, and which settled Oct. 8, 1711, had drawn the outlines of the peace, and had prepared the basis upon which the definitive定了

It was at the time of the death of Maria Theresa. New disputes arose, however, at the commission of the Peace of the Hague,ettle, the Palatinate, Saxony, and Bavaria, together with Hungary, Bohemia, and Transylvania, sent their plenipotentiaries in January, 1748, after France, Austria, and England had settled the Peace of Utrecht, 1713, and the ministers of the other contracting parties had given in their demands separately. The dissections between them involved the most important consequences; for the French and Spanish boundaries were, for the most part, carried on in secret, and immediately with the court of Versailles. The result was eight separate decrees. The emperor, however, was followed by Savoy, and Portugal made with each other, between 1713 and 1715, the most important alliances of the Peace of Utrecht. Peace of.

Since that time the British, from their naval and commercial power, have taken the lead among the European powers, and the interest of Britain has determined the fate of the European system of a balance of power, as it is now generally called.

...
congress of Stockholm, separate treaties of peace with Han-
over, Nov, 30, 1710, and in, 1728, with Prussia, Denmark, and,
generally. When peace was arranged by the mediation
of France, was obliged to conclude peace, Sept 10, 1721, and
in April, 1722, and, 1723, in which, however, the
terms dictated by the ciea, which established the ppre-
clusion of Russia in the North. This was followed by the
conclusion with the Baltic States, including Denmark and
the Bishop of Lubeck, Adolphus Frederick, duke of
Holstein-Gottorp, instead of the crown prince of
Denmark. This congress was held at Abo, August 17, 1734,
at the congress held there by Russian and Swedish mis-
tioned. The mediation of Sweden and Russia, obliged
the wishes of the nations, and the demands of the spirit of
the age, and they were so much in the interest of America
powers, and acted so much in concert, as in this period, because
they had felt necessity to make common cause against Liberty;
and never were so closely united as in the same space of
time, because constant instances of insubordination on have required con-
This congress concluded the union of the monarchs at
home and made them feel of assembling in congress. In
this period, a most peculiar and unprecedented principle has been
established, the mediation of states, and the interference in the
internal affairs of foreign nations; or that Alexander of Ru-
sia created the concerns of Spain as if they were his own, feel-
ing that every despot was interested in preventing the progress
of liberal principles. This principle naturally gave rise to the
troes and concessions. Thus, a principle oxidious
The regularity of the sessions against Napoleon, con-
gress were held at Prag, in 1711, and at Chatillon (q. v.),
In February and March, 1814. In the subsequent peace, it
arose, it was still necessary to provide for a full recognition
with France, by the withdrawal of the army, composed of
British, Hanoverian, Russian, and other German troops.
It was determined upon the congress of Aix-la-Chapelle
(9. v.), in October and November, 1814, chiefly by the medi-
ations of the states-general, and by the various powers of
considerable interest for the conciliation of Great Britain,
the alliance of the four great powers. The five powers
published in the congress of Aix-la-Chapelle,
the suspensions of the monarchs against the liberal spirit in
Germany, which they had themselves inflicted by a h.4. kind of
promises and exactments of the national feeling, when they
wished to avoid themselves all its purpose for the subdu-
ing of Napoleon, but which they now dreaded in the same degree
as they were unwilling to fulfill their promises, and the just
demands of the nations and the age. Unfortunately, the
rush act only summed up the situation, and.
FRENCH, Anna, Guillaume, Jean
C'est donc point p.ay thirilibre,
Mais c'est une cause.
Vite, un congrès !
Quatre congrès! !
C'est donc un congrés !
À Paris, ce mon tre
Princes: veuvez ce bon Christophe,
Vie de sagesse sans regret.
this purpose, party for supplying some deficiencies in the acts of the congress of Vienna, relative to the internal organization of the empire, and by which certain ministers, who, after this congress, remained in office, were called to account for their first management of this interesting affair, did not at all contribute to the organization of the German confederation, and to the suppression of the liberal spirit in Germany, which had that year made a first attempt to revolutionize the empire, from which it was at length expelled in 1813. The third congress of the French, at Troppau, Laybach, and Verona, concurred in the affairs of European politics, and was the Congress of Vienna, held from October to December, 1814. The congress was held on account of the revolutions in Spain and Portugal, and was totally out of the question, when the revolution broke out. The right of interfering in the internal affairs of other nations, as they are far beyond the range of national politics, is admitted into the international code of the European continental powers at the congress of Laybach. The consequences of the revolution in Laybach, from the congress of Vienna, and a convention of representatives, issued a proclamation against Naples, were the occupation of Naples, March 1812, by Piedmont, by Austria, and the other nations of the confederation, in consequence of the Spanish constitution in these countries, and the restoration of the old order of things. (See Naples, Sicily, and Piedmont Revolution.)

If Austria had not succeeded, a Russian army of 80,000 men, which had already begun to march towards Vienna in 1812, would have occupied the empire of Colombia, he invited the governments of Mexico, Peru, Chile, and Bueno Ayres, to send delegates to the dominion of Panama, to comprise this republic, and the Mexican and Peruvian governments refused to take part in the congress. In Dec., 1824, Bolivar sent a deputation to each of the four American republics, conceived the idea of organizing the four Spanish American republics into an empire, of which he was to be the emperor. The United States of North America, in 1825, that they would permit no other colo- 

The first attempt to carry this plan into execution was made by Bolivar, in 1825, who proposed the constitution of the empire of Colombia, he invited the governments of Mexico, Peru, Chile, and Bueno Ayres, to send delegates to the dominion of Panama, to comprise this republic, and the Mexican and Peruvian governments refused to take part in the congress. In Dec., 1824, Bolivar sent a deputation to each of the four American republics, conceived the idea of organizing the four Spanish American republics into an empire, of which he was to be the emperor. The United States of North America, in 1825, that they would permit no other colonization in any part of the empire by European powers; that they should consider any attempt on the part of those powers to extend the system of national intercourse to any portion of this hemisphere congenial to their peace and safety; and that any interposition, by any European power, for the purpose of controlling, in any manner, the governments of America, which had established their independence, would be considered as the manifestation of an unfriendly disposition towards the United States, led the South American states to in- 

The Congress of the United States of America, is the national legislature of the United States of America, designated, in the constitution of the general government, by this title. It consists of a senate and a house of representatives, each constituting a distinct and independent branch. The house of representatives is composed of members chosen by every second county, by every county in any state, and which is the only branch of the state legislature of the state in which they vote. The representatives are apportioned among the several states according to their respective population; and, in estimating the population, three-fifths of the slaves are added to the whole number of free persons. A census of the population is taken once in every ten years, and an apportionment is then made of the representatives for each state. The representatives are then elected in each state, either in districts, or by a general ticket, as the state legislature directs. There cannot be more than one representative for every 30,000 persons. The present apportionment is one representative for every 40,000 persons. Each state, however small may be its population, is entitled to at least one representative. No person can be a representative who shall not have attained the age of twenty-five years, and have been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that state in which he shall be chosen. No other qualification is prescribed. If he shall be chosen in the representation of any state, by death, resignation, or otherwise, new writs of election are issued by the executive thereof to fill the vacancy. The house of representatives chooses its own speaker and other officers, and possesses the sole power of impeachment. Each representative has a single vote. The senate of the United States is composed of two senators from each state; and, there being twenty-four states, the senate now consists of forty-eight members. The senators of each state are chosen by the legislature of the state for six years, and each senator has one vote. They are divided into three classes, so that one-third thereof is or may be, changed by a new election every second year. When vacancies happen, they are supplied by the state legislature, if in session; if not, the state executive makes a temporary appointment until the legislature meets. No person can be a senator who is not thirty years of age, has been nine years a citizen of the United States, and is not, when elected, an inhabitant of the state for which he is chosen. The vice-president is, ex officio, president of the senate; but he has no vote unless they be equally divided. The senate chooses all its other officers, and a president, pro tempore, in the absence of the vice-president, or when he exercises the office of president of the United States. The senate has the sole power of trying all impeachments; and, when sitting for this purpose, the senators take an oath or affirmation. If the president of the United States shall be impeached, the chief-justice is to preside. A conviction on impeachment cannot be without the concurrence of two-thirds of the members present. The judgment extends only to a removal from office and future disqualification for office. But the party is, nevertheless, liable to punishment on indictment, by the common trial and course of law.

The times, places, and manner of holding elections for senators and representatives, are appointed by the state legislatures; but the congress may, by law, fix and alter the time and manner of holding such elections. The power of the house of representatives, in respect to bills and resolutions, is the right of the judges, the returns, and qualifications of its own members. Each house determines the rules of its own proceeding,
and has power to punish its members for disorderly conduct, and, with the concurrence of two-thirds, to expel a member. A majority of each house constitutes a quorum to do business; but a smaller number may adjourn from day to day, and has power to compel the attendance of absent members, in such manner and by such means as each house may provide. Each house is required to keep a journal of its proceedings, and, from time to time, to publish the same, excepting such parts as, in its judgment, may require secrecy. In point of fact, they are published every day or two, during the session, and collected in volumes at the end thereof, set by the members. And for the members of each house, on any question, are required, at the desire of one-fifth of those present, to be entered on the journal. The congress is required to assemble at least once every year; and such meeting is on the first Monday of December annually, unless a different day is provided by law. The president of the United States has authority to convene extra sessions. Neither house, during the session of congress, can, without the consent of the other, adjourn more than three days, nor to any other place than that in which the two houses shall be sitting. In case of disagreement between the two houses as to the time of adjournment, the president of the United States may adjourn them to such time as he shall think proper. The senators and representatives are entitled to receive a compensation, provided by law, for their services, from the treasury of the United States. They are also privileged from arrest, except in cases of treason, felony, or breaches of the peace, during their attendance at the session of their respective houses, and in going to and returning from the same. This does not mean merely their daily attendance; but, also, in going from or returning to their respective houses, in the several states. They have liberty of speech, and are not liable to be questioned, in any other place, for any speech or debate in either house. No senator or representative can be appointed to any civil office under the authority of the United States, which is created, or its emoluments increased, during the time for which he is elected; and no person holding an office under the United States, can be a member of either house during his continuance in office. It has been already stated, that each house determines the rules of its own proceedings; and, in point of fact, each house now has a large collection of rules, which are printed for the use of the members, and for the public, and are very large. In a general sense, the rules and practice of the British house of commons form the basis of their proceedings, modified from time to time, as each house deems fit. The rules are too numerous to admit of any useful summary in this place. There are, however, certain constitutional provisions, as to the proceedings of the two houses, which deserve to be mentioned. All bills for raising revenue must originate in the house of representatives; but the senate may propose or concur with amendments, as on other bills. Every bill which has passed the senate and house of representatives, before it can become a law, must be presented to the president of the United States. If he approve, he signs it; if not, he returns it to the house in which it originated, with his objections, and these objections are entered at large on their journals, and they are required, on reconsideration, two-thirds of such house agree to pass the bill, it is sent, with the objections, to the other house, by which it is also to be reconsidered; and, if approved by two-thirds of that house also, it becomes a law. In all such cases, the votes of both houses are determined by yeas and nays, and the names entered on the journals. No instance has, as yet, occurred, in which any bill, returned by the president with objections, has ever become a law by a vote of two-thirds of each house. If any bill is not returned by the president within ten days (Sundays excepted) after it is presented to him, it becomes a law, in the same way as if he had signed it, unless Congress by adjournment prevents its return. Every order, resolution, or vote, to which the concurrence of both houses is necessary, must, in like manner, be presented to the president, and similar proceedings are to be had thereon. The legislative powers belonging to congress will now be stated, in the general object of the constitution, the United States, in the modes of interpretation of the same language have, at different times, been insisted on by different parties in the United States. Congress, then, by the constitution, has power to lay and collect taxes, duties, imposts, and excises, to pay the debts, and provide for the common defence and general welfare of the United States; but all duties, imposts, and excises shall be uniform throughout the United States: to borrow money on the credit of the United States: to regulate commerce with foreign nations and among the several states, and with the Indian tribes: to coin money, regulate the value thereof, and of foreign coins, and to fix the standard of weights and measures: to provide for the punishment of counterfeiting the securities and current coin of the United States: to establish post-offices and post-roads: to promote the progress of science and useful arts, by securing, for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries: to constitute tribunals inferior to the supreme court: to define and punish piracies and felonies committed on the high seas, and offences against the law of nations: to declare war, grant letters of marque and reprisals, and make rules concerning captures on land and water: to raise and support armies; but no appropriation of money to that use shall be for a longer term than two years: to provide and maintain a navy: to make rules for the government and regulation of the land and naval forces: to provide for calling forth the militia to execute the laws of the union, suppress insurrections and repel invasions: to provide for organizing, arming, and disciplining the militia, and for guarding such part of them as may be required for the defense of the United States, reserving to the states, respectively, the appointment of the officers, and the authority of training the militia according to the discipline prescribed by congress: to exercise exclusive legislative power in all cases whatsoever over such district, not exceeding ten miles square, as may by cession of particular states, and the acceptance of congress, become the seat of the government of the United States; and to exercise like authority over all places purchased by the consent of the legislature of the state in which the same shall be, for the erection of forts, magazines, arsenals, dock-yards, and other needful buildings: to make all laws which shall be necessary and proper for carrying into effect the foregoing powers, and all other powers vested by this constitution in the government of the United States, or in any department or office thereof." Congress also has power to organize the supreme court, and to ordain and establish, from time to time, inferior courts. In some cases, the original jurisdiction of the supreme court is expressly given in the constitution; but its appellate jurisdiction is under the regulation of congress. Congress has, in the several cases in the constitution which shall be vested in other inferior courts to