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FLORA

OF THE

COLOSSEUM OF ROME;

OR,

ILLUSTRATIONS AND DESCRIPTIONS OF FOUR HUNDRED
AND TWENTY PLANTS GROWING SPONTANEOUSLY
UPON THE RUINS OF THE COLOSSEUM OF ROME.

BY

RICHARD DEAKIN, M.D.

; AUTHOR OF THE

FLORIGRAPHIA BRITANNICI," "BRITISH FERNS AND THEIR ALLIES,"

"METEOROLOGICAL CHART OF ROME," ETC. ETC.

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PREFACE.

THE COLOSSEUM is the most remarkable, the grandest, and most imposing of all the vast ruins of Ancient Rome. It was built, according to Suetonius (Nero 31), on the spot which was previously occupied by the lake or large pond attached to Nero's palace, and is situated near to the remains of the Baths of Titus, which appear to be built on a part of the foundations of the palace of Nero, on the Esquiline Hill; opposite to it on the north-west side was the temple of Venus and Rome, and it communicated with the Palace of the Cæsars, on the Palatine Hill, by a subterranean passage.

Formerly the Colosseum was known by the name of the Flavian Amphitheatre, in memory of Flavius Vespasian, who commenced it A.D. 72. It is said to have been only four years in building, and to have been completed by his son Titus. They erected it as a triumphal commemoration of their successes in the Jewish wars, as well as the Triumphal Arch of Titus, which stands across the Via Sacra, near to the Colosseum, and is, perhaps, the most interesting of all the triumphal arches in Rome, as its bas-reliefs not only

represent on one side Titus in his car, in the triumphal procession, but on the opposite side are represented the spoils of the Temple of Jerusalem, the sacred ark and the seven-branched candlestick, which are so accurately represented as to entirely agree with the description given in the Mosaic account of them. At the dedication of the Colosseum, Eutropius (lib. vii. c. 21) states that 5000 wild beasts were killed, and that there was an exhibition of games for nearly 100 days; and Josephus (*de Belli Jud.* lib. vii. c. 5) says, that Titus brought 700 Jews to Rome to grace his triumph; and it is probable that many of them formed combatants etc., in the exhibitions. The Colosseum, it is calculated, covers altogether about six acres of ground; its whole length is 619 feet, and the whole width 513, and the circumference 1741. The length of the arena is 300 feet; its width 190. The outer walls on the perfect side were stated to be 179 feet high; and, from all the accounts and calculations, it seems probable that it was capable of accommodating the extraordinary number of 100,000 persons to witness the exhibitions.

But such is now the state of the ruin, that there is not remaining a single seat of stone of all those which rose in regular succession from the arena to the third story, nor any portion of the upper gallery in the fourth story. To enter, however, into any lengthened description of its present state, or to speculate upon what this or that portion of the building has been, and the uses to which they were applied, would be out of place here, and only to repeat what is found in the guide books and the many dissertations which have been written upon it.

Interior of Colosseum.

The enterprising managers of the Sydenham Palace, near London, have, at considerable expense, made the public better acquainted with this most noble of the Ancient Roman structures, as it was in its perfect state, by the best possible means, in having a large model of it made in the exact relative proportions ; thus showing, in detail, what it is almost impossible to describe by words or drawings.

No one, however, can stand in the middle of the arena, as it now is, without endeavouring to picture to himself what the scene was when its seats around were filled with 100,000 occupants, to witness the many barbarous scenes which there took place. Not only were the noble and graceful animals from the wilds of Africa brought there in great numbers, and let loose in their wild and famished fury, to tear each other to pieces, but numberless human beings were made to engage them in mortal combat, and cast amongst them to be instantly torn to pieces, and sacrificed in various cruel ways for the amusement of the people, or as a punishment for crimes which they had committed. Amongst these were captive slaves from various conquered states, and not a few were martyred for their disbelief in the divinity of the dumb Pagan idols, and being followers of Christ, the ever-living God, and thus bore testimony to their belief in the doctrines which he had taught. Amongst the foremost and most distinguished of these noble men was St. Ignatius, who was brought from Antioch in the reign of Trajan, on purpose to be exhibited to the assembled multitude in the Colosseum, and was there exposed to the fury of the enraged animals, and in a few minutes

torn to pieces and consumed. But these scenes, the gladiatorial combats, and various games, and vast and numerous exhibitions, are subjects of history which will recur to the mind when pondering over and examining the place in which they occurred, and need not be repeated here.

The object of the present little volume is to call the attention of the lover of the works of creation to those floral productions which flourish, in triumph, upon the ruins of a single building. Flowers are perhaps the most graceful and most lovely objects of the creation but are not, at any time, more delightful than when associated with what recalls to the memory time and place, and especially that of generations long passed away. They form a link in the memory, and teach us hopeful and soothing lessons, amid the sadness of by-gone ages: and cold indeed must be the heart that does not respond to their silent appeal; for, though without speech, they tell of that regenerating power which reanimates the dust of mouldering greatness, and clothes their sad and fallen grandeur with graceful forms and curiously constructed leaves and flowers, resplendent with their gay and various colours, and perfume the air with their exquisite odours.

The plants which we have found growing upon the Colosseum, and have here described, amount to no less a number than 420 species; in this number there are examples of 253 Genera, and illustrations of 66 of the Natural Orders of plants, a number which seems almost incredible. There are 56 species of Grasses—47 of the order *Compositæ* or Syngenesious plants—and 41 of the Leguminous or Pea tribe: but it must be

remembered that, though the ground occupied by the building is about six acres, the surface of the walls and lodgment on the ruins upon which they grow is much more extensive, and the variety of soil is much greater, than would be supposed without examination ; for, on the lower north side, it is damp, and favourable to the production of many plants, while the upper walls and accumulated mould are warmer and dryer, and, consequently, better suited for the development of others : and, on the south side, it is hot and dry, and suited only for the growth of differently constructed tribes.

The collection of the plants and the species noted has been made some years ; but, since that time, many of the plants have been destroyed, from the alterations and restorations that have been made in the ruins ; a circumstance that cannot but be lamented. To preserve a further falling of any portion is most desirable ; but to carry the restorations, and the brushing and cleaning, to the extent to which it has been subjected, instead of leaving it in its wild and solemn grandeur, is to destroy the impression and solitary lesson which so magnificent a ruin is calculated to make upon the mind.

In the year 1815, a catalogue of the plants then growing upon the Colosseum was published by Antonio Sebastiano, a Roman botanist, amounting to 261 species. Some of the species there enumerated are not now to be found ; but it will be seen that the numbers are now much increased, or that the list was not then a perfect one.

In the arrangement of the plants I have thought it best to place them under the natural orders, for the

purpose of more fully exhibiting their variety of character, and have so constructed the synopsis that the student may study them, and trace out the Genera and Species, according to the Natural System, or that of the Sexual or Linnean System.

64, VIA SISTINA, ROME,

May, 1855.

FLORA OF THE COLOSSEUM OF ROME.

SYNOPTICAL TABLE OF THE NATURAL ORDERS.

CLASS I.

Dicotyledons or Exogenous Plants.

Stem with wood, pith, bark and medullary rays. Flowers generally in five divisions. Leaves with netted veins. Seeds with two lobes.

SUB-CLASS I.—**Dichlamydeous Plants.**

Perianth double, consisting of calyx and corolla, the parts of the flower generally in fives, and the leaves with netted veins.

SUB-DIVISION I.—POLYPETALOUS.—Corolla composed of two or many petals.

Ovary or ovaries free.

OVARIES numerous.

Orders.

Calyx composed of separate sepals.... 1. RANUNCULACEÆ.

Calyx composed of sepals more or less united at the base.

Stamens united by the filaments into a tube..... 2. MALVACEÆ.

Stamens distinct.

Leaves more or less fleshy..... 3. CRASSULACEÆ.

Leaves not fleshy 4. ROSACEÆ.

OVARY solitary.

Orders.

Corolla regular.FLOWERS complete containing
stamens and pistil.*Stamens* 1 to 6.*Calyx* margin entire or obso-
letely toothed 5. VITACEÆ.*Calyx* sepals more or less united
at the base.

SHRUBS 6. CELASTRINEÆ.

HERBS.

Corolla wanting, or of 5 scale-
like teeth..... 7. PARONYCHIEÆ.*Corolla* of 5 clawed petals 8. CAROPHYLLÆ.*Calyx* of 2 to 6 separate pieces.*Stamens* slightly united at the
base into a monodelphous
ring 9. LINEÆ.*Stamens* tetradynamous (2 long-
er than the others) 10. CRUCIFERÆ.*Stamens* 7 to 10.*Leafless* parasitical plants.... 11. CYTINEÆ.*Leafy* not parasitical plants.*Style* single.*Stamens* united at the base.... 12. GERANIACEÆ.*Stamens* free 13. RUTACEÆ.*Styles* 2 to 5.*Leaves* trifoliate 14. OXALIDEÆ.*Leaves* simple or divided not
trifoliate 15. SAXIFRAGEÆ.*Stamens* 11 or more.*Petals* definite, generally 4 or 5.United with the calyx seg-
ments 16. HYPERICINEÆ.Separate from the calyx
segments.*Calyx* of 2 sepals 17. PAPAVERACEÆ.*Calyx* of 3 to 8 sepals.*Petals* entire.

*Orders.**Petals* 4 18. CAPPARIDÆ.*Petals* 5 19. CISTINÆ.*Upper Petals* cut in a pal-
ted manner 20. RESEDIACÆ.FLOWERS incomplete, mostly
unisexual..... 21. TEREBINTHACÆ.*Corolla* irregular.*Corolla* spurred at the base.*Calyx* of 5 sepals..... 22. VIOLACÆ.*Calyx* of 2 sepals..... 23. FUMARIACÆ.*Corolla* not spurred at the base.*Stamens* 8..... 24. POLYGALÆ.*Stamens* 10 or more 25. LEGUMINOSÆ. Ovary attached to or enclosed within the tube of the corolla.*Stamens* the same number as the
petals, and alternating with
them, or twice the number.*Carpels* 2 united with the placenta
in the axis, separating when
ripe from the base to the apex,
and remaining suspended from
a carpophorus.

FLOWERS umbellate 26. UMBELLIFERÆ.

FLOWERS not umbellate.

SHRUBS or trees.

Stamens opposite the petals.*Calyx* 4 or 5 lobed 27. RHAMNÆ.*Stamens* alternate with the petals.*Calyx* 4 or 5 toothed..... 28. ARALIACÆ.

HERBS.

Styles 2 or more 15. SAXIFRAGÆ.*Styles* 1 29. ONAGRARÆ.SUB-DIVISION II. — GAMOPETALOUS. — Petals more or
less united together. Stamens inserted either directly on the calyx, or on the corolla
which arises from the calyx, the calyx being adherent to the ovary.

FRUIT 1 seeded.

Orders.

FLOWERS corymbose, paniculated

or sub-capitate..... 30. VALERIANEÆ.

FLOWERS aggregated in a common

receptacle, and surrounded by

a many-leaved involucre.

Anthers united into a tube..... 31. COMPOSITEÆ.

Anthers distinct 32. DIPSACEÆ.

FRUIT 2 or many seeded.

Stamens 5 inserted into the base

of the corolla on the ovary.

FRUIT a fleshy berry 33. CUCURBITACEÆ.

FRUIT a dry capsule 34. CAMPANULACEÆ.

Stamens 5 or 4 alternate between

the lobes of the corolla.

HERBS with whorled leaves and

square stems 35. STELLATÆ.

SHRUBS with rounded stems 36. CAPRIFOLIACEÆ.

~~IF~~ *Stamens* inserted on the corolla which arise from the torus, the calyx not being adherent to the ovary.

Fertile Stamens 2 to 4.

FRUIT consisting of a 4 lobed ovary

apparently of 4 naked seeds.. 37. LABIATEÆ.

FRUIT not 4 lobed.

Fertile Stamens 2.

HERBS..... 38. SCROPHULARINEÆ.

SHRUBS OR TREES..... 39. OLEACEÆ.

Fertile Stamens 4, rarely 2.

Corolla regular, membranaceous 40. PLANTAGINEÆ.

Corolla irregular coloured.

FRUIT drupaceous or baccate 41. VERBENACEÆ.

FRUIT capsular.

Leafless parasitical plants 42. OROBANCHEÆ.

Leafy not parasitical plants 43. ACANTHACEÆ.

Fertile Stamens 3 to 5 (some-
times more).

FRUIT consisting of a 2 or 4 lobed

ovary apparently of 2 naked

seeds or nuts 44. BORAGINEÆ.

- FRUIT a capsule bursting longitudinally. *Orders.*
Stamens opposite the lobes of the corolla..... 45. PRIMULACEÆ.
Stamens alternate with the lobes of the corolla.
Capsule few seeded 46. CONVULVULACEÆ.
Capsule many seeded.
Anthers not appendiculated.
Corolla plaited in æstivation 47. SOLANÆÆ.
Corolla imbricated in æstivation 48. GENTIANÆÆ.
Anthers appendiculated 49. ERICACÆÆ.
FRUIT a capsule bursting transversely 50. AMARANTHACEÆ.

SUB-CLASS II.—**Monochlamydeous Plants.**

Perianth simple, of 1 or 2 rows, or rarely apparently double, the parts of the flowers being then in threes, and the leaves with parallel veins.

- FLOWERS superior. *Orders.*
Stamens attached to a central column 11. CYTINÆÆ.
Stamens attached to the base of the corolla 51. SANTALACEÆÆ.
FLOWERS inferior.
FRUIT separating into many carpels..... 52. EUPHORBIACEÆÆ.
FRUIT indehiscent.
Leaves with stipules.
Stipules forming a sheath round the stem 53. POLYGONÆÆ.
Stipules free 54. URTICACEÆÆ.
Leaves without stipules.
FRUIT inclosed in an indurated involucre..... 55. AMBROSIACEÆÆ.
FRUIT inclosed in the enlarged often fleshy perianth..... 56. CHENOPODIACEÆÆ.
FRUIT a berry..... 57. PHYTOLACEÆÆ.

CLASS II.

Vasculares or Endogenous Plants.

Stems destitute of a central pith, medullary rays, or true bark, composed of scattered fibres harder on the outside than the centre. Leaves sheathing. Flowers with its divisions generally in threes. Seeds with one perfect lobe.

OVARIUM 1 inferior.

Orders.

Stamens 3 united into a central column with the style..... 58. ORCHIDÆÆ.

Stamens 3 free or monodelphous 59. IRIDÆÆ.

Stamens 6 free 60. AMARYLLIDÆÆ.

OVARIUM 1 superior not glumaceous.

Perianth of 6 petaloid pieces. .. 61. LILIACÆÆ.

Perianth of 6 membranous pieces.

FLOWERS perfect simple 62. JUNCÆÆ.

FLOWERS perfect or uni-sexual and arranged within a common spadix 63. ARACÆÆ.

OVARIUM superior flowers glumaceous.

Glumes 1 valved, sheaths of the leaves entire, the stem solid 64. CYPERACÆÆ.

Glumes mostly 2 valved, sheath of the leaves divided, the stem hollow 65. GRAMINEÆÆ.

Cryptogamous Plants—(Flowerless Plants).

FLOWERS wanting; or the stamens and pistils, if any, indistinct, and not visible to the naked eye.

Capsules, semi-transparent cases arising from the veins on the under-side of the fronds, or margin, in clusters of various shape called *Sori* 66. FILICES.

SYNOPSIS OF THE GENERA ACCORDING TO THE SYSTEM OF LINNÆUS.

CLASS II.

Diandria (2 *Stamens*).

<i>Perianth</i> double inferior regular.	<i>Genus.</i>
<i>Corolla</i> 4 cleft.	
<i>Fruit</i> a berry	LIGUSTRUM.
<i>Fruit</i> a fragile drupe	PHILLYREA.
<i>Fruit</i> a bony drupe	OLEA.
<i>Perianth</i> double inferior irregular.	
<i>Seeds</i> in a 2 celled capsule	VERONICA.
<i>Seeds</i> 4 apparently naked.	
<i>Corolla</i> tubular 4 cleft	LYCOPUS.
<i>Corolla</i> 2 lipped.	
<i>Upper lip</i> concave	SALVIA.
<i>Upper lip</i> bifid	ROSMARINA.
<i>Perianth</i> double superior	CIRCÆA.

CLASS III.

Triandria (3 *Stamens*).

ORDER—**Monogynia** (1 *Pistil*).

<i>Perianth</i> double.	
<i>Calyx</i> limb at length developed into	
pappus	CEUTRANTHUS.
<i>Calyx</i> limb toothed	VALERIANELLA.
<i>Perianth</i> single petaloid.	
<i>Lacine</i> of the stigma narrow re-curved	TRICONEMA.
<i>Lacine</i> of the stigma dilated	CROCUS.
<i>Perianth</i> single glumaceous	CYPERUS.

ORDER—**Digynia** (2 *Pistils*).

Flowers glumaceous (see Nat. Ord., GRAMINEÆ.)

ORDER—**Trigynia** (3 *Pistils*).

<i>Petals</i> 5, stamens 3 to 5	POLYCARPON.
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CLASS IV.

Tetrandria (4 *Stamens equal*).ORDER—**Monogynia** (1 *Pistil*).*Corolla* superior of 1 piece.*Leaves* whorled (see Nat. Ord., STELLATÆ.)*Leaves* not whorled.*Genus*.*Receptacle* hairy KANUTIA.*Receptacle* scaly SCABIOUS.*Corolla* inferior 4 parted..... PLANTAGO.*Corolla* wanting perianth bell-shaped. PARIETAREA.ORDER—**Digynia** (2 *Pistils*).*Calyx* of 4 pieces SAGINA.

CLASS V.

Pentandria (5 *Stamens*).ORDER—**Monogynia** (1 *Pistil*).*Flowers* monopetalous inferior.*Fruit* 4 nuts (see Nat. Ord., BORAGINÆ).*Fruit* capsular, 1 celled.*Corolla* with reflexed segments CYCLAMEN.*Corolla* with spreading segments..... ANAGALLIS.*Fruit* capsular, 2 to 5 celled.*Corolla* funnel-shaped.*Capsule* linear ERYTHRÆA.*Capsule* ovate HYOSCYMUS.*Corolla* bell-shaped..... CONVULVULUS.*Corolla* wheel-shaped..... VERBASCUM.*Fruit* a berry SOLANUM.*Flowers* monopetalous superior.*Fruit* a capsule (see Nat. Ord., CAMPANULACEÆ).*Fruit* a berry LONICERA.*Flowers* polypetalous inferior.*Flowers* irregular VIOLA.*Flowers* regular.

Genus.

<i>Fruit</i> a capsule	EUONYMUS.
<i>Fruit</i> a berry	VITIS.
<i>Fruit</i> a fleshy drupe	RHAMNUS.
<i>Fruit</i> a dry drupe, with an orbicular ring.....	PALIURUS.
<i>Flowers</i> polypetalous superior.....	HEDERIA.

ORDER—**Digynia** (2 *Pistils*).

<i>Perianth</i> single inferior	CHENOPODIUM.
<i>Perianth</i> single superior.....	ULMUS.
<i>Perianth</i> double (see Nat. Ord., UMBELLI- FERA).	

ORDER—**Trigynia** (3 *Pistils*).

<i>Flowers</i> inferior	POLYCARPON.
<i>Flowers</i> superior.	
<i>Fruit</i> a 1 seeded berry	VIBURNUM.
<i>Fruit</i> a 3 seeded berry	SAMBUCUS.

ORDER—**Pentagynia** (5 *Pistils*).

<i>Capsule</i> 10 celled	LINUM.
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CLASS VI.

Hexandria (6 *Stamens*).ORDER—**Monogynia** (1 *Pistil*).

<i>Perianth</i> superior	NARCISSUS.
<i>Perianth</i> inferior petaloid.	
<i>Root</i> bulbous.	
<i>Perianth</i> globose or sub-cylindrical ..	MUSCARIA.
<i>Perianth</i> spreading.	
<i>Flowers</i> in terminal umbels	ALLIUM.
<i>Flowers</i> in a spike or raceme	ORNITHOGALUM.
<i>Root</i> tuberous fascicles, or fibrous	ASPHODILUS.
<i>Root</i> fibrous, stem herbaceous or woody.	ASPARAGUS.
<i>Perianth</i> inferior membranous	JUNCUS.

ORDER—**Trigynia** (3 *Pistils*).

<i>Perianth</i> of 6 pieces	RUMEX.
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CLASS VIII.

Octandria (8 *Stamens*).ORDER—**Monogynia** (1 *Pistil*).*Genus.**Corolla* of 4 petals inserted into the calyx. **EPILOBIUM.***Corolla* of 4 petals inserted into the recep-tacle **RUTA.***Corolla* of 1 petal, the limb 8 cleft **CHLORA.***Corolla* of 1 petal, the limb 4 cleft **ERICA.***Perianth* single, 4 or 5 parted persistent .. **POLYGANUM.**

CLASS X.

Decandria (10 *Stamens*).ORDER—**Monogynia** (1 *Pistil*).*Fruit* a berry.... **ARBUTUS.**ORDER—**Bigynia** (2 *Pistils*).*Capsule* 2 beaked at the apex..... **SAXIFRAGA.***Capsule* 4 valved.*Petals* linear wedge-shaped..... **TUNICA.***Petals* with a linear claw and dilatedlimb **DIANTHUS.**ORDER—**Trigynia** (3 *Pistils*).*Calyx* monophyllus **SILENE.***Calyx* of 4 or 5 pieces.*Capsule* 3 valved **ALSINE.***Capsule* 4 to 6 valved..... **MOERINGIA.***Capsule* 6 valved.*Petals* entire or slightly notched..... **ARENARIA.***Petals* deeply notched or bipartite **STELLARIA.**ORDER—**Tetragynia** (4 *Pistils*).*Capsule* 4 valved **SAGINA.**ORDER—**Pentagynia** (5 *Pistils*).*Fruit* a capsule bursting at the top, with10 teeth **CERASTIUM.***Fruit* a 5 angled 5 or 10 valved capsule .. **OXALIS.**

Fruit 5 ovaries, with a scale at the base of
each.

Genus.

Corolla of 5 petals..... SEDUM.

Corolla tubular UMBILICUS.

ORDER—**Decagynia** (10 *Pistils*).

Fruit a berry..... PHYTOLACCA.

CLASS XI.

Dodecandria (12 *Stamens*).

ORDER—**Digynia** (2 *Pistils*).

Calyx limb spiny beneath AGRIMONIA.

ORDER—**Trigynia** (3 *Pistils*).

Petals irregular RESEDA.

CLASS XII.

Icosandria (*Stamens*, 20 or more inserted into the *calyx*).

ORDER—**Pentagynia** (5 *Pistils*, but variable).

Fruit a pomum (apple) PYRUS.

Fruit a drupe PRUNUS.

ORDER—**Polygynia** (many *Pistils*).

Calyx segments in 1 row.

Nuts inclosed in the urn-shaped tube of
the *calyx*..... ROSA.

Nuts inserted on a conical fleshy recep-
tacle RUBUS.

Calyx segments in 2 rows.

Nuts inserted on a conical fleshy recep-
tacle FRAGARIA.

Nuts inserted on a dry receptacle.

Styles jointed and hooked at the apex GEUM.

Styles simple POTENTILLA.

CLASS XIII.

Polyandria (*many Stamens inserted upon the receptacle*).ORDER—**Monogynia** (*1 Pistil*).*Corolla* of 4 petals.*Calyx* of 2 caducous pieces.

Genus.

Stigmas 2 lobed..... CHELIDONIUM.*Stigmas* radiant sessile PAPAVER.*Calyx* of 4 persistent pieces..... CAPPARIS.*Corolla* of 5 petals.*Capsule* 3 valved HELIANTHEMUM.*Capsule* 5 to 10 valved CISTUS.ORDER—**Pentagynia** (*Pistils variable, 2 to 6*).*Calyx* spurred at the base..... DELPHINUM.ORDER—**Polygynia** (*Pistils numerous*).*Calyx* petaloid, corolla wanting.*Leaves* opposite CLEMATIS.*Leaves* alternate radical..... ANEMONE.*Calyx* generally green petals clawed RANUNCULUS.

CLASS XIV.

Didynamia (*Stamens 4, 2 longer than the others*).ORDER—**Gymnosperma**.*Fruit* 4 nut-like capsules, with the style in
the middle (see Nat. Ord., LABI-
ATEÆ).ORDER—**Angiosperma**.(*Fruit a 1 or many seeded Capsule*.)*Capsule* 1 celled, many seeded OROBANCHE.*Capsule* 2 celled, 1 to many seeded.*Anthers* spurred at the base.*Calyx* inflated..... RHINANTHUS.*Calyx* tubular, 4 cleft.*Capsule* obtuse or notched..... EUPHRASIA.*Capsule* with a pointed apex..... TRIXAGO.

Anthems not spurred at the base.

Capsule 2 celled.

Genus.

Corolla 1 lipped ACANTHUS.

Corolla 2 lipped, subglobose SCROPHULARIA.

Corolla 2 lipped, the lower lip with
a swollen palate, spurred at the
base LINARIA.

Not spurred at the base ANTIRRHINUM.

Capsule of 4 cells VERBENA.

CLASS XV.

Tetradynamia (6 *Stamens*, 4 long and 2 short).

See Nat. Ord., CRUCIFERÆ.

CLASS XVI.

Monadelphica (*Filaments combined in 1 set*).

ORDER—**Pentagynia** (5 perfect *Stamens*).

Capsule with a long spirally-twisted awn,
hairy on the inside ERODIUM.

ORDER—**Decandria** (10 perfect *Stamens*).

Capsule with a long naked awn, curling
backwards GERANIUM.

ORDER—**Polyandria** (*many Stamens*).

Calyx surrounded by a 3 leaved involucre MALVA.

CLASS XVII.

Diadelphica (*Filaments combined in 2 equal sets, or 9 combined and 1 free*).

ORDER—**Hexandria** (6 *Stamens*).

Fruit 1 seeded, nut-like FUMARIA.

ORDER—**Octandria** (8 *Stamens*).

Fruit a compressed capsule POLYGALIA.

ORDER—**Decandria** (10 *Stamens*).

See Nat. Ord., LEGUMINOSÆ.

CLASS XVIII.

Polydelphia (*Filaments combined in more than 2 sets*).

Genus.

Fruit a 3 celled capsule HYPERICUM.

CLASS XIX.

Syngenesia (*Anthers united into a tube ; flowers compound*).

See Nat. Ord., COMPOSITÆ.

CLASS XX.

Gynandria (*Stamens situated upon the style or column
above the germen*).*Lip of Corolla* lobed, and spurred at the
base ORCHIS.*Lip of Corolla* lobed, not spurred at the
base OPHRYS.

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CLASS XXI.

Monecia (*Stamens and Pistils in separate flowers on the
same plant*).ORDER—**Monandria** (1 *Stamen*).Involucre bell-shaped cleft, and with alter-
nate fleshy glands EUPHORBIA.ORDER—**Triandria** (3 *Stamens*).*Flowers* imbricated spikes of 1 valved
glumes CAREX.*Flowers* in a hollow fleshy receptacle..... FICUS.ORDER—**Tetrandria** (4 *Stamens*).*Barren flowers* in loose racemes, perfect
flowers in capitate racemes URTICA.

ORDER—**Pentandria** (5 *Stamens*).*Genus.*

- Barren flowers* with a 3 to 5 cleft perianth,
 fertile flowers 2 inclosed in a
 prickly perianth **XANTHIUM.**
- Barren and fertile flowers* with a 3 to 5
 cleft perianth **AMARANTHUS.**

ORDER—**Monadelphica** (*Stamens united*).

- Anthers* 8 attached to a central column.... **CYTINUS.**

ORDER—**Polydelphia** (*Stamens numerous*).

- Flowers* in a 1 leaved spatha **ARUM.**
- Flowers* in dense heads **POTERIUM.**
- Flowers* in axillary clusters.
- Fruit* a smooth berry **BRYONIA.**
- Fruit* a rough berry..... **MOMORDICA.**

CLASS XXII.

Dioecia (*Stamens and Pistils on separate Flowers and on different Plants*).ORDER—**Triandria** (3 *Stamens*).

- Perianth* 3 cleft **OSYRIS.**
- Perianth* of 6 pieces at the back of the
 leaves **RUSCUS.**

ORDER—**Pentandria** (5 *Stamens*).

- Fruit* a drupe **PISTICIA.**

ORDER—**Hexandria** (6 *Stamens*).

- Perianth* 6 parted **SMILAX.**

ORDER—**Enneandria** (9 *Stamens*).

- Perianth* single 3 cleft..... **MERCURIALIS.**

CLASS XXIII.

Polygamia (*Stamens and Pistils separate or united on the same or on different Plants, having 2 different kinds of Perianth.*)

Fruit a 1 seeded crustaceous urticla ATRIPLEX.

CLASS XXIV.

Cryptogamia (*Flowerless plants*).

See Nat. Ord., FILICES.

1 *Anemone hortensis*. 2. *Asphodelus fistulosa*
3 *Cerinthe aspera*.

FLORA OF THE COLOSSEUM.

I. NAT. ORD.—Ranunculaceæ.

GENERA.

Petals regular, or calyx and petals not distinguishable from each other.

Carpels single-seeded, indehiscent.

Leaves opposite..... CLEMATIS.

Leaves radical or alternate..... ANEMONE.

Petals regular, numerous, calyx generally

green RANUNCULUS.

Petals irregular, tubular, or spurred at the base. DELPHINUM.

CLEMATIS, Linn. *Traveller's Joy.* *Clematite*, Ital.

C. Flammula, Linn. *Sweet-scented Clematis.* Leaves bipinnate, leaflets ovate, oblong or linear, entire or lobed.

Flora Romana, p. 182.

Perennial, flowering in July.

ANEMONE, Linn. *Anemone.*

A. hortensis, Linn. *Star Anemone.* Flowers, rose-coloured, solitary; sepals, about 12, lanceolate; involucre leaves, sessile, oblong, entire or lobed at the apex.

Flora Romana, p. 181.

Perennial, flowering in January and February.

This extremely beautiful early spring flower, is very generally distributed in shady places in all parts of the South of Europe; it varies in colour, from a pale pink, to a deep rose

colour, according to the more or less exposed situation in which it grows. It is one of the species of anemone commonly cultivated as a border-flower. It grows in various parts of the Colosseum, and there flowers freely, glowing in its bright colours like a joyous star upon the mouldering remains of past generations.

RANUNCULUS, Linn. *Crowfoot*. *Ranuncolo*, Ital.

R. repens, Linn. *Creeping Crowfoot*. Stem, with creeping scions; carpels, compressed, smooth.

Flora Romana, p. 183. *Florigraphia Britannica*, ii. 793.

Perennial, flowering in April and May.

R. muricatus, Linn. *Prickly-seeded Crowfoot*. Stem, branched; carpels, rough, with spinous processes; the beak curved, acute.

Flora Romana, p. 184.

Annual, flowering in April and May.

The species of this genus are very numerous, and some of them are remarkable, from the widely different properties secreted by their different organs; an example of which is seen in the *R. acris*; for if the leaves are bruised and applied to the skin, it soon produces inflammation, and at length ulceration, while from its flowers there is exhaled a harmless, but agreeable, odour. There are many other tribes of plants which furnish much more striking examples: this, however, may be sufficient to excite the student's inquiry as to what is the peculiar organisation of the different parts of the plant, thus to produce secretions so opposite in their properties—and why the same plant should secrete in one part a harmless and odorous substance, and in another a pungent or virulent one. But, as Wordsworth says,—

By contemplating these forms
In the relations which they bear to man,
He shall discern how through the various means
Which silently they yield, are multiplied
The spiritual presence of absent things.
Trust me, that, for the instructed, time will come
When they shall meet no object but may teach
Some acceptable lesson to their minds,
Of human suffering or of human joy.

DELPHINUM, Linn. *Larkspur*. *Speronella*, Ital.

D. peregrinum, Linn. *Broad-leafed annual Larkspur*. Capsules, ternate; leaves, smooth, rigid.

Flora Romana, p. 179. *D. junceum* De Cand.

A low, erect, many-branched, spreading plant. Flowers, a very deep blue, sometimes with a purplish hue, arranged in loose racemes.

Annual, flowering during the summer months.

The Larkspur is a well-known gay border-flower, easy of cultivation, and is extremely variable in the colour of its flowers, often becoming double and much larger than in its wild state. The species most commonly cultivated is the *D. consolida*, so called from its reputed power of quickly healing wounds.

II. NAT. ORD.—Malvaceæ, Juss.

MALVA, Linn. *Mallow*. *Malva*, Ital.

Calyx, double; the outer, 3-leaved; the inner, 5 cleft. Fruit of numerous 1-seeded carpels, arranged in a circle round a common axis.

M. sylvestris, Linn. *Common Mallow*. Stem, erect; fruit, smooth, reticulated, and rugose.

Flora Romana, p. 227. *Florig. Brit.* ii. 944.

Flowers, large handsome pink, with darker radiating veins; stem, from 1 to 2 feet high.

Perennial, flowering in May and June.

M. rotundifolia, Linn. *Dwarf Mallow*. Stem, prostrate; fruit, pubescent, even.

Flora Romana, p. 227. *Florig. Brit.* iii. 945.

Flowers, small, pale pink or white; stems, numerous branched, spreading.

Annual, flowering from May to September.

All the species of this genus abound in mucilage; and are much used in Italy (especially the *M. rotundifolia*), when boiled and mashed up into a pulp, as a poultice: it is often mixed with bread-crumbs or linseed-meal, and applied to wounds, ulcers, cuts, etc. The decoction of the plant is used

as a hot fomentation in inflammatory affections, and also drunk as a cooling beverage in fevers, etc.

III. NAT. ORD.—Crassulaceæ, De Cand.

GENERA.

Calyx of 5 sepals; corolla of 5 petals..... SEDUM.

Calyx 5 partite; corolla tubular, 5 cleft..... UMBILICUS.

SEDUM, Linn. *Stonecrop*.

S. Cepæa, Linn. *Panicled Stonecrop*. Leaves, flat, 2, 3, or 4 together, the upper linear wedge-shaped.

S. gallioides, All. *Flora Romana*, p. 154.

Stem, branched, spreading, 3 to 6 inches long; leaves, thick, succulent; flowers, pale rose-coloured or white.

Biennial, flowering in June.

S. album, Linn. *White Stonecrop*. Stem, erect, branched; leaves, scattered, linear, oblong, subcylindrical, obtuse, spreading; panicle, much branched.

Flora Romana, p. 155. *Florig. Brit.* ii. 663.

Stem, 4 to 6 inches high; flowers, white or pale rose-colour; petals, thrice as long as the obtuse calyx segments.

Perennial, flowering in June and July.

S. acre, Linn. *Biting Stonecrop* or *Wall Pepper*. Stem, procumbent; leaves, alternate, sessile, ovate, spurred at the base; flowers, yellow, in trifid cymes.

Flora Romana, p. 155. *Florig. Brit.* ii. 665.

Stem, 2 to 4 inches high; leaves, very succulent, densely crowded, imbricated; petals, twice as long as the calyx.

Perennial, flowering in June and July.

S. reflexum, Linn. *Crooked Yellow Stonecrop*. Stem, procumbent at the base; leaves, scattered, linear, awl-shaped, acute, bristle-pointed, spurred at the base, the lower ones reflexed.

Flora Romana, p. 155. *Florig. Brit.* ii. 665.

Stem, 6 to 12 inches high, more or less branched; flowers, yellow, the branches of the cymes becoming reflexed; stamens, often 12; petals and pistils, frequently 6.

Perennial, flowering in June and July.

S. anopetalum, De Cand. *Erect-petaled Stonecrop*. Stem, creeping; leaves, linear, awl-shaped, acute, bristle-pointed, slightly spurred at the base; calyx, segments acute, much shorter than the lanceolate, acuminate, erect petals.

Flora Romana, p. 155.

Stem, about 12 inches high, creeping, and branched at the base; flowers, yellow, in 4 branches, spreading cymes; petals, 5, 6, or 7; capsules, beaked.

Perennial, flowering during the summer months.

Many of the species of this genus are difficult to distinguish from each other, owing to the influence which the situation in which they have grown has had upon them; for they flourish well either upon the dripping rock, or within the spray of the mountain stream—beneath the shade of trees, or exposed to every change of atmosphere on the tops of walls, ruined buildings, crags, rocks, etc.: and in accommodating itself to all these varieties of existence, it is not surprising that it should be variable in its characters. While the student is engaged in his investigation of the specific characters, the physiological structure of the plant will doubtless attract his attention, and add much interest to his inquiries; for curious indeed must be the formation of the plant, that will flourish under such extremes of moisture, from the dripping rock, to the arid and exposed situation on these old walls, where its supply of moisture is so precarious, and often for several continuous months without any refreshment from rain. From these circumstances, the student will be led to investigate the causes why the Sedums have the power to so freely absorb nutriment, and so tenaciously to retain it. We know that it is not only by the extremities of the roots that plants absorb fluids, but that they are furnished with stomata or mouths in various parts of the plant, and these in greater or less abundance; and that by them they not only absorb, but expel fluids and aerial substances; but these stomata in the Sedums must be of a very different construction, or extremely scanty in number or size, compared with many other plants; for the Sedums will flourish through the long droughts of summer, while numberless plants in similar situations have long withered, dried up, and passed away.

UMBILICUS, De Cand. *Navelwort* or *Pennywort*.
Cotyledone, Ital.

U. pendulinus, De Cand. *Common Navelwort*. Leaves, pettate; flowers, numerous, pendulous, racemose.

Florig. Brit. ii. 668. *Cotyledon umbilicus*, Linn. *Flora Romana*, p. 154.

The whole plant smooth and fleshy, 6 to 12 inches high, erect; flowers, pale greenish yellow, bell-shaped, numerous, in long terminal racemes.

Perennial, flowering in May and June.

IV. NAT. ORD.—*Rosaceæ*, Juss.

GENERA.

Fruit a solitary drupe PRUNUS.

Fruit a fleshy pomum PYRUS.

Fruit small nuts.

Inserted on a fleshy receptacle.

Style jointed and hooked GEUM.

Inserted on a flat dry receptacle..... POTENTILLA.

Inserted on a succulent receptacle.

Calyx in 2 rows, 8 to 10 parted FRAGARIA.

Calyx simple, 5 parted RUBUS.

Included in a dry tube of the calyx.

Calyx with 3 scales at the base POTERIUM.

Calyx with hooked bristles AGRIMONIA.

Inclosed in the fleshy tube of the calyx..... ROSA.

PRUNUS, Linn. *Cherry*. *Ciriegia*. Ital.

P. avium, Linn. *Wild Cherry*. Flowers in nearly sessile umbels, peduncles slender.

Florig. Brit. ii. 684. *Cerasus*, Linn. *Flora Romana*, p.168.

A tall tree; but in the Colosseum it is not larger than a shrub.

Flowering in April.

The cherry appears to have been a very favourite fruit with the ancient Romans, of which they had eight varieties. According to Pliny the cherry was brought to Italy from Cerasus, a city in Pontus, in Asia, by Lucullus, in the year A.C. 680; and in 120 years after its introduction into Italy, other lands had it, even as far as Britain.

PYRUS, Linn. *Pear, Apple and Service.*

P. Communis, Linn. *Wild Pear Tree. Il pero*, Ital.

Flora Romana, p. 176. *Florig. Brit.* ii. 691.

A tree or shrub with smooth bark, the barren branches terminating in a stout spine. Flowers, white, numerous, on long downy peduncles.

Flowering in April.

The fruit of the pear tree, in a state of cultivation, is well known. The ancient Romans appear to have been acquainted with about thirty-six varieties of pears, which they cultivated for use; but now that number is increased to about 800. These varieties are arranged under different heads, according to their qualities, as dessert or baking fruits, melting or butter fruits, breaking and perry fruits. In England, and especially in some parts of Worcestershire, the pear-tree is cultivated to a considerable extent for the purpose of making the juice of the fruit, by fermentation, into perry, which is a well-known refreshing beverage. The wood of the pear-tree is fine-grained, light, and durable; and is much used by turners and cabinet-makers for fine work and carvings.

GEUM, Linn. *Avens. Erba benedetta*, Ital.

G. urbanum, Linn. *Common Avens, Herb Bennett*. Leaves ternate, the radical ones lyrato-pinnate; stipules, large, roundish cut.

Flora Romana, p. 173. *Florig. Brit.* ii. 733.

Stem, about 2 feet high. Flowers, small, yellow, on long, hairy footstalks. Carpels, clothed, with rigid hairs.

Perennial, flowering in April and May.

The roots of this plant have an odour similar to cloves, and possess astringent and somewhat tonic properties, and were formerly used in medicine. It is said that the Augsburg beer, which is much esteemed in some parts of the continent, is flavoured by adding to it the roots of the Avens, and that it not only gives it the peculiar flavour, but prevents its turning sour.

POTENTILLA, Linn. *Cinquefoil. Cinquefolia*, Ital.

P. recta, Linn. *Erect Potentilla*. Stem, erect; carpels, netted over with elevated lines, and surrounded with a membranous margin.

Flora Romana, p. 172.

Leaves, with five to seven oblong, wedge-shaped leaflets, coarsely cut and toothed. Flowers, pale yellow.

Perennial, flowering in May and June.

P. reptans, Linn. *Creeping Cinquefoil*. Stem, filiform, creeping; carpels, rough, with elevated granules.

Flora Romana, p. 172. *Florig. Brit.* ii. 743, f. 833.

Leaves, with five oblong, wedge-shaped leaflets, obtuse, and 3-toothed at the end. Flowers, bright yellow.

Perennial, flowering from May to July.

This is a variable plant, both as to the size to which it grows, and the greater or less abundance of hairs with which it is clothed. The roots possess tonic and astringent properties, and were formerly much used as a febrifuge in feverish states of the system, as well as an astringent application to wounds, ulcers, etc. They were also used in the process of tanning leather; but, for all these purposes it is now neglected, as more powerful productions, with the same properties, have become known.

FRAGARIA, Linn. *Strawberry. Fravole*, Ital.

F. vesca, Linn. *Wood Strawberry*. Calyx, spreading, reflexed in fruit.

Flora Romana, p. 172. *Florig. Brit.* ii. 736.

Flowers, small, white; fruit, ovate, drooping, scarlet, pulpy, aromatic.

Perennial, flowering in April and May.

The strawberry is a well known and much-esteemed fruit, of which great varieties are obtained by cultivation both in the size and flavour of the fruit, and especially in England, where so much more attention is paid to their cultivation than in Italy. In many parts of the mountain districts of Italy, the wild strawberry grows very abundant, and produces large crops of fruit, which is gathered and brought to market for

Interior of Colosseum

sale, and by many persons they are considered of a superior flavour, and more gratefully acid than those which are cultivated.

RUBUS, *Linn. Bramble. Rogo, Ital.*

R. corylifolius, Smith. *Hazel-leaved Bramble.* Stem, roundish; prickles, scattered, unequal, nearly straight; leaves, digitate; leaflets, 5, roundish, heart-shaped, hairy beneath.

Flora Romana, p. 171. *Florig. Brit.* ii. 727.

Panicle downy, flowers, white, mostly numerous; fruit, a violet black, formed of large grains, of a pleasant acid flavour.

Shrub flowering from May to August.

The common bramble is a very variable shrub, especially in the size of its panicles, and the number of flowers which they bear. The leaflets are also very variable, both as to their size and shape. The fruit, though large-grained, is not so much esteemed by the country people as that of some of the other species. The bramble, though a rough and by no means a handsome plant, is, nevertheless, associated with our earliest and perhaps happiest recollections, some of which will be recalled to the minds of many persons by the beautiful lines of Ebenezer Elliot, who says:—

Thy fruit full well the schoolboy knows,
Wild bramble of the brake !
So put thee forth thy small white rose ;
I love it for its sake.

Though woodbines flaunt, and roses glow
O'er all the fragrant bowers,
Thou need'st not be ashamed to show
Thy satin-threaded flowers ;

For dull the eye—the heart is dull
That cannot feel how fair,
Amid all beauty beautiful,
Thy tender blossoms are !

How delicate thy gauzy frill !
How rich thy branchy stem !
How soft thy voice when woods are still
And thou singst hymns to them ;

While silent showers are falling slow,
 And, 'mid the general hush,
 A sweet air lifts the little bough
 Low whispering through the bush.

The primrose to the grave is gone;
 The hawthorn flower is dead;
 The violet by the moss'd grey stone
 Hath laid her weary head;

But thou, wild bramble! back dost bring,
 In all their beauteous power,
 The fresh green days of life's fair spring,
 And boyhood's blossomy hour,

Scorn'd bramble of the brake! once more
 Thou bid'st me be a boy,
 To gad with thee the woodlands o'er
 In freedom and in joy.

POTERIUM, Linn. *Salad Burnet*. *Pimpinella*, Ital.

P. sanguisorbia, Linn. *Common Salad Burnet*. Herbaceous, stem angular; fruit hardened, netted, 4-angled, obtuse.

Flora Romana, p. 329. *Florig. Brit.* iii. 1204.

Stem, 1 to 2 feet high; leaves, pinnated, with several pairs of roundish, ovate, deeply-serrated leaflets, and a terminal one; stipules, in pairs, at the base of the leaf, deeply cut; flowers, green, in terminal, globose heads; stamens, with purple filaments.

Perennial, flowering in May and June.

The leaves of the burnet, or, as it is called in Italy, *Pimpinella*, have the smell and somewhat the taste of cucumber; for which reason it is gathered in the spring by the Italians, and brought to market for sale to form a part of their salads. In some parts of the continent it is cultivated for the same purpose. The famous old English drink called "cool tankard," owed part of its flavour and virtue to this plant, and, on this account, it is said to have been called *Poterium*, a drinking-cup.

AGRIMONIA, Linn. *Agrimony*.

A. Eupatoria, Linn. *Common Agrimony*. Flowers in elongated spikes; calyx, in fruit, obconical, deeply-furrowed; leaves, interruptedly pinnate, the odd leaflet stalked.

Flora Romana, p. 161. *Florig. Brit.* ii. 677.

Stem, erect, about 2 feet high; leaves, alternate, with deep-cut stipules at the base; flowers, numerous, yellow sessile; calyx, with hooked bristles.

Perennial, flowering in May and June.

The whole plant possesses astringent properties, with an agreeable odour, and has been used in cases of disease requiring such a remedy; but it is not much used. The juice expressed from the bruised plant, before it has put out its flowers, dyes woollen goods of a nankeen colour; but, if the plant is collected for this purpose, after it has flowered, the colour it produces is much darker.

ROSA, Linn. *Rose*.

R. sempervirens, Linn. *Evergreen Rose*. Branches, long, prostrate; prickles, scattered, hooked, compressed; leaflets, 5 to 7, smooth, shining; stipules, oblong, linear; styles, united as long as the stamens; fruit, erect, sub-globose; peduncle, hispid.

Flora Romana, p. 171.

Stem, branched and spreading; leaflets, ovate, lanceolate; flowers, 3 to 6, in terminal clusters, white, with a sweet odour; the whole plant more or less covered with glandular hairs.

Evergreen shrub, flowering in April and May.

The species of roses which are enumerated are more than 200, and these, by cultivation, are multiplied to as many thousands of varieties. The rose, from the earliest records, seems to have been an esteemed and useful plant. According to the account of Pliny, the unguents used to anoint the body after bathing, at the time of the Trojan war, were commonly oil, perfumed with odoriferous herbs and flowers, and especially the rose; and Homer, *Il.* xxiii., where Venus anoints the body of Hector, mentions the ointment as oil mixed with roses; and, speaking of Juno, he says:—

First she laved all o'er
Her beauteous body with ambrosial lymph,
Then polished it with richest oil divine,
Of boundless fragrance.—COWPER.

It was a custom amongst the ancients to bedeck the tombs of the dead with various flowers, amongst which the Rose appears to have been one of the favourites. Æneas, when celebrating the anniversary of his father Anchises' death is thus represented by Virgil, after he and all the Trojan race had bound their brows with myrtle.

Æneas then advanced amidst the train
By thousands followed through the flowery plain,
To greet Anchises' tomb; which, when he found,
He pour'd to Bacchus, on the hallowed ground,
Two bowls of sparkling wine, of milk two more,
And two (from offered bulls) of purple gore.
With Roses then the sepulchre he strew'd,
And thus his father's ghost bespoke aloud.

DRYDEN'S VIRGIL, v. 98.

Roses and other flowers were sometimes formed into chaplets as the symbol of distinction.

Tw'as at the royal feast for Persia won
By Philip's warlike son,
Aloft in awful state,
The godlike hero sate
On his imperial throne:
His valiant peers were placed around,
Their brows with Roses and with Myrtle bound,
So should desert in arms be crown'd.—DRYDEN.

From the account of Pliny, it appears Roses were much esteemed and considerably cultivated by the ancient Romans. He mentions several sorts of those which are fragrant, and others that are inodorous; and he gives some hints as to the nature of the soil best suited for them, and the mode of their cultivation. But now the modern Romans seem to pay less attention to their cultivation; for though long, formal garden-walks are commonly planted with hedge-rows or screens of rose-trees, it is mostly only the common China Rose which is planted. The shrubs of the various species of Roses vary in size, from a few inches to many feet long; the flowers vary in colour, from red to every shade of pink or purple, yellow and white, or striped; and they are single, semi-double, or double. The medical properties which they possess is that of a slight tonic and astringent; but it is on account of the beauty

of the flowers, and the delicate odour which they exhale, that the rose is, and from the earliest period has been, held in the highest esteem.

V. NAT. ORD.—**Vitaceæ**, Lind.

VITIS, Linn. *Vine*. *Vite*, Ital.

V. vinifera, Linn. *Common Grape*. Leaves, roundish, heart-shaped, 5 lobed, coarsely toothed.

Flora Romana, p. 103.

A long climbing shrub, swollen at the joints; leaves, variously lobed and serrated; flowers, greenish yellow, emitting a fragrant odour; fruit, clusters of round berries.

Shrub, flowering in April and May.

The Wild Vine, which gives to the hedges, dells and uncultivated places, ruins, etc., so wild, yet graceful and elegant an appearance, is commonly called by the country people, *Vite selvatica*, or *ciambrusco*. The cultivation of the Vine, and the great variety of wines produced by it, according to the situation and the kind of soil in which it grows, the quality of the grapes, and the mode of preparing the juice for fermentation into wine, are well known.

VI. NAT. ORD.—**Celastrineæ**, R. Brown.

EUONYMUS, Linn. *Spindle Tree*. *Fussaggine*, Ital.

E. Europæus, Linn. *Common Spindle Tree* or *Prickwood*. Flowers, mostly 4-cleft; petals, acute; branches, smooth; leaves, ovate, lanceolate, finely serrated; capsules, obtusely angular, smooth.

Flora Romana, p. 103. *Florig. Brit.* i. 311.

An erect shrub, 4 to 8 feet high, the branches opposite, angular when young; leaves, opposite, smooth, and shining; flowers, green, in small umbels; capsules, a fine rose-colour, obtusely angular.

Shrub, flowering in April.

The wood of this tree is fine-grained, compact, and pliable, and is much used for the purpose of making the modelling instruments used by sculptors, as well as in the manufacture of various musical instruments, and small ornamental articles

made by turners, etc. All parts of the plant have a disagreeable smell; and it is said to be deleterious to most animals feeding upon its leaves, except the goat. The seeds, when powdered and sprinkled amongst the hair, are an effectual remedy in destroying all troublesome intruders, and may be employed with equal advantage in the destruction of other vermin—a fact, unfortunately, not sufficiently known amongst the poor people of Italy. The name which Linnæus has given to this plant, is derived from Euonyme, the mother of the Furies, in allusion to the poisonous properties of its fruit. The seed-vessels are very pretty and ornamental, generally of a rose-colour, but sometimes white; and from the circumstance of their shape resembling the caps worn by priests, they are called by Italians, *Berretta da Prete*.

VII. NAT. ORD.—**Paronychieæ**, St. Hil.

POLYCARPON, Linn. *All-seed*.

P. tetraphyllum, Linn. *Four-leaved All-seed*. Leaves of the stem, 4, in whorls, those of the branches opposite.

Flora Romana, p. 71. *Florig. Brit.* i. 173.

Stems, numerous, 3 to 6 inches long, slender; leaves, obovate, on short footstalks, smooth; stipule, membranous; flowers, very small; petals shorter than the calyx; capsules, ovate, many-seeded.

Annual, flowering during the summer months.

VIII. NAT. ORD.—**Caryophylleæ**, Juss.

GENERA.

TRIBE 1.—**Sileneæ**.

Sepals united into a cylindrical tube. Capsules stalked.

Styles 2.

Calyx with bractea at the base.

Petals linear, wedge-shaped TUNICA.

Petals with a linear claw and dilated limb DIANTHUS.

Styles 3 SILENE.

TRIBE 2.—**Alsineæ**.

Sepals distinct or slightly united at the base. Capsules sessile.

Capsules opening with distinct valves, the same number as the styles.

- Styles* 4 SAGINA.
Styles 3 ALSINE.
Capsules opening at the apex, with teeth
double the number of the styles.
Styles 3.
Petals entire ARENARIA.
Petals bifid or bipartite STELLARIA.
Styles 5 CERASTIUM.
Capsules opening with distinct valves, double
the number of the styles MOEHRINGIA.

TUNICA, Scop. *Tunica.*

T. saxifraga, Scop. *Small-flowered Tunica.* Calyx, bell-shaped, obtuse, 5 toothed; leaves, linear, opposite, rigid, roughish, united together by a membranous base.

Gypsophila saxifraga, Linn. *Flora Romana*, p. 148.

Stems, slender, about 12 inches long, branched above; leaves, numerous; flowers, small, pale pink, in terminal panicles; petals, wedge-shaped, notched.

Perennial, flowering during the summer months.

This is a pretty little plant, growing in thick tufts amongst ruins, old walls, and on rocky banks. It is nearly allied to the following genus.

DIANTHUS, Linn. *Pink. Garofano*, Ital.

D. prolifer, Linn. *Proliferous Pink.* Flowers clustered together into a head; scales of the calyx ovate, membranous, longer than the tubes, and enveloping them, the two outer ones short, mucronate; stem, smooth; leaves, linear.

Flora Romana, p. 149. *Florig. Brit.* ii. 617.

Stem, about a foot high; leaves, opposite, rough on the margins and mid-rib; flowers, small, rose-coloured or purplish; petals, notched; capsules, linear, oblong, smooth.

Annual, flowering in April and May.

This pretty little plant grows very abundantly on the lower ruins around the arena of the Colosseum; frequently it is a very small plant in dry, exposed situations, arising probably from the want of moisture. It is generally distributed throughout Europe, in sterile places, road-sides, etc.

SILENE, Linn. *Catchfly*.

S. inflata, Smith. *Bladder Campion*. Flowers in terminal branched panicles; calyx, ovate, inflated, smooth-ribbed, and netted with veins; petals, deeply cloven, and at the base are small bifid scales; leaves, ovate, lanceolate, acute.

Flora Romana, p. 149. *Florig. Brit.* ii. 623.

The whole plant smooth, of a glaucous green. Stem, 1 to 3 feet high; leaves, sessile, opposite; flowers, white; calyx, large, bladdery; seeds, elegantly marked with lines, and elevated points.

Perennial, flowering in May and June.

S. Gallica, Linn. *French Catchfly*. Flowers in terminal racemes, alternately hairy and viscid; calyx, tubular, hairy, the teeth lanceolate, subulate; petals, obovate, toothed, or notched; leaves, oblong, lanceolate, the lower ones spatulate.

Flora Romana, p. 151. *S. Anglica*, Linn. *Florig. Brit.* ii. 627.

B. quinquevulnera, Koch. Petals, white or flesh-coloured, with a dark crimson disc.

S. quinquevulnera, Linn. *Florig. Brit.* ii. 627.

Stem, 6 to 18 inches high, leafy, more or less clothed with viscid pubescence; leaves, opposite, sessile; flowers, small white or pink, often marked with a dark crimson spot of greater or less size, spreading in flower, drooping when in fruit; calyx, tubular, becoming ovate, 10 ribbed.

Annual, flowering in April and May.

The petals of this species vary in colour, from white to pale pink, and with or without a dark crimson spot upon the disk; the edges of the petals are also often found entire, crenated, or notched—all of which states appear to be only accidental varieties.

S. Armeria, Linn. *Common Lobel's Catchfly*. Smooth, glaucous; stem with upper joint viscid; panicle forked, many-flowered, level-topped; calyx, long, club-shaped; petals, notched, crowned with awl-shaped scales; leaves, ovate, lanceolate, sessile.

Flora Romana, p. 150. *Florig. Brit.* ii. 630.

The whole plant smooth, of a deep glaucous green. Stem, erect, about a foot high, swollen and viscid at the joints; leaves, opposite; panicle, very dense, each flower elevated

on a short footstalk, with a scale at the base; calyx, striated; petals, small, notched, of a deep purple rose-colour, sometimes white; anthers, purple; capsule, ovate, on a long pedicle.

Annual, flowering in May and June.

This pretty little plant is frequently cultivated in our gardens as a border-flower; and when in close patches, is very showy and ornamental.

S. Italica, Pers. *Italian Catchfly*. Pubescent stem, many-branched, very leafy at the base, viscid above; panicle erect, its branches opposite; calyx, long, club-shaped; petals, deeply cleft, naked; lower leaves on footstalks, ovate—spatulate; the upper, linear, lanceolated, sessile.

Flora Romana, p. 150. *Florig. Brit.* ii. 629.

Stem, erect, 1 to 2 feet high; leaves, numerous, hairy; flowers, white, often purplish at the back; calyx, membranous, 10-ribbed; petals, deeply cleft into 2 broad-spreading, naked lobes; capsules, ovate, somewhat conical, on a stout pedicle as long as the capsule enclosed in the persistent calyx.

Biennial, flowering in April and May.

The flowers of this species are, in the cool of the morning and evening, sweet-scented. The upper part of the stem is very viscid, from a peculiar secretion, which is so adhesive, that flies and other small insects settling upon it are not able again to detach themselves; and not unfrequently the whole of this part of the stem is crowded over with them thus caught. It is from this circumstance that the plants of this genus have the common name of *Catchfly*; and some persons think that the name of the genus is derived from the pagan god Silenus, who is represented as being always drunk, and covered with saliva, as some of the species of the genus are with a viscid secretion.

SAGINA, Linn. *Pearlwort*.

S. procumbens, Linn. *Procumbent Pearlwort*. Stem, very short; branches, long, procumbent; leaves, linear, mucronate, smooth; sepals, blunt, longer than the petals; apex of the peduncles reflexed, after flowering ultimately erect.

Flora Romana, p. 83. *Florig. Brit.* i. 217.

A small, smooth, slender plant, from 1 to 2 inches high, with spreading, procumbent branches, often rooting at the joints. Leaves, numerous; flowers, very small, on long axillary peduncles; petals, white.

Annual, flowering from March to May.

S. apetala, Linn. *Annual, small-flowered, Pearl Wort.* Stem, erect, branched, pubescent; leaves, linear, mucronate, ciliated; sepals, blunt, shorter than the capsules; petals, very short, or wanting; peduncles, always erect.

Flora Romana, p. 83. *Florig. Brit.* i. 217.

Stem, 2 to 3 inches high, clothed with glandular hairs, as well as the spreading calyx and erect peduncles; branches, mostly erect, sometimes prostrate, but not taking root at the joints; petals, white, very minute; capsules, twice the length of the calyx.

Annual, flowering in April and May.

The small herbaceous plants of this genus are very common; and, in rocky places, where the soil is very thin, in most parts of the Campagna of Rome, they are very abundant and valuable, as supplying the large flocks of sheep which are there kept with an early spring food; for, though the flowers are not produced before March and April, the plant furnishes them with its tender stems and leaves at a much earlier period. The name of the genus *Sagina* is given to these plants on account of the nourishing properties they possess.

ALSINE, Wahl. *Alsine*.

A. rubra, Wahl. *Purple Alsine*. Stems, prostrate; leaves, linear, flat, bristle-pointed; stipules, ovate, lanceolate, cloven; calyx, segments lanceolate, with membranous margins, as long as the capsules; seeds, angular, rough.

Florig. Brit. ii. 632. *Arenaria rubra*, Linn.

Stems, numerous, spreading; the upper part, peduncles, and calyx clothed with glandular hairs; leaves, numerous, opposite, somewhat fleshy; flowers, reddish, on slender, axillary peduncles; spreading in flower; reflexed in fruit; petals, ovate, about as long as the calyx; seeds, numerous, triangular, wedge-shaped, roughish.

Annual, flowering in April and May.

The flowers of this species expand in fine weather, and when

the sun is shining. It grows under the outer walls of the Colosseum, where the soil is sandy, and flourishes well only on the south side of the ruins, or where it is exposed to the sun.

A. tenuifolia, Wahl. *Fine-leaved Alsine*. Stem, slender, many-branched; leaves, subulate, 3-ribbed; peduncles, long, slender; calyx-sepals, subulate, 3-ribbed, longer than the petals; capsules as long as the calyx.

Florig. Brit. ii. 635. *Arenaria tenuifolia*, Linn. *Flora Romana*, p. 153.

Stem, 4 to 6 inches high, smooth, or hairy; leaves, in pairs, united at the base; flowers, in forked panicles, small, white; capsules, cylindrical.

Annual, flowering in April and May.

This hardy little plant is very common on the top of old walls and ruins, where it patiently endures long periods of drought.

ARENARIA, Linn. *Sandwort*. *Arenaria*, Ital.

A. serpyllifolia, Linn. *Thyme-leaved Sandwort*. Stems, numerous, ascending, panicle-forked; leaves, opposite, ovate, acute, sessile; calyx-sepals, lanceolate, acute, hairy, the outer 3-ribbed; petals, short.

Flora Romana, p. 153. *Florig. Brit.* ii. 638.

Stems, slender, 2 to 6 inches high, rough, with short hairs; leaves, opposite the upper sessile, the lower on foot-stalks; petals, white, wedge-shaped, shorter than the calyx; capsule, ovate, about as long as the calyx.

Annual, flowering in April and May.

STELLARIA, Linn. *Stitchwort*.

S. media, Wither. *Common Chickweed, or Stitchwort*. Stem procumbent at the base, round, with an alternate, hairy line; leaves, ovate, acuminate, opposite, the upper sessile, the lower stalked; flowers, axillary, and terminal; calyx, of ovate, lanceolate, single-ribbed sepals, longer than the deeply-cloven petals.

Flora Romana, p. 153. *Florig. Brit.* ii. 642.

This is a very variable sized plant, with slender, spreading, brittle branches; the leaves, with a single rib; the foot-stalks, ciliated; the flowers, small, white, on slender

peduncles, reflexed in fruit; capsules, oblong, cylindrical, mostly rather longer than the calyx.

Annual, flowering the whole year.

The seeds and leaves of this plant are a very favourite food of numerous small birds and poultry; and, in some parts of the continent it is boiled as a vegetable, as a substitute for spinach, and is considered an excellent one.

CERASTIUM, Linn. *Mouse-ear Chickweed.*

C. vulgatum, Linn. *Common broad-leaved Mouse-ear Chickweed.* Stem, nearly erect, hairy; leaves, ovate; panicle, sub-capitate; calyx-sepals, lanceolate, acute, with a narrow, membranous margin; bracts, herbaceous; petals, as long as the calyx; capsules, curved upwards, about as long again as the calyx.

Flora Romana, p. 157. *Florig. Brit.* ii. 649.

Stem, as well as the leaves, clothed with soft pubescence; flowers, numerous, small, white, in terminal, roundish heads, each on a foot-stalk as long as the calyx; petals, cloven, half-way down; capsules, striated, with 10 slender ribs; seeds, small, numerous.

Annual, flowering from March to June.

C. Campanulatum, Vir. *Bell-flowered Mouse-ear.* Stem, nearly erect, hairy; leaves, oblong, downy, sessile, the lower ones sub-spatulate; panicle, many-flowered, spreading; lower bracts, herbaceous, the upper with a narrow, membranous margin; pedicles, longer than the fruit; petals, twice as long as the calyx.

Flora Romana, p. 158.

Stem, branched and spreading, about a foot high, hairy; leaves, downy on both sides, the upper oblong, sessile, the lower narrowed into a foot-stalk; flowers, white, on slender filiform pedicles; calyx, hairy; the sepals lanceolate, with a membranous margin; corolla, somewhat bell-shaped; the petals, slightly bifid; capsules, ovate, oblong.

Annual, flowering from April to August.

C. viscosum, Linn. *Narrow-leaved Mouse-ear.* Stem, nearly erect, hairy; leaves, oblong, lanceolate; panicle, branched; calyx-sepals, oblong, ovate, and, as well as the bracts, membranous at the margins, and smooth at the points;

petals, about as long as the calyx; capsules, cylindrical, curved upwards, about as long again as the calyx.

Flora Romana, p. 157. *Florig. Brit.* ii. 650.

Stem, branched at the base, hairy, and more or less viscid; leaves, opposite the lower, on short foot-stalks; flowers, in branched panicles, numerous, white; petals, bifid, about as long as the calyx; capsules, striated, with ten slender ribs; seeds, numerous.

Perennial, flowering during the summer months.

MOEHRINGIA, Linn. *Moehringia*.

M. trinervia, Clair. *Three-nerved Chickweed* or *Moehringia*.

Stem, erect, branched; leaves, opposite, ovate, acute, 3 to 5 ribbed, petiolated; flowers, solitary, axillary; calyx-sepals, acute, 3-ribbed, roughish; petals, ovate, oblong, as long as the calyx.

Florig. Brit. ii. 640.

Stem, 6 to 12 inches high, simple, or branched, downy; flowers, small, white, solitary from the axis of the upper leaves, on long, slender pedicles; erect in flower; drooping in fruit; calyx, segments often only 1-ribbed; petals, narrow, entire; capsules, ovate, shorter than the calyx; seeds, numerous, kidney-shaped, with an appendage at the base.

Annual, flowering in April and May.

The species of this genus are distinguished from those of *Arenaria* and *Alsine*, by the appendage at the base of the seeds.

IX. NAT. ORDER—**Linea**, De Cand.

LINUM, Linn. *Flax*, *Lino*, Ital.

L. strictum, Linn. *Upright Flax*. Leaves, linear, lanceolate, the margins rough; flowers, terminal, crowded, nearly sessile; calyx-sepals, lanceolate, with a narrow point, the margins ciliated, and glandulous, longer than the capsules; peduncles of the fruit very short.

Flora Romana, p. 120.

Stem, erect, from 6 to 12 inches high, simple or branched; leaves, numerous, linear, lanceolate, pointed, rough, the mid-rib stout; flowers, terminal, crowded, nearly sessile, small, yellow; petals, longer than the calyx; and the calyx-sepals about twice as long as the globose capsule.

Annual, flowering from April to June.

L. Catharticum, Linn. *Purging Flax*. Stem, forked above; leaves, oblong, smooth, opposite; calyx-sepals, oblong, acute, ciliated, with glandular hairs, about as long as the capsules.

Flora Romana, p. 120. *Florig. Brit.* i. 455.

Stem, very slender, from 4 to 12 inches high, branched in a forked manner above, having a solitary flower and a pair of leaves at the angle of each division; petals, small, white, twice as long as the calyx; capsules, globose, as long as the calyx.

Annual, flowering in May and June.

This pretty little plant has a bitter, disagreeable taste, and possesses cathartic properties, which are imparted to water, or when infused in wine. It is enumerated amongst the medicinal plants in the Italian *Materia Medica*, and is called Lino Cathartico, and is prescribed in cases when a tonic aperient is indicated. Several species of *Linum* afford a tenacious fibre, the most valuable of which is the *L. usitatissimum*; from it is procured the well-known flax of commerce, which is applied to so many useful economical purposes.

X. NAT. ORD.—*Cruciferæ*, Juss.

GENERA.

Fruit a silique (linear pod).

Cotyledons accumbent (the radical applied to the edges of the lobes).

Seeds compressed sometimes margined.

Calyx with two sacs at the base.

Stigmas spreading capitate..... *CHERIANTHUS*.

Calyx equal at the base.

Seeds in a single row in each cell.

Pods linear with flat valves.

Valves with one rib at the back

ARABIS.

Valves without a rib at the back

CARDAMINE.

Cotyledons incumbent (the radicle applied to the back of the lobes).

Calyx equal at the base.

Pod compressed, tapering..... *SISYMBRIUM*.

Cotyledons con-duplicate (the lobes folded lengthwise, the radicle within the lobes).

Pod compressed linear..... DIPLOTAXIS.

Fruit a silicle (roundish or ovate pouch).

Silicle two-valved.

Valves broad convex at the back.

Cotyledons accumbent.

Seeds many in each cell DRABA.

Valves narrow, compressed, or winged at the back.

Cotyledons accumbent.

Seeds one in each cell IBERIS.

Cotyledons incumbent.

Pouch roundish, or oblong cells single-seeded..... LEPIDIUM.

Pouch triangular, obcordate cells many-seeded CAPSELLA.

Pouch somewhat kidney-shaped, cells single-seeded SENEBIERA.

Valves flat, compressed, orbicular BISCUTELLA.

Silicle indehiscent (without valves) BUNIAS.

CHERIANTHUS, Linn. *Wallflower.* *Leucojo*, Ital.

C. Cheiri, Linn. *Common Wallflower.* *Viole-gialle*, Ital.

Leaves, entire, lanceolate, acute, hoary, with close-pressed hairs; stem, shrubby; branches, angular.

Flora Romana, p. 218. *Florig. Brit.* ii. 899.

Root, fibrous; a low-branched shrub; the flowers, terminal, numerous; the petals, 4 ovate or obovate, spreading, varying in colour from pale to orange yellow, and often more or less stained with red; pod, linear, about 2 inches long, many-seeded.

Perennial, flowering in February and March.

The rich perfume exhaled from the gay-looking blossom of the Wallflower, is well known to all lovers of plants, whether growing in its own wild luxuriance, or cultivated as a border-flower; but

To me thy site disconsolate,
On turret, wall, or tower,
Makes thee appear Misfortune's mate,
And Desolation's dower.

Thou ask'st no kindly cultured soil
 Thy natal bed to be;
 Thou need'st not man's officious toil
 To plant or water thee.

Sown by the winds, thou meekly rearest,
 On Ruin's crumbling crest,
 Thy fragile form, and there appearest
 In smiling beauty drest.

There, in the bleak and earthless bed,
 Thou brav'st the tempest's strife,
 And giv'st what else were cold and dead,
 A lingering glow of life.

BERNARD BARTON.

ARABIS, Linn. *Rock-cress*.

A. hirsuta, Brown. *Hairy Rock-cress*. Stem, erect, hairy below; leaves, oblong, hispid, and toothed, those of the stem sessile, and cordate at the base; pods, erect, linear, compressed, with a prominent dorsal rib, and longitudinal slender veins.

Florig. Brit. ii. 904. *Turritis sagittata*, Linn. *Flora Romana*, p. 220.

Stems, generally several, about a foot high; leaves, mostly numerous, oblong, tapering into a footstalk, rough, with branched, spreading hairs, entire or toothed, often becoming of a purplish green; flowers, small, white, in terminal clusters, becoming much elongated; pod, linear, erect, about an inch long; seeds, small, brown, with a membranous base.

Biennial, flowering in April and May.

CARDAMINE, Linn. *Bitter-cress*. *Cardamino*, Ital.

C. hirsuta, Linn. *Hairy Bitter-cress*. Leaves, pinnate; leaflets, petiolated, those of the radical leaves roundish, ovate, angular, or toothed, the upper oblong or linear, toothed; petals, oblong, as long again as the calyx; style, short, thick; stigma, obtuse.

Flora Romana, p. 216. *Florig. Brit.* ii. 924.

Stem, nearly erect, about a foot high, simple or branched, zigzag, angular, and furrowed, mostly hairy; leaves, dark green; flowers, white, small, in terminal and lateral clusters; stamens, 4 to 6.

Annual, flowering in February and March.

C. impatiens, Linn. *Narrow-leaved Bitter-cress*. Leaves, pinnate, auriculated at the base; leaflets of the lower leaves, petiolated, ovate, 3 or 5-cleft, the upper oblong, lanceolate, sessile, toothed, or entire; petals, oblong, narrow, scarcely as long again as the calyx; style, short; stigma, obtuse.

Flora Romana, p. 216. *Florig. Brit.* ii. 925.

Stem, erect, about 2 feet high, angular, furrowed, smooth; leaves, with awl-shaped, ciliated stipules at the base, by which the species is readily distinguished; flowers, small, white, in terminal clusters; petals, sometimes wanting.

Annual, flowering in April and May.

The specific name, *Impatiens*, is applied to this plant on account of the valves of the pod, when ripe, suddenly curling up on the least motion of the plant, and throwing the seeds to some distance; the cause of which action, on examination of the pods, seems to depend upon their structure. The valves are thin, elastic, ribless membranes, formed of a condensed cellular substance. The septum of the cells is a very delicate, transparent, web-like membrane, formed of a single layer of muricated cells (extremely beautiful when seen through a strong magnifying power), stretched across a frame of condensed cellular substance and vessels forming the placenta, from which arise the delicate, thread-like funiculi, or cords by which the seeds are attached: this frame is rigid and firm, and constantly exerting an inward pressure, which the delicate septum and slender valves are unable to resist, when they are become dried by the sun or heat; consequently, the least motion elicits the unequal pressure of the ribs upon the valves, and forces them out. This, it will be seen, is one of the beautiful examples of those provisions of Nature to secure the continuance of its created species; for if a bird, however small, alights upon the plant, to feed upon its seed, the elastic valves burst open, and scatter the seeds several feet around it, rendering it almost impossible that all of them should be destroyed.

SISYMBRIUM, Linn. *Hedge-Mustard*.

S. officinalis, Scop. *Common Hedge-Mustard*. Leaves, run-cinate, hairy, the lacine oblong, toothed; siliqua, linear, awl-shaped, hairy, erect, and with the pedicle close-pressed to the stem.

Florig. Brit. ii. 906. *Erysimum officinale*, Linn. *Flora Romana*, p. 218.

Stem, erect, about 2 feet high, much branched, and leafy; flowers, small, yellow, in small terminal clusters, much elongated when in seed.

Annual, flowering from April to July.

This plant has obtained the specific name *officinale*, from its having been used as a medicine; and at one time it enjoyed a considerable reputation, from the warm, stimulating properties which it possesses. Its juices, when mixed with honey or sugar, were used with advantage in relaxed throats, when stimulating applications were indicated. It is now almost forgotten, except among the rural herbalists.

S. policeratium, Linn. *Dandelion-leaved Hedge-Mustard*. Leaves, lanceolate, sinuated, and toothed; siliqua, awl-shaped, spreading, sessile, axillary, about three together.

Flora Romana, p. 217.

A low, spreading, branched, smooth, fœtid plant; the leaves petiolated, the lower ones lyrato-runcinate, the upper triangular and toothed; flowers, small, pale yellow, about 3 together, in axillary clusters; the petals scarcely longer than the calyx; pods, awl-shaped, erect.

Annual, flowering in May and June.

S. Irio, Linn. *Broad Hedge-Mustard. London Rocket*. Leaves, runcinate, the lobes oblong, toothed, the upper ones lanceolate, and the terminal ones elongate, hastate; siliqua, linear, narrow, spreading four times as long as their pedicle.

Flora Romana, p. 218. *Florig. Brit.* ii. 907.

Stem, erect, about 2 feet high, branched and leafy; leaves, smooth, pale green; flowers, small, yellow, in terminal clusters; pods, linear, the valves distinctly marked with 3 longitudinal veins.

Annual, flowering in May and June.

This is a very common plant, on road-sides and waste places, throughout Europe. It obtained the name of *London Rocket* from the circumstance, that, in the spring after the great fire of London, in the year 1666, it grew in such abundance in the parts cleared from the ruins, as to cover the ground.

S. thalianum, Gand. *Common Thale-grass*. Leaves, obscurely toothed, hairy, the radical ones oblong, petiolated, the upper ones lanceolate, sessile; siliqua, linear, angular, ascending, twice as long as their spreading pedicles.

Florig. Brit. ii. 909. *Arabis Thaliana*, Linn. *Flora Romana*, p. 219.

Stem, erect, about a foot high, striated; leaves, more or less clothed with branched hairs, lower ones toothed, the upper entire; flowers, white, in terminal clusters, much elongated after flowering; pod, smooth, slender, twice as long as the ascending slender pedicle, the valves with a dorsal rib and obscure longitudinal veins.

Annual, flowering in April.

This is a common plant, growing upon most of the ruins about Rome; and is generally distributed throughout Europe, upon old walls, banks, and dry places.

DIPLOTEXIS, De Cand. *Wall-Mustard*.

D. tenuifolia, De Cand. *Five-leaved Diplotaxis*, or *Mustard*.

Stem, shrubby below, branched, smooth; leaves, smooth, lanceolate, the lower ones oblong, lanceolate, pinnatifid, with oblong, entire, or toothed lobes; siliqua, linear, smooth, erect, on long slender pedicles.

Florig. Brit. ii. 920. *Sisymbrium tenuifolium*, Linn. *Flora Romana*, p. 217.

Stem, erect, from 1 to 2 feet high, round, smooth, branched, the lower part and the root somewhat woody; leaves, numerous, dark, glaucous, green, somewhat fleshy; flowers, pale lemon colour, having an unpleasant odour, in terminal clusters, elongated into lax racemes when in fruit; pod, on long, spreading pedicles, linear, smooth, erect, the valves with a prominent dorsal rib; seeds, ovate, arranged in two rows in each cell.

Perennial, flowering in May and June.

The whole plant, when bruised, has a very disagreeable odour, and is of an acrid taste. It is a common plant on all the ruins and old walls about Rome, and is frequent in other parts of Italy. It varies greatly in its size and luxuriance, according to the more or less favourable situation of its growth, and the supply of moisture which it obtains. Besides this species, there is found about Rome the *D. muralis*, and on the sea-coast is the *D. viminea*.

DRABA, Linn. *Whitlow-grass*. *Draba*, Ital.

D. verna, Linn. *Common Whitlow-grass*. Scape, round, smooth, leafless; five or many-flowered; leaves, lanceolate, acute, hairy; petals, deeply cloven; pouch, oblong, ovate, shorter than the pedicles.

Flora Romana, p. 213. *Florig. Brit.* ii. 886.

A small plant, from 1 to 3 inches high; leaves, mostly numerous, entire or toothed, rough, with simple or forked hairs; flowers, small, white, in a loose raceme; fruit, an oblong, ovate pouch, smooth, flat, 2-celled, many-seeded.

Annual, flowering in February and March.

D. muralis, Linn. *Speedwell Leaved Whitlow-grass*. Stem, branched and leafy; leaves, ovate, obtuse, toothed, amplexical; petals, entire; pouch, elliptic, oblong, obtuse, flat, smooth, many-seeded, shorter than the spreading pedicles.

Flora Romana, p. 214. *Florig. Brit.* ii. 889.

Stem, erect, 6 to 8 inches high, simple or branched, clothed with starry pubescence; leaves, ovate, rough, strongly serrated and ribbed, radical ones numerous, the upper ones heart-shaped at the base, and embracing the stem; flowers, small, white, in terminal racemes; petals, entire; fruit, a 2-celled pouch, crowned with the persistent stigma; seeds, small, flat, 6 to 8 in each cell.

Annual, flowering in March and April; very abundant.

IBERIS, Linn. *Candytuft*.

I. pinnata, Linn. *Pinnate-leaved Candytuft*. Stem, herbaceous, branched; leaves, pinnatifid; the lobes, linear, 2 or 3 toothed; umbel, aggregate; pouch, ovate, broadly truncate, notched at the end; the lobes, triangular, acute, spreading.

Flora Romana, p. 212.

Stem, herbaceous, 6 to 12 inches high; leaves, smooth, those of the stem linear, toothed; flowers, in close, rounded umbels, white, the two outer petals much larger than the others; fruit, an ovate; pouch, broad and truncated, the end notched; valves, with triangular, acute, spreading lobes; cells, two, single-seeded.

Annual, flowering in May and June.

Many of the species of this genus are pretty, flowering plants, and are commonly cultivated as border flowers, and are

white or purple coloured, some of them exhale a pleasant odour, and others are without any fragrance.

LEPIDIDIUM, Linn. *Pepperwort*. *Lepidio*, Ital.

L. granifolium, Linn. *Bushy Pepperwort*, or *Lepidio*. Leaves, smooth, the radical ones spatulate, narrowed into a foot-stalk, serrated or pinnatifid at the base, the upper ones linear entire; pouch, ovate, acute, terminated by the short style.

Flora Romana, p. 213.

Stem, about a foot high, branched; leaves, smooth and shining; flowers, small, white, in terminal, racemose clusters, becoming much elongated in fruit; petals, entire; calyx, purplish.

Perennial, flowering in July and August.

The plants of this genus possess warm and stimulating properties, the *L. Sativum* is the common garden-cress, which, together with the young plants of the mustard, forms one of our earliest and best spring salads.

CAPSELLA, De Cand. *Shepherd's Purse*. *Borsa di pastore*, Ital.

C. Bursa Pastoris, De Cand. *Common Shepherd's Purse*.

Root-leaves, pinnatifid, with triangular, acute, slightly-toothed lobes, the upper linear entire; pouch, compressed, triangular, wedge-shaped, notched.

Florig. Brit. ii. 882. *Thlaspi*, Linn. *Flora Romana*, p. 213.

Stem, 6 to 12 inches high, hairy, branched, and leafy; leaves, rough, with hairs, the lower ones stalked, variously lobed, and cut, the upper linear, lobed or toothed, or entire; flowers, small, white, in terminal, racemose clusters, elongated in fruit; pouch, smooth, terminated by the persistent style; the valves, sharply keeled at the back.

Annual, flowering nearly all the year.

This is a very common and variable plant, and is found in almost all parts of the world, and often a most troublesome weed.

SENEBIERA, Poir. *Wart-cress*.

S. Coronopus, Poir. *Common Wart Cress*, or *Swine Cress*.

Leaves, pinnatifid, with entire or cut lobes; pouch,

sub-reniform, compressed, the valves wrinkled, the margin striated and toothed; style prominent.

Florig. Brit. ii. 876. *Coronopus Ruelli*, All. *Flora Romana*, 212.

Stems, numerous, branched, spreading, close to the ground, smooth, compressed; leaves, smooth, pinnatifid, with entire or cut segments; flowers, small, white, in small racemes, opposite to the leaves; calyx, spreading; pouch, roundish, kidney-shaped, of two spreading lobes, rough, with elevated netted lines, striated towards the margin, and toothed on the edge, two-celled, each cell containing a compressed, pendulous seed.

Annual, flowering in June and July.

BISCUTELLA, Linn. *Buckler Mustard*.

B. hispida, De Cand. *Bristly Buckler Mustard*. Stem, hispid; calyx, two-spurred at the base, the spurs cylindrical; pouch, at the base and apex, emarginate, rough, with elevated points at the disk.

Stem, erect, slender, rough, with bristly hairs; leaves, oblong, acute, tapering at the base, toothed; flowers, small, yellow, in terminal, branched, racemose clusters, elongated when in fruit; pedicles, spreading; pouch, compressed, notched at the base and apex; valves, orbicular, rough, with elevated points united by the central axis; style, persistent.

Annual, flowering in May.

This pretty little plant grows abundantly on the lower mass of ruins, around the arena of the Colosseum, and is remarkable, as are all the species of the genus, from the shape of the seed vessel or pouch, which is formed like two orbicular bucklers united together, on one side of the margin; the flowers are small, and insignificant-looking.

BUNIAS, Linn. *Bunias*.

B. Erucago, Linn. *Prickly-podded Bunias*. Stem, hairy, erect, branched, lower leaves runcinate, the upper oblong, slightly toothed; pouch, quadrangular; the angles, winged and toothed.

Flora Romana, p. 211.

Stem, erect, 1 to 2 feet high, branched, hairy, and scattered over with minute glands; lower leaves, oblong, deeply cut

in a runcinate manner, tapering into a broad footstalk; flowers, yellow, in terminal racemes, much elongated in fruit; pedicles, elongated, spreading; pouch, 4-angled, terminated by a long style, mostly 2-celled, and these placed one above another; sometimes they are 4-celled, two above and 2 below, each cell containing a single seed; the angles of the pouch winged and toothed.

Annual, flowering in May and June.

XI. NAT. ORD.—Cytineæ, A. Brogn.

CYTINUS, Linn. *Cytinus*.

C. hypocistus, Linn. *Cistus Cytinus*. Stem, succulent, imbricated with scales; flowers, congested, sessile.

Flora Romana, p. 332.

Parasitical upon the roots of the various species of *Cistus*: stem, succulent, about 4 inches high; scales, ovate; flowers, yellowish-red, as is the whole plant.

Perennial, flowering in May and June.

XII. NAT. ORD.—Geraniaceæ, Juss.

GENERA.

Stamens 10 all perfect GERANIUM.

Stamens 10, 5 perfect, 5 barren ERODIUM.

GERANIUM, Linn. *Crane's-bill*. *Geranio*, Ital.

Carpels with wrinkled valves.

G. molle, Linn. *Dove's-foot Crane-bill*. Peduncles, 2-flowered; petals, scarcely longer than the short bristle-pointed calyx, deeply bifid; the claw, ciliated; carpels, transversely-wrinkled, smooth; seeds, smooth; stem, spreading, downy; leaves, roundish, kidney-shaped in 7 to 9 deep wedge-shaped segments, trifid at the end.

Flora Romana, p. 225. *Florig. Brit.* iii. 938.

Stems, numerous, prostrate, spreading, and, as well as the leaves clothed with very soft pubescence; leaves, numerous, the radical ones on long, slender footstalks, the upper sessile; flowers, small, numerous, opposite to the upper leaves, of a pinkish, purple colour.

Annual, flowering in April and May.

G. Robertianum, Linn. *Stinking Crane's-bill*, or *Herb Robert*. Peduncles, 2-flowered; petals, obovate, entire, as long again as the bristle-pointed, angular calyx; the claw, smooth; carpels, transversely-wrinkled, downy; seeds, smooth; stem, erect, spreading; leaves, 3 or 5-cleft, deeply cut, and serrated.

Flora Romana, p. 226. *Florig. Brit.* iii. 939.

Stems, mostly numerous, erect, and spreading, brittle, succulent, generally of a deep, shining, red colour; leaves, opposite, pinnate, the leaflets stalked; flowers, small, deep rose colour; calyx, with a few glandular hairs; petals, entire, or slightly notched.

Annual, flowering from April to June.

The leaves of this plant, when bruised, have a remarkably disagreeable odour, from which it was supposed to possess rare medicinal properties, and was used as an external application in various diseases; but it is now abandoned. All the species of geranium secrete, more or less abundantly, odoriferous resin and essential oil; indeed, so abundant are these secretions in some of the tribe, as in *Sarcocaulon L'Heretieri*, that the stems are burnt like torches, and, during their combustion, give out an agreeable fragrance; and, from the leaves and stems of the *Pelargonium odoratissimum*, is distilled an extremely fragrant and agreeable essential oil, much used in perfumery; and, for this purpose, the plant is extensively grown about Nice, and forms the chief portion of those perfumes for which that place is so noted.

Carpels even. Seeds pitted.

G. rotundifolium, Linn. *Round-leaved Crane's-bill*. Peduncles 2-flowered; petals, oblong, wedge-shaped, rather longer than the oblong, short-pointed, pubescent calyx; carpels, even, pubescent; seeds, netted; stem, spreading; leaves, roundish, kidney-shaped, downy, lobed, cut and crenated.

Flora Romana, p. 226. *Florig. Brit.* iii. 940.

The whole plant is clothed with soft, spreading pubescence; leaves, both opposite and alternate; flowers, small, numerous, pink; calyx-sepals, with a short, obtuse point; petals, entire, rather longer than the calyx; carpels, ovate, slightly-keeled, even, downy, as well as the tapering awns.

Annual, flowering in April and May.

G. dissectum, Linn. *Jagged-leaved Crane's-bill*. Peduncles, 2-flowered; petals, obcordate, longer than the ovate, lanceolate, bristle-pointed calyx; carpels, even, and as well as the awn, hairy and glandulous; seeds, netted; stem, erect, and spreading, hairy; leaves, deeply divided into 5 or 7 narrow lobes, cut into narrow, linear segments.

Flora Romana, p. 225. *Florig. Brit.* iii. 941.

Stems, mostly several, hairy, branched, and leafy; leaves, opposite, much divided; flowers, small, pink, on viscid, downy, angular pedicles; calyx, 3-ribbed; petals, heart-shaped, rather longer than the calyx; the claw, short, downy on each side; carpels, slightly keeled, and, as well as the awn, clothed with glandular pubescence; seeds, rough, with elevated, netted lines.

Annual, flowering from April to June.

ERODIUM, L'Herit. *Stork's-bill*.

E. cicutarium, L'Herit. *Hemlock-leaved Stork's-bill*. Peduncles, many-flowered; petals, unequal, longer than the calyx; stamens, smooth, the perfect ones dilated, and rounded at the base; leaves, pinnate; leaflets, sessile, deeply cut and toothed; stem, prostrate, hairy.

Flora Romana, p. 223. *Florig. Brit.* iii. 931.

The whole plant is more or less clothed with viscid hairs; stem, spreading, procumbent, 6 to 12 inches long, branched, and swollen at the points; leaves, pinnate; leaflets, ovate, oblong, sessile, deeply cut and toothed; flowers, mostly numerous, in small umbels, on long, hairy stalks; calyx-sepals, 3 to 5-ribbed, with membranous margins; petals, 3-ribbed at the base; fruit, of 5 oblong, hairy carpels, with long, curled, hardened, persistent styles.

Perennial, flowering in April and May.

E. moschatum, Sm. *Musky Stork's-bill*. Peduncles, many-flowered; petals, as long as the calyx; stamens, smooth, the perfect ones dilated and toothed on each side at the base; leaves, pinnate; leaflets, nearly sessile, unequally cut and toothed; stem, depressed, hairy, viscid.

Flora Romana, p. 223. *Florig. Brit.* iii. 932.

This is a larger plant than the last, but its general aspect is the same. It is more clothed with viscid pubescence, and exhales a powerful musky odour; the leaves are longer, with more ovate less cut leaflets; the flowers are more

numerous; the petals pink, smooth; but it is most readily distinguished by the difference in the stamens.

Annual, flowering in May and June.

E. Romanum, Willd. *Roman Stork's-bill*. Peduncles, many-flowered, radical; leaves, pinnate; the radical leaflets, ovate, pinnatifid; petals, as long or longer than the calyx.

Flora Romana, p. 223.

Leaves, cut in a pinnatifid manner; flowers, numerous, on a scape, purple; petals marked with a dark spot at the base.

Annual, flowering from March to June.

E. malacoides, Willd. *Mallow-leaved Stork's-bill*. Peduncles, many-flowered; leaves, heart-shaped, lobed, and obtusely toothed, downy, glandular; stamens, smooth, all lanceolate; stems, spreading.

Flora Romana, p. 224.

Stem, spreading or prostrate, from 1 to 2 feet long, clothed with soft pubescence, and more or less viscid; leaves, roundish, oblong, heart-shaped at the base, more or less lobed and obtusely toothed, the lower on long footstalks, the upper on short ones; peduncles, longer than the leaves; flowers, about 6; petals, reddish, violate, rather longer than the calyx sepals, which are ribbed, and bristle-pointed. The whole plant is of a pale-green colour.

Annual, flowering from March to July.

There are found about Rome, as well as the above enumerated species of *Erodiums*, the *E. ciconium*, *laciniatum*, *Botrys*, and *maritimum*.

All the species of the genus are remarkable in having small flowers, and large, beaked fruit. The beak is formed by the elongated hardened styles; and as the plant matures, they become highly hygrometrical: they are formed of dense cellular substance externally, and soft elastic cells internally. From this unequal density of the substances, they curve up with an elastic force, and become spirally twisted: the carpels containing the seed, and the inner surface of the awn, are more or less thickly coated with bristles pointed upwards. From this structure of the fruit-vessel, it will be seen how admirably the progeny are provided for their future sustenance and growth. The carpels are of a pointed conical shape, and readily pierce the ground; the elongated awn,

curved and twisted round by changing humidity, screws it beneath the soil; while every advanced movement that it makes, is prevented from retracting by the up-pointed bristles which barb the carpel and awn: thus its penetration of the earth is secured. The awn performs the further important part of attracting moisture from the atmosphere, and conducts it most faithfully to its tender charge below, until it is enabled to support itself.

XIII. NAT. ORD.—Rutaceæ, Juss.

RUTA, Linn. *Rue*. *Ruta*, Ital.

R. bracteosa, De Cand. *Large bracteated Rue*. Leaves, subtripinnate; leaflets, oblong, wedge-shaped, nearly equal, about three times as long as broad; lobes of the capsules, acuminate; petals, fimbriated; bractea, large, heart-shaped; pedicles, smooth.

De Cand. Prod. i. 710. *R. chalepensis*. *Flora Romana*, p. 147.

Stem, erect, 1 to 2 feet high, simple; leaves, alternate petioles, long, somewhat angular; leaflets, oblong, tapering to the base, and nearly sessile; flowers, yellowish green, in terminal clusters, the bracts rather large, roundish, heart-shaped; petals, concave, fringed on the margin.

Perennial, frequent on old walls and ruins about Rome.

The whole plant is scattered over with resinous glands, and especially the flowers, but much more in some of the species than in this; they emit a very unpleasant odour, and have a very bitter and nauseous taste. The more common species, *R. graveolens*, has been used medicinally, and at one time was held in great esteem as a stimulant and anti-spasmodic.

XIV. NAT. ORD.—Oxalideæ, De Cand.

OXALIS, Linn. *Wood-sorrel*. *Alleluia*, Ital.

O. corniculata, Linn. *Yellow procumbent Wood-sorrel*. Stem, branched, procumbent at the base; leaves, ternate; leaflets, obcordate; stipules, oblong, united to the base of the petioles; peduncles, 2 to 5-flowered, shorter than the leaves; partial fruit-stalk reflexed.

Flora Romana, p. 156. *Florig. Brit.* ii. 660.

Root, fibrous; stem, downy, branched from the base, the lower ones procumbent, and rooting at the joints; leaves on long, slender footstalks, with a pair of membranous stipules at the base; leaflets, 3 terminal, inversely heart-shaped; flowers, small, yellow; capsules, rather large, angular, reflexed.

Annual, flowering from May to June.

This is an extensive genus, containing many very pretty ornamental species well known as greenhouse and border flowers. Some of the species are cultivated as a vegetable, and their leaves are used as a salad; others furnish esculent tubers; and almost all the species contain in their leaves an acid principle, which is found to be oxalic acid. One species, the *Oxalis Acetosella*, is found in almost all parts of Europe: it is an extremely pretty plant; and its leaves contain, perhaps, a greater proportion of acid than any of the other species. In spring, they are very frequently gathered and used as an ingredient in salad, to which they impart a pleasant and refreshing acidity.

XV. NAT. ORD.—**Saxifrageæ**, Vent.

SAXIFRAGA, Linn. *Saxifrage*. *Sassifragia*, Ital.

S. granulata, Linn. *White Meadow Saxifrage*. Stem, solitary, erect, above subcymose, radical; leaves on long footstalks, kidney-shaped, lobed, those of the stem wedge-shaped, nearly sessile; petals, obovate, oblong, much longer than the calyx; roots with granular bulbs.

Flora Romana, p. 147. *Florig. Brit.* ii. 607.

Roots, fibrous, bearing numerous granular bulbs about the size of a pea; stem, erect, from 6 to 18 inches high, mostly simple, hairy and glutinous; leaves, downy and glandular, the lower ones on long footstalks, the upper ones sessile, 3 to 5-lobed, and generally bearing small granular bulbs in the axis; flowers, rather large, white, in terminal panicles; petals several times longer than the calyx.

Perennial, flowering in April and May.

This species is nearly allied to *S. bulbifera*; both of them increase rapidly by the numerous bulbs at the roots, as well

as by those which fall from the stem, which are abortive flowers. The flowers of both these species are large, and beautifully veined; by cultivation, the stamens expand into petals, and thus become pretty double-flowered border-plants. The derivation of the name Saxifrage is from *saxum*, a "stone," and *frango*, to "break," probably in reference to the species *Granulata*; for during the past ages, the potency of medicines were judged of by their form and appearance, and their virtues were confirmed by astrological pretensions. According to the notion of the signature physicians, the granular bulbs of the roots so much resembled stones, as to indicate their efficacy in the cure of stone in the bladder; and as the white flowers showed, according to the notion of the astrologers, that the plant was under the government of the moon, the roots must not, they say, be gathered, if their full effects be desired, except at the time of that orb being full. We do not, however, now find that, under any circumstances, the roots of the Saxifrage possess the remarkable qualities attributed to them by the old physicians.

S. tridactylites, Linn. *Rue-leaved Saxifrage*. Stem, solitary, erect, simple or branched, viscid, with glandular hairs, leafy; peduncles, single-flowered, much longer than the fruit, with 2 bracts at the base; root-leaves on broad footstalks, simple, or 3 to 5-cleft, those of the stem simple or cleft; calyx, superior, of 5 short obtuse lobes; capsules, subtruncated, ovate.

Flora Romana, p. 148. *Florig. Brit.* ii. 610.

Stem, from 1 to 4 inches high, mostly red, rarely green; leaves, fleshy, more or less clothed with glandular hairs; flowers, small, white; calyx, with 5 short, ovate, erect segments; capsule, roundish, ovate, truncated at the top, 2-celled, many-seeded.

Annual, flowering in March and April.

XVI. NAT. ORD.—Hypericinæ, De Cand.

HYPERICUM, Linn. *St. John's Wort*. *Pilatro*, Ital.

H. perforatum, Linn. *Common perforated St. John's Wort*. Stem, erect, 2-edged, branched; leaves, ovate, oblong, or linear-oblong, with pellucid dots; calyx sepals erect,

lanceolate, entire, or toothed at the apex; petals, obliquely oblong; styles, as long as the capsules.

Flora Romana, p. 181. *Florig. Brit.* iii. 1013.

Stem, from 1 to 2 feet high, much-branched and leafy; leaves, numerous, variable in size, copiously dotted over with small pellucid glandular dots; flowers, numerous, in terminal branched panicles; petals, oblique, yellow, dotted with purplish glands; capsules, rather large, 3-celled.

Perennial, flowering in May and June.

This plant is still retained in the Italian *Materiâ Medicâ*, though it is not now held in so great reputation as formerly, as a remedy in the cure of wounds, bruises, etc., though its virtues in past ages were considered so great, that it obtained the name of "balm of the warrior's wound." Ancient superstition attributed to this plant the power of defending persons from enchantments, phantoms, and spectres; and still more, of being adapted to drive away devils, for which virtue it was called by the old herbalists, *Fuga Dæmonum*; and this superstitious feeling is not even now exploded—for it is said, that the French and German peasants gather it, with much ceremony, on St. John's day.

XVII. NAT. ORD.—Papaveraceæ, Juss.

GENERA.

Capsules rounded or obovate..... PAPAVER.

Capsules elongated..... CHELIDONIUM.

PAPAVER, Linn. *Poppy*. *Papavero*, Ital.

P. Rhæas, Linn. *Common Red Poppy* or *Corn Rose*. *Rosolacci*, Ital. Filaments, subulate; capsules, nearly globular, smooth; margin of the stigma with incumbent lobes; stem, hispid, many-flowered; leaves, pinnate or bipinnate, with oblong lanceolate-cut or toothed segments.

Flora Romana, p. 176. *Florig. Brit.* i. 749.

Stem, branched, erect, or spreading, from 2 to 3 feet high, more or less rough, with spreading hairs; leaves, numerous; flowers, mostly numerous, large; petals, deep scarlet,

often with a black patch at the base; stamens, purple, the pollen yellow.

Annual, flowering in May.

By cultivation, many extremely beautiful and variously-coloured flowers of this species are obtained, often becoming much larger than in the wild state, and very double, from the stamens expanding into petals. The petals of the wild plant readily impart their colour to boiling water, which with sugar forms an elegant syrup, useful as a carminative for young children, in coughs and colds. It is from the capsules of the *P. somniferum*, that the well-known valuable narcotic opium is obtained; and from the seeds of this and other species a fine, clear, bland oil is obtained, which is used for domestic purposes in the place of olive oil, and also in the arts—especially by artists, as a medium to mix their colours in painting.

The name *Papaver* is, according to Theiss, derived from the Celtic word *papa*, which signifies “pap,” or the soft, pulpy food given to children, in which the seeds of the poppy were formerly boiled, to make the children sleep. The seeds are now used in Poland and Russia as an ingredient in soup, and for making gruel, etc.

P. dubium, Linn. *Long smooth-headed Poppy*. Filaments, subulate; capsules, oblong, smooth; margin of the stigma with distinct crenatures; stem, hispid; many-flowered; leaves, bipinnate, with remotely-toothed segments.

Flora Romana, p. 176. *Florig. Brit.* i. 749.

Stem, erect, branched, and leafy, clothed with spreading hairs; leaves, numerous, rather large, scattered over with slender hairs; petals, broader than long, light scarlet; stigmas, of 6 to 8 rays; capsules, smooth, narrow, with as many ribs as there are rays of the stigma.

Annual, flowering in May.

CHELIDONIUM, Linn. *Celandine*, *Celidonia*, Ital.

C. Majus, Linn. *Common Celandine*. Peduncles, umbellate; leaves, pinnatifid, with rounded segments, and toothed lobes.

Flora Romana, p. 175. *Florig. Brit.* i. 757.

An erect, branched, spreading plant, about 2 feet high, with pinnatifid, lobed, and more or less cut leaves, a dark, glossy green, on the upper side, glaucous, and somewhat hairy beneath; flowers, a bright yellow, in small, simple umbels.

Perennial, flowering in April and May.

The whole plant abounds in an acrimonious, yellow juice, which exudes from all parts of it when broken: from the acrid property which it possesses the country people apply it to remove warts from the hands. It has also been used for the cure of various diseases of the skin; and, mixed with milk, it is said to have been used, with advantage, in the removal of specks from the eyes; and, in the form of decoction, it has been administered for the cure of jaundice; but its acidity is so great, that, unless it is used with the greatest caution, it produces violent irritation.

XVIII. NAT. ORD.—Capparideæ, Juss.

CAPPARIS, Linn. *Caper Tree*. *Cappari*, Ital.

C. spinosa, Linn. *Common Caper Tree*. *Capriola*, Ital.
Peduncles, solitary, 1-flowered; leaves, roundish, obtuse, or notched; stipules, spinous.

Flora Romana, p. 175.

A long, straggling, shrubby, branched plant, round, smooth, and leafy; leaves, stalked, smooth, roundish, ovate, entire or notched at the end; stipules, small, spinous, incurved, often wanting; flowers, axillary, on long, slender peduncles, solitary; calyx, ovate; petals, large, spreading, a beautiful pale purple or white; stamens, very numerous, yellow, on long, slender filaments; style, long; fruit, subglobose.

Perennial, flowering in May and June.

Few plants are a more beautiful and graceful adornment to old walls and ruins than this; the long, slender, pendent branches, forming graceful tufts, covered with their smooth, shining leaves, and numerous beautiful, elegant flowers, are extremely ornamental. It is very common on many of the other ruins, old buildings, walls, etc., about Rome, as well as other parts of Italy, the South of France, Greece, etc. The

Capparis spinosa.

buds of the Caper plant are a well-known pickle, and greatly esteemed throughout Europe. In the South of France, and various parts of Italy, especially Sicily, it is cultivated to a considerable extent, and is generally grown in the orchards, in the intervals between the fruit-trees, olive-trees, and fig, and, not unfrequently, whole fields are planted with it, especially about Toulon. Usually the flower-buds alone are used for the purpose of pickling; but, in many parts of Italy, the young, unripe fruit, is also gathered for the same purpose. The flower buds are gathered when they are small, and just before they begin to expand, and are thrown into a vessel containing as much salt and vinegar as is sufficient to cover them. In this state they are allowed to remain until the gathering season is over, when they are assorted, and put into fresh vinegar for commerce, either in bottles or small casks; the smallest and greenest are considered the best, and command the best price in the market. If they have been allowed to remain in the strong salt and vinegar a sufficient length of time, and are then put into good strong vinegar, they will keep fit for use many years; but, if the process has been hurried, and the articles used not sufficiently strong, they soon lose their peculiar properties.

XIX. NAT. ORD. Cistineæ, Dunal.

GENERA.

Capsule 3-valved HELIANTHEMUM.

Capsule 5 to 10-valved CISTUS.

HELIANTHEMUM, Tourn. *Rock Rose*.

H. guttatum, Mill. *Spotted Annual Rock Rose*. Stem, herbaceous, erect; leaves, sessile, oblong, lanceolate, 3-nerved; the lower opposite, without stipules; the upper alternate, with stipules; racemes, without bractea; stigma, nearly sessile.

Flora Romana, p. 178. *Florig. Brit.* ii. 760.

Stem, erect, from 6 to 12 inches high, simple or branched, clothed, like the rest of the plant, with soft, spreading hairs, intermixed with stellated ones, and more or less glutinous; leaves, dark green; flowers, in terminal racemes,

numerous; petals, a bright golden yellow, ovate, wedge-shaped, mostly with a dark crimson spot at the base, the entire, or toothed, very fugacious.

Annual, flowering in April, May and June.

This is an extremely elegant little plant, very common in dry situations, old walls, and ruins, in most parts of Italy; but its petals are so fugacious that they seldom remain on the plant, after expanding, more than three or four hours; and they will fall off even soon after expanding, by the least shaking of the plant.

CISTUS, Linn. *Cistus*. *Cistio*, Ital.

C. salvifolius, Linn. *Sage-leaved Cistus*. Leaves, stalked, ovate, obtuse, wrinkled, rough, with stellated hairs; peduncles, long, 1 or several-flowered; stigma, nearly sessile.

Flora Romana, p. 177.

An evergreen shrub; the leaves, pale, ovate, rounded at the base, without stipules; the flowers, white; petals, obovate, notched at the end.

Shrub, flowering in April and May.

This is a very common, low-branched, ornamental shrub, in dry, exposed situations, in all parts of the south of Europe. In the spring months it is fed on by goats, and is frequently eaten by cattle, when the grass, from drought, is dried up.

XX. NAT. ORD.—*Resediaceæ*, De Cand.

RESEDA, Linn. *Rocket Mignonette*. *Reseda*, Ital.

R. alba, Linn. *Upright White Reseda*. Leaves, pinnate, wavy; calyx, 5, partite; styles, 4; fruit, 4-angled.

Flora Romana, p. 162.

Stem, erect, from 3 to 5 feet high, angular, striated, branched, and leafy; leaves, pinnated, with lanceolate, entire, or waved, unequal lobes, decurrent at the base; flowers, in close spikes, becoming elongated in fruit; calyx, segments oblong, obtuse, persistent; petals, white, spreading; stamens, numerous, yellow, or buff-coloured; capsules, 4-angled, oblong, obtuse, terminated by the spreading, acuminate styles, open at the end; seeds, numerous.

Perennial, flowering from March to June.

This is a very remarkable, ornamental plant, in its appearance, adorning many of the ruins of temples, palaces and tombs, as well as the walls of the Colosseum.

R. Phytuma, Linn. *Trifid-leaved Mignonette*. Radical leaves, obtuse, entire, the upper 3-lobed; calyx, of 6 obtuse pieces, as long as the pedicles; capsules, oblong, obtusely angular; large stem, spreading.

Flora Romana, p. 162.

Stem, slender, angular, prostrate, spreading; leaves, numerous, smooth, becoming orange-coloured and red in the autumn; flowers, white, rather large and odoriferous, but not so much so as the *R. odorata*; fruit, large, oblong, club-shaped, with obtuse angles, opening at the top; seeds, numerous.

Annual, flowering from April during the summer months.

The *Reseda odorata*, or Garden Mignonette, is a well-known and generally cultivated flower on account of the very refreshing fragrance which it exhales, especially in the early morning and cool of the evening; its general appearance is similar to the *R. Phytuma*, but is far more odoriferous. From the unassuming appearance of the flowers, and the sensible properties which it possesses, it has obtained the signification, in the language of flowers, of "your qualities surpass your charms;" and the poet, Evans, alluding to the same thing, says:—

No gorgeous flowers the weak Reseda grace,
Yet sip, with eager trunk, yon busy race,
Her simple cup, nor heed the dazzling gem
That beams in Fritellaria's diadem.

XXI. NAT. ORD.—Terebinthaceæ, De Cand.

PISTACIA, Linn. *Turpentine-tree*. *Pistacchio*, Ital.

P. Terebinthus, Linn. *Turpentine-tree*. Leaves, pinnate, with an odd one; leaflets, about 7, ovate, lanceolate, acute, bristle-pointed.

Flora Romana, p. 337.

A low tree or shrub, with smooth bark, and numerous spreading branches; leaves, alternate, pinnate; the leaflets, in

3 to 6 pieces, with an odd one, smooth, dark green above, paler beneath, numerous veined; the male flowers very numerous towards the end of the branches, in branched, amentaceous clusters; the female flowers small, green, in lax racemes; fruit, small, smooth, sub-ovate, gibbous on one side towards the top.

Shrub, flowering in May.

This plant furnishes the *Cyprus turpentine*; but, though a common plant in most parts of the south of Europe, it appears only to produce the turpentine in sufficient quantity to render its collection of importance in the Island of Chios and Cyprus. It is procured by wounding the trunk in various places, during the month of July; from these wounds the turpentine is received upon stones, and, during the coolness of the night, it is so much condensed as to admit of its being scraped off with a knife, which is always done before sunrise; it is then placed in the heat of the sun, and becomes liquified, and is passed through a strainer, to remove all extraneous admixture. It is about the consistency of honey, very tenacious, clear, and almost transparent, of a yellowish-white colour, of a fragrant smell, rather warm to the taste, but without bitterness or acrimony.

P. lentiscus, Linn. *Mastick-tree*. *Dentischio*, Ital. Leaves, abruptly pinnate; leaflets, lanceolate, about 8; the stalk winged.

Flora Romana, p. 337.

A low shrub or tree, about 12 feet high; bark, smooth, many-branched; leaves, pinnate, of about 4 pairs, without a terminating one, the common stalk winged; leaflets, lanceolate, bristle-pointed, paler beneath than above, nearly sessile; the male flowers numerous, in axillary aments; the female flowers, in short axillary racemes, small, purplish, or yellowish-green; fruit, small, globose, red, becoming brown.

Shrub, flowering in May.

This plant produces the well-known resin *Mastick*, which is obtained by making transverse incisions in the bark, from which the resin exudes in drops, which are allowed to run down to the ground; and, after they have become hard, are collected for use. It softens when kept in the mouth, but

imparts very little taste; and, on this account, it is used by dentists to fill carious teeth. In Turkey great quantities of it are said to be chewed for the purpose of sweetening the breath, and strengthening the gums; and it is from this use of it that it is supposed to have obtained the name of *mastick*. It is much used, when dissolved in turpentine, by artists, as a varnish for pictures, and as a medium, when mixed with oil, for drying some of the colours. It is much used in Rome, when mixed with plaster of Paris, to form the cement which they use in the making of the Mosaic ornaments, etc., for which they are so much celebrated.

XXII. NAT. ORD.—Violaceæ, Lind.

VIOLA, Linn. *Violet*. *Viola*, Ital.

V. odorata, Linn. *Sweet Violet*. *Viola mammola*, Ital. Anther cells diverging, the spurs, lancet-shaped, decurved, blunt, lateral; petals, entire, the lower one notched; spur of the corolla obtuse, straight; leaves, broadly heart-shaped; runners, long; stipules, lanceolate, entire.

Flora Romana, p. 104. *Florig. Brit.* i. 315.

Root, sending out numerous long runners, which take root at various intervals, and put out leaves and flowers; flowers, single, on long footstalks; petals, purple or white, the lateral ones with a hairy line sometimes wanting; the spur, inflated towards the end, and slightly channelled above; capsules, ovate, oblong, triangular, on elongated footstalks, prostrate upon the ground when ripe.

Perennial, flowering from January to May.

The sweet-smelling Violet, though it grows sparingly on the ruins of the Colosseum, is a most abundant plant in shady situations in most parts of Italy, and often loads the air with its rich perfume, so that though it modestly hides its flowers amongst its leaves, its presence is readily known.

V. canina, Linn. *Dog's Violet*. Anther cells parallel; the spurs, lancet-shaped, acute; corolla, with an obtuse spur; leaves, ovate, heart-shaped, or oblong; stipules, lanceolate, toothed, or ciliated; stem, ascending.

Flora Romana, p. 104. *Florig. Brit.* i. 319.

Root, somewhat woody, without runners, but putting out numerous stems, often branched; leaves, on long, channelled footstalks, broadly heart-shaped, or oblong-acute; flowers, single, on long, channelled footstalks; calyx-sepals, linear, lanceolate, scarcely extended at the base; flowers, large, pale blue; petals, with darker veins; spur, inflated in the lower half; capsule, oblong, obtuse, with a central axis.

Perennial, flowering from March to May.

The want of odour in the flowers, and the plant having stems and not runners, readily distinguishes this from *V. odorata*. It is a very variable species in the shape and size of the leaves, from which circumstance numerous varieties are made by various authors.

XXIII. NAT. ORD.—*Fumariaceæ*, De Cand.

FUMARIA, Linn. *Fumitory*. *Fummosturno*, Ital.

F. capreolata, Linn. *Ramping Fumitory*. Calyx-sepals, broadly ovate, toothed at the base, half as long as the corolla; fruit, roundish, obtuse; racemes, lax; the pedicles spreading, or reflexed in fruit; bracteas, linear, one-third shorter than the pedicles; leaves, with ovate or oblong segments.

Flora Romana, p. 232. *Florig. Brit.* iii. 951.

The whole plant smooth; stem, slender, climbing, branched and spreading, often 3 to 4 feet high, supporting itself by the long, slender footstalks of the leaves, twisting themselves around other plants; flowers, pale pink; petals, tipped with dark red; racemes, from 1 to 2 inches long, opposite to the leaves; fruit, roundish, somewhat compressed, obtuse, slightly indented on each side of the style; seed, solitary, smooth.

Annual, flowering from April, during the summer months.

F. officinalis, Linn. *Common Fumitory*. Calyx-sepals, ovate, lanceolate, acute, toothed about one-third the length of the corolla; fruit, broadly ovate, compressed, truncated, and slightly notched; bracteas, small, two or three times shorter than the fruit, bearing pedicles; leaves, with linear-oblong segments.

Flora Romana, p. 232. *Florig. Brit.* iii. 952.

The whole plant smooth, of a more or less glaucous green; stem, of variable size, erect, branched and spreading; angular, often supporting itself by the long footstalks of the leaves twisting themselves around other plants; flowers, numerous, pale pink or rose colour; the petals, tipped with dark red or purple, arranged in racemes; calyx-sepals, membranous, about half as long as the petals; fruit, broadly ovate, globose, roughish; seed, solitary.

Annual, flowering during the summer months.

The leaves of this plant were formerly used in medicine in various diseases of the skin; but, beyond their having a slight bitter, saline taste, and acting as a very slight tonic, they are not otherwise useful.

F. parviflora, Lam. *Small-flowered Fumitory*. Calyx-sepals, ovate, minutely toothed, broad, about two-thirds shorter than the corolla; fruit, globose, pointed; bractees, as long or longer than the fruit-bearing pedicles; leaves, with narrow, almost linear segments.

Flora Romana, p. 232. *Florig. Brit.* iii. 953.

The whole plant is a more or less glaucous green; stem, erect, branched and spreading; leaves, alternate bi- or tri-pinnate; the leaflets, narrow, linear; flowers, numerous, pale pink, or white; petals, tipped with a dark purple spot; racemes, erect; calyx, of two very small membranous sepals, finely toothed on each side; bractees, pale, membranous; fruit, globose, roughish, with elevated points; the apex, pointed.

Annual, flowering from April during the summer months.

XXIV. NAT. ORD.—*Polygalææ*, Juss.

POLYGALA, Linn. *Milkwort*. *Polygala*, Ital.

P. monspeliaca, Linn. *Yellow-flowered Milkwort*. Flowers, crested; racemes, terminal, many-flowered; wings of the calyx elliptic, acute, 3-nerved, the lateral branches obliquely anastomosing at the apex, longer than the corolla; leaves, linear, lanceolate, acute.

Flora Romana, p. 233.

A low-branched, spreading plant, about a foot long; leaves, pale green; flowers, pale yellow; calyx, with green, or sometimes pinkish veins.

Annual, flowering in May and June.

The name of this genus of plants is derived from *πολυ*, "much; and *γαλα*, "milk;" from the properties which these plants have in producing a greater secretion of milk in those animals which feed upon them.

XXV. NAT. ORD.—Leguminosæ, Juss.

GENERA.

TRIBE 1.—*Loteæ*, De Cand.

Pods, continuous; cotyledons, in germination, rising above the ground, and becoming green leaves.

Stamens, monadelphous.

Calyx 1-lipped..... SPARTIUM.

Calyx 2-lipped..... CYTISUS.

Calyx with equal teeth.

5-toothed, inflated ANTHYLLIS.

5-cleft ONONIS.

Stamens, diadelphous.

Pod 1-celled.

Few seeded, scarcely longer than the calyx.

Calyx 5-toothed, flowers racemose MELILOTUS.

Calyx 5-cleft; flowers capitate or spiked TRIFOLIUM.

Many-seeded, much longer than the calyx, straight.

Keel long, with a narrow beak .. LOTUS.

Keel very short TRIGONELLA.

Falcate or spiral MEDICAGO.

TRIBE 2.—*Viceæ*, De Cand.

Pods, continuous; cotyledons, in germinating, remaining underground, and not becoming green leaves.

Styles at right angles with the ovary, villous on both sides

VICIA.

Styles curved, compressed, dilated at the end, villous in front.....

LATHYRUS.

TRIBE 3.—**Hedysarææ**, De Cand.

Pods divided, internally, by transverse articulations, into 1-seeded joints.

Calyx campanulate.

Pods circinate, longitudinally sulcated .. SCORPIURUS.

Pods straight or curved, angular CORONELLA.

Pods straight, compressed, the margin thickened..... SECURIGERA.

Pods elongated, compressed, the margin sinuated..... HIPPOCREPIS.

Calyx elongated, tubular ORNITHOPUS.

SPARTIUM, Linn. *Broom.* Sparzio, Ital.

S. junceum, Linn. *Spanish Broom.* Branches, opposite, round, flowering at the end; leaves, lanceolate.

Flora Romana, p. 234.

A many-branched, spreading shrub; branches, long, tapering, rush-like, bearing at the end a small bunch of yellow odoriferous flowers; leaves, few; leaflets, lanceolate.

Shrub, flowering in May and June.

This is a very common and ornamental shrub in all parts of the Continent. Its young and tender branches and leaves are eaten by sheep and goats. When the branches are old, they are very tough and pliant, and much used by the country people for various purposes; but especially by the shepherds, in forming their picturesque-looking huts on the Campagna of Rome. These temporary dwellings are formed much in the shape of a hay-stack, but open at the apex, for the escape of the smoke from the large wood-fires they make in the middle of the floor, which serves to warm the whole dwelling, which has beds ranged around it, very similar to the berths in a ship—and to cook their food, prepare the *recotta*, cheese, etc., the produce of the flocks. These huts are often made so large, that they contain twenty or more beds, and also give shelter to their numerous dogs, pigs, and often sheep, goats, and cattle, where they obtain repose and warmth during the winter nights, and shelter from the sun's rays during the summer. The coats and other garments of the men are made of the skins of sheep and goats, with the

wool and hair upon them—the whole forming most primitive and patriarchal-looking groups.

CYTISUS, Linn. *Cytisus*. *Citiso*, Ital.

C. Laburnum, Linn. *Common Laburnum-Tree*. Branches covered with close-pressed hairs; racemes, simple, many-flowered, pendulous; leaflets, ovate, oblong, smooth above; pod with the upper suture angularly keeled.

Flora Romana, p. 233.

A shrub or low tree, with smooth bark and spreading branches, well-known as an ornamental shrub in gardens; but no where so beautiful and elegant as when growing amongst rocks and ruins, in its native situations, hanging with its slender, drooping branches loaded with its gay pendant racemes of flowers.

Flowering in May.

ANTHYLLIS, Linn. *Kidney Vetch*. *Antillide*, Ital.

A. vulneraria, Linn. *Kidney Vetch* or *Lady's Finger*. Stem, herbaceous; leaves, pinnate; leaflets, unequal; heads of flowers in pairs; calyx, with 5 ovate, acuminate, unequal teeth.

Flora Romana, p. 237. *Florig. Brit.* iii. 963.

Stem, ascending, about a foot high, pubescent; radical leaves with long footstalks, and a large terminal leaflet, mostly without lateral ones—the rest with a small terminal leaflet, and several pairs of lateral ones; flowers, in globose heads, mostly in pairs; petals, yellow; calyx, persistent, becoming inflated.

Perennial, flowering from May to July.

This plant forms no inconsiderable part of the mountain-pastures, upon which sheep and cattle feed in the summer months; and it is said to cause them to give more milk, than many other of the productions of those regions. Formerly it was held in great repute, as a remedy in arresting the flow of blood from recent wounds—arising, probably, from the soft down with which it is clothed; but it is not now so highly esteemed as it appears to have been by the ancients. It is from this use of the plant, that it has obtained the specific name.

ONONIS, Linn. *Rest-Harrow. Ononide, Ital.*

O. spinosa, Linn. *Common Rest-Harrow.* Stem, shrubby, ascending, branched at length, spinous; flowers, axillary, solitary; leaves, ovate, oblong, toothed, the lower ones ternate, the upper simple; stipules, toothed; legumes, obliquely ovate, erect, shorter than the hairy calyx; seeds, 2 or 3, rough.

O. arvensis, Linn. *Flora Romana*, p. 236. *Florig. Brit.* iii. 961.

A reclining or prostrate plant, shrubby, and more or less spiny; leaflets, ovate, oblong, finely toothed; flowers, solitary from the axis of the upper leaves, often forming an imperfect spike, bright rose colour, striated with darker veins.

Perennial, flowering in May and June.

MELILOTUS, Tourn. *Melilot. Meliloto, Ital.*

M. Italica, All. *Italian Melilot.* Racemes, lax, erect, becoming much elongated; pedicles, half as long as the calyx; legumes, subglobose, rugose, the suture smooth, furrowed; stipules, lanceolate, toothed, the upper awl-shaped, entire; leaflets, roundish, wedge-shaped, the upper oblong, wedge-shaped, toothed.

Flora Romana, p. 249.

Stem, erect, 1 to 3 feet high, smooth, angular, branched; leaves formed of 3 leaflets; stipules, lanceolate, tapering, irregularly toothed; flowers, yellow, in erect racemes, becoming much elongated; pod, large, smooth, pendulous.

Annual, flowering in April and May.

M. Indica, Linn. *Indian Melilot.* Racemes, lax, erect, becoming much elongated; pedicles, half as long as the calyx; legumes, subglobose, rugose, acutely pointed; stipules, small, awl-shaped, scarcely toothed; leaflets, oblong, obtuse, wedge-shaped at the base, the end toothed, upper ones narrower.

Flora Romana, p. 249. *M. parviflora*, Desf.

Stem, erect, from 1 to 3 feet high, round, subpubescent, slender, branched; leaves, of 3 narrow wedge-shaped leaflets; stipules, very small; flowers, yellow, in slender, erect racemes, becoming elongated in fruit; pod, subglobose, pointed with the persistent style, smooth, rugose, 1 or 2-seeded.

Annual, flowering in May and June.

All the plants of this genus are remarkable, when they are being dried, from the odour which they give out, much resembling that of the Tonquin bean. They are a favourite food of horses; and the Gruyere cheese has that peculiar flavour, for which it is remarkable, given to it by bruising the plant and seeds, and mixing them with the curd before it is pressed. The flowers are very sweet, and much resorted to by bees; hence its name of *Mel*, "honey," *lotus*. Virgil, Georgic iv., in giving directions relative to the habits of bees, says,—

But when thou see'st a swarming cloud arise,
That sweep aloft, and darken all the skies,
The motions of their hasty flight attend,
And know to floods or woods their airy march they bend.
Then *Melilot* beat and honeysuckles pound;
With these alluring savours strew the ground,
And mix with tinkling brass the cymbal's droning sound.

Melilot is one of the plants used by the ancient Italians to make garlands, to crown their distinguished victors on festive occasions; for which reason it was commonly called *Ghirlanda*, or "garland-flower." There are many species common throughout Italy, and few plants are more fitted for making garlands than they are—not only on account of their graceful flowers, but the sweet odour which they exhale while drying, renders them peculiarly appropriate for such decorations on festive occasions.

TRIFOLIUM, Linn. *Trefoil*. *Trifoglio*, Ital.

Flowers, sessile, collected into a roundish or oblong head; calyx, with its mouth surrounded with a callous line, often hairy.

T. pratensis, Linn. *Common Purple* or *Meadow Trefoil*, or *Clover*. Heads, ovate, often 2 together, nearly sessile in the axis of the involucre; calyx, 10-ribbed, pubescent, erect in fruit; teeth, bristle-shaped, the lower one largest; leaflets, ovate, entire; stipules, ovate, bristle-pointed, smooth; stem, ascending.

Flora Romana, p. 253. *Florig. Brit.* iii. 971.

Stem, ascending, about a foot high, hairy above; leaves on

footstalks; leaflets, lanceolate or ovate, obtuse, entire, mostly marked with a pale crescent-shaped spot; stipules, membranous, large, ovate, acute; flowers, in large sessile heads; petals, purple; pod, single-seeded.

Perennial, flowering during the summer months.

This is a very common and one of the most useful and valuable artificial grasses for agricultural purposes, especially when cultivated for a green crop, or for making hay.

T. ochroleucum, Linn. *Sulphur-coloured Trefoil*. Heads, terminal, solitary, pedunculated; calyx, 10-ribbed, pubescent, the mouth closed with a ring; teeth, erect, awl-shaped, the lower one largest, at length reflexed; leaves, distant; leaflets, elliptical or obovate, entire or notched at the apex, downy, the lower ones heart-shaped; stipules, lanceolate, awl-shaped; stem, ascending.

Flora Romana. p. 253. *Florig. Brit.* iii. 972.

Stem, about a foot high; upper leaves, opposite; flowers, in a dense, terminal, globose head of a pale sulphur-colour; calyx, slightly hairy; pod, single-seeded. The whole plant of a greyish-green colour, and more or less hairy.

Perennial, flowering in May and June.

T. stellatum, Linn. *Starry-headed Trefoil*. Heads, terminal, subglobose, pedunculated, hairy; calyx, 10-ribbed, the mouth closed with hairs; teeth, longer than the corolla, becoming dilated at the base, and veiny; leaves, obcordate, toothed towards the apex; stipules, broadly ovate, membranous, veiny, toothed, downy, as well as the ascending stem.

Flora Romana, p. 251. *Florig. Brit.* iii. 973.

Stem, 4 to 12 inches long; stipules, united together to about the middle, roundish, toothed; calyx, clothed with soft hairs, becoming after flowering much larger, and the teeth expanding in a stellated manner, netted over with veins of a purplish-red colour, the mouth closed with a tuft of hairs.

Annual, flowering in May and June.

This is very abundant on the lower part of the ruins of the Colosseum; and when in fruit, has, from its expanded calyx, a very remarkable and curious appearance.

T. scabrum, Linn. *Rough rigid Trefoil*. Heads, ovate, sessile, lateral and terminal, with an involucre at the base; calyx, 10-ribbed, rigid, hairy, its teeth unequal, lanceolate, single-ribbed at length, recurved, its mouth closed; the tube, cylindrical in fruit; leaves, oblong, wedge-shaped, toothed, the veins on the margin curved, prominent; stipules, ovate, acute; stem, procumbent.

Flora Romana, p. 250. *Florig. Brit.* iii. 975.

Stems, several, from 6 to 12 inches long, somewhat angular, rigid, hairy; leaves, stalked; leaflets, oblong, wedge-shaped, the veins prominent; stipules, ribbed and downy; calyx, strongly ribbed, always cylindrical in fruit; the teeth rigid, erect in flower, recurved or spreading in fruit; corolla, small, inconspicuous, white; pod, single-seeded.

Annual, flowering in April and May.

T. arvensis, Linn. *Hare's-foot Trefoil*. Heads, solitary, terminal, nearly cylindrical, stalked, very hairy; calyx, 10-ribbed, the teeth bristle-shaped, ribless, longer than the corolla; stipules, ovate, acuminate; leaflets, linear, oblong; stem, erect, much-branched, downy.

Flora Romana, p. 250. *Florig. Brit.* iii. 974.

Stem, erect, about a foot high; leaves, on short footstalks; leaflets, downy; mid-rib, stout; margin, scarcely toothed; stipules, membranous, ribbed, and downy; calyx, very downy, the teeth somewhat spreading in fruit; flowers, small, pink.

Annual, flowering in May and June.

This is a pretty, elegant plant, from its numerous soft, downy heads of pink flowers; but it is not of any value as an agricultural grass.

☞ Flowers, in a rounded head or spike, sessile or pedunculated; calyx mouth naked; corolla, after flowering, persistent, the vexillum striated.

T. repens, Linn. *White Trefoil* or *Dutch Clover*. Heads, globose, axillary, on long footstalks; flower-stalks, after flowering, deflexed; calyx, smooth, half as long as the corolla, its mouth naked, the teeth lanceolate, the 2 upper ones the longest; leaflets, obovate or subcordate, toothed; stipules, membranous, ovate, with a long point; stem, creeping and rooting; pod, 3 or 4-seeded.

Flora Romana, p. 255. *Florig. Brit.* iii. 977.

Stem, long, creeping, rooting at the joints; leaflets, often with a dark spot at the base; flowers, white, becoming pale brown, persistent; pod, included in the calyx.

Perennial, flowering from May during the summer months.

This is one of the most valuable species of clover, either for pasture-lands or mown for fodder; and especially in lands liable to long droughts. It is probably the plant referred to by Virgil, who, in giving directions about sheep, says,—

If milk be thy design, with plenteous hand
Bring clover-grass; and from the marshy land
Salt herbage for the foddering rack provide;
To fill their bags, and swell the milky tide.

Shamrock or Shamroy is the well-known national badge of the Irish. It was formerly supposed that clover had a supernatural power, and that it was “noisome to witches”; and, in those times, not only the peasantry, but the lords of the land, wore the clover-leaf as a protection against such evil influence.

Woe, woe to the wight who meets the green knight,
Except on his faulchion arm,
Spell-proof, he bear, like brave St. Clair,
The holy trefoil's charm.

T. nigrescens, Vivian. *Dark creeping Trefoil*. Heads, roundish, on long axillary footstalks; flower-stalks, after flowering, deflexed; calyx, smooth, the mouth naked, half as long as the corolla, teeth ovate, lanceolate, the two upper longest; pod, with the lower margin crenated; stem, ascending; stipules, abrupt, bristle-pointed; leaflets, obovate, wedge-shaped above, acutely toothed.

T. hybridum, Savi. *Flora Romana*, p. 255.

Stem, 4 to 8 inches long, branched and spreading, smooth, round, solid; leaves on short footstalks; leaflets, dark green beneath, the base and upper part with small acute teeth; stipules, white, membranous, with green or reddish veins embracing the stem, truncated with an acute, awl-shaped point; flowers, in globose heads, white or pinkish; calyx, subcampanulate; pod, linear, the upper margin straight, the lower crenated.

Annual, flowering in May and June.

T. procumbens, Linn. *Procumbent* or *Hop Trefoil*. Heads of numerous densely-crowded flowers, rounded, becoming oblong, on axillary stalks, longer than the leaves; the flowers at length reflexed and furrowed; calyx, smooth, its mouth naked; style, much shorter than the pod; stipules, ovate, acute, entire; leaflets, obovate, notched, the middle one stalked.

Flora Romana, p. 255. *Florig. Brit.* iii. 978.

Stems, round, smooth, or slightly hairy, erect, many-branched, or spreading, leafy, from 8 to 12 inches long; flower-stalk, of variable length, the heads of about 40 flowers, varying in colour from a pale sulphur to orange-yellow, persistent, deflexed, after flowering becoming membranous, tawny, and striated; pod, small, pointed, single-seeded.

Annual, flowering from May to July.

T. filiforme, Linn. *Lesser yellow Trefoil*. Heads, lateral, stalked, lax, from 3 to 10, flowered at length, deflexed, calyx, smooth, its mouth naked; leaves, stalked; leaflets, obovate, or obcordate, the middle one stalked; stipules, half ovate.

Flora Romana, p. 255. *Florig. Brit.* iii. 979.

Stems, numerous, slender, prostrate, branched, from 4 to 12 inches long; leaflets, a somewhat glaucous green, the lateral ones nearly sessile, the middle one stalked; calyx, smooth, mostly fringed with hairs, the two upper teeth shortest; corolla, small, pale yellow, becoming darker and membranous, slightly furrowed.

Annual, flowering in May and June.

These two last species are very pretty, gay-looking plants; they are a very favourite food of sheep, and valuable as an artificial grass, either for mowing or pastures. There are other and more beautiful species belonging to this tribe, found common in most parts of Italy, but not on the Colosseum as the *T. aurium*, *spadicum*, *agrarium*, etc.

☞ Flowers, in a round head; calyx mouth naked, becoming inflated, membranous, and reticulated with coloured veins.

T. tomentosum, Linn. *Woolly-headed Trefoil*. Heads, globose, with minute bractea at the base; peduncles, axillary, shorter than the leaves; calyx, in fruit inflated at the back, reticulated, woolly, the two upper teeth very short; stem, prostrate.

Flora Romana, p. 254.

Stem, slender, branched, 4 to 6 inches long; leaflets, wedge-shaped, acutely serrated; stipules, membranous, white, slightly veined, the margin entire, point acuminate; flowers, in heads, becoming globose, sessile, or on a short peduncle; calyx, ovate, inflated, white, veiny and woolly; corolla, purple, a little longer than the calyx; pod, ovate, compressed, reddish.

Annual, flowering in May and June.

T. resupinatum, Linn. *Reversed Trefoil*. Heads, globose, with minute bractea at the base; peduncles, axillary, as long or rather longer than the leaves; calyx, inflated in fruit, globose, membranous, reticulated, hairy, the two superior teeth elongated, forming a tubular neck; stem, prostrate.

Flora Romana, p. 254. *Florig. Brit.* iii. 980.

Stem, smooth, branched, spreading, 12 to 18 inches long; leaflets, wedge-shaped, acutely serrated, often notched; stipules, membranous, white, veiny, triangular, acuminate; flowers, in globose heads; calyx, small, imperfectly 2-lipped, becoming much enlarged in fruit, contracted at the neck, the two upper teeth much elongated, hairy; corolla, pale pink; pod, ovate, compressed, mostly 2-seeded.

Annual, flowering in May.

This species of clover is much esteemed in Italy as an agricultural plant, both for the purpose of making into hay and cutting green for immediate use; its produce is abundant, especially in a light, sandy soil.

Fertile flowers, very few in a head, nearly sessile, reflexed after flowering; calyx mouth naked; sterile flowers surrounding and embracing the fertile ones.

T. subterraneum, Linn. *Subterranean Trefoil*. Heads, 2 to 5-flowered, erect, after flowering deflexed, and surrounded by several abortive, reflexed calyxes, forming a sub-globose head; teeth, bristle-shaped, spreading in a star-like manner, hairy; leaflets, obcordate; stipules, broadly lanceolate, acute; stem, prostrate, hairy.

Flora Romana, p. 250. *Florig. Brit.* iii. 981.

Stems, slender, prostrate, branched, and, as well as the leaves, hairy; leaves, with long footstalks; leaflets, inversely heart-shaped, scarcely toothed; stipules, large, ovate, membra-

nous, hairy; flowers, small, white, much longer than the calyx; pod, containing a single black, ovate seed.

Annual, flowering in May.

It is very interesting to observe the growth of this little plant, spreading its long, slender branches, on the surface of the ground, and, from the axis of the leaves, putting out its small cluster of flowers on a stalk at first short and erect, but becoming elongated and recurved, and surrounded by numerous abortive flowers, whose slender, calyx teeth, are arranged in a stellated manner.

LOTUS, Linn. *Bird's-foot Trefoil.* *Il Loto*, Ital.

L. corniculatus, Linn. *Common Bird's-foot Trefoil.* Stem, prostrate; heads, depressed, umbellate, on long peduncles, 6 to 10-flowered; calyx, campanulate; teeth, awl-shaped, with a triangular base, as long as the tube; claw of the vexillum inflated above; leaves, obovate, or linear; pod, linear, cylindrical, straight, smooth.

Flora Romana, p. 258. *Florig. Brit.* iii. 983.

The whole plant is smooth, or slightly hairy; stems, several, ascending, from 6 to 12 inches high; leaves, numerous; petals, short, compressed, with a pair of stipules at the base, and, like the leaflets, sessile, obovate, oblong, or linear; flowers, bright yellow, the vexillum darker coloured, mostly striated with crimson, and becoming green with drying, three or four times as long as the calyx; pod, about an inch long; seeds, numerous, kidney-shaped, smooth.

Perennial, flowering during the summer months.

This is an extremely variable plant, according to the soil and situation in which it grows, and is of considerable value as an agricultural plant, both for hay and pasture lands.

L. ornithopodioides, Linn. *Small Bird's-foot Trefoil.* Pubescent; stem, spreading; leaflets, obovate; heads, stalked, 3 to 5-flowered; bractea, twice as long as the calyx; pod, linear, compressed, curved, torulose, somewhat jointed, smooth.

Flora Romana, p. 257.

Stem, slender, branched, about a foot long; leaflets, obovate, or wedge-shaped; stipules, sub-membranous, veiny, lanceolate, with a long, tapering point; flowers, small, yellow,

three or four together on peduncles longer than the leaves; bractea, longer than the flowers; pod, about an inch long, compressed, curved, and partially jointed between the seeds, pendulous.

Annual, flowering in May.

TRIGONELLA, Linn. *Fenugreek*. *Fienogreco*, Ital.

T. corniculata, Linn. *Horse-shoe Fenugreek*. Racemes, on peduncles as long as the leaves; pods, pendulous, smooth, curved, transversely veined; lower stipules toothed; leaves, obovate, acutely toothed; stem, erect.

Flora Romana, p. 259.

Stem, erect, branched, from 1 to 2 feet high, striated; leaves, stalked; leaflets, ovate, the lower ones wedge-shaped at the base; stipules, lanceolate, united at the back; flowers, yellow, numerous, on a peduncle mostly much longer than the leaves; pods, smooth, with prominent sutures and transverse veins.

Annual, flowering in May and June.

The whole plant has a disagreeable odour, which it retains many years after it is dried, but still not so strong as another species of the genus, *T. fœnum græcum*, a plant formerly much cultivated by the Romans, who used its seeds for making cataplasms, fomentations, etc., in various diseases; but its use is now limited to farriers, for horses.

MEDICAGO, Linn. *Medick*. *Medica*, Ital.

M. lupulina, Linn. *Black Medick* or *Nonsuch*. Stems, procumbent; leaflets, obovate, wedge-shaped, toothed upwards; stipules, ovate, nearly entire; spike, ovate, of numerous densely crowded flowers; pod, kidney-shaped, netted with veins, smooth, hairy or glandular.

Flora Romana, p. 259. *Florig. Brit.* iii. 987.

Stem, angular, downy, from a few inches to 2 feet long, procumbent, branched, spreading; leaves, downy; leaflets, with a stout mid-rib, terminating in a point between the notch at the apex; flowers, small, yellow, numerous, crowded into an ovate head, on a peduncle longer than the leaves; calyx, downy; pod, kidney-shaped, netted with

elevated lines, dark brown or black, clothed with jointed or glandular hairs.

Annual, flowering during the summer months.

The general aspect of this plant is that of *Trifolium filiforme*, and is equally as valuable as that plant for agricultural purposes.

M. orbicularis, All. *Flat-podded Medick*. Peduncles, 1 to 3-flowered, shorter than the leaves; pod, spirally twisted, unarmed, compressed, orbicular, convex on both sides, sub-membranous, entire, transversely veined; stipules, deeply cut into slender filaments; leaflets, smooth, the lower obcordate, the upper obovate; stem, branched, smooth, procumbent.

Flora Romana, p. 260.

Stem, about 2 feet long, angular, branched; leaves, with slender footstalks, lateral; leaflets, nearly sessile, the middle one on a footstalk; stipules, much divided into thread-like segments; flowers, small, yellow; pods, large, orbicular, of about six whorls, transversely veined, thickened towards the end.

Annual, flowering in May.

This remarkable species is easily distinguished by its large, flat, orbicular pod, free from spines, its membranous structure and pale green colour, becoming brownish when ripe.

M. minima, Linn. *Small Medick*. Peduncle, 1 to 3-flowered, about as long as the leaves; pod, spirally-twisted, sub-globose, spinous, hairy, the spines spreading, furrowed, hooked at the apex; stipules, ovate, acute, entire or slightly toothed; leaves, hairy; footstalks, short; leaflets, obovate, toothed upwards; stem, branched, hairy, procumbent.

Flora Romana, p. 260. *Florig. Brit.* iii. 989.

Stem, 4 inches to 2 feet long, procumbent, or erect, angular, branched; leaflets, obovate, with a stout mid-rib, terminating in a point at the apex; stipules, united at the base; flowers, small, yellow, 2 to 6 on a peduncle; calyx, hairy; pod, slightly hairy, spirally twisted, of about 5 whorls, the margin acutely keeled, with a rib on each side, from which arise the furrowed spines; seeds, kidney-shaped.

Annual, flowering in May and June.

A very variable plant, as to its size, owing to the different

situations in which it grows, but readily distinguished by its hairy pods.

M. maculata, Sibth. *Spotted Medick*. Peduncle, 1 to 3-flowered, half as long as the leaves; pod, spirally twisted, globose, depressed at each end, smooth, obliquely veined, the margin 4-ribbed and crowded, with subulate, curved, spreading spines; stipules, ovate, lanceolate, cut, and toothed; leaflets, broadly obcordate, obtusely toothed, somewhat hairy; stem, procumbent.

Flora Romana, p. 261. *Florig. Brit.* iii. 988.

Stem, 6 to 20 inches long, angular, branched; leaves, with long, slender, channelled footstalks; leaflets, marked with an irregular, lunate, dark, purplish-brown spot; stipules, ribbed; flowers, small, yellow; pod, smooth, globose, compressed, the spines awl-shaped, arched, the sides netted with elevated, oblique, almost circular nerves, when ripe dark brown, almost black; seeds, kidney-shaped.

Annual, flowering in May and June.

M. denticulata, Willd. *Toothed Medick*. Peduncles, many-flowered, as long as the leaves; pods, spirally twisted, globose, smooth, of about 3 whorls, depressed at each end, deeply netted with oblique and transverse veins, the margin 3-ribbed, and crowded with a double row of awl-shaped spines, hooked at the apex; stipules, lanceolate; leaflets, obcordate, obtusely toothed; stem, procumbent, smooth.

Flora Romana, p. 261. *Florig. Brit.* iii. 989.

This is, perhaps, the most common of the species of *Medicago* in the middle and south of Europe, and is generally grown as a spring crop for cutting green for cattle, and also for making into hay; its produce is considerable, and appears to be much relished by cattle.

M. terebellum, Willd. *Short-spined Medick*. Peduncles, 2 to 5-flowered, shorter than the leaves; pods, spirally-twisted, cylindrical, smooth, of about five whorls, netted, with oblique veins, the margin obtuse; spines, short, spreading, sub-depressed, impressed at the base; stipules, lacinated; leaflets, obovate, notched, toothed.

Stem, from 1 to 2 feet long, branched, spreading; leaves, with long, slender footstalks; leaflets, more or less distinctly notched, obtusely toothed; flowers, small, yellow;

peduncles, much shorter than the leaves; pod, cylindrical, smooth, the spines short, stout, much curved backwards.

Annual, flowering in May and June.

M. Tribuloides, Lam. *Caltrops* like *Medick*. Peduncles, 1 to 2-flowered, shorter than the leaves; pods, spirally twisted, cylindrical, somewhat hairy, of about 5 whorls, the margin thick, spines ovate, conical at the base, awl-shaped, reflexed; stipules, ovate, toothed; leaves, obovate, toothed, and, as well as the stem, somewhat hairy.

Flora Romana, p. 261.

Stem, 12 to 18 inches long, branched, spreading, and more or less clothed with spreading hairs; leaves, with slender footstalks, longer than the flower-stalks; stipules, cut into thread-like teeth; pod, cylindrical, flat at each end, the teeth short, conical.

Annual, flowering in May.

VICIA, Linn. *Vetch*. *Veccie*, Ital.

Peduncles elongated; many-flowered.

V. onobrychoides, Linn. *Saintfoil Vetch*. Peduncles, many-flowered, longer than the leaves; flowers, distant, spreading; pedicels, three times shorter than the calyx tube; leaves, 6 to 8 pairs of linear, lanceolate; leaflets, veiny and hairy beneath; stipules, semi-hastate, somewhat toothed; pod, linear, oblong, hilum surrounding a third part of the seed.

Flora Romana, p. 240.

Stem, 2 to 4 feet long, striated, branched, climbing; leaves, with a stout stalk terminating in slender, branched tendrils; leaflets, bristle-pointed; flowers, violet-coloured; pods, smooth; seeds, about 6, with a long cord.

Annual or biennial, flowering in May and June.

V. cracca, Linn. *Tufted Vetch*. Peduncles, many-flowered about as long as the leaves; flowers, imbricated; leaves, with about 10 pairs of oblong, lanceolate, downy leaflets; stipules, half arrow-shaped, entire; calyx teeth shorter than the tube, the upper pair minute, the others subulate; standard, a little longer than the keel, sinuated about the middle of each side; pod, linear, oblong, smooth.

Flora Romana, p. 243. *Florig. Brit.* iii. 994.

Stem, 2 to 4 feet long, angular, furrowed, branched, and

climbing; leaves, with a stout furrowed footstalk, long, and terminating in slender, branched tendrils; leaflets, clothed with silky hairs; stipules, small; flowers, very numerous, blue, reddish, or violet colour.

Perennial, flowering in May.

These two species are extremely beautiful and ornamental plants, widely spreading, and climbing over shrubs and other plants, and generally produce a profusion of gay flowers; they are very variable in size, owing to the more or less favourable situation of their growth.

Peduncles elongated; few-flowered.

V. gracilis, Lois. *Slender Vetch*. Peduncles, 1 to 4-flowered, longer than the leaves; leaves, of 3 or 4 pairs of linear, acute leaflets; stipules, half arrow-shaped; teeth of the calyx shorter than the tube; pod, linear; seeds, about 6, compressed, smooth.

Ervum gracile. *Flora Romana*, p. 248.

Stem, slender, branched, spreading, climbing; leaves, with the common footstalk terminating in slender, branched tendrils; the upper leaflets acute; flowers, purplish-white.

Annual, flowering in May.

V. uniflora. *Single-flowered Vetch*. Peduncles, 1-flowered, longer than the leaves; leaves, with the common stalk terminating in a bristle point; leaflets, notched, the lower ones obcordate, upper oblong; stipules, half arrow-shaped, entire; teeth of the calyx longer than the tube; pod, obtuse, compressed, 2-seeded, somewhat hairy.

Ervum uniflorum, Tenor. *Flora Romana*, p. 248.

Stem, erect, slender, simple, 4 to 6 inches high; leaves, with a compressed stalk, terminating in a simple point; leaflets, six; flowers, small, pale blue.

Annual, flowering in May.

Peduncles, short; 1 or 2-flowered, or 4 to 6-flowered, in a short raceme.

V. sativa, Linn. *Common Vetch*. Flowers, axillary, nearly sessile, mostly in pairs; leaflets, in about 10 pairs, obovate or oblong, notched and bristle-pointed; stipules, half-arrow-shaped, toothed, and more or less impressed with a dark spot underneath; calyx, teeth nearly equal, lanceolate, as

long as the tube; pod, oblong, erect, pubescent; seed, subglobose, smooth.

Flora Romana, p. 245. *Florig. Brit.* iii. 997.

Stem, varying from a few inches to 2 or 3 feet high, more or less hairy, branched; leaves, with the common stalk terminating in a branched tendril, the upper leaflets linear, the lower broad, the mid-rib terminating in a bristle point between the notch at the end; stipules, impressed with a dark spot; calyx, tube oblique at the base; flowers, smooth, purplish-blue or red.

Annual, flowering in May and June.

This is the common and valuable agricultural plant known by the name of *tare*, *fetch*, or *vetch*, which, when cultivated in a rich, rather damp soil, is very profitable to cut green, before the seeds are ripe, for milch cows and working cattle, especially, during the summer and spring months. They are seldom allowed to stand until the seeds are ripe, except when wanted for sowing, or for the purpose of feeding pigeons, etc.

V. angustifolia, Sibth. *Narrow-leaved crimson Vetch*. Flowers, axillary, sessile, solitary, or in pairs; leaflets, in about 7 pairs; those of the lower leaves obovate, notched, of the upper linear, lanceolate, obtuse, or truncated; stipules, half-arrow-shaped, toothed, and impressed with a pale spot underneath; calyx, with slender, lanceolate teeth, as long as the tube; pod, linear, smooth, spreading; seeds, subglobose, smooth.

Flora Romana, p. 246. *Florig. Brit.* iii. 998.

Nearly allied to the last species, but much smaller and more slender in all its parts; the stipules having a pale, scarcely-impressed spot on the under side; and the pod is more spreading and smooth.

Annual, flowering in May.

V. lutea, Linn. *Rough-podded yellow Vetch*. Flowers, nearly sessile, axillary, solitary, or in pairs; leaflets, 5 to 10 pairs, oblong, lanceolate; vexillum, smooth; calyx, teeth lanceolate, the 2 upper ones much the smallest, and converging inwards; pod, oblong, hairy; stipules, with a dark spot on the under side.

Florig. Brit. iii. 999. *Flora Romana*, p. 246.

Stem, branched, slender, angular, smooth, hairy, from 1 to 2 feet long; leaves, terminating in a branched tendril; leaflets,

of the lower leaves ovate, the upper oblong, lanceolate, downy beneath, the mid-rib terminating in a bristle-point; calyx tube oblique at the base; flowers, pale sulphur-coloured, striated with grey, erect, smooth; pod, hairy; seeds, dark brown, velvety.

Perennial, flowering in May and June.

Readily distinguished from the following species by its larger smooth flowers, and the hairs of the pod being bulbous at the base, and the stipules having a dark-stained spot. The *V. hirta*, Balb., enumerated as a species distinct from this by Savi and other botanists, appears to be only a more hairy variety of this species.

V. hybrida, Linn. *Hairy-flowered yellow Vetch*. Flowers, on short peduncles, axillary, solitary; leaflets, in 5 to 7 pairs, ovate, oblong, notched; vexillum, downy; calyx, with unequal, awl-shaped teeth; pod, elliptic, oblong, hairy, the hairs simple; stipules, ovate, toothed, without a dark spot on the under side.

Flora Romana, p. 246. *Florig. Brit.* iii. 1000.

Similar to the last species in its general appearance; but the flowers are hairy, and the pods clothed with simple hairs.

Perennial, flowering in May and June.

LATHYRUS, Linn. *Vetchling* or *Everlasting Pea*.
Latiro, Ital.

L. Aphaca, Linn. *Yellow Vetchling*. Peduncles, single-flowered; petioles, leafless, forming tendrils; stipules, very large, leaf-like, ovate, with an angular lobed base.

Flora Romana, p. 241. *Florig. Brit.* iii. 1003.

Stems, slender, branched, climbing; petioles, slender, very rarely bearing small leaflets; stipules, very large, and replacing the leaves; flowers, yellow, on long stalks; pods, about an inch long, compressed; seeds, smooth.

Annual, flowering in April and May.

L. sativa, Linn. *Chickling Vetch*. *Cicerchia*, Ital. Peduncles, jointed, 1-flowered; petiole with 2 leaflets; pod, oblong, compressed, smooth, netted with veins, the upper suture curved and 2-winged; seeds, angular, smooth.

Flora Romana, p. 241.

Stem, from 1 to 2 feet high, winged, branched; petioles,

terminating in branched tendrils, and bearing 1 or rarely 2 pairs of lanceolate leaflets; flowers, purplish or white, solitary, on a long peduncle, which is jointed and bracteated near the calyx; pod, with a two-edged suture at the back; seeds, spotted with brown.

Annual, flowering in May and June.

This species was at one time much more cultivated on the Continent than it is now, for the seeds were used for making flour, and for the purpose of making bread; but it was found to produce such dreadful effects to those who ate it, in the last century, that the use of it was forbidden by an edict of George Duke of Wurtemberg, in 1671; and subsequently by Leopold, in 1705 and 1714. Bread made with this flour only, has brought on extreme rigidity of the limbs of those who have used it for a continuance; so much so, that all the means used could not restore their natural action: but the flour mixed with half wheaten-flour does not appear to be deleterious. It is said, that swine fattened with this meal lose the use of their limbs; and a horse fed some months on the dried herb, was said to have had his legs perfectly rigid: the same effect was produced on pigeons, especially young ones; but sheep do not appear to be affected by it, nor geese—but poultry will not readily touch it. In some parts of Switzerland, cattle feed on this herb without any harm. It would be worth inquiry, therefore, whether the soil may not contribute something to the deleterious properties of the plant? And it is remarked, that seed from a strong, fat, moist soil, is much more deleterious than from a light one.—Duvernay.

Fabbroni, a Florentine, in 1766, in a letter to Mr. Banks, says—"that the government of Florence has cautioned the peasants against the use of this plant. Swine have lost the use of their limbs, and become pitiable monsters, by being fed on this pulse exclusively. The peasants, however, eat it boiled or mixed with wheat-flour, in the quantity of one-fourth, without any harm."

Though it is still cultivated in Italy, it is in very small quantities; and I have not heard that any unpleasant effects result from its use.

L. pratensis, Linn. *Meadow Vetchling*. Peduncles, many-flowered, longer than the leaves; petioles, angular, terminating in a branched tendril; leaflets, 2, 3-ribbed, lanceolate, acute; stipules, large, arrow-shaped; pod, linear, oblong, obliquely veined; stem, angular.

Flora Romana, p. 243. *Florig. Brit.* iii. 1004.

Stem, angular, climbing, from 1 to 3 feet long; petioles, angular; leaflets, about an inch long; stipules, almost as large as the leaflets; flowers, about 10, yellow, terminating the axillary peduncles, which are much larger than the leaves; pod, black, netted over with oblique veins.

Perennial, flowering from May to August.

This is a favourite food of cattle, and might be cultivated with great profit, especially in a cold, clay soil, affording an admirable fodder for cattle and sheep, as well as for making into hay for winter use.

L. sylvestris, Linn. *Narrow-leaved Everlasting Pea*. Peduncles, many-flowered, longer than the leaves; petioles, winged, terminating in branched tendrils; leaflets, 2, sword-shaped; stipules, narrow, half-arrow-shaped; pod, oblong, linear, smooth; seeds, rugose; stem, winged.

Flora Romana, p. 243. *Florig. Brit.* iii. 1005.

The whole plant smooth; stem, broadly-winged, branched, climbing, from 5 to 6 feet high; petioles, winged below; leaflets, long, narrow, 3-ribbed, and veiny; flowers, 6 to 10, pale green, variegated with crimson and purple, terminating the peduncle; pod, long, linear, compressed, netted with veins; seeds, subglobose.

Perennial, flowering in June and July.

SCORPIURUS, Linn. *Caterpillar*. *Scorpioides*, Ital.

S. subvillosa, Linn. *Four-flowered Caterpillar*. Stem, prostrate; leaves, lanceolate, oblong, hairy; peduncles, 4-flowered; pod, irregularly contorted, the back furrowed, and covered with rigid spines.

Flora Romana, p. 239.

Stem, about 6 inches high; leaves, alternate, with short stalks; peduncles, longer than the leaves; flowers, yellow.

Annual, flowering in April and May.

The pods of this genus of plants bears some resemblance to the tail of a scorpion and other reptiles; for which reason they bear the generic name of *Scorpiurus*.

CORONELLA, Linn. *Coronilla*. *Coronilla*, Ital.

C. varia, Linn. *Purple Coronella*. Herbaceous, procumbent; stipules, lanceolate, free; leaves, with 8 to 12 pairs of oblong, obtuse leaflets; peduncles, longer than the leaves; umbels, about 20-flowered; footstalks, 3 times longer than the calyx; pod, angular, 2 to 4-jointed.

Flora Romana, p. 238.

Stem, about 2 feet high, angular, branched, spreading; leaflets, bristle-pointed; stipules, obtuse, reflexed; flowers, elegant, the wings reddish-violet, the keel white. The whole plant of a glaucous green colour, smooth.

Perennial, flowering in June and July.

This is an extremely pretty and ornamental plant, common on banks and moist places in most parts of Italy, and is sometimes cultivated in the place of clover, or mixed with it; but this is not general—arising, probably, from its produce not being equal to clover.

ORNITHOPUS, Linn. *Bird's-foot*. *Piede d'uccello*, Ital.

O. scorpioides, Linn. *Purslane-leaved Bird's-foot*. Peduncles, as long as the leaves; calyx teeth triangular, acute, very short; leaves, ternate, nearly sessile, the middle one much the largest, roundish, ovate.

Flora Romana, p. 229.

Stem, erect, from 1 to 2 feet high, branched, and spreading; leaves, a dull glaucous green, nearly sessile, ternate, the lateral ones small, the middle large, entire; peduncles, 3 to 6-flowered; flowers, small, yellow; pod, long, curved, about 6-jointed, the apex tapering, about as long as one of the joints.

Annual, flowering in April and May.

This is a common plant in dry, sandy, or stony places, and is very remarkable from the singular formation of the leaves.

SECURIGERA, De Cand. *Hatchet-Vetch.*

S. coronilla, De Cand. *Hatchet-Vetch.* Herbaceous; leaves, pinnate; leaflets, wedge-shaped; pod, long, linear, having both the sutures thickened.

Flora Romana, p. 238. *Coronella*, Linn.

Stem, angular, branched, from 1 to 2 feet high, spreading; leaves, long leaflets, numerous, wedge-shaped, truncated at the end, the mid-rib terminating in a bristle-point; stipules, obtuse, spreading; peduncles, long, terminating in a simple umbel of 3 to 6 yellow flowers; pod, long, linear, tapering at the point, the upper suture furrowed deeply, the lower one only slightly, divided into single-seeded cells, but not separating at the joints; seeds, oblong, quadrangular, compressed.

Annual, flowering in May.

The whole plant is of a dull leaden-green colour, very remarkable, and easily distinguished by its long, linear, thick-edged pods.

XXVI. NAT. ORD.—*Umbelliferæ*, Juss.

GENERA.

Seed or albumen flat, not furrowed in front.

Umbel imperfect or simple.

Fruit subglobose, covered with hooked spines *SANICULA.*

Fruit obovate, covered with chaffy scales *ERYNGIUM.*

Umbel perfect or compound.

Carpels with primary ridges only.

Fruit laterally compressed.

Leaves compound *ÆGOPODIUM.*

Leaves simple *BUPLEURUM.*

Fruit on a transverse section, rounded or roundish.

Calyx of 5 lanceolate teeth *CENANTHE.*

Calyx obsolete *FENICULUM.*

Fruit compressed at the back, the margins winged *FERULA.*

Carpels with primary and secondary ridges.

Fruit compressed at the back, secondary ridges bristly *DAUCUS.*

Seed or albumen inflexed at the margin, or deeply furrowed in front.

Carpels with primary and secondary ridges.

Secondary ridges hidden with 1 to 3 rows of prickles CAUCALIS.

Secondary ridges hidden by numerous prickles TORILIS.

Carpels with primary ridges only.

Fruit with a long beak SCANDIX.

Fruit without a beak.

Carpels with 5 obtuse ridges CHÆROPHYLLUM.

Carpels with 5 sharp ridges SMYRNIUM.

SANICULA, Linn. *Sanicle.* *Sanicula*, Ital.

S. Europæa, Linn. *Wood-Sanicle.* Lower leaves, palmated, 3 to 5-lobed, the lobes 3-cleft, unequal, serrated; perfect flowers, sessile; barren flowers, on short stalks.

Flora Romana, p. 109. *Florig. Brit.* i. 349.

Stem, erect, 10 to 18 inches high, channelled, smooth; leaves, shining green, nearly all radical, on long footstalks, with a sheathing base; general umbel of numerous unequal rays; the partial umbels small, those on the short pedicles bearing flowers with stamens only, those on the longer ones bearing nearly sessile, perfect flowers; petals, small, white or pinkish; style, persistent, reflexed.

Perennial, flowering in May and June.

ERYNGIUM, Linn. *Eryngo.* *Eringo*, Ital.

E. campestis, Linn. *Field-Eryngo.* Leaves, netted with veins; teeth, spinous, the radical ones on footstalks, subternate; the lobes pinnatifid, the upper ones embracing the stem; the teeth deep, narrow, rigid, spinous; involucre of numerous lanceolate, spinous segments, longer than the small, subrotundate heads of flowers; scales of the receptacle, entire.

Flora Romana, p. 109. *Florig. Brit.* i. 351.

Stem, round, striated, smooth, many-branched above; leaves, numerous, the radical ones on long footstalks, those of the stem sessile, opposite, embracing the stem with a spinous auricular appendage on each side; flowers, numerous, white or purplish, on a conical receptacle, each flower having at its base a long, narrow, spinous scale.

Perennial, flowering in July and August.

The roots of this plant have a warm, aromatic flavour, and were, at one time, esteemed as a stimulant and restorative, when candied with sugar; and it has been used in medicine; but its powers are so slight as now to be abandoned. The young tops are said to be used in Sweden and Crete, in the same way as asparagus.

AGOPIDIUM, Linn. *Gout-weed. Podagraria, Ital.*

O. Podagraria, Linn. *Gout-weed* or *Herb Gerarde*. The only species.

Flora Romana, p. 117. *Florig. Brit.* i. 363.

Stem, erect, 1 to 2 feet high, furrowed, branched above; leaves, smooth, the radical ones on long footstalks, 2 or 3 times ternate; the leaflets, ovate, lanceolate, unequal at the base, acutely serrated, the upper ones ternate, mostly opposite the footstalks, short, dilated; umbels, terminal; flowers, white; styles, long, slender.

Perennial, flowering in April and May.

Gout-weed was supposed, by the ancients, to possess active properties that were of considerable use in the relief of gout, used in the form of poultice; but, whatever arthritic virtues it may have been supposed to possess, appear now to have degenerated, and it has fallen into disuse.

BUPLEURUM, Linn. *Hare's-ear. Bupleuro, Ital.*

B. aristatum, Bartl. *Narrow-leaved Hare's-ear*. Stem, branched, widely-spreading leaves, linear, lanceolate, 3-ribbed, general and partial involucre, of 4 to 5 lanceolate segments, with rigid points, and 3-branched ribs, longer than the umbels.

B. odontites, Linn. *Flora Romana*, p. 110. *Florig. Brit.* i. 352.

Stem, from 1 to 6 inches high, smooth, leafy; leaves, sessile, 1 to 2 inches long, pale, yellowish-green; umbels, small, lateral and terminal, enveloped in the scales of the involucre; petals, small, yellow.

Annual, flowering in June and July.

B. rotundifolia, Linn. *Common Hare's-ear*. Stem, branched above; leaves, roundish, oval, perforated, the lower ones narrow at the base, embracing the stem, general involucre wanting, partial, ovate, with bristle points; ridges of the fruit, filiform; channels, striated.

Flora Romana, p. 110. *Florig. Brit.* i. 353.

Stem, about a foot high, round, smooth, striated; leaves, numerous, pale glaucous green, the mid-rib terminating in a bristle point; umbels, terminal, composed of about 6 rays; flowers, yellow; petals, closely rolled inwards; fruit, oblong.

Annual, flowering in June.

This species is nearly allied to *B. protractum*, which is common in corn-fields in most parts of the continent, and is distinguished by the fruit being granulated between the ridges, and not striated as in *B. rotundifolium*.

CENANTHE, Linn. *Water Dropwort*.

C. peucedanifolia, Poll. *Sulphur-weed*. *Water Drop-wort*. Root, with fleshy sessile tubercles, mixed with branched fibres, radical leaves bi-pinnate, the upper pinnate, all with narrow linear leaflets; general involucre wanting.

Florig. Brit. i. 375.

Stem, erect, from 1 to 3 feet high, smooth, angular, branched, leafy; leaves, smooth, on long, striated footstalks, sheathing at the dilated base; leaflets, nearly uniform; general involucre, wanting; the partial of numerous, narrow, lanceolate ones; petals, white, unequal.

Perennial, flowering in May and June.

FÆNICULUM, Hoffm. *Fennel*. *Finocchiella*, Ital.

F. vulgare, Gartn. *Common Fennel*. Stem, round, solid below; leaves, bi-ternate; leaflets, long, linear, filiform; umbels, of many rays, concave.

Florig. Brit. i. 380. *Anethum Phæniculum*. *Flora Romana*, p. 117.

The whole plant smooth, of a deep, glaucous green; stem, erect, from 3 to 4 feet high, round, solid, striated, branched, and leafy; leaves, with the footstalks much dilated and

sheathing at the base; leaflets, very numerous, long, thread-shaped; flowers, yellow.

Perennial, flowering during the summer months.

This is a very common plant in most parts of Italy; and, in some places, especially in the half-cultivated Campagna of Rome, it is so abundant as to seem as though it was a cultivated crop rather than an intrusive weed. The seeds have a warm, aromatic flavour, and are frequently masticated by the country people, when drinking their wine, in order to bring out the flavour of the wine; they are also used in the composition of various sweetmeats, cakes, etc. The whole plant, by cultivation, and being treated much in the same way as celery, grows thick and succulent, and forms one of the most favourite spring vegetables of the Romans, having a slight, warm, aromatic flavour, and is eaten crude as celery, or stewed and served up to table with gravy. For this purpose it is extensively cultivated, and called *Finocchio dolce*.

FERULA, Linn. *Giant Fennel*. *Ferula*, Ital.

F. communis, Linn. *Common Giant Fennel*, or *Ferula*. Umbels, ternate; leaflets, very long, linear, thread-shaped, simple.

Flora Romana, p. 114.

Stem, 6 to 12 feet high or more, thick, round, smooth, branched, finely striated; leaves, very large, dilated, and sheathing at the base; leaflets, very long, simple, filiform; umbels, large, terminating the stem and branches, three together; the middle one largest, of numerous rays, nearly sessile, the others on long stalks, over-topping the middle one, but smaller; general involucre, soon falling away; flowers, yellow.

Perennial, flowering in April and May.

This is one of the largest of our umbellate plants, growing upon the ruins of old walls, rocky places, etc., and is very ornamental; the leaves are very large, and from them long thread-like leaflets give a wild, but not unpicturesque character to the ruins on which they grow. When the seeds are ripe the whole plant soon becomes withered and dried by the sun. The Sicilians take the pith from out the stem, and use

it as tinder. It does not appear to be a favourite food of cattle, but buffaloes eat it.

DAUCUS, Linn. *Carrot. Carota*, Ital.

D. muricatus, Linn. *Prickly-seeded Carrot*. Fruit, large, very prickly.

Flora Romana, p. 115.

Stem, erect, from 1 to 3 feet high, striated, rough; leaves, with linear leaflets; flowers, white or pinkish; fruit, oblong, ovate, clothed with very numerous, rigid, prickly bristles.

Biennial, flowering during the summer months.

CAUCALIS, Linn. *Bur Parsley. Caucali*, Ital.

C. daucoides, Linn. *Small Bur Parsley*. Leaves, bi- or tri-pinnatifid; the segments, linear, acute, short; umbels, of few rays, without any general involucre; partial umbels, of few flowers, with a 3 to 5-leaved involucre; prickles of the fruit hooked at the apex.

Flora Romana, p. 111. *Florig. Brit.* i. 400.

Stem, about 12 inches high, many-branched, angular, striated, hairy at the joint; leaves, numerous; the segments, short, linear, acute; general umbel, of 3 or 4 rays, the partial, mostly 3-rayed; flowers, small, white or pinkish; fruit, large, ovate, oblong, its prickles dilated at the base; albumen, deeply channelled in front.

Annual, flowering in May and June.

TORILIS, Adanson. *Hedge Parsley*.

T. infesta, Spreng. *Spreading Hedge Parsley*. Leaves, bipinnate; leaflets, ovate, lanceolate, cut and serrated; umbels, stalked; general involucre, of one segment, or wanting; partial, of several awl-shaped ones; prickles of the fruit with several hooks at the apex.

Florig. Brit. i. 402. *Caucalis Arvensis. Flora Romana*, p. 112.

Stem, erect, 6 to 18 inches high, with spreading branches, striated, furrowed, and rough, with reflexed hairs; leaves, alternate; leaflets, deeply-cut in a pinnatifid manner, the terminal one the largest; umbels, on long stalks; flowers, white or pink; styles, about as long again as the disk;

fruit, very prickly, those of the primary ridges close pressed, the others spreading.

Perennial, flowering in May and June.

T. nodosa, Gartn. *Knotted Hedge Parsley*. Leaves, bi-pinnate; leaflets, deeply pinnated and cut; umbels, sessile, opposite the leaves, nearly globular, the outer carpels with hooked prickles, the inner ones mostly granular.

Florig. Brit. ii. 403. *Caucalis nodiflora*. *Flora Romana*, p. 112.

Stem, prostrate, with spreading branches, about a foot long, striated, rough, and bristly; umbels, sessile, or nearly so, opposite the leaves, small, globose; flowers, very small, white or pinkish; style, very short; fruit, ovate, those on the outer side of the umbels clothed with rough prickles, the inner ones rough, with granulations, and without prickles.

Annual, flowering in May.

SCANDIX, Linn. *Shepherd's Needle*. *Cerfolio*, Ital.

S. Pecten-veneris, Linn. *Needle Chervil*, *Venus' Comb*, or *Shepherd's Needle*. Involucre, with entire or cut segments; fruit, compressed at the back, rough, with a bristly-edged beak; leaves, cut into numerous, short, linear segments.

Flora Romana, p. 115. *Florig. Brit.* i. 404.

Stems, about a foot high, roundish, smooth; leaves, pale green, on slender footstalks, the segments numerous, short, linear, acute; umbels, small, mostly in pairs; flowers, white; fruit, with a tapering beak, 1 to 2 inches long, rough, with teeth on the margin.

Annual, flowering in May and June.

CHÆROPHYLLUM, Linn. *Chervil*.

C. temulentum, Linn. *Rough Chervil*. Stem, rough, spotted, swollen below the joints; leaves, bi-pinnate; leaflets, ovate, oblong, lobed; partial involucre with reflexed, ovate, lanceolate, ciliated segments; style, as long as the disk.

Flora Romana, p. 115. *Florig. Brit.* i. 408.

Stem, erect, 3 to 4 feet high, round, branched, rough and hairy, spotted; leaves, rough; umbels, at first, nodding, terminal; flowers, white, the outer ones somewhat rayed;

fruit, linear, oblong, smooth; carpels, rounded at the back, the ridges very obtuse.

Perennial, flowering in April and May.

SMYRNIUM, Linn. *Alexanders. Macerone*, Ital.

S. olusatrum, Linn. *Common Alexanders*. Stem, furrowed; leaves, ternate, serrated, on footstalks.

Flora Romana, p. 117. *Florig. Brit.* i. 413.

Stem, stout, erect, 3 to 5 feet high, smooth, branched, and leafy; leaves, large, bright yellow-green, on slender footstalks, greatly dilated at the base into membranous sheaths; leaflets, large, ovate, more or less cut and serrated; flowers, yellowish-green, crowded, in large, terminal, and lateral umbels; fruit, nearly black; carpels, almost globular.

Biennial, flowering in April and May.

This plant was formerly much cultivated as a pot-herb, on account of its mild qualities and pleasant aromatic flavour. It is now, however, very much less used than it was, being superseded by celery.

XXVII. NAT. ORD.—**Rhamneæ**, Juss.

RHAMNUS, Linn. *Buckthorn. Ramio*, Ital.

R. alternatus, Linn. *Broad alternate-leaved Buckthorn*.

Branches, without spines; leaves, elliptic, ovate, lanceolate, remotely-toothed, smooth, leathery; flowers, in short, axillary racemes, diocious stigmas, three.

Flora Romana, p. 103.

An evergreen shrub, from 8 to 10 feet high or more; the leaves, scattered, on short footstalks, ovate, acute, or sometimes lanceolate, of a smooth, shining, leathery texture, 3-ribbed at the base, and impressed with two sunk spots; stipules, small, linear, soon falling away; flowers, small, yellowish green, in short, axillary racemes; fruit, fleshy, dark, blackish-red.

Shrub, flowering in February and March.

This is a rapid-growing evergreen-shrub, very ornamental on the old walls and ruins, and very common in the mountain districts of Italy; its flowers are very melliflorous, and much

Paliurus aculeatus.

Ornithopus scopioides.

resorted to by bees. It forms a useful shrub in ornamental gardening, when an evergreen screen is wanted either to hide walls or in hedge-rows.

PALIURUS, Tourn. *Christ's Thorn.* *Paliuro*, Ital.

P. aculeatus, Tourn. *Spring Christ's Thorn* or *Paliurus*. Branches, downy; leaves, ovate, shortly acuminate, 3-ribbed; spines, in pairs, the lower one reflexed; fruit, with an orbicular, crenate wing.

Flora Romana, p.119. *Rhamnus Paliurus*, Linn.

A shrub from 10 to 12 feet high, with slender, curved branches; leaves, alternate, petiolated, sub-cordate at the base, ribbed, smooth and shining; spines, stout, in pairs, one of them re-curved; flowers, in axillary clusters, yellow, the disk fleshy; fruit, dry, the base clothed with the persistent calyx, and surrounded with a broad, membranous wing, spreading horizontally, striated, and crenated on the margin.

Shrub, flowering in May and June.

This very pretty, interesting shrub, grows common in the south of Europe, Palestine, and most parts of the East. In Italy it is planted in rows for fences; it is of quick growth, and its long, slender, tough, pliant branches, plentifully supplied with thorns, render it one of the most useful shrubs for the purpose, as well as for making dead fences, repairing others, etc. At the same time it is one of the most elegant and ornamental of the wild shrubs, especially when in flower, and scarcely less so when bearing its broad, round, buckler-shaped seed-vessels. The broad, winged membrane surrounding the seed-vessel, gives it a great resemblance to a head with a broad-brimmed hat on; hence its French name of *porte chapeau*. This shrub has, however, a still greater interest attached to it, as it is by many persons supposed to be the plant which furnished the mockers of our Saviour with the thorns to form the crown which they placed on his head. The commonness of the shrub in Palestine, the pliability and very spiny character of its branches, renders it very probable that it should have been used for that purpose. But there is another plant known by the name of the *Syrian Christian's Thorn*, also very common in Pales-

tine, and described as the *Rhamnus Spina Christa*, having still more slender branches, and furnished with numerous straight spines, arranged in pairs from each joint, bearing small, yellow flowers, which are succeeded by a round, edible, and pleasant fruit, about the size of the sloe. Perhaps there are few persons who will notice this plant flourishing upon the vast ruins of the Colosseum of Rome, without being moved to reflect upon the scenes that have taken place on the spot on which he stands, and remember the numbers of those holy men who bore witness to the truth of their belief in Jesus, and shed their blood before the thousands of Pagans assembled around, as a testimony, securing for themselves an eternal crown, without thorns, and to us those blessed truths, on which only we build our future hope of bliss, and derive our present peace and comfort.

XXVIII. NAT. ORD.—*Araliaceæ*, Juss.

HEDERA, Linn. *Ivy*. *Edera*, Ital.

H. Helix, Linn. *Common Ivy*. *Ellera*, Ital. Stem, climbing; flowers, in erect umbels; leaves, leathery, ovate, or heart-shaped, or from 3 to 5-lobed.

Flora Romana, p. 105. *Florig. Brit.* i. 330.

Stem, long, creeping, attaching itself to objects which are near it by root-like processes, branched, leafy; leaves, evergreen, alternate, of variable shape; flowers, small, yellowish green, in simple umbels; petals, reflexed; fruit, a smooth, globular berry, of a glaucous black or yellow.

Shrub, flowering in September.

Ivy was much esteemed by the ancients; of it they wove the fillets which they used in their Bacchanalian merry-makings, and, wreathed into a crown, they placed it on the poet's brow to mark his fame amongst them. Not only, however, did they use it as an external decoration, on their festive occasions, but its juice they said dissipated the effects of too great potations of their generous wine. The leaves possess stimulating properties, and are now, as formerly, frequently applied by the country people to ulcers and issues, to increase the

discharge. The berries though bitter, and possessing purgative and emetic properties, are the favourite food of some kinds of birds during the winter season.

Ivy is now chiefly valued as an ornamental evergreen, of which there are numerous varieties, some with variegated leaves, others very large, green and lobed; a very striking and ornamental variety having lobed leaves, and pendulous clusters of golden-coloured berries, covers, in great luxuriance, the remains of a large tomb in a vineyard on the right-hand side of the Appian road, going towards Cæcilia Metella's tomb, which is also clothed in some parts with ivy, and thus spoken of in "Childe Harold."

There is a stern round tower of other days,
Firm as a fortress, with its fence of stone,
Such as an army's baffled strength delays,
Standing with half its battlements alone,
And with two thousand years of ivy overgrown—
The garland of eternity—whence wave
The green leaves over all by time o'erthrown:
What was this tower of strength? Within a cave
What treasures lay so lock'd, so hid?—A woman's grave.

To enumerate the fragmentary remains of the former splendour and greatness of Rome's temples, baths, towers, palaces, and tombs, over which the Ivy now throws her slender arms and ever-shadowing mantle, would be to describe most of those crumbling monuments venerated for their antiquity, and associated with the earliest periods of the history of civilisation, and mingled with the still more interesting one of Christianity.

XXIX. NAT. ORD.—Onograrieæ, Juss.

CIRCÆA, Linn. *Enchanter's Nightshade.*

C. Lutetiana, Linn. *Common Enchanter's Nightshade.* Leaves, ovate or slightly cordate, toothed, without bractea; calyx, hairy.

Flora Romana, p. 5. *Florig. Brit.* i. 25.

Stem, erect, downy, from 1 to 2 feet high; leaves, opposite, on rounded footstalks; flowers, in terminal racemes, small,

pale rose-colour or white; petals, deeply notched; fruit, oblong, thickly set with hooked hairs.

Perennial, flowering in May and June.

This pretty little plant loves to grow among ruins, and mouldering remains of former ages; and from its being so generally associated with dark and dreary places, where superstition and dread take possession of the fanciful mind, it has obtained the name of *Circæa*, from Circe, who is said to have been well-skilled in the nature of poisonous plants: hence it is that this plant became, in the dark periods, highly esteemed in witchcraft, and was supposed to have the power of raising the devil.

Thrice round the grave *Circæa* prints her tread,
And chants the numbers which disturb the dead.

EPILOBIUM, Linn. *Willow-herb. Epilobio*, Ital.

E. hirsutum, Linn. *Great hairy Willow-herb.* Stem, round, erect, very hairy, branched; leaves, oblong, lanceolate, irregularly serrated, amplexical, hairy; calyx-segments, bristle-pointed; stigmas, 4-cleft, deflexed.

Flora Romana, p. 138. *Florig. Brit.* ii. 544.

Root, with long, creeping, underground stems; stem, erect, 4 to 5 feet high, round, branched, hairy, and glandular; leaves, opposite and alternate, the mid-rib very hairy; flowers, large, in terminal clusters, of a delicate pink colour; stigma, large, white, 4-cleft; capsules, very long.

Perennial, flowering in May and June.

This is a very pretty, gay-looking plant, flourishing most luxuriantly on wet banks, and the margins of lakes and rivers. The unctuous exudation from the glands, which are more or less abundantly scattered over the whole plant, has a peculiar odour, compared to the flavour of "codlings and cream," a dish unknown to the Italians; but in some of the country places in England, the plant is known by that name.

E. montanum, Linn. *Broad smooth-leaved Willow-herb.* Stem, erect, round, pubescent; leaves, ovate or oblong, rounded at the base, unequally toothed, the lower opposite, with short footstalks; stigmas, 4-cleft, spreading; root, fibrous.

Flora Romana, p. 138. *Florig. Brit.* ii. 546.

Stem, from 1 to 2 feet high, round, clothed with short, close pubescence; leaves, numerous, the lower ones opposite, the upper alternate; flowers, rather small, pink; capsules, very long.

Perennial, flowering in May and June.

XXX. NAT. ORD.—Valerianeæ, De Cand.

GENERA.

- Corolla* spurred at the base, calyx-limb feathery CENTRANTHUS.
Corolla not spurred at the base, calyx-limb toothed VALERIANELLA.

CENTRANTHUS, De Cand. *Red Valerian* or *Centranthus*.

C. ruber, De Cand. *Red Valerian*. Leaves, ovate, lanceolate; spur, much shorter than the tube of the corolla, twice as long as the ovary.

Valeriana rubra, Linn. *Flora Romana*, p. 15. *Florig. Brit.* i. 34.

The whole plant smooth; stem, 1 to 2 feet high, branched and leafy; leaves, entire or toothed; flowers, rose-colour, rarely white, in numerous cymose clusters.

Perennial, flowering from April to August.

This pretty, gay plant is very ornamental, growing luxuriantly on old walls and rocky banks in most parts of Italy, and is often cultivated as a border-flower.

VALERIANELLA, Mœrich. *Lamb's-Lettuce*.

V. carinata, Loisel. *Keeled Lamb's-Lettuce*. Flowers, capitate; fruit, oblong, obtuse, deeply furrowed in front, between 2 abortive cells, which are nearly equal in size to the fertile one, crowned with a straight, short tooth, the limb of the calyx.

Fedia Carinata, Stev. *Florig. Brit.* i. 37.

Stem, 12 to 18 inches high, branched, and hairy at the base; lower leaves, spatulate—the upper, oblong, obtuse, sessile;

flowers, pale blue, in terminal heads, surrounded at the base with ciliated bractea.

Perennial, flowering in May.

XXXI. NAT. ORD.—**Compositæ**, Juss.

SUB-ORDERS.

Style not jointed at the end.

Flowers all tubular, or those of the
ray ligulate **CORYMBIFERÆÆ.**

Style jointed at the end.

Flowers all tubular, or those of the
ray ligulate **CYNAROCEPHALÆÆ.**

Style not jointed at the end.

Flowers all ligulate and perfect **CICHORACÆÆ.**

SUB-ORDER 1.—**Corymbifereæ.**

GENERA.

Florets of the disk tubular, of the ray ligulate.

Fruit crowned with hair-like pappus.

Florets of the ray a different colour
from those of the disk **ERIGERON.**

Florets of the ray the same colour as
those of the disk.

Scales of the involucre in 1 " or 2
rows.

Flowers solitary, on a scape **TUSSILAGO.**

Flowers on a leafy stem **SENECIO.**

Scales of the involucre imbricated.

Pappus hairy, in a single row.

Anthers bristle-pointed at the
base **INULA.**

Anthers not bristle-pointed at
the base **SOLIDAGO.**

Pappus in a double row, the
outer cup-shaped scales.... **PULICARIA.**

Fruit naked, or crowned with a membranous or toothed margin.

Receptacle naked or slightly hairy.

Flowers solitary, on a scape or
naked stem.

- Fruit* compressed, without pappus *BELLIS*.
Fruit conical, pappus awned.... *BELLIUM*.
Flowers on a leafy stem.
Involucre scales membranous on the margin..... *CHRYSANthemum*.
Involucre scales not membranous on the margin *MATRICARIA*.
Receptacle furnished with paleaceous scales.
Receptacle conical..... *ANTHEMIS*.
Receptacle flat.
Pappus formed of 2 to 5 awns.. *BIDENS*.
Pappus a membranous margin, or wanting *ACHILLEA*.
Florets all tubular (*those of the ray rarely ligulate*).
Receptacle naked or hairy.
Pappus hairy.
Involucre with imbricated scales.
Scales of involucre oblong *EUPATORIUM*.
Scales of involucre linear *CHRYSCOMA*.
Pappus wanting.
Fruit obovate, smooth *ANTHEMIS*.
Fruit curved and toothed *CALENDULA*.
Receptacle tuberculated or paleaceous . *FILAGO*.

SUB-ORDER 2.—*Cynarocephalææ*.

- Pappus* in a single row.
 Feathery, and united into a ring at the base *CARLINA*.
 Hairy, and united into a ring at the base *CARDUUS*.
 Unequal, rigid *LAPPA*.
 Equal, soft or wanting..... *CENTAUREA*.

SUB-ORDER 3.—*Cichoraceæ*.

- Pappus* feathery.
Receptacle paleaceous *HYPOCHÆRIS*.
Receptacle naked.
Involucre scales spurred at the base . *CHONDRILLA*.
Involucre with simple imbricated scales.
Fruit transversely striated *PICRIS*.
Fruit angular, striated, with a long beak..... *TARAXICUM*.

- Pappus* of the ray cup-like scales, of the
disk feathery..... THRINCIA.
Pappus sessile scales CICHORIUM.
Pappus hair-like.
 Stalked LACTUCA.
 Sessile.
 Fruit with a truncated apex SONCHUS.
 Fruit with a sharp-pointed apex CREPIS.
 Fruit with a marginal ring at the
 top HIERACIUM.
 Fruit of the ray swollen at the back. ZACINTHA.
Pappus wanting LAPSANA.

ERIGERON, Linn. *Flea-bane.*

E. Canadensis, Linn. *Canada Flea-bane.* Stem, erect, many-branched, hairy; panicle, many-flowered; leaves, hairy, linear, lanceolate.

Flora Romana, p. 287. *Florig. Brit.* iii. 1077.

Stem, erect, angular, 1 to 3 feet high; leaves, numerous, the lower ones remotely toothed; heads of flowers, very numerous, small, yellowish; involucre, cylindrical, smooth, the scales linear, lanceolate, membranous, scarcely shorter than the florets of the ray; fruit, small, white, angular.

Annual, flowering in the summer and autumn.

TUSSILAGO, Linn. *Colt's-foot. Tossilaggine*, Ital.

T. farfara, Linn. *Colt's-foot.*

Flora Romana, p. 287. *Florig. Brit.* iii. 1086.

Root, with long, creeping, underground stems; flowers, appearing before the leaves, solitary, terminating a round, white, cottony scape, about a foot long, scattered over with smooth, membranous scales; florets, numerous, bright yellow; leaves, angular, heart-shaped, toothed, smooth, or covered over with cobweb pubescence above, but beneath clothed with a thick cottony pubescence.

Perennial, flowering in March and April.

The dried leaves, cut and smoked like tobacco, are considered useful in some kinds of cough and asthma; and an infusion of the leaves and flowers, made into a syrup with sugar or honey, is said to be used for the same affections, with great benefit. The thick cottony substance of the

leaves, when impregnated with saltpetre, forms an excellent tinder.

SENECIO, Linn. *Groundsel.* *Senecione*, Ital.

S. vulgaris, Linn. *Common Groundsel.* Leaves, pinnatifid, toothed, the lower stalked, the upper sessile, auriculated, and half embracing the stem; heads, in clustered racemes; outer involucre scales very short, tipped with black; outer florets not rayed.

Flora Romana, p. 290. *Florig. Brit.* iii. 1081.

Stem, erect, 6 to 12 inches high, smooth or woolly, branched; heads, small; florets, yellow, those of the disk tubular, 5-toothed, sometimes those of the ray are slightly ligulate; fruit, furrowed, rough, with short hairs; pappus, white, silky.

Annual, flowering during the summer months.

This is a very common and troublesome weed in gardens and ill-cultivated grounds. It is a favourite food of small birds, and is commonly gathered and put upon the cages of those kept in confinement.

INULA, Linn. *Elecampane.* *Enula*, Ital.

I. odora, Linn. *Fragrant Elecampane.* Leaves, downy, nearly entire, the radical ones ovate, oblong, stalked—those of the stem oblong, lanceolate, cordate at the base, and embracing the stem; outer scales of involucre linear, lanceolate, spreading, the inner short, all bristle-pointed.

Flora Romana, p. 288.

Stem, about 2 feet high, erect, angular, downy, slightly-branched; leaves, numerous, downy; flowers, 2 to 6, sub-corymbose, yellow; involucre scales, all bristle-pointed, the outer ones leafy, linear, spreading, with a hardened, swollen base—the inner short, pale, membranous.

Perennial, flowering in May and June.

I. conyza, De Cand. *Ploughman's Spikenard.* Stem, herbaceous, branched in a corymbose manner above; leaves, ovate, lanceolate, toothed, downy, the upper ones sessile,

the lower stalked; involucre scales curved at the point, the outer ones leafy.

Florig. Brit. iii. 1074. *Conyza squarrosa*, Linn. *Flora Romana*, p. 286.

Stem, 1 to 2 feet high, leafy; flowers, numerous, oblong, yellowish-pink, in large, terminal, sub-corymbose panicles; florets, numerous, the outer ones between tubular and ligulate, deeply divided on the inner side, the rest tubular, 5-cleft; fruit, small; pappus, erect, rough bristles.

Biennial, flowering during the summer months.

I. sordida, De Cand. *Small-flowered Elecampane*. Stem, woody, branched, and, as well as the leaves, white and woolly; leaves, very narrow, linear; peduncles, long, 3-flowered; scales of involucre, ovate, lanceolate, close-pressed.

Conyza sordida, Linn. *Flora Romana*, p. 286.

Stem, about a foot high, woody below, branched above, white, with short, close pubescence; leaves, numerous, scattered, very narrow, linear, from 1 to 2 inches long; peduncles, long, slender, erect, terminating in 3 heads of ovate flowers; involucre scales, thin, membranous, shining; florets, yellow.

Perennial, flowering in May and June.

SOLIDAGO, Linn. *Golden Rod. Verga d'oro*, Ital.

S. Virgaurea, Linn. *Common Golden Rod*. Stem, erect, terminating in an erect, paniculated raceme; leaves, ovate, lanceolate, stalked, the lower ones elliptical, serrated; involucre, scales, lanceolate, acute; fruit, downy.

Flora Romana, p. 288. *Florig. Brit.* iii. 1079.

Stem, from 1 to 3 feet high, angular, nearly simple leafy; leaves, downy beneath; flowers, numerous, yellow; florets of the ray about 7, spreading; of the disc, tubular, 5-cleft; fruit, oblong, downy; pappus, rough.

Perennial, flowering from June to August.

PULICARIA, Gartn. *Flea-bane*.

P. dysenterica, Cass. *Common Flea-bane*. Leaves, oblong, wrinkled, downy, cordate or sagittate at the base, and embracing the stem; stem, woolly, branched above; heads,

axillary and terminal; florets of the ray much longer than the disk.

Florig. Brit. iii. 1075. *Inula. Flora Romana*, p. 288.

Stem, erect, from 12 to 20 inches high, striated, woolly; leaves, dark-green above, pale beneath, the margin, waved or toothed; flowers, numerous, bright yellow; involucre, scales, woolly, bristle-pointed; florets of the ray, long, 3-toothed at the end; those of the disk, tubular, 5-cleft; fruit, obovate, bristly.

Perennial, flowering in July and August.

The whole plant is somewhat glutinous, and has a slight acrid, aromatic smell, resembling the flavour of peaches. It once had the reputation of being a valuable medicinal plant, in the cure of dysentery, from which reason it obtained its specific name; but its virtues are so slight that it has fallen into disuse. Some of the species were supposed to be so obnoxious to fleas as to drive them away: hence the generic name is derived from *pulex*, a *flea*.

BELLIS, Linn. *Daisy. Margheritina*, Ital.

B. perennis, Linn. *Common Daisy*. Scape, single-flowered; leaves, spatulate, obovate, single-ribbed, crenated; root, creeping.

Flora Romana, p. 292. *Florig. Brit.* iii. 1088.

Stem, a short, procumbent rhizoma; leaves, numerous, radical; flower-stalk, from 2 to 4 inches long; involucre, scales downy; florets of the ray, ligulate, white or pinkish; those of the disk tubular, yellow, 5-cleft; fruit, compressed, smooth.

Perennial, flowering nearly all the year.

By cultivation the florets of the disk expand into ligulate corollas, like those of the ray, and form a pretty button-like flower, much esteemed in cottage gardens. A curious variety is also sometimes formed from the heads becoming proliiferous. It is one of the most common plants in meadows and pastures in the northern parts of Europe, and in mountain pastures; but less frequent in the south, and appears to be a favourite food of most cattle.

The Daisy has been the favourite theme of most poets, not

only from the modest beauty of its flowers, but from its being so generally distributed. Wordsworth says:—

Bright flower, whose home is everywhere !
 A pilgrim bold in Nature's care ;
 And oft the long year through, the heir
 Of joy or sorrow.
 Methinks that there abides in thee
 Some concord with humanity,
 Given to no other flower I see
 The forest through.

Mason Good elevates the little flower, to exemplify the works and the presence of God in its construction.

Not worlds on worlds, in phalanx deep,
 Need we to prove a God is here ;
 The Daisy, fresh from winter's sleep,
 Tells of His hands in lines so clear.
 For who but *He* who arch'd the skies,
 And pours the day-spring's living flood,
 Wondrous alike in all He tries,
 Could raise the Daisy's purple bud ;
 Mould its green cup, its wiry stem,
 Its fringed border nicely spun,
 And cut the gold-embossed green
 That, set in silver, gleams within ;
 And flung it, unrestrained and free,
 O'er hill and dale and desert sod—
 That man, where'er he walks, may see
 In every step the stamp of God ?

B. sylvestris, Cyrill. *Large Daisy*. Scape, single-flowered; leaves, lanceolate, obtuse, tapering at the base, 3-ribbed, hairy; involucre scales, oblong, acute.

Flora Romana, p. 292.

Stem, a short, procumbent rhizoma; leaves, numerous, radical, remotely toothed; flower-stalk, from 4 to 8 inches long; involucre scales, downy; heads, much larger than the last species, and nodding.

Perennial, flowering in the autumnal months.

This is a larger, more robust plant than the *B. perennis*, growing in most parts of the country, and especially on the Campagna of Rome, in great profusion, often continuing in flower through the winter months.

BELLIUM, Linn. *Bellium*.

B. minutum, Linn. *Dwarf Bellium*. Stem, ascending, capillary, leafy at the base; leaves, obovate, entire, stalked.

The whole plant is about an inch high, having a smooth slender, thread-like stem, leafy below, naked above, and terminating in a single head; leaves, small, obovate, tapering into a broadish footstalk, entire, or somewhat waved on the margin; florets of the ray, white, ligulate, spreading; of the disk, yellow, tubular.

Annual, flowering in April and May.

This little plant grows upon various ruins about Rome, and may have been overlooked as a starved state of *Bellis perennis*; but, upon examination, it will be found a very different plant. It is not enumerated in the *Flora Romana*.

CHRYSANTHEMUM, Linn. *Ox-eye*.

C. Leucanthemum, Linn. *Great White Ox-eye*. Leaves, oblong, obtuse, crenate, pinnatifid at the base; the radical ones obovate, stalked; stem, erect, branched; florets of the ray, white.

Flora Romana, p. 292. *Florig. Brit.* iii. 1090.

Stem, from 1 to 2 feet high, striated; leaves, numerous; flowers, solitary, terminal, large; florets of the disk, yellow, tubular, 5-cleft; fruit, obovate, black, with white, elevated lines; involucre, scales, membranous on the margin.

Perennial, flowering in May and June.

This large flower with its white, spreading ray, and yellow disk is very conspicuous and ornamental. It has been used medicinally, as an expectorant; but its properties are so feeble as not now to be used.

MATRICARIA, Linn. *Wild Chamomile*. *Matricaria*, Ital.

M. chamomile, Linn. *Common Wild Chamomile*. Leaves, smooth, bipinnatifid, with capillary segments; involucre, scales, linear, obtuse.

Flora Romana, p. 293. *Florig. Brit.* iii. 1093.

Stem, erect, about a foot high, smooth, striated, branched; leaves, dark green, the segments spreading, hair-like; heads of flowers, on long, naked stalks; florets of the ray, white,

ligulate, obtuse, or toothed; the disk, conical; the florets, yellow, tubular; fruit, angular, obliquely conical, smooth.

Annual, flowering in July and August.

The whole plant has much the appearance of the common Chamomile, and the flowers have somewhat the same kind of odour, but much less pleasant. They are collected and used in Italy, in the same way as the Chamomile, but do not possess the aromatic, tonic, and soothing properties of that plant. The naked, conical receptacles, readily distinguish it from the following genus.

ANTHEMIS, Linn. *Chamomile. La Camomilla, Ital.*

A. cotula, Linn. *Stinking Chamomile.* Leaves, bipinnatifid, smooth, the segments linear, entire, or toothed, bristle-pointed; stem, erect, branched; receptacle, conical, its scales bristle-shaped; fruit, rounded, striated, crowned with a crenated margin; florets of the ray, white.

Flora Romana, p. 295. *Florig. Brit.* iii. 1095.

Stem, 1 to 2 feet high, striated, bushy; leaves, somewhat fleshy, hairy; heads, solitary, on long, terminal stalks; florets of the ray, white, ligulate; of the disk, yellow, tubular, 5-cleft; involucre, scales, oblong, obtuse, with a narrow, membranous margin; fruit, roundish, obovate, striated.

Annual, flowering in May and June.

The whole plant has a strong, acrimonious smell, and is said to blister the hands of those who gather it from among growing corn, etc. By the aid of a magnifying power it will be seen that the whole plant is studded over with small glands, which secrete an acrid oil, in which the peculiar properties of the plant reside.

A. mixta, Linn. *Simple-leaved Chamomile.* Leaves, pinnate, hairy, above the middle bipinnatifid, the segment cut; stem, erect, branched, hairy; receptacle, hemispherical, its scales lanceolate.

Flora Romana, p. 295.

Stem, 1 to 2 feet high, striated, more or less hairy; leaves, numerous, the lower part simply pinnate, the upper bipinnate; heads, rather large, terminal, on long stalks; florets

of the ray, ligulate, white, spreading; of the disk, tubular, 5-cleft, yellow.

Annual, flowering in May and June.

A. tinctoria, Linn. *Ox-eye Chamomile*. Leaves, bipinnatifid, downy; the segments, decurrent, serrated; stem, erect, branched; receptacle, hemispherical, its scale lanceolate, with a rigid, bristle-point; fruit, quadrangular, striated, crowned with a narrow, membranous border.

Flora Romana, p. 295. *Florig. Brit.* iii. 1096.

Stem, 1 to 2 feet high, many branched, and cottony; leaves, green, rough, or hairy above, white, with cottony pubescence beneath; heads of flowers, large, on long stalks, solitary, terminal; florets, all bright yellow; scales of the receptacle, membranous; fruit, crowned with an entire border.

Perennial, flowering in June and July.

The flowers of this species are gay and handsome, remaining a long time in perfection, and, according to Linnæus, afford a good yellow dye, and that they are much used in Sweden for that purpose.

BIDENS, Linn. *Bur Marigold*. *Bidente*, Ital.

B. tripartita, Linn. *Trifid Bur Marigold*. Heads, erect; leaves, stalked, 3 partite, the segments lanceolate, serrated; fruit, obovate, wedge-shaped, rough, crowned with 2 or 3 teeth.

Flora Romana, p. 284. *Florig. Brit.* iii. 1071.

Stem, 1 to 3 feet high, with opposite branches; leaves, narrowed into winged footstalks, sometimes entire; heads, solitary, terminal, erect, or slightly drooping; florets, brownish-yellow; receptacle, with lanceolate, membranous scales.

Annual, flowering in July and August.

ACHILLEA, Linn. *Yarrow*. *Achillea*.

A. agaratum, Linn. *Sweet Maudlin*. Leaves, smooth, oblong, obtuse, obtusely doubly serrated, narrowed into a footstalk; corymb, compound, contracted.

Flora Romana, p. 295.

Stem, herbaceous, erect; leaves, smooth, or slightly downy, fasciculated; heads of flowers, numerous, in close corymbs;

florets, yellow, those of the ray 3 to 5, entire, slightly notched or deeply divided; involucre, scales, bristly; fruit, elliptical, compressed, striated.

Perennial, flowering in June and July.

EUPATORIUM, Linn. *Hemp Agrimony*. *Eupatorio*, Ital.

E. cannabinum, Linn. *Common Hemp Agrimony*. Leaves, opposite, 3 to 5, partite, the segments lanceolate, deeply serrated, the middle one longest.

Flora Romana p. 283. *Florig. Brit.* iii. 1059.

Stem, herbaceous, 3 to 4 feet high, erect, striated, branched, hairy; heads, small, very numerous, pale pink or purplish, in crowded, corymbose tufts; florets, about 6, all tubular, 5-lobed; involucre, scales, about 10, ovate, oblong, the outer ones shortest; fruit, compressed, oblong; pappus, rough hairs.

Perennial, flowering in June and July.

CHRYSOCOMA, Linn. *Goldy-locks Criso-coma*, Ital.

C. Linosyris, Linn. *Flax-leaved Goldy-locks*. Herbaceous; leaves, linear, smooth; heads, corymbose; involucre, scales, loosely spreading.

Flora Romana, p. 283. *Florig. Brit.* iii. 1061.

Stem, 12 to 18 inches high, smooth, simple, slender; leaves, numerous, linear, single-ribbed, spreading; heads, numerous; florets, yellow.

Perennial, flowering in August and September.

ARTEMISIA, Linn. *Wormwood*. *Assenzio*, Ital.

A. vulgaris, Linn. *Mugwort*. Heads, ovate, or oblong; involucre, scales, lanceolate, woolly; leaves, woolly, and white beneath, pinnatifid, the segments lanceolate, acuminate, cut and serrated, or entire.

Flora Romana, p. 285. *Florig. Brit.* iii. 1069.

Stem, erect, 2 to 3 feet high, branched, and paniculated above; leaves, numerous, alternate, the upper ones lanceolate, entire; heads, numerous, small, in erect clusters; florets, few, brownish, yellow, or reddish.

Perennial, flowering in July and August.

The sensible properties of this plant are very faint compared

with that of some of the other species of this genus: it was, nevertheless, formerly held in high esteem, and its infusion was used as a bath to invigorate the body after fatigue; but it is not now used for that purpose.

A. argentea, Willd. *Silvery-leaved Wormwood*. Stem, shrubby; leaves, bipinnatifid, white, with silky hairs; leaflets, linear, lanceolate; heads, globose, on simple, erect, floral branches.

Flora Romana, p. 285.

Stem, erect, 1 to 2 feet high, branched; leaves, numerous, white and silvery-looking; heads, numerous, small, arranged in a simple, racemose manner, on simple, wand-like, terminal branches; florets, yellow, few; receptacle, hairy.

Shrub, flowering in July and August.

This little silvery-looking shrub grows abundantly on many of the old ruins of Rome, as the Palace of the Cæsars—the Tomb of Cecilia Metella—the Temple of Minerva Medica, etc., and is extremely pretty and ornamental; it is a favourite food of goats. It is less pungent in its odour, and is not used medicinally as is the *A. Absinthium*, which is also a common plant around Rome, etc.

FILAGO, Linn. *Filago*.

F. gallica, Linn. *Narrow-leaved Filago*. White, with woolly pubescence; stem, erect, dichotomously branched; leaves, linear, acute, revolute; heads, conical, in axillary and terminal clusters shorter than the leaves; involucre, scales, downy, with a smooth, membranous, obtuse point.

Flora Romana, p. 286. *Florig. Brit.* iii. 1061.

Stem, erect, 6 to 8 inches high, round, slender; leaves, numerous, linear, tapering from the base to the point; heads, small, crowded together into globose clusters; florets, pale yellow, all tubular, 5-cleft; fruit, covered with cottony down.

Annual, flowering in June and July.

F. minima, Fries. *Least Filago*. White, with woolly pubescence; stem, erect, dichotomously branched; leaves, short, linear, lanceolate, acute, flat, close pressed; heads, conical, in lateral and terminal clusters, longer than the leaves;

involucre, scales, downy, with a smooth, membranous, obtuse point.

Flora Romana, p. 286. *Florig. Brit.* iii. 1062.

Stem, slender, erect, 3 to 6 inches high, branched at the top, spreading; leaves, scattered, erect, lanceolate; heads, small, numerous, in globose clusters; florets, all tubular, yellow; fruit, small, ovate, downy.

Annual, flowering in June and July.

F. Germanica, Linn. *Common Filago*. White, with woolly pubescence; stem, erect, proliferous at the summit; leaves, lanceolate, acute; heads, numerous, in axillary and terminal globose clusters; involucre, scales, lanceolate, cottony, with a membranous, bristle point.

Flora Romana, p. 286. *Florig. Brit.* iii. 1063.

Stem, erect, or ascending, 6 to 18 inches high, bearing a solitary, terminal cluster of heads, afterwards producing from just below the cluster 2 or more branches, which are again proliferous; heads, globose; florets, small, tubular, yellow; fruit, small, downy.

Annual, flowering in June and July.

CALENDULA, Linn. *Marigold*. *Calendula*, Ital.

C. arvensis, Linn. *Field Marigold*. Stem, spreading; leaves, oblong, lanceolate, slightly toothed, the lower ones tapering into a footstalk, the upper rounded at the base, and half embracing the stem; fruit, on the margin, entire, mucronated at the back, with an erect beak, the inner ones linear, curved into a ring.

Flora Romana, p. 299.

Stem, 6 to 12 inches high, branched and spreading; leaves, hairy; florets, orange-colour; receptacle, naked.

Annual, flowering all the year.

This small species of Marigold is commonly called by the Italians *Primo fiore*. It is a very abundant plant about Rome, in fields, vineyards, and road-sides, and is generally distributed throughout Italy. It is one of the most common flowers used to make the nosegays during the festive days of the carnival.

CARLINA, Linn. *Carline Thistle.* *Carlina*, Ital.

C. corymbosa, Linn. *Corymbed Carline Thistle.* Stem, many-flowered, sub-corymbose; leaves, oblong, lanceolate, sinuated and toothed; involucre, leaves pinnatifid, spinous, the inner scales oblong, bristle-pointed, the radical ones lanceolate, tapering at the base, smooth.

Flora Romana, p. 279.

Stem, 12 to 18 inches high, somewhat woolly; spines of the leaves yellowish; inner scales of the involucre and florets yellow.

Perennial, flowering in July and August.

This is a very frequent plant, found in most parts of Italy, growing in corn-fields and waste places, and, from the numerous gay flowers which it produces, is very ornamental.

CARDUUS, Linn. *Thistle.* *Cardo*, Ital.

C. pycnocephalus, Jacq. *Italian Thistle.* Leaves, decurrent, pubescent, sinuated, and pinnatifid, the lobes ovate, angular, with spinous teeth; heads, crowded at the end of the stem and branches, the lateral ones sessile; involucre, scales, broad at the base, with an acuminate, spinous point.

Flora Romana, p. 281.

Stem, 2 to 3 feet high, white and woolly, somewhat branched; leaves, pale green above, white, with woolly pubescence beneath, the wings narrow, running down the stem; involucre, scales, downy, the point long and straight; florets, all perfect, red or pinkish.

Annual, flowering in May and June.

C. leucographus, Linn. *White-spotted Thistle.* Stem, erect, subsimple; leaves, oblong, lanceolate, sinuated, toothed and spiny, white and woolly beneath, sessile, decurrent; peduncles long, naked, single-headed.

Flora Romana, p. 280.

Stem, erect, simple or branched, white with pubescence; leaves, subpinnatifid, slightly decurrent, the upper side mostly spotted with white, the under side more or less woolly; heads, erect, on a long peduncle; florets, purple or white.

Annual, flowering in May and June.

C. Marianus, Linn. *Milk-thistle*. Leaves, amplexicaul, waved and spinous, the radical ones pinnatifid; involucre, scales, leafy at the base and toothed, the point a long, channelled, recurved spine.

Flora Romana, p. 281. *Florig. Brit.* iii. 281.

Stem, 3 to 4 feet high, ribbed and furrowed; leaves, very large, oblong, lanceolate, dark green, smooth, shining, variegated with milk-white veins and spots, giving it a marbled appearance; heads, large, globose, terminal, solitary; florets, purple, with long tubes, the filaments united; pappus rays, silky, rough.

Biennial, flowering in June and July.

By the botanists and physicians of the dark ages, it was believed that the beautiful white mottled appearance of the leaves was caused by the milk of the Virgin Mary falling accidentally upon a plant of this species, and that all its progeny have since then retained the blessed stain. The leaves, when matured, are said to possess sudorific and aperient properties. The young leaves, and long, tapering white roots, are much used in Rome as a vegetable, and are sold by gardeners in the streets of Rome, during the spring months. For this purpose they are in many places extensively cultivated.

LAPPA, Toun. *Burdock*. *Lappone*, Ital.

L. major, Gart. *Common Burdock*. Heads, subcorymbose; involucre, scales, nearly smooth, longer than the florets, tapering into a point, hooked at the apex.

Florig. Brit. iii. 1056. *Arctium Lappa*, Linn. *Flora Romana*, p. 279.

Stem, many-branched and spreading, 3 to 4 feet high; leaves, numerous, large, ovate, heart-shaped, stalked, downy on the under side; heads, numerous, solitary, or clustered at the end of the branches; the scales all yellowish-green, smooth, or slightly webbed; florets, few, purple, tubular, the limb cut into 5 narrow segments; fruit, abrupt, 4-angled, obovate, crowned with short, rough pappus.

Biennial, flowering in July and August.

The Burdock, or, as the Italians call it, Lappone, is common, and well-known (to those who have resided in the country),

as a large, rough, cumbersome-looking plant. It is rarely eaten by any animal except the ass; but snails and some kinds of caterpillars live upon its leaves. In the north of Europe its young roots and tender shoots are used as pot-herbs, and the stems, stripped of the rind before the flowers appear, are eaten raw with oil or vinegar, or boiled as a substitute for the more delicate asparagus. The roots and seeds have been used in medicine as a diuretic and sudorific, it is said, with advantage in scurvy, gout, and rheumatic affections, and diseases of the kidneys. In France it is used as an expectorant, and its roots are reported to be equally as efficacious as *sarsaparilla*.

The seeds enveloped amidst the closely-investing, hard scales of the involucre, seem as though they never could escape; but nature has so contrived, by means of the hardened hook at the end of the scales, that they cling and hold fast to the coats of animals, etc., so that to again separate them is to pull them to pieces, and thus allow the seeds to escape and sow themselves! The whole plant, when burned, furnishes a large proportion of alkaline salt, which is the best kind of dressing for land. Thus we find a large, cumbersome, useless-looking weed, is applied to many useful purposes, and that when it is destroyed by fire its ashes furnish a valuable substance for the nourishment and development of other plants. This constant interchange of particles, arranged under various combinations, is one of the most interesting circumstances in the whole system of nature; it is the most wonderful, and should excite the greatest astonishment at the power of that Being who has thus arranged the universe; and it must be a salutary lesson to the proud man to think that the particles of his body must, like those of this weed, be changed into other substances, as they were before they were compacted together to form his body. Let us ponder over these changes, and

Thus deeply drinking in the soul of things,
We shall be wise perforce; and while inspired
By choice, and conscious that the will is free,
Unswerving shall we move, as if impell'd
By strict necessity, along the path
Of order and of good. Whate'er we see,

Whate'er we feel, by agency direct
 Or indirect shall tend to feed and nurse
 Our faculties—shall fix in calmer seats
 Of moral strength, and raise to loftier heights
 Of love divine our intellectual soul.—WORDSWORTH.

CENTAUREA, Linn. *Knapweed. Centaurea, Ital.*

C. nigra, Linn. *Black Knapweed.* Scales of involucre, ovate, lanceolate, with a dark brown-black margin, deeply fringed, the teeth, capillary, very numerous; leaves, rough, lower ones sinuated and toothed, the upper lanceolate, entire or toothed; pappus, very short, tufted.

Flora Romana, p. 297. *Florig. Brit.* iii. 1099.

Stem, 1 to 2 feet high, branched, furrowed, rough; leaves, dark-green, rough; heads, terminal, the peduncles swollen upwards; florets, purple, all tubular and perfect, sometimes the outer ones radiant; involucre, scales, all contracted just below the appendage.

Perennial, flowering from June to August.

C. cyanus, Linn. *Corn Blue-bottle.* Scales of involucre, ovate, downy, the margin deeply toothed; leaves, linear, lanceolate, the lower ones toothed, and the radical ones obovate, lanceolate, often trifid.

Flora Romana, p. 297. *Florig. Brit.* iii. 1101.

Stem, 1 to 3 feet high, clothed with cottony pubescence; leaves, numerous, slightly pubescent above, white and cottony beneath; heads, numerous, solitary, terminal; florets, large, radiant, blue, purple, or rose colour; involucre, scales, greenish, yellow, the upper half often purplish, the margin brown, the teeth white.

Annual, flowering from June to August.

This pretty little, beautiful, gay, blue-flowered plant, is very common in corn-fields. It is frequently cultivated as a border-flower, by which its heads frequently become much larger, and often of a different colour. Its deep blue flowers are said, by simply pressing out the juice and mixing it with a little alum, to afford a fine, fixed colour.

C. calcitrapa, Linn. *Common Star-thistle.* Scales of involucre, smooth, terminating in a long, stout, broad spine, and fringed, at the base, with smaller ones; heads, lateral,

sessile, solitary; stem, branched, spreading; leaves, unequally pinnatifid, toothed, and spinous.

Flora Romana, p. 298.

Stem, about a foot high, striated, furrowed, somewhat downy, branched, and spreading; leaves, numerous, sessile, hairy; heads, solitary, sessile, mostly surrounded with several leaves at the base; florets, pale pink, or purplish, those of the ray larger than those of the disk.

Annual, flowering from June to August.

C. solstitialis, Linn. *Yellow Star-thistle. St. Barnaby's Thistle.* Scales of involucre, woolly, palmate, spinous at the base, the terminal spine long and slender; heads, terminal, solitary; leaves, lanceolate, decurrent, forming wings to the stem, the radical ones lyrate, all unarmed and hoary.

Flora Romana, p. 299. *Florig. Brit.* iii. 1103.

Stem, erect, 1 to 2 feet high, branched, spreading, and, as well as the leaves, clothed with close, woolly pubescence; leaves of the stem, lanceolate, entire, small, running down the angle of the stem in uninterrupted wings, those from the root stalked, pinnatifid, with narrow, toothed, or jagged lobes; heads, terminal; florets, yellow, or lemon-coloured,

Annual, flowering from June to September.

HYPOCHLÆRIS, Linn. *Cat's-ear.*

H. radicata, Linn. *Long-rooted Cat's-ear.* Stem, branched smooth, leafless; peduncles, with small scales; root-leaves, obtuse, runcinate, rough; fruit, with a long beak.

Flora Romana, p. 276. *Florig. Brit.* iii. 1018.

Stem, about a foot high, branched, scaly, each branch terminating in a rather larger, solitary head; leaves, spreading upon the ground, rough, with rigid hairs; fruit, angular, striated, rough, tapering into a beak.

Perennial, flowering in June.

CHONDRILLA, Linn. *Gum Succory.*

C. juncea, Linn. *Common Gum Succory.* Leaves of the stem, linear, lanceolate; of the root, runcinate; branches, straight; heads, lateral, 1, 2, and 3 together; fruit, 5-toothed, lanceolate, terminating in a long beak.

Flora Romana, p. 268.

Stem, 3 feet high, slender, cylindrical; involucre, cylindrical, the scales spurred at the base; florets, yellow; fruit, brown, angular, striated and tuberculated; pappus, white, simple, on a stalk longer than the fruit.

Perennial, flowering in August.

PICRIS, Linn. *Picris*.

P. hieracioides, Linn. *Hawkweed Picris*. Rough, with forked and hooked bristles; leaves, oblong, lanceolate, toothed or sinuated, those of the stem sessile, somewhat clasping; heads, solitary, terminating the stem and branches; outer involucre scales, lax, oblong, bristly on the keel, smooth on the margin; fruit, constricted just below the pappus.

Flora Romana, p. 274. *Florig. Brit.* iii. 1021.

Stem, solid, rough, more or less branched, 1 to 3 feet high, somewhat corymbose above; heads, about an inch across; florets, bright yellow, all ligulate, obtuse, and finely toothed at the end.

Biennial, flowering in May and June.

TARAXACUM, Juss. *Dandelion*.

T. officinalis, Wigg. *Common Dandelion. Piscia-cane*, Ital. Leaves, runcinate, smooth, toothed; fruit, linear, obovate, obtuse, striated, and rough, with elevated points, the beak long, slender; involucre with the outer scales reflexed.

T. dens-leonis, *Flora Romana*, p. 273. *Leontodon Taraxacum*, Linn. *Florig. Brit.* iii. 1024.

Root, long, tapering, fleshy, abounding in a milky juice; leaves, all radical, very variable; heads, single, on a naked hollow stalk, about 2 inches across; florets, bright yellow, the outer ones often crimson externally, all linear, obtuse, finely toothed at the end.

Perennial, flowering nearly all the year.

The word "Dandelion" appears to be a corruption of the French *Dent de Lion*. The young spring-leaves of the Dandelion are gathered in Italy and France, and used as a salad; but unless they are gathered very young, they are bitter and tough. The plant in those countries, as well as in other parts of the Continent, is cultivated; the leaves are blanched in the spring, for salad; and the long, fleshy roots,

for which the plant is especially and extensively cultivated about Rome, are used as a culinary vegetable, and cooked in the same way as Salsify and Scorzonera. The roots are also dried and used as a substitute for coffee, and seem equally good for that purpose as chicory, except that they are rather more bitter. As a medicine, the roots have been long used, either made into an infusion, or formed into an extract, and has been found useful in hepatic affections. It is a mild tonic, and acts considerably upon the secretions; hence its value in some affections of the kidneys. From these properties, also, will be learned its value as an agricultural plant in all pasture-lands, by its provoking to action the digestive organs of the cattle feeding upon it, and carrying from the system superfluous fluids, as well as stimulating the secretions and improving the quality of the milk of cows. Few persons who have spent their youthful days in the country, will be ignorant of the leading medical properties of this flower. Howitt says of this plant,—

Dandelion, with its globe of down,
The schoolboy's clock in every town,
Which the truant puffs amain,
To conjure lost hours back again.

This downy globe is, however, supposed to possess other powers to the youth who has passed his school-day hours, and entered upon the poetic path of love; then each feathered sphere becomes, in the language of flowers, the “rustic oracle”—each little feather is charged with a tender thought, and conveys its secret messages to the dear one's feet, when they are carefully blown, on their aërial voyage, in the direction in which she dwells.

The flowers expand when the sun rises, and close again as it disappears, as if

She, enamoured of the sun,
At his departure hangs her head and weeps,
And shrouds her sweetness up, and keeps
Sad vigils, like a cloister'd nun,
Till his reviving ray appears,
Waking her beauty as he dries her tears.—MOORE.

THRINCIA, Roth. *Thrinicia*.

T. hirta, De Cand. *Hairy Thrinicia*. Leaves, lanceolate, somewhat toothed or sinuated, and bristly, the hairs often forked; scape, single-flowered, hairy below; involucre, smooth; root, abrupt, with long fibres.

Flora Romana, p. 274. *Florig. Brit.* iii. 1021.

Leaves, all radical, sometimes entire, or sinuated in a runcinate manner; head, solitary, on an erect simple stalk, about 5 inches high, smooth above, hairy below; involucre scales downy on the margin; fruit, oblong, curved, striated, and rough.

Perennial, flowering in July and August.

CICHORIUM, Linn. *Succory*. *Cicoria*, Ital.

C. Intybus, Linn. *Wild Succory*. Heads of flowers, 2 or more sessile, and pedunculated in the axis of the leaves; upper leaves, lanceolate, with a broad base embracing the stem, the lower ones runcinate.

Flora Romana, p. 277. *Florig. Brit.* iii. 1043.

Stem, 2 to 3 feet high, bristly, alternately branched; heads, numerous, bright blue, very handsome.

Perennial, flowering from June to August.

The beautiful bright-blue flowers of this plant entitle it to a place in the flower-garden; but the straggling stems prevent its being cultivated as a border-flower. The leaves of the young plant, blanched, form a favourite winter and spring salad. In France, the long tapering roots are collected and packed up in cellars, or dry places, protected from the frost and cold, with sand or earth—the crown only of the roots being exposed; they then put out leaves—and as they are protected from the light, and blanched, and being grown quick, are very tender, with a pleasant bitterish flavour: by this mode of cultivation, they are enabled to supply the table with an esteemed vegetable through the whole winter. The roots as well as the leaves, by cultivation in a light soil, become much larger; and on the Continent, the roots are cut into small pieces and dried, and are afterwards roasted, and used as a substitute for coffee. By many persons, the powder thus prepared and mixed with an equal weight of

powdered coffee, is preferred to the coffee alone; indeed, it is said, that on the Continent, where so much coffee is used, that it is always prepared in this manner. Great quantities of the Endive roots are annually imported into England for the same purpose. The plant cultivated as food for cattle, is said to be very profitable, especially for cows, as it greatly increases the quantity of milk; but it has never come into general cultivation for that purpose, though in some parts of Germany, and also in the north of Italy, we have seen large plots of land cultivated with it.

LACTUCA, Linn. *Lettuce.* *Lattuga*, Ital.

L. muralis, De Cand. *Ivy-leaved Lettuce.* Leaves, stalked, lyrato-pinnatifid, the lobes ovate, angular, toothed, the terminal one large; panicle, with spreading branches; florets, 5; fruit, with a short beak.

Florig. Brit. iii. 1028. *Prenanthes muralis*, Linn. *Flora Romana*, p. 268.

Stem, erect, slender, 1 to 2 feet high, round, hollow, terminating in a branched panicle; florets, bright yellow; fruit, black, the beak very short.

Perennial, flowering in June and July.

This is a very common and pretty-looking plant on almost all the old walls and ruins about Rome.

L. saligna, Linn. *Least Lettuce.* Leaves, linear, entire, eared at the base, the radical ones lanceolate, slightly toothed, the mid-rib keeled and rough with spines; panicle, of straight, racemose, spicate branches, leafy; fruit, compressed each side, 5-ribbed, terminated with a long, white, slender beak.

Flora Romana, p. 268. *Florig. Brit.* iii. 1028.

Stem, about 2 feet high, slender, wavy, slightly branched; heads, in alternate clusters; florets, yellow; fruit, with the beak longer than itself.

Biennial, flowering in July and August.

L. scariola, Linn. *Prickly Lettuce.* Leaves, nearly erect, ovate, oblong, acute, eared at the base, sinuated, toothed and ciliated, the mid-rib keeled and rough with prickles;

panicle, leafy; fruit, compressed each side, 5-ribbed, the beak white, as long as itself.

Flora Romana, p. 268. *Florig. Brit.* iii. 1027.

Stem, 2 to 5 feet high, terminating in a branched panicle; heads, scattered; bracts, numerous, heart-shaped; florets, yellow.

Perennial, flowering in July and August.

Almost all the species of this genus abound with a bitter, milky juice; but when the plants are young, or the leaves grown excluded from the light, the slight bitterness is by no means unpleasant, and in this state they are used as a salad; but the juice which exudes from the wounded leaves and stems of old plants, is intensely bitter, and possesses sedative properties; but its action upon the nervous system is less felt after its use, than that of opium. The cultivation of the Lettuce is well known to every lover of a garden; and by sowing a bed every month, a regular supply, all the year round, may be obtained for the table.

SONCHUS, Linn. *Sow-thistle.*

S. oleraceus, Linn. *Common Sow-thistle.* Stem, branched; heads, subumbellate; involucre, smooth; leaves, ovate, oblong, undivided or pinnatifid, toothed, clasping the stem with spreading, arrow-shaped lobes; fruit, ovate, compressed, 3-ribbed on each side, and more or less toothed.

Flora Romana, p. 269. *Florig. Brit.* iii. 1031.

Stem, erect, branched, smooth, leafy, very brittle, 2 to 3 feet high; leaves, shining green above, paler beneath, the lower ones with a winged footstalk, the upper sessile; florets, yellow; pappus, white, silky, roughish.

Annual, flowering from June to September.

A very common and variable plant, abounding in milky juice. It is a favourite food of hares, rabbits, pigs, and asses.

S. tenerrimus, Linn. *Clammy Sow-thistle.* *Crispingo di muro*, Ital. Stem, branched; peduncles, subumbellate; involucre, woolly at the base; leaves, bipinnate, the segments linear or ovate, oblong, simple or toothed, with

auricular lobes at the base; fruit, triangular, compressed, pale yellow, with rough ribs.

Flora Romana, p. 269.

Stem, erect, from 1 to 2 feet high, branched and leafy; leaves, long, the segments often very narrow, sometimes ovate, oblong, smooth and glossy; heads, with a tuft of white woolly pubescence at the base, and sometimes the pedicle is also woolly; fruit, slender; pappus, white, simple, sessile; florets, yellow.

Annual, flowering during the summer months.

Common on all the old walls and ruins about Rome—growing in the crevices and joinings of the building on the top of St. Peter's church, the tower of the Capitol, the Column of Trajan, etc.

CREPIS, Linn. *Hawk-weed.*

C. biennis, Linn. *Rough Hawk's-beard.* Stem, branched, leafy, sub-corymbose; leaves, hairy, the radical ones lanceolate, toothed, or runcinato-pinnatifid, the upper ones linear, sagittate, or toothed; outer involucre scales oblong, linear, lax, hispid at the back, the inner downy; fruit, oblong, narrowed above, smooth, ribbed, about as long as the pappus.

Flora Romana, p. 272. *Florig. Brit.* iii. 1032.

Stem, 1 to 3 feet high, hispid, nearly leafless above; heads, large; florets, yellow; leaves, numerous, the radical and lower ones of the stem stalked, the upper sessile; fruit, 13-ribbed; pappus, very white, rough, silky.

Biennial, flowering in May and June.

C. pulcher, Linn. *Small-flowered Hawk's-beard.* Stem, leafy, paniced above; leaves, downy, the radical ones oblong, obovate, runcinate, the upper lanceolate, toothed, truncated at the base, and clasping the stem; panicle, naked, spreading; involucre scales, ovate, short, compressed; fruit, linear, slender, smooth above, obscurely 10-ribbed.

Flora Romana, p. 272. *Florig. Brit.* iii. p. 1034.

Stem, erect, downy, 1 to 2 feet high, paniced above; heads, small; florets, yellow; involucre, at length, thickened; fruit, on the outer row, often apparently without pappus.

Annual, flowering in May and June.

HIERACIUM, Linn. *Hawkweed*. *Feracia*, Ital.

H. murorum, Linn. *Wall Hawkweed*. Stem, with one leaf, radical leaves numerous, ovate, acute, subcordate at the base, stalked, hairy beneath, the teeth pointed downwards; stem, subcorymbose above, the peduncles and involucre pubescent.

Flora Romana, p. 271. *Florig. Brit.* iii. 1039.

Stem, erect, 1 to 2 feet high, more or less hairy, branched upwards in a corymbose manner, and bearing from 1 to 6 rather large heads of yellow flowers; leaves, often purplish on the under side; fruit, black, linear, abrupt, striated; pappus, rough, dirty-brown.

Perennial, flowering in May and June.

This is a very variable plant from the circumstance of its power of growing in such very different situations, as old walls, ruins, rocks, woods, mountain-pastures, etc. The name of the genus is from *ἵεραξ*, a "hawk" or "falcon;" so called from its being supposed formerly that birds of prey strengthened their power of vision by the use of the milky-looking juice of plants known by this name.

H. Nestleri, Vill. *Nestler's Hawk-weed*. Stem and leaves, clothed with simple and starry pubescence; leaves, 3 to 6, radical, lanceolate or oblong; heads, numerous, in dense corymbs, hairy and glandular, the pedicles fasciculated.

Kock. Flora Germanica, p. 449. *H. cymosum. Flora Romana*, p. 271.

Stem, 1 to 2 feet high, branched above; leaves, radical, broad, oblong or obovate, entire, rarely toothed; heads, small, crowded.

Perennial, flowering in April and May.

H. pilosella, Linn. *Common Mouse-ear Hawkweed*. Stem, leafless, single-headed; scions, creeping, prostrate; involucre, short, cylindrical; leaves, obovate, lanceolate, entire, bristly above, downy beneath.

Flora Romana, p. 270. *Florig. Brit.* iii. 1036.

Stem, erect, 3 to 4 inches high; head, solitary; florets, pale lemon colour, with a red stripe at the back; involucre, scales in 2 rows, the outer short, the inner long, acuminate; leaves, glaucous green, stalked.

Perennial, flowering in April and May.

This hardy little plant flourishes in dry as well as moist places, and is very variable, in being more or less clothed with pubescence.

LAPSANA, Linn. *Nipple-wort.* *Lampsana*, Ital.

L. communis, Linn. *Common Nipple-wort.* Stem, paniced above; leaves, stalked, lobed or toothed, ovate or subcordate, the lower ones lyrate; involucre, scales smooth, angular in fruit.

Flora Romana, p. 267. *Florig. Brit.* iii. 1044.

Stem and leaves, bristly or nearly smooth, 1 to 3 feet high, branched above in a paniculated manner; heads, small; florets, yellow; involucre, erect in fruit; fruit, linear, pale-brown, striated.

Perennial, flowering in April and May.

Formerly this plant was used, and, it is said, with advantage, in the cure of sore nipples and breasts, hence its English name of Nipple-wort; but it is now quite out of use.

ZACINTHA, Tourn. *Zacintha*.

Z. verrucosa, Gart. *Warted Zacinth.* Stem, branched above; leaves of the stem, toothed, and lobed at the base, those of the root, oblong, acute, lobed in a lyrate manner.

Flora Romana, p. 274.

Stem, hairy at the base; peduncles, thickened beneath the heads; heads, small; florets, yellow; fruit, smooth brown; pappus, sessile, short, rough, deciduous.

Annual, flowering in May and June.

XXXII. NAT. ORD.—Dipsacæ, De Cand.

GENERA.

Calyx cup-shaped with radiant teeth KNAUTIA.
Calyx of 5 bristles the outer membranous and
 plaited SCABIOSA.

KNAUTIA, Linn. *Knautia*.

K. arvensis, Coult. *Field Knautia.* Heads, of many flowers; inner calyx, with 8 to 16, somewhat awned teeth; stem, bristly below, lower leaves simple, the upper pinnatifid.

Florig. Brit. i. 176. *Scabiosa arvensis.* *Flora Romana*, p. 74.

Stem, 2 to 3 feet high, slightly branched, with few leaves, the radical ones numerous, and lobed in a pinnatifid manner, hairy; flowers, lilac, numerous, crowded into a flattish head surrounded by a many-leaved involucre, the outer florets mostly unequal and radiant.

Perennial, flowering from May to August.

The whole plant was formerly used for the cure of various diseases of the skin, and is still found amongst the collection of the herbalists, but it is seldom used as a medicine. It is a very common plant, and is eaten by sheep and goats, but does not appear to be generally relished by domestic cattle.

SCABIOSA, Linn. *Scabious.* *Scabbiosa*, Ital.

S. Colombaria, Linn. *Small Scabious.* Heads of many flowers subglobose; outer calyx, membranous, plaited, notched; inner calyx of 5 nerveless bristles; corolla, 5 cleft, radical leaves oblong, stalked, notched, entire, or lyrate, the upper ones pinnatifid, with linear segments.

Flora Romana, p. 75. *Florig. Brit.* i. 117.

Stem, erect, from 1 to 2 feet high, hairy; root-leaves, with long stalks, various, those of the stem sessile; flowers, pale, purplish, in terminal, subglobose heads, on long stalks, surrounded by a narrow, hairy-leaved involucre.

Perennial, flowering in May and June.

XXXIII. NAT. ORD.—Cucurbitaceæ, Juss.

GENERA.

Fruit a smooth globose berry BRYONIA.

Fruit a small rough elliptic gourd MOMORDICA.

BRYONIA, Linn. *Bryony.* *Brionia*, Ital.

B. dioica, Jacq. *Red-berried Bryony.* Leaves, cordate, 5-lobed, the teeth with callous points; flowers, subcorymbose, diœcious; calyx of the fertile flowers much shorter than the corolla.

Flora Romana, p. 332. *Florig. Brit.* iii. 1199.

Root, large, fleshy tubers; stem, roundish, branched, leafy, climbing, several feet long; leaves, alternate, rough, with

short, rigid hairs; flowers, axillary clusters; petals, pale green, elegantly veined; fruit, a globose, scarlet berry.

Perennial, flowering from May.

The fleshy tubers of this plant possess emetic and drastic purgative properties, and have been used in medicine; but, from its violent and uncertain effects, it is not now used. It is said that goats are the only animals that will feed upon the plant.

MOMORDICA, Linn. *Momordica*.

M. Elaterium, Linn. *Squirting Cucumber*. *Cocomero asi-nino*, Ital. Fruit, elliptic, hispid; leaves, heartshaped, bluntly toothed, hispid; stem, without tendrils.

Flora Romana, p. 302.

Root, large, fleshy; stem, thick, rough, branched, trailing; leaves, on long footstalks; flowers, axillary, yellowish-white; fruit, oblong, the colour of the leaves, covered with short prickles.

Annual, flowering during the summer months.

The fruit, or small gourd of this plant, when it is fully ripe, drops away from its attachment to the peduncle, and, from the elastic force of its sides contracting upon the contained seeds, they are suddenly ejected through the opening left by the peduncle, to a considerable distance; hence its name of *Squirting Cucumber*.

The fruit possesses very violent cathartic properties. The extract made from it is called *Elaterium*, and is often found, when administered with great care, a very valuable medicine.

XXXIV. NAT. ORD.—*Campanulaceæ*, Juss.

GENERA.

Filaments, dilated at the base.

Capsules, opening by lateral pores outside the segments of the calyx CAMPANULA.

Capsules, opening by terminal pores within the segments of the calyx.. WAHLENBERGIA.

Filaments, not dilated at the base.

Anthers, united at the base JASONE.

Anthers, free PRISMATOCARPUS.

CAMPANULA, Linn. *Bell Flower. Campanella, Ital.*

C. rotundifolia, Linn. *Round-leaved Bell-flower or Hare-bell.* Root-leaves, rounded, heart-shaped at the base, crenated, stalked, those of the stem lanceolate, entire, and crenated, or linear entire, sessile; flowers, drooping; segments of the calyx, awl-shaped.

Florig. Brit. i. 293.

Stem, 6 to 12 inches high; leaves, smooth, the radical ones soon disappearing; flowers, mostly several, sub-racemose, blue, elegantly drooping.

Perennial, flowering in June and July.

This very pretty, elegant little plant, has been the theme of many a poet's pen who has not contemplated it as growing amidst the ruin and decay of the works of man, from whence we have gathered it, but rather as flourishing upon the wild moor, or spreading heath. The poet Bowles says:—

First look upon that flower,
The lowly heath-bell smiling at our feet.
How beautiful it smiles alone! The Power
That bade the great sea roar—that spread the heavens—
That call'd the sun from darkness—deck'd that flower,
And bade it grace this bleak and barren hill.

WAHLENBERGIA, Schrad. *Wahlenberga.*

W. Erinus, Link. *Forked Bell-flower.* Hairy; stem, branched above in a forked manner, lower leaves obovate, oblong, with a short footstalk, upper ones opposite, 1 or 2 toothed on each side; flowers, nearly sessile.

Campanula Erinus. Flora Romana, p. 101.

Stem, 6 to 12 inches high, striated, branched, spreading; leaves, tapering into a short footstalk, coarsely serrated, the upper sessile, deeply toothed, the whole plant rough, with rigid hairs; flowers, small, violet-blue; calyx-segments, rather larger.

Annual, flowering from April to June.

W. hederacea, Reich. *Ivy-leaved Bell-flower.* Smooth; stem, weak, thread-like, branched, prostrate; leaves, alternate, stalked, roundish, heart-shaped, with angular-toothed lobes; flowers, solitary.

Campanula hederacea, Linn. *Florig. Brit.* i. 302.

Stem, branched, and creeping to a considerable distance; peduncles, longer than the leaves, bearing a delicate, pale blue flower, at first nodding, becoming erect; calyx, segments awl-shaped; capsules, nearly globose.

Perennial, flowering from May to August.

This delicate and elegant little plant is very common in most parts of Italy, growing in damp places, on old walls, ruins, about fountains, etc.; but no where more beautiful and elegant than over the far-famed Fountain of Egeria, now a ruin in the Vale of Egeria, near Rome, where

Over the font's damp, mossy stones they grow
Luxuriantly,
These little bells of faint and tender blue,
Which gracefully
Bend their small heads in every breeze which stray'd
From lawny sunshine to the woodland's shade.

JASIONE, Linn. *Sheep's-bit.*

J. montana, Linn. *Sheep's-bit* or *Sheep's Scabious*. Root, simple; leaves, linear, oblong, obtuse, waved and hispid; flowers, stalked.

Flora Romana, p. 102. *Florig. Brit.* i. 290.

Stem, erect, 1 to 2 feet high, solitary or numerous from the same root, simple or branched, hairy and leafy below, naked and mostly smooth above; leaves, alternate, mostly numerous, hairy; flowers, small, in a terminal head, surrounded with numerous bractea; calyx-segments, linear, setaceous, smooth; corolla, pale blue.

Annual, flowering from May to August.

PRISMATOCARPUS, L'Heritier. *Corn Bell-flower.*

P. speculum, L'Herit. *Venus's Looking-glass*. Stem, erect, branched and spreading, the lower branches elongated, ascending; leaves, oblong, crenated, the lower ones obovate; flowers, solitary; calyx-segments, linear, longer than the corolla.

Flora Romana, p. 101.

Stem, many branched and spreading, about a foot high, and, as well as the leaves, somewhat hairy; peduncles, 1 to 3-

flowered ; corolla, spreading, a beautiful deep purplish violet-colour within, paler at the back—sometimes, though rarely, it is entirely white.

Annual, flowering in May and June.

This very handsome and gay-looking flower grows abundantly on the lower ruins of the Colosseum, and is very common, especially in corn-fields, in most parts of Italy; but in England it is cultivated as a border-flower.

XXXV. NAT. ORD.—Stellatæ, Linn.

GENERA.

Corolla wheel-shaped or bell-shaped.

Fruit dry, roundish didymus GALIUM.

Fruit dry, 3-horned VAILLANTIA.

Fruit succulent..... RUBIA.

Corolla funnel-shaped.

Fruit crowned with the 6-toothed calyx-limb SHERARDIA.

Fruit not crowned with the limb of the calyx ASPERULA.

GALIUM, Linn. *Bed-straw.* *Gaglio*, Ital.

G. verum, Linn. *Yellow Bed-straw.* Leaves, about 8 in a whorl, linear, setaceous, with revolute margins, channelled above, downy beneath; flowers, in dense, terminal panicles; petals, obtuse, with a short point; fruit, smooth.

Flora Romana, p. 78. *Florig. Brit.* i. 178.

Stem, erect, somewhat woody, more or less branched; leaves, in numerous whorls, becoming deflexed; flowers, deep yellow, small, very numerous, with a honey-like odour; fruit, black.

Perennial, flowering from May to June.

The whole plant is said to be used in some cheese countries for the purpose of curding the milk and giving a rich colour to it. When the plant is boiled with alum-water it has the property of tinging woollen goods of a yellow colour, and the roots abound in a fine red, colouring matter, resembling

madder, but are too small to render the cultivation of the plant profitable for that purpose.

G. cruciatum, With. *Crosswort Bed-straw Mugweed*. Leaves, 4 in a whorl, elliptic, ovate, hairy; flowers, in small lateral and terminal clusters, each with bracteated leaves; fruit-stalks, deflexed; fruit, smooth.

Florig. Brit. i. 179.

Stem, 1 to 2 feet high, simple, angular; flowers, small, yellow, on short stalks, 3 to 5-cleft, some perfect, with stamens and pistils—others with stamens or pistils only; fruit, deflexed, and covered over by the leaves, concealing them and protecting them from injury.

Perennial, flowering in April and May.

G. Mollugo, Linn. *Great Hedge Bed-straw*. Leaves, about 8 in a whorl, obovate or oblong, bristle-pointed, the margin rough, with bristles pointed forwards; panicle, large, loose, the lower branches spreading horizontally, or deflexed; fruit-stalks, spreading; fruit, smooth; petals, taper, pointed.

Flora Romana, p. 79. *Florig. Brit. i.* 183.

Stem, ascending, from 2 to 6 feet high, square, branched and spreading, swollen at the joints, and smooth or hairy; leaves, pale beneath, with a slender mid-rib, smooth or hairy; flowers, small, white, very numerous; the segments of the corolla 3-ribbed; fruit, small, globose, smooth.

Perennial, flowering in June and July.

The profusion of flowers usually borne by this plant, renders it very pretty and ornamental when growing in its wild luxuriance.

G. Parisiense, Linn. *Wall Bed-straw*. Leaves, about 8 in a whorl, linear, lanceolate, bristle-pointed, the margins rough, with bristles pointed forwards; stem, slender, rough, with decurved prickles; flowers, in small axillary clusters, with spreading branches; fruit, bristly.

Flora Romana, p. 79: *Florig. Brit. i.* 184.

Stem, slender, branched, 6 to 12 inches high, brittle; leaves, small, mostly deflexed, the lower whorls mostly 4 leaves shorter, and more ovate; flowers, small, white, or greenish-white, the segments of the corolla acute-ribbed; fruit,

nearly black, somewhat kidney-shaped, smooth and tuberculated, or covered with bristly hairs.

Annual, flowering in May and June.

When the fruit is smooth and slightly tuberculated, it is the *G. Anglicum*, Huds.

G. aparine, Linn. *Goose-grass* or *Cleavers*. Leaves, 6 to 8 in a whorl, linear, lanceolate, with marginal prickles pointed backwards; angles of the stem, rough, with deflexed prickles; peduncles, axillary, of few flowers, covered with short, hooked bristles.

Flora Romana, p. 79. *Florig. Brit.* i. 186.

Stem, many-branched and spreading, 3 to 6 feet long, square, rough, and attaching itself to other plants by its reflexed prickles; leaves, in rather distant whorls, rough, bristle-pointed; flowers, pale yellow or dirty white, in clusters of about 3 flowers; fruit, a double globe, thickly clothed with hooked prickles.

Annual, flowering during the summer months.

This plant was called by the Greeks, *Philanthropon*, from an idea which they entertained, that the ready manner in which the seeds attached themselves to our habiliments, was owing to their love of the human species. The hooked extremities of the hairs with which they are covered, will give a more satisfactory solution of their adhesion, and afford a ready means of dispersing them into various situations suited to their growth. The seeds are said to form, when roasted, a very good substitute for coffee, far superior to roasted corn. It is thought, by some country-people, to be a very good purifier of the blood, for which purpose it is often made to form a part of their spring or herb-broths.

VAILLANTIA, De Cand. *Vallantia*.

V. muralis, Linn. *Wall-Vallantia*. Leaves, elliptic, ovate, 4 in a whorl, smooth, as well as the calyx.

Flora Romana, p. 80.

Stem, 3 to 6 inches long, square, branched, spreading, smooth or slightly hairy; leaves, numerous, smooth; flowers, small, in the axis of the leaves; corolla, pale green; the perfect flower 4-cleft, the others 3-cleft.

Annual, flowering from March to May.

This is a curious genus of small, spreading plants, resembling *Galiums* in their general habit, but very different in the structure of their flowers. Besides this species, there are three or four others common in Italy, growing on old walls, ruins, and waste places; but they are not ornamental plants, nor applied to any particular use.

RUBIA, Linn. *Madder. Robbia*, Ital.

R. tinctorium, Linn. *Dyer's Madder*. Stem, annual, climbing; leaves, 4 to 6 in a whorl, lanceolate, netted with veins when dry, the margin rough, with reflexed prickles; corolla-segments with a long, acuminate point.

Flora Romana, p. 81.

Stem, weak, climbing or spreading, square, the angles rough with reflexed prickles; leaves, glossy above, the margins and under-side rough, with reflexed prickles; flowers, greenish-yellow, in 3-cleft axillary peduncles.

Perennial, flowering in June.

The roots of this plant are thick, succulent, and from 3 to 4 feet long, striking deep into the ground; and for the purpose of these roots it is extensively cultivated, in deep, sandy, loamy soil, in many parts of Italy, especially Lombardy—and in the South of France, Turkey, etc. In the autumn, the roots are collected and dried in kilns, and cleansed from the earth and dust, and then packed in large bags for sale, or pounded up and stamped in a mill. From them is procured the well-known red and scarlet dye so extensively used by clothiers, calico-printers, etc. These roots have the remarkable property of tinging the secretions or excretions of animals that are allowed to feed upon them; and by this means curious bony preparations are made—which show that the deposition of osseous matter, and its removal, are continually going on in the animal economy, by the alternate layers of red and white in the bones of animals alternately fed upon Madder and ordinary food, and the disappearance of all adventitious colour when Madder, as a food, is discontinued for a sufficient length of time. Besides this species of

Madder, there are several others which equally furnish the red dye, as *R. peregrina*, which is the one most commonly cultivated in Italy; and as a dye-stuff was known to the Romans from the time of Dioscorides, and probably long before his time by the ancient Greeks, who called it *Erythrodanon* or *Ereuthodanon*.

SHERARDIA, Linn. *Sherardia* or *Field-Madder*.

S. arvensis, Linn. *Blue Sherardia* or *Little Field-Madder*.

Leaves, about 6 in a whorl; flowers, in terminal heads.

Flora Romana, p. 76. *Florig. Brit.* i. 189.

Stem, procumbent at the base, 4 to 8 inches long, branched and spreading, square, smooth or hairy; leaves, ovate, lanceolate, acute, the upper ones united at the base, forming an involucre to the small terminal umbels; flowers, blue, sessile; calyx, of 4 roughish lobes, the two opposite ones bifid.

Annual, flowering during the summer months.

ASPERULA, Linn. *Woodruff*.

A. odorata, Linn. *Sweet Woodruff*. Leaves, 6 to 8 in a whorl, lanceolate, the margins rough; flowers, few, in long stalked panicles; fruit, bristly.

Flora Romana, p. 77. *Florig. Brit.* i. 190.

Stem, erect, about 6 inches high, square, smooth; leaves, with the prickles pointed forwards; flowers, white; fruit, of 2 closely united pericarpia, granulated, and clothed with hooked bristles.

Perennial, flowering in April and May.

The whole plant exhales, when drying, a highly aromatic odour, resembling new-made hay, which depends upon the benzoic acid which it contains. The flowers are said to excel in flavour, when made into an infusion, that of China tea. The Germans are said to mix it with some of their wines during fermentation, to give them a more grateful flavour; they also mix the plant with their clothes, to protect them from the depredation of insects.

XXXVI. NAT. ORD.—Caprifoliaceæ, Juss.

GENERA.

<i>Corolla</i> wheel-shaped	SAMBUCUS.
<i>Corolla</i> bell-shaped	VIBURNUM.
<i>Corolla</i> tubular or funnel-shaped.....	LONICERA.

SAMBUCUS, Linn. *Elder. Sambuco, Ital.*

S. Ebulus, Linn. *Dwarf Elder* or *Dane-wood*. Stem, herbaceous, furrowed; leaves, pinnate; leaflets, lanceolate, serrated; stipules, leafy, ovate, serrated; cymes, of 3 principal branches.

Flora Romana, p. 118. *Florig. Brit.* i. 440.

Stem, 2 to 4 feet high, simple, leafy; leaves, opposite; flowers, white, purplish outside; anthers, purple; cymes, large, terminal; fruit, a small, round, purplish-black berry, containing 3 to 5 angular seeds.

Perennial, flowering in June and July.

The whole plant has a disagreeable, fœtid smell, and possesses violent purgative and emetic properties, and is sometimes used by the country-people; but its action is so violent, as to preclude its general use.

VIBURNUM, Linn. *Guelder-Rose.*

V. tinus, Linn. *Common Laurestine. Lauro-tino, Ital.* Leaves, ovate, oblong, entire, perennial; the axis of the veins and young branches, hairy and glandular.

Flora Romana, p. 118.

A low, branched, evergreen shrub; leaves, of a leathery texture, smooth and glossy above; flowers, in rather large corymbs, white and showy; fruit, a dark glaucous purple or black berry.

Perennial, flowering in the winter and spring months.

The Laurestine is well known as one of our most ornamental and valuable shrubs, on account of its being evergreen, and flowering at a time of the year when there are so few of its companions in bloom.

LONICERA, Linn. *Honeysuckle. Madreselva, Ital.*

L. caprifolium, Linn. *Pale perfoliate Honeysuckle.* Flowers, in sessile, terminal, and axillary whorled clusters; leaves, deciduous, the upper ones united at the base, perfoliated; style, smooth.

Flora Romana, p. 102. *Florig. Brit.* i. 305.

Stem, woody, climbing several feet high by twisting itself round other stems; leaves, obovate or roundish, smooth—the lower ones on short footstalks, the upper sessile, opposite, united at the base; flowers, highly fragrant, about 2 inches long, of a yellowish colour, with a pink tube, sometimes white; berry, orange-colour, smooth, crowned by the persistent calyx.

Shrub, flowering from April.

This is the most frequent species of Honeysuckle, especially in woods and shady places, exhaling its refreshing odours in the cool of the morning and evening, or after a shower of rain; and adding greatly to the wild, rugged appearance of many of the ruins about Rome, as well as giving beauty and elegance to the shady dells and hedge-rows. The leaves are a favourite food of goats, on account of which it derives its specific name.

XXXVII. NAT. ORD.—**Labiatae**, Juss.

GENERA.

Stamens, 2.

Corolla tubular, 4-cleft, nearly equal LYCOPUS.

Corolla 2-lipped.

Upper lip concave, entire SALVIA.

Upper lip bipartite ROSMARINA.

Stamens, 4.

Upper Stamens longer than the lower.

Calyx 2-lipped..... CALMINTHA.

Calyx 5-toothed NEPETA.

Upper Stamens shorter or equal to the lower.

Corolla-tube not longer than the calyx.

Limb 4-cleft MENTHA.

Limb 5-cleft, obscurely 2-lipped.

Calyx 2 lipped, the upper 3-toothed.. THYMUS.

- Calyx* tubular, 5-toothed, nearly equal ORIGANUM.
Calyx tubular, 5-toothed, nearly equal,
 10-ribbed SATUREIA.
Calyx tubular, 5-toothed, the upper
 tooth largest, 10-ribbed SIDERITIS.
Corolla-tube much longer than the calyx.
Upper lip of very short lobes apparently
 wanting..... TEUCRIUM.
 Distinctly 2-lipped.
Calyx 2-lipped.
Upper lip truncated, 3-toothed PRUNELLA.
Upper lip 3-cleft PRASIMUM.
Calyx regular, 5 to 10-toothed; not
 2-lipped.
Corolla with its throat inflated..... LAMIUM.
Corolla with a cylindrical tube.
Calyx bell-shaped, the teeth lan-
 ceolate..... STACHYS.
Calyx salver-shaped, the teeth
 ovate, acute BALLOTA.

LYCOPUS, Linn. *Gipsy-wort.* *Licopo*, Ital.

L. Europæus, Linn. *Common Gipsy-wort.* Leaves, stalked, ovate, oblong, deeply and irregularly toothed; sterile stamens wanting; nuts, within the tube of the calyx.

Flora Romana, p. 7. *Florig. Brit.* i. 23.

Stem, 4-angled, branched, spreading, and, as well as the leaves, often slightly hairy; flowers, small, sessile, in dense whorls at the base of the upper leaves; calyx, hairy, upper segments largest; corolla, white, with purple dots, the tube hairy within.

Perennial, flowering from May to August.

The whole plant abounds in a stringent colouring matter, which dyes a good black; and from its having been used by Gipsies for the purpose of colouring their skin, it has obtained the name of Gipsy-wort.

L. exaltatus, Linn. *Tall Gipsy-wort.* Leaves, at the base pinnatifid, the lower lobes slightly toothed; sterile stamens, capitate; nuts, long.

Flora Romana, p. 7.

Similar, in its general appearance, to the above species; but the leaves are cut at the base in a pinnatifid manner, and

the corolla has 4 stamens—2 perfect, 2 abortive; and the nuts are longer.

Perennial, flowering from May to August.

SALVIA, Linn. *Sage* or *Clary*, *Salvia*, Ital.

S. verbanica, Linn. *Wild Clary* or *Sage*. Leaves, oblong, obtuse, stalked, heart-shaped at the base, sinuated, crenated, or toothed, the upper short, broad, sessile, clasping the stem; bracts, heart-shaped, acuminate; tube of the corolla as long as the calyx.

Flora Romana, p. 9. *Florig. Brit.* i. 24.

Stem, 1 to 2 feet high, 4-angled, branched, and downy; leaves, wrinkled, with sunk veins, more or less downy, the lower stalked, the upper sessile; calyx, hairy, the teeth bristle-pointed; corolla, purplish-blue.

Perennial, flowering from March to June.

The seeds of this plant produce a great quantity of mucilage, of an innocuous and insipid character, when moistened with water. It has been used for the purpose of removing dust and sand from under the eye-lids; and by its enveloping the particles, removes them with safety; from which property it has derived its name of *Clary*, or “clear-eye.”

S. clandestina, Linn. *Cut-leaved Clary* or *Sage*. Leaves, oblong, heart-shaped, the lower stalked, sinuated, crenated, or toothed, the upper oblong, acute, sessile, scarcely heart-shaped or clasping the stem; bracts, cordate, acuminate; tube of the corolla longer than the calyx.

Flora Romana, p. 9.

This species is similar to the above; but distinguished by the less deeply heart-shaped form of the upper leaves, and greater length of the corolla.

Perennial, flowering from March to June.

ROSMARINUS, Linn. *Rosemary*. *Rosemarino*, Ital.

R. officinalis, Linn. *Common Rosemary*. Leaves, sessile.

Flora Romana, p. 8.

An ever-green, low-branched shrub; leaves, opposite, linear, acute, the margins curled back, smooth above, white, and

woolly beneath; flowers, in small, opposite, axillary racemes; calyx, covered over with mealy points; corolla, blue, the lower lip 3-cleft, the middle lobe notched.

Shrub, flowering all the year.

The leaves of this plant furnish, by distillation, a pale essential oil of great fragrance, which was formerly much esteemed in the cure of headache, nervous affections, etc. Rosemary is considered an emblem of fidelity; it was worn at weddings and funerals, and is still used to deck the corpses of children and young people, which are sometimes dressed in the gayest festive robes, and their faces painted ruddy as in health, and carried in procession through the streets of Rome, to the church, and there exhibited as a public spectacle. This custom is not nearly so frequent now as it used to be some years since.

CALMINTHIA, Moench. *Calamint. Calaminta*, Ital.

C. nepeta, Clar. *Lesser Calamint*. Leaves, ovate, obtusely serrated, pale beneath, on short footstalks; calyx, subcampanulate, obscurely 2-lipped, the teeth nearly equal; flowers, in branched whorls; nuts, roundish, almost smooth.

Florig. Brit. i. 807. Thymus Nepeta. Flora Romana, p. 197.

Stem, erect, obtusely angular, branched, downy; leaves, downy, especially on the under-side; flowers, numerous, in branched cymose whorls, on an elongated, common stalk; calyx, ribbed, the throat surrounded with a dense ring of white hairs; corolla, inflated upwards, pale purple, the lower lip spotted with white and purple dots.

Perennial, flowering in May and June.

NEPETA, Linn. *Cat Mint. Gattaria*, Ital.

N. glechoma, Benth. *Ground Ivy*. Leaves, kidney-shaped, deeply crenated; whorls, axillary, stalked, 3 to 6-flowered; calyx, teeth ovate, bristle-pointed, nuts oblong, with impressed dots.

Glechoma hederacea, Linn. *Flora Romana*, p. 192. *Florig. Brit. ii. 810.*

Stem, procumbent, obtusely angular; leaves, on footstalks, more or less downy, paler, and veiny beneath; calyx, mouth oblique, the teeth ciliated; corolla, downy, the tube

long, cylindrical, pale lilac, the lips violet, spotted in the throat; anthers, before bursting, converging together into the form of a cross.

Perennial, flowering in March and April.

This is a very variable plant in size and hairiness, and the colour of the flowers vary in their intensity; sometimes they are quite white. The whole plant was formerly esteemed for the many virtues that it was supposed to possess; but it is not now regarded as of any value, except as a tea by the country people, for the relief of coughs and colds.

MENTHA, Linn. *Mint*. *Menta*, Ital.

M. rotundifolia, Linn. *Round-leaved Mint*. Stem, erect; leaves, sessile, sub-ovate, rugose, crenato-serrated, downy above, shaggy beneath; spikes, interruptedly cylindrical; bracteas, lanceolate; calyx, hairy, the throat naked.

Flora Romana, p. 191. *Florig. Brit.* ii. 798.

Stem, erect, 2 to 3 feet high, hairy; leaves, hairy, green above, pale and shaggy beneath; calyx, small; corolla, about as long again as the calyx, pale pink; stamens, protruding; seeds, small, angular, almost black.

Perennial, flowering in July and August.

The whole plant has a strong, aromatic odour, which is retained many years after it is dried, but it is not used for any particular purpose.

THYMUS, Linn. *Thyme*. *Teino*, Ital.

T. serpyllum, Linn. *Wild Thyme*. Stem, recumbent, whorls in racemose heads; leaves, ovate or oblong, on short stalks, flat and fringed with long hairs; upper lip of corolla, ovate, 4-angled, notched; upper lip of calyx, with short, ovate, lanceolate teeth, the lower with awl-shaped, ciliated teeth.

Flora Romana, p. 197. *Florig. Brit.* ii. 805.

Stem, slender, branched, entangled, obtusely angular, downy; leaves, numerous, small, more or less downy, paler beneath; flowers, mostly in terminal, racemose heads, with 1 or 2 distant whorls; corolla, about as long again as the calyx, varying in colour from deep rose to white, lower lip often spotted.

Perennial, flowering from June to August.

Wild Thyme possesses the sensible qualities of the garden Thyme, *T. vulgaris*, though in a less degree. It is a very common, but variable plant, in its appearance, and the odour which it exhales. It is commonly supposed that sheep grazing on downs where this plant is abundant, produce mutton of a remarkably fine flavour. It is probable, however, that the fact of the mutton being superior, does not depend upon the sheep feeding upon the Thyme; the superiority of the natural grasses and unforced herbage, which grow where the Thyme is wild being rather the real cause. Bees are extremely fond of the fragrant flowers of the plant, and the honey produced where it abounds is of a fine quality and flavour.

ORIGANUM, Linn. *Marjoram. Maggiorana*, Ital.

O. vulgare, Linn. *Common Marjoram*. Stem, erect, panicled above; flowers, in roundish, crowded heads; bractæas, purple, larger than the calyx; leaves, broadly ovate, acute, stalked.

Flora Romana, p. 196. *Florig. Brit.* ii. 805.

Stem, 1 to 2 feet high, obtusely angular, mostly of a purplish hue; leaves, entire or toothed, paler and more hairy beneath, and scattered over with glandular dots; flowers, in globose heads; calyx, throat surrounded with white hairs; corolla, tube dilated, purplish.

Perennial, flowering from June to August.

The leaves of this plant abound in a volatile oil, of an agreeable aromatic odour, and warm, pungent taste, which is obtained by distillation with water; it is acrid and irritating. The infusion was esteemed as a warm tonic, useful in debility of the stomach; but its use is now very limited. The *O. majorana* is cultivated as a pot herb, and has a pleasant and less acrid flavour than the *O. vulgare*; but it is not now much used for culinary purposes. The hairs of the stem and leaves are extremely curious; when examined with a magnifying power, they are seen to be composed of a number of elongated cells, and each cell alternately compressed.

SATUREIA, Linn. *Savory*. *Santoreggia*, Ital.

S. Græca, Linn. *Grecian Savory*. Calyx, bristly, the mouth in fruit closed with hairs; leaves, ovate, lanceolate, bristly, beneath veiny; peduncles, axillary, 3 to 6-flowered; bractea, minute.

Flora Romana, p. 190.

Stem, shrubby, slender, branched, about a foot high, clothed with short woolliness; leaves, on short footstalks, the margin curled back, paler beneath, with a strong mid-rib and lateral veins; flowers, small; corolla, scarcely longer than the calyx, the tube downy, the mouth white, spotted with 2 or 3 spots.

Perennial, flowering in May and June.

SIDERITIS, Linn. *Iron-wort*.

S. Romana, Linn. *Roman Iron-wort*. Herbaceous; leaves, elliptic, lanceolate, tapering into a footstalk, serrated towards the point; calyx, as long as the corolla, the upper lip ovate, undivided, the lower 4-toothed.

Flora Romana, p. 190.

Stem, erect, 6 to 12 inches high, with spreading branches, and, as well as the leaves, clothed with soft pubescence; flowers, about 6 in a whorl, nearly sessile; calyx, 10-ribbed; corolla, pale pink, the upper lip crenated or notched, the lower unequally lobed, the middle one larger, broad, sub-crenated.

Annual, flowering in May and June.

TEUCRIUM, Linn. *Germander*. *Camedrio*, Ital.

T. flavum, Linn. *Yellow Germander*. Leaves, stalked, sub-triangular, ovate, obtusely crenated, the base sub-truncated; flowers, in racemose whorls of about 6; stem, ascending, shrubby.

Flora Romana, p. 190.

Stem, 1 to 2 feet high, and, as well as the leaves, clothed with soft pubescence, branched, ascending; leaves, numerous, the stalk flat; flowers, numerous, large, in racemose whorls; calyx, large, 5-toothed; corolla, large, downy, pale yellow.

Perennial, flowering in May and June.

This is a large-flowered, handsome plant, growing in crowded bushes, and is very frequent upon many of the ruins and old walls about Rome.

PRUNELLA, Linn. *Self-heal.* *Brunella*, Ital.

P. vulgaris, Linn. *Self-heal.* Filaments, terminating in a spinous tooth; calyx, with the upper lip broad, truncated, the teeth small, bristle-pointed, the lower of 2 lanceolate, ciliated teeth; leaves oblong, ovate, obtuse, stalked, entire, toothed, or laciniated.

Flora Romana, p. 198. *Florig. Brit.* ii. 829.

B. pinnatifida. Leaves, pinnatifid.

P. laciniata, Linn. *Flora Romana*, p. 199.

Stem, erect, 6 to 12 inches high; leaves, distant, more or less hairy, paler beneath; flowers, in an oblong, terminal, crowded, whorled spike, having at the base a pair of sessile leaves, and each whorl a pair of broad, obtuse, or acute bracteas, mostly tinged with purple; calyx, nearly sessile; corolla, deep, purplish-blue, sometimes white.

Perennial, flowering from May to August.

PRASIUM, Linn. *Hedge Nettle.*

P. majus, Linn. *Great Hedge Nettle.* Leaves, ovate, oblong, serrated.

Flora Romana, p. 199.

Shrubby, evergreen; leaves, stalked, pale green, smooth and shining; flowers, axillary, solitary at the top of the branches; calyx, bell-shaped, the upper lip 3-cleft, the lower bifid; corolla, white; seeds, 4 berries.

Perennial, flowering in May and June.

LAMIUM, Linn. *Dead Nettle.* *Urtica morta*, Ital.

L. vulgatum, Benth. *Common Dead Nettle.* Leaves, ovate, lanceolate, heart-shaped or truncated at the base, deeply and unequally serrated; calyx, with awl-shaped teeth; corolla, with a long tube curved upwards, with a ring of hairs within the throat, dilated, upper lip oblong, arched, concave, the lateral lobes of the lower one with a long, awl-shaped tooth.

Florig. Brit. ii. 811.

A. album. Flowers, white; tube of the calyx, straight.

Florig. Brit. ii. 811. *L. album*. *Flora Romana*, p. 193.

B. maculatum. Flowers, purple; tube of the calyx, somewhat curved; leaves, mostly marked with white blotches.

Florig. Brit. ii. 812. *L. maculatum*. *Flora Romana*, p. 192.

Stem, erect, 4-angled, 12 to 18 inches high; leaves, hairy, deep green above, paler beneath, often marked with white spots or blotches, the lower ones with long footstalks, the upper nearly sessile; flowers, 10 to 20, nearly sessile, in axillary whorls; calyx, ribbed, the teeth mostly ciliated; corolla, large, downy, white, pink or purple, the lower lip often beautifully spotted; stamens, curved beneath the upper lip; anthers, dark purple, hairy.

Perennial, flowering from March to October.

The leaves of this genus of plants have a disagreeable smell, and are refused by all cattle as food. The flowers are a favourite resort of bees, butterflies, and many other insects, on account of the sweet fluid which is secreted in the bottom of the tube.

STACHYS, Linn. *Wound-wort*. *Stachi*, Ital.

S. Sylvatica, Linn. *Hedge Wound-wort*. Stem, erect, solid, branched and hairy, glandulose above; leaves, stalked, ovate, heart-shaped, serrated, whorls of 6 to 10 flowers; calyx, with triangular, awl-shaped, bristle-pointed teeth; bractea, minute.

Flora Romana, p. 194. *Florig. Brit.* ii. 820.

Stem, 2 to 3 feet high, rough, with reflexed hairs; leaves, of a thin texture, dark green, paler beneath, the lower broadly heart-shaped, the upper narrow, and the floral ones lanceolate; flowers, dark reddish-purple, beautifully spotted and striped; calyx, woolly; stamens, curved beneath the upper lip.

Perennial, flowering from May to August.

BALLOTA, Linn. *Horehound*. *Marrobia*, Ital.

B. nigra, Linn. *Stinking black Horehound*. Leaves, ovate, stalked, crenato-serrated; calyx, with broad, ovate, acute, bristle-pointed teeth.

Flora Romana, p. 196. *Florig. Brit.* ii. 824.

B. alba. Flowers, white, the whole plant pale-green, and clothed with close, slight pubescence, almost smooth.

Stem, erect, 2 to 3 feet high, many branched and spreading, square, hollow, more or less clothed with pubescence; leaves, numerous; flowers, numerous, in crowded, axillary whorls; calyx, strongly-ribbed, the throat dilated and veiny; corolla, pale purple or white, scarcely longer than the calyx, downy; stamens, curved beneath the upper lip.

Perennial, flowering from June to August.

This plant is considered a useful remedy in scurvy and many other cutaneous eruptions, by the country people, who boil it, and use it as a vegetable at their meals.

XXXVIII. NAT. ORD.—Scrophularineæ, Juss.

GENERA.

<i>Stamens</i> 2.....	VERONICA.
<i>Stamens</i> 4.	
<i>Calyx</i> inflated	RHINANTHUS.
<i>Calyx</i> tubular 4-cleft.	
<i>Capsule</i> obtuse or notched	EUPHRASIA.
<i>Capsule</i> with a pointed apex	TRIXAGO.
<i>Calyx</i> 5-cleft or 5-partite.	
<i>Corolla</i> personate.	
Spurred at the base.....	LINARIA.
Not spurred at the base.....	ANTIRRHINUM.
<i>Corolla</i> sub-globose	SCROPHULARIA.

VERONICA, Linn. *Speedwell*. Veronica, Ital.

Æ Flowers in axillary racemes.

V. Beccabunga, Linn. *Brooklime*. Leaves, stalked, elliptical, obtuse, obtusely-serrated; racemes, opposite, fruit-stalks spreading; capsules, roundish, tumid, slightly notched; stem, procumbent at the base and rooting.

Flora Romana, p. 5. *Florig. Brit.* i. 8.

Stem, creeping, succulent; leaves, opposite, on short foot-stalks, smooth; racemes, long, of numerous bright blue flowers, sometimes pink.

Perennial, flowering during the summer months.

Brooklime formerly enjoyed a considerable reputation for the cure of numerous diseases, especially those of the skin. It is gathered in the spring, and used as a salad with water-cresses; for which purpose it is sold in the markets and streets of Rome.

V. Chamadrys, Linn. *Germander Speedwell*. Leaves, nearly sessile, ovate, heart-shaped, deeply serrated; racemes, opposite fruit-stalks, ascending; capsules, flat, inversely heart-shaped, deeply notched, ciliated, shorter than the calyx; stem, with two opposite, longitudinal, hairy lines.

Flora Romana, p. 6. *Florig. Brit.* i. 11.

Stem, ascending, rooting at the base; leaves, opposite, veins numerous, sunk, hairy on the under side; flowers, large, numerous, a beautiful blue, with darker veins; calyx, segments lanceolate, acute.

Perennial, flowering in April and May.

V. officinalis, Linn. *Common Speedwell*. Leaves, opposite, ovate, stalked, serrated; racemes, lateral, dense, many-flowered; fruit-stalks, erect; capsules, inversely heart-shaped, obtusely notched, longer than the calyx; stem, procumbent, spreading, hairy all around.

Flora Romana, p. 8. *Florig. Brit.* i. 9.

Stem, branched at the base and rooting; leaves, ovate or elliptic; racemes, longer than the leaves; corolla, rather small, pale blue, with darker veins; capsules, truncated at the end, sometimes entire.

Perennial, flowering from March to August.

This plant was formerly used in medicine, as an expectorant; but, from the little benefit which has been produced from its use, it is now neglected. In Sweden, and some parts of Germany, it is said to be dried and used in the place of China tea; but it has a bitter, disagreeable flavour, very different from the real tea.

This pretty little plant is very variable in size: if found on the ruins of the Colosseum, where it enjoys a sufficient supply of moisture, it becomes fully developed; but, as it is sometimes situated where it is exposed to the full influence of the sun and drought, it is smaller and more hairy. It is extremely interesting to observe with what care Nature has provided all living objects with means necessary to perpetuate

its individuality, and to maintain its existence, under all the varied changes to which they may be exposed. The little plant before us furnishes a beautiful example of that beneficence. It will be found growing among the lower ruins in its usual rich luxuriance, where it gets all its wants supplied, and its stem, and leaves, and flowers fully developed; but higher up on the broken arches, where the accumulated soil is sufficient to give the scattered seed birth, but not so great as to maintain the necessary regular supply of moisture, the air absorbs its portion—the sun evaporates it—and the winds carry it away too rapidly—and the dews of night, though refreshing, penetrate not to the slender roots—consequently the plant must suffer, perhaps perish; and, unable to perpetuate its species, unless some further provision is made for it more than is necessary for its companion luxuriating in the deep soil below; but Nature, to accomplish its purposes, has furnished the little plant with additional means of supplying itself with the needful moisture, for we find the plant is much smaller, and furnished with fewer leaves; consequently, there is less surface from which evaporation of its moisture escapes; the roots are longer in proportion to the size of the plant, and are furnished with small, fleshy tubers, which are reservoirs of nutriment, laid up in a season of abundance, in reserve for a time of scarcity. The whole plant is much more abundantly clothed with roughish hairs, and these, towards sun-set, when the moisture of the atmosphere begins to be deposited on the earth, spread themselves on every side, and each little point becomes a centre of attraction to the particles of moisture, and faithfully conveys each to the parent stem through its extended cells. This process is continued during the whole of the night, until the return of the rising sun, whose rays, reflected from the earth, dissipate the fallen moisture into the higher atmospheric space; then the hairs on all parts of the little plant change their direction, and, in place of being pointed outwards and spreading, lie close to the surface, and form, as far as they can, a covering, and thus prevent the sun's rays from acting so powerfully upon the plant, and also preserving the moisture which they have collected during the night, from being so rapidly evaporated.

By such means, even in very arid situations, we have seen plants of this species of *Veronica* contending against the greatest disadvantages, produce a few flowers, and perfect their seeds; and thus prove that the parent had not uselessly cast its seed upon the surface of the earth.

Racemes terminal.

V. arvensis, Linn. *Wall Speedwell*. Leaves, ovate, heart-shaped, crenate, lower ones stalked, uppermost lanceolate, entire, resembling bractea, longer than the flowers; racemes, lax, many-flowered; peduncles, very short; capsules, inversely heart-shaped, broader than long, compressed, ciliated on the keel.

Flora Romana, p. 6. *Florig. Brit.* i. 15.

Stem, erect or ascending, 2 to 12 inches high, branched at the base; leaves, hairy, the lower opposite the upper, alternate; flowers, small, pale blue or white, about as long as the calyx; capsules, smooth, with rounded lobes, longer than the styles; calyx segments, lanceolate, unequal.

Annual, flowering from March to July.

Flowers axillary, solitary.

V. agrestis, Linn. *Green procumbent Field Speedwell*. Leaves, stalked, ovate-heart-shaped, deeply serrated; calyx segments oblong, obtuse; capsules 2, turgid keeled lobes; seeds, about 6 in a cell.

Flora Romana, p. 6. *Florig. Brit.* i. 13.

Stem, procumbent, 3 to 12 inches long, branched at the base; leaves, mostly opposite, usually longer than the pedicles; flowers, small, bright blue, white at the base; calyx segments longer than the capsules, dilating, and becoming veiny as the fruit advances to maturity; capsules, sometimes hairy, at others ciliated on the keel only.

Annual, flowering from February to April.

V. polita, Fries. *Grey procumbent Speedwell*. Leaves, stalked, ovate, heart-shaped, deeply serrated; calyx segments, broadly ovate, acute; capsules, of 2 turgid lobes; seeds, 8 or 10 in a cell.

Florig. Brit. i. 13.

Stem, procumbent, 3 to 12 inches long, branched at the base; leaves, mostly shorter than the pedicles, the lower opposite

the upper, alternate; calyx segments, longer than the capsules, dilating, and becoming veiny as the fruit advances to maturity; capsules, with short, dense pubescence; flowers, small, entirely blue.

Annual, flowering from February to August.

V. Buxabaumii, Ten. *Buxbaum's Speedwell*. Leaves, stalked; ovate, heart-shaped, deeply serrated; calyx segments, lanceolate, acute; capsule, obcordate, of 2 spreading lobes, compressed upwards, and sharply keeled; seeds, about 8 in a cell.

Florig. Brit. i. 17.

Stem, procumbent, long, branched at the base, and rooting; leaves, shorter than the peduncles, hairy; flowers, large, handsome, dark blue, with purplish veins; capsules, large.

Annual, flowering from April during the summer months.

V. hederifolia, Linn. *Ivy-leaved Speedwell*. Leaves, with 5 to 7 large, tooth-like lobes, stalked; calyx segments, heart-shaped, ciliated; capsules, of 2 turgid lobes; seeds, 2 in each cell.

Flora Romana, p. 6. *Florig. Brit.* i. 14.

Stem, procumbent, branched, scattered over with hairs; leaves, somewhat fleshy, the upper ones nearly sessile; flowers, small, pale blue or white, with purple veins; the pedicles reflexed in fruit; capsules, smooth; seeds, large.

Annual, flowering from February to June.

V. cymbalaria, Bodard. *Twining Speedwell*. Leaves, roundish, heart-shaped, about 7, lobed, stalked; calyx segments, elliptic-ovate, spreading in fruit; capsules, globoso-lobate, hairy.

Flora Romana, p. 6.

Stem, procumbent, branched, slightly hairy; leaves, somewhat fleshy, the upper ones nearly sessile; flowers, rather large, white, the throat greenish; calyx segments, obtuse, spreading, hairy in fruit; capsule, lobes somewhat 4-angled, hairy; seeds, large.

Annual, flowering from February to May.

This is a very pretty, graceful plant, hanging down in graceful tufts from the tops and crevices of old walls and ruins—often in large patches—and is one of the earliest spring

flowers. It greatly resembles, in its general appearance, *Anterrhinum cymbalaria*.

V. acinifolia, Linn. *Basil-leaved Speedwell*. Leaves, ovate, crenated, sessile, the floral ones lanceolate, entire; flowers, on spreading pedicles, twice as long as the calyx; capsules, compressed, semi-bifid, with orbicular lobes, as long as the calyx.

Flora Romana, p. 7.

Stem, erect, branched, 2 to 10 inches high; leaves, opposite, sessile, slightly crenated, the upper alternate, small, entire; flowers, axillary, pale blue, on pedicles about as long as the leaves; calyx, with 2 segments larger than the others; the whole plant scattered over with glandular hairs.

Annual, flowering in February and March.

RHINANTHUS, Linn. *Yellow Rattle*. *Cresta di gallo*, Ital.

R. Crista galli, Linn. *Common Yellow Rattle*. Leaves, oblong, lanceolate, serrated; flowers, in lax spikes; calyx, smooth; corolla, with the lobes of the upper lip short, roundish, ovate; style, included; bractea, ovate, cut in a serrated manner; seeds, with a broad, membranous margin.

Flora Romana, p. 201. *Florig. Brit.* ii. 845.

Stem, erect, about a foot high, obtusely angular, often spotted or streaked with purple; leaves, opposite, sessile; flowers, sessile in the axis of the green bractea; corolla, yellow, the tube straight, about as long as the calyx, the upper lip with 2 lateral, very blunt lobes, shorter than broad, bluish; capsules, dry and membranous, compressed, with a deep furrow in the middle; seeds, numerous, with a thin, membranous margin.

Annual, flowering in May.

The seeds, when they are ripe, become loose, and rattle in the hardened, membranous capsule; hence it has derived the common name of *Yellow Rattle*.

EUPHRASIA, Linn. *Eye-Bright*. *Eufrasia*, Ital.

E. scrotina, Lam. *Late Eye-Bright*. Leaves, lanceolate, acuminate, slightly tapering towards the base, remotely serrated; bractea, oblong, lanceolate, shorter than the

flowers; corolla, densely pubescent, the upper lip compressed, obtusely truncated, the lower with oblong, obtuse segments; anthers, with 2 equal points, hairy.

Flora Romana, p. 200.

Stem, about a foot high, erect; flowers, in terminal, one-sided spikes, purplish; stamens, partly protruding; the whole plant downy.

Annual, flowering in September and October.

E. lutea, Linn. *Yellow Eye-Bright*. Leaves, linear, lanceolate, slightly toothed, the upper linear, entire; corolla, ciliated, the upper lobe compressed, obtusely truncated; stamens, protruding; anthers, smooth, free.

Flora Romana, p. 201.

Stem, about a foot high, branched and spreading; flowers, in terminal, one-sided spikes, yellow or orange-coloured; stamens, protruding beyond the corolla, the anthers smooth, free; the whole plant downy.

Annual, flowering in September and October.

This is a very pretty, gay-looking, flowering plant, growing very common in most parts of Italy, especially in mountain or hilly districts, blooming when most of the other flowers are over.

TRIXAGO, Link. *Trixago*.

T. latifolia, Reich. *Broad-leaved Trixago*. Stem, erect, nearly simple; leaves, ovate, toothed in a palmate manner; flowers, sessile, spicate; segments of the lower lip obtuse.

Euphrasia. *Flora Romana*, p. 200.

Stem, 4 to 5 inches high, simple, or branched at the base; leaves, ovate or oblong, the floral ones especially deeply toothed in a palmate manner; flowers, purple or white, or variegated, the upper lip short, notched, the lower 3-lobed, obtuse; capsule, 2-celled; the whole plant hairy.

Annual, flowering in April and May.

LINARIA, Juss. *Toad-flax*. *Linaria*, Ital.

L. cymbalaria, Mill. *Ivy-leaved Toad-flax*. Leaves, rounded, heart-shaped, 5-lobed, stalked, smooth; stem, procumbent.

Flora Romana, p. 202. *Florig. Brit.* ii. 860.

Stem, round, slender, trailing, branched; leaves, alternate, smooth, somewhat fleshy; flowers, solitary, axillary, on long, slender, spreading stalks, pale blue or purplish, with deeper-coloured veins, and a yellowish palate; capsules, subglobose.

Perennial, flowering from January to October.

The long festoons, which are formed by the many-branched, slender stems of this pretty, graceful plant, are highly ornamental to old walls, rocks and ruins, upon which it fixes itself, and seems to revel in the conquest which time has gained o'er the proudest monuments of man's construction; and though

High on the rock its wild flowers shine,
In beauty bathed and joy divine;
In these dark nooks to them are given
The sunshine and the dews of heaven.—WILSON.

L. vulgaris, Mill. *Common Yellow Toad-flax*. Smooth, erect; leaves, linear, lanceolate, numerous, crowded; racemes, terminal, crowded; calyx, of oblong, acute segments, shorter than the spur; seeds, with a flat, orbicular wing, rough and tuberculated in the centre.

Flora Romana, p. 203. *Florig. Brit.* ii. 862.

Stem, erect, 1 to 2 feet high; leaves, 3-ribbed, paler beneath; flowers, in a terminal, crowded, many-flowered raceme; the common stalk and pedicles scattered over with glandular hairs; corolla, large, yellow; the tube with an awl-shaped spur at the base; the palate, large, swollen, deep orange-coloured, hairy within; capsule, ovate.

Perennial, flowering in May and June.

This is a very common and variable plant. Sometimes a remarkable variety is found, having all the flowers in five regular parts, viz.: 5 spurs, a 5-cleft limb, and the palate formed into a cup; stamens, 5, mostly abortive. The whole of the flowers on a plant thus formed are rare; but plants with one or two flowers of this formation, and the others of the usual shape are not rare. The leaves have a bitterish taste; and, when bruised, a faint smell, resembling elder leaves. It has been used in various diseases; but is now out

of use. In Sweden, the plant boiled in milk is used for the purpose of destroying flies.

ANTIRRHINUM, Linn. *Snap-dragon*. *Antirrino*, Ital.

A. majus, Linn. *Great Snap-dragon*. Leaves, lanceolate, opposite, and alternate; flowers, racemose; calyx, segments ovate, obtuse, much shorter than the corolla.

Flora Romana, p. 204. *Florig. Brit.* ii. 858.

Stem, erect or ascending, 1 to 2 feet high, clothed with close, soft down, glandular and viscid above; leaves, dark green, paler beneath; flowers, numerous, crowded, large, $1\frac{1}{2}$ inches long, rose-coloured, purplish-red or white, or variegated; the palate, yellow, prominent, hairy within; capsules, obliquely ovate; seeds, numerous, small.

Perennial, flowering from April to August.

This is a very handsome, showy plant, extremely ornamental, on ruins, old walls, and rocks. It is a generally cultivated plant, and many very beautiful and elegant varieties are produced.

A. orontium, Linn. *Lesser Snap-dragon*. Leaves, lanceolate, alternate and opposite; spike of a few, distant, axillary flowers; calyx, with lanceolate segments, longer than the corolla.

Flora Romana, p. 204. *Florig. Brit.* ii. 859.

Stem, erect, from a few inches to 2 feet high; leaves, tapering into a footstalk, the lower sometimes ovate, more or less downy; flowers, purplish pink, small; calyx, becoming twice as long as the corolla; capsules, downy, obliquely ovate; seeds, small, numerous, black, furrowed.

Annual, flowering from May to August.

SCROPHULARIA, Linn. *Fig-wort*. *Scrofolaria*, Ital.

S. peregrina, Linn. *Nettle-leaved Fig-wort*. Leaves, heart-shaped, acutely serrated, smooth and shining, the upper alternate; peduncles, axillary, few-flowered; calyx, segments ovate, lanceolate, acuminate.

Flora Romana, p. 205.

Stem, about 2 feet high, somewhat branched; leaves, with large, acute teeth, often doubly serrated, the footstalk

slightly decurrent; flowers, in small, axillary corymbs, few purplish red; the scale heart-shaped; style, included within the corolla.

Annual, flowering in May and June.

The name of this genus is from *scrofula*, a disease very general in some countries, which some of the species of this genus were said to cure.

XXXIX. NAT. ORD.—*Oleaceæ*, Lind.

GENERA.

- Fruit* a 1 to 2-seeded drupe, with a hard, bony covering *OLEA*.
Fruit a 1-seeded drupe, with a fragile covering *PHILYREA*.
Fruit a fleshy berry..... *LIGUSTRUM*.

OLEA, Linn. *Olive*. *Olivo*, Ital.

O. Europæa, Linn. *Olive Tree*. Leaves, opposite, lanceolate, entire, hoary beneath; branches, angular; flowers, compound, racemose, axillary clusters.

Flora Romana, p. 4.

A tree 20 to 30 feet high, many-branched, the young branches angular and hoary; leaves, glaucous green, white and hoary beneath, evergreen; flowers, yellowish-green; fruit, an oblong, 1 or 2-seeded drupe, with a hard, bony covering.

Tree, flowering in May.

The Olive Tree is cultivated throughout Italy, the South of France, Spain and Portugal; it seldom attains a greater height than 30 feet; its trunk, from decay, often assumes remarkable, contorted forms; it lives and thrives for so long a period, that it is said some trees, growing in the neighbourhood of Terni, and which may be seen near the road-side going to the celebrated falls, have existed from the time of Pliny. It is a tree of slow growth, and is many years in arriving at perfection, and flourishes best on calcareous hill-sides not far from the sea, and nowhere more profitably than on the mountain-sides between Genoa and Lucca, the whole

of which district is esteemed for the sweetness of its oil. The fruit of the Olive, when gathered before it is ripe, is pickled by steeping it in quick-lime and water, or an alkaline solution, or pure water only, and then put into a strong solution of common salt and water, and bottled for use. In this state they are commonly eaten at meals, and are esteemed as nutritious, and thought useful in exciting the appetite and promoting digestion; but the greatest value of the Olive is from the oil which the ripe fruit affords. The olives for oil are gathered as they fall from the trees; they are then crushed into a paste, pressing out the oil through a woollen bag. The oil thus obtained is of the best quality, and called the *virgin* oil. Another quality is obtained by pouring boiling water upon the pulpy mass, and then subjecting it to greater pressure. The oil is then skimmed from the surface of the water. This is the ordinary oil used for burning, and all common purposes; but a third, and very inferior kind, is produced by boiling the remaining pulp in water, and skimming the oil from the surface when it is cold. This is used for the purpose of making soap. The wood is a light, yellowish-brown colour, variegated, with darker veins; it is hard and durable, and much used by cabinet-makers for small, ornamental articles of furniture, turning, etc.

PHILLYREA, Linn. *Phillyrea*.

P. media, Linn. *Twiggy Phillyrea*. Leaves, ovate, lanceolate, or oblong, serrated or entire; drupe, with a pointed apex.

Flora Romana, p. 4.

Shrub, 3 to 6 feet high, with slender, tough branches; leaves, opposite, evergreens; flowers, small, whitish green, in small, axillary, racemose clusters.

Shrub, flowering in March and April.

LIGUSTRUM, Linn. *Privet*. *Ligustro*, Ital.

L. vulgare, Linn. *Common Privet*. Leaves, oblong, lanceolate, smooth; flowers, in dense, terminal panicles.

Flora Romana, p. 4. *Florig. Brit.* i. 4.

Shrub, 6 to 8 feet high, the bark smooth, and branches slender; leaves, opposite and alternate, on short footstalks; flowers, white, turning brown before falling; fruit, blackish, purple, or yellow, round, pulpy.

Shrub, flowering in June and July.

The Privet is a well-known, ornamental shrub, and is remarkable from its being one of the few which will flourish in confined, smoky situations, and is so patient of the pruning shears as to be often cut into various fantastic forms. The fruit is the favourite food of many birds, and especially pheasants and partridges.

XL. NAT. ORD.—*Plantagineæ*, Juss.

PLANTAGO, Linn. *Plantain*. *Plantaggine*, Ital.

Spike solitary, on a scape.

P. major, Linn. *Greater Plantain*. Leaves, broadly ovate, on long footstalks; spike, very long, cylindrical; cells of the capsules, many-seeded.

Flora Romana, p. 75. *Florig. Brit.* i. 192.

Leaves, numerous, radical, large, waved or toothed, many-ribbed; flowers, small, very numerous, in an elongated, cylindrical spike, each flower with a small, lanceolate bractea at the base.

Perennial, flowering during the summer months.

Sometimes plants are found with the small bractea expanded into small leaves, beautifully shewing that the bractea are only modified leaves. The seeds are a favourite food of small birds. The whole plant was formerly supposed to possess rare medicinal properties; but it is not now used for any special medicinal properties which it possesses.

P. lanceolatum, Linn. *Ribwort Plantain*. Leaves, lanceolate; scape, angular; spike, ovate; capsule, of 2 single-seeded cells.

Flora Romana, p. 75. *Florig. Brit.* i. 194.

Leaves, numerous, spreading or erect, tapering, at the base, into a channelled footstalk, about 5-ribbed, entire, or

slightly toothed; flowers, numerous, in a crowded, ovate head, upon a long, slender, downy scape; bractea, hairy; stamens, long, with large, pale anthers.

Perennial, flowering during the summer months.

This is an extremely variable-sized plant, often not more than 2 inches high, and, not unfrequently, it is found 18 inches; sometimes the scape is proliferous, bearing several small heads, some sessile, others stalked. It is very common in pasture or mowing grass, but is not now so much esteemed for agricultural purposes as formerly.

Stem bearing many spikes.

P. psyllium, Linn. *Flea-wort*. Stem, herbaceous, erect, branched; leaves, linear, entire or toothed; spikes, ovate; bractea, awl-shaped, with an ovate base; calyx-segments, lanceolate, acuminate.

Flora Romana, p. 77.

Stem, about a foot high, more or less branched, and, as well as the whole plant, clothed with short, rigid pubescence; leaves, numerous, narrow, about an inch long; spikes, ovate, numerous, on slender erect stalks at the end of the stem and branches; bractea, rather longer than the flowers, more or less incurved.

Perennial, flowering in May and June.

The seeds of this species are very mucilaginous, and have been used for the purpose of making demulcent drinks; also in the place of linseed tea, or marsh-mallow root, for which they form a good substitute.

XLI. NAT. ORD.—*Verbenaceæ*, JUSS.

VERBENA, Linn. *Vervain*. *Verbena*, Ital.

V. officinalis, Linn. *Common Vervain*. Stem, erect; spikes, filiform, paniculated; leaves, ovate, oblong, rough, deeply cut and serrated, or trifid and cut, the footstalk winged.

Flora Romana, p. 199. *Florig. Brit.* ii. 868.

Stem, from 1 to 2 feet high, square, striated; leaves, oppo-

site, pale on the under-side, and rough, with short hairs; flowers, small, pale purple, rather distant; calyx, 5-angled; corolla, tube slender, dilated upwards.

Perennial, flowering during the summer months.

Vervain was formerly called *Herba Sacra*, and has still the common name of *Erba San Giovanni* among the Italians—a name for it which seems to have arisen from its having been used in the sacred ceremonies, etc., of the ancient pagans. It is said, that the worshippers of the sun hold branches of Vervain in their hands during the time they are performing their sacred services; and in Virgil's *Pastoral* (viii. 89) it is said,—

Bring running water; bind those altars round
With fillets, and with *vervain* strew the ground.

The Druids held Vervain in great veneration; and before they dared gather it, made sacrifice to the earth in which it grew: and Pliny says, that they used it in casting lots, in drawing omens, and other magical arts; and according to Dryden, they used it as food:—

Some scatter'd pot-herbs here and there he found,
Which, cultivated with his daily care,
And bruised with *vervain*, were his daily fare.

Vervain was also said to possess numberless virtues, both in the cure of diseases when taken as a medicine, or worn about the neck as an amulet; and when the Romans dispatched their heralds at arms to declare war, or proclaim peace to other nations, they wore a wreath of Vervain. Drayton, in his "*Elysium of the Muses*," in allusion to this practice, says,—

A wreath of *vervain* heralds wear,
Amongst our garlands named;
Being sent their dreadful news to bear—
Offensive war proclaim'd.

And further, in allusion to its being used by the dark workers of witchcraft, he says,—

The night-shade strows to work him ill;
 Therewith the *vervain* and the dill,
 That hindreth witchcraft of their will.

From these ancient uses of the plant, it has been, with good reason, selected, in the language of flowers, as the emblematic sign of enchantment. The potential virtues said to have been found in this plant, are not confirmed by modern usages and investigations; it is neither possessed of powers of enchantment, nor of valuable medicinal properties; consequently, it is entirely neglected.

XLII. NAT. ORD.—*Orobancheæ*, Juss.

OROBANCHE, Linn. *Broom-rape*. *Orobanche*, Ital.

O. minor, Sutt. *Lesser Broom-rape*. Stem, simple, striated; sepals, many-ribbed, ovate, with a slender, awl-shaped point, entire or bifid, as long as the tube of the corolla, which is tubular, curved, the limb waved and obtusely toothed, the lower lip of roundish, unequal-notched lobes; stamens, inserted below the middle of the tube; the filaments fringed at the base; style, smooth; stigma, 2-lobed, purplish.

Flora Romana, p. 207. *Florig. Brit.* ii. 838.

Stem, erect, about a foot high, of a yellowish purple hue, becoming brown—downy, as is the whole plant, with soft glandular hairs, and bearing a few distant, lanceolate scales; flowers, in a lax terminal spike, white or pale purple, striated with dark veins; anthers, ovate, purplish, becoming yellow; seeds, very numerous, very small, dark shining brown, almost black.

Perennial, mostly on the roots of clover, flowering from June to August.

O. ramosa, Linn. *Branched Broom-rape*. Stem, branched; bracteas, 3 unequal; calyx, of 1 piece, with 4 lanceolate teeth; corolla, with a straight tube, contracted in the middle, the limb spreading, upper lip 2-lobed, the lower of 3 unequal ones; stamens inserted about the middle of the tube of the corolla; filaments, downy at the dilated base; anthers, roundish, yellow, of 2 pointed lobes; style, slender, smooth; stigmas, yellowish white.

Flora Romana, p. 208. *Floriq. Brit.* ii. 840.

Stem, erect, 6 to 12 inches high, waved, slender, branched, clothed with short, close, viscid pubescence, brownish yellow, and scattered over with a few lanceolate, brownish scales; flowers, in terminal lax racemes, the tube yellow, the limb palish purple; capsule, ovate, bursting at the top; seeds, pale brown, numerous, wrinkled.

Annual, mostly on the roots of hemp, flowering from July to September.

The *Orobanche* are a remarkable and curious genus of plants, growing parasitically upon the roots of other plants, and applying the sap furnished by them to their own nutriment; and, owing to this habit, we find that they are not furnished with leaves, as they are not necessary to elaborate the sap, as in the generality of plants, but bear scales or abortive leaves. The seeds frequently remain a considerable time in the ground, until they meet with the peculiar tribe of plants to which they can attach themselves; hence the necessity of the abundant quantity of seeds which each plant produces. We have counted 1,100 seeds in a capsule of *O. ramosa*. On the same plant (one of ordinary size) there were 66 capsules; so that this plant bore the enormous number of 72,600 seeds! each of which is capable of producing a plant; so that the chances of not meeting with the plant of its choice, on which to establish itself, are in a measure obviated by the number of its seeds; and the chances of their all being destroyed, by various causes, until it does so, are much greater. How long the seeds are capable of retaining their vitality, I am not able to say. I have observed it growing abundantly upon the roots of hemp in a plot of land, which for five or six years after was sown with wheat, potatoes, Indian corn, etc.; and during this period I could not find a single plant of the *Orobanche*: but hemp was again sown in the field, and with it came up an abundance of the *O. ramosa*, as I had before seen it. This is one of the many examples that may be observed by the student of nature, of the adaptation of the means used by the all-wise Creator for the accomplishment of His purposes in the economy and propagation of the little

plant before us, to maintain the link unbroken in the chain of creation.

XLIII. NAT. ORD.—*Acanthaceæ*, Juss.

ACANTHUS, Linn. *Bear's-breech*. *Acanto*, Ital.

A. mollis, Linn. *Smooth Bear's-breech*. Leaves, pinnatifid, sinuated, toothed, unarmed.

Flora Romana, p. 206.

Stem, erect, 3 to 6 feet high; leaves, large, sinuated and toothed, stalked; flower, large, in a long terminal spike, white, about 2 inches long.

Perennial, flowering in May and June.

The large, elegant leaf of the *Acanthus* is supposed to have furnished the ancient Greeks with the beautiful ornament they used in their architectural adornments. The root abounds in mucilage, and was formerly used in medicine, under the name of *Branca ursina*.

XLIV. NAT. ORD.—*Boragineæ*, Juss.

GENERA.

Throat of the corolla naked.

Corolla with unequal segments..... ECHIUM.

Corolla with equal segments.

Anthers arrow-shaped, united at the base CERINTHE.

Anthers simple, free HELIOTROPIUM.

Throat of the corolla hairy..... LITHOSPERMUM.

Throat of the corolla furnished with scales.

Corolla cylindrical, bell-shaped..... SYMPHITUM.

Corolla wheel-shaped BORAGO.

Corolla salver-shaped MYOSOTIS.

Corolla funnel-shaped.

Nuts affixed to the persistent base of the style CYNOGLOSSUM.

Nuts affixed to the disk, excavated at the base ANCHUSA.

ECHIUM, Linn. *Viper's Bugloss.* *Echio*, Ital.

E. vulgare, Linn. *Common Viper's Bugloss.* Bristly and warty; stem, erect, simple; leaves, lanceolate, single-ribbed; leaves of the stem, narrowed below, sessile; flowers, in short lateral spikes; tube of the corolla, shorter than the calyx; stamens, longer than the corolla.

Flora Romana, p. 91. *Florig. Brit.* i. 220.

Stem, 1 to 3 feet high, simple, rarely branched; leaves, very rough, the lower ones tapering into a footstalk, the upper sessile; spikes, arising from the axis of the upper leaves; flowers, numerous, unilateral, very handsome, at first reddish, becoming bright blue or purplish, sometimes white.

Biennial, flowering from May to August.

E. italicum, Linn. *Italian Viper's Bugloss.* Rough, with bristly hairs; stem, erect; leaves, lanceolate; spike, bifid, dense; style, bifid at the apex; stamens, twice as long as the corolla, hairy outside.

Flora Romana, p. 91.

Stem, 2 to 3 feet high, erect, branched in a paniculated manner; spike, 2-cleft or branched, curved from the axis of the upper leaves; flowers, numerous, pale pink or white, externally hairy.

Biennial, flowering from May to July.

The rigid hairs with which the plants of this genus are furnished, are very remarkable; those of the stem arise from a dark, rounded, callous tubercle—while those of the leaves are from the centre of a flattish, circular scale of a vitreous appearance, delicately striated, with lines radiating from the centre, and having a minutely-crenated margin.

CERINTHE, Linn. *Honeywort.* *Cerinte*, Ital.

C. aspera, Roth. *Rough-leaved Honeywort.* Corolla, obtuse, spreading, cylindrical; stamens, as long as the corolla; leaves, amplexicaul, rough, with tubercular hairs.

Flora Romana, p. 92.

Stem, 1 to 2 feet high, round, herbaceous, branched; leaves, embracing the stem, spatulate or ligulate, a bluish green,

shining, more or less ciliated on the margin, and rough with tuberculated hairs; flowers, drooping, very handsome, yellow, often variegated with purple, and sometimes all purple.

Biennial, flowering in April and May.

This is a very handsome plant, and is equally deserving of a place in the flower-garden as its near-allied species, *C. major*, which is found wild in some parts of Switzerland.

HELIOTROPIUM, Linn. *Turnsole*, *Eliotropio*, Ital.

H. Europæum, Linn. *European Turnsole*. Stem, erect, branched, spreading, herbaceous; leaves, ovate, entire, wrinkled, hairy; spike, terminal, solitary or in pairs; calyx, spreading in fruit.

Flora Romana, p. 90.

Stem, about a foot high; the whole plant a greyish green, covered over with rigid, short hairs; flowers, in curved spikes; corolla, white or pale grey; calyx, when in fruit, spreading in a star-like manner.

Annual, flowering in May and June.

The common name of the plant, among the Latins, was *Verrucaria*, because the juice of the leaves, mixed with salt, was said to be excellent in the removal of warts, *verruca*. The *H. Peruvianum* is a well-known cultivated plant, on account of the odour of the flowers, which greatly resembles that of new-made hay, and is very much more powerful than the wild species of Europe.

LITHOSPERMUM, Linn. *Gromwell*.

L. arvensis, Linn. *Corn Gromwell*. Stem, erect, branched; leaves, lanceolate, acute, the lower ones stalked, obtuse, rough, with tuberculated hairs on both sides; corolla, longer than the calyx; nuts, tubercular.

Flora Romana, p. 93. *Florig. Brit.* i. 224.

Stem, 1 to 2 feet high, branched above, erect; leaves, alternate; flowers, small, white; nuts, pale brown, polished, wrinkled, pitted, 3 or 4 perfected in each calyx.

Annual, flowering in May and June.

L. purpureo-cæruleum, Linn. *Creeping or Purple Gromwell*. Stem, erect, slightly branched, barren ones prostrate, creeping; leaves, lanceolate, acute, hispid, with tubercular hairs on the upper side; corolla, much longer than the calyx; nuts, smooth.

Flora Romana, p. 91. *Florig. Brit.* i. 224.

Stem, from 12 to 18 inches high, 2 or 3-branched above; leaves, numerous, alternate, sessile, paler on the under side; flowers, handsome, bright, blue or purplish, the tube pink, hairy externally; nuts, mostly 4, ovate, white, polished, slightly rugged.

Perennial, flowering from May to July.

The colour of the flower of this species is extremely rich: when fully expanded, few plants surpass it in brilliancy. It is common throughout Italy, Spain and Portugal, in hedges and shady places; but the only spot where it is known to grow wild in England is under the over-hanging cliffs near Mary Church, Devonshire.

SYMPHYTUM, Linn. *Comfrey*. *Consolida*, Ital.

S. tuberosum, Linn. *Tuberous-rooted Comfrey*. Stem, scarcely winged, nearly simple; leaves, ovate, oblong, attenuated below; stem, leaves lanceolate, uppermost slightly decurrent, sessile.

Flora Romana, p. 92. *Florig. Brit.* i. 227.

Root, oblique, fleshy, tuberous, branched; stem, from 1 to 2 feet high, hairy; leaves, very slightly decurrent; flowers, yellowish, white; anthers, twice as long as the filaments; calyx, segments long, lanceolate; nut, excavated at the base.

Perennial, flowering in May.

The roots of this genus of plants abound with mucilaginous secretions, and are often used as a demulcent, the same as marshmallow roots. The leaves are made with lard into an ointment, which is esteemed by the country people for its cooling and healing properties in various ulcerations of the skin, etc.

BORAGO, Linn. *Borage*. *Borragine*, Ital.

B. officinalis, Linn. *Common Borage*. Lower leaves, obovate, obtuse, attenuated below; segments of corolla, ovate, acute, spreading, flat.

Flora Romana, p. 94. *Florig. Brit.* i. 228.

The whole plant is rough, with tuberculated hairs; stem, spreading, 1 to 2 feet high; leaves of the stem narrowed below so as to appear stalked, eared at the base; flowers, brilliant, blue, on drooping peduncles; fruit, 4, ovate; nuts, depressed at the base, rough or tuberculated, inclosed in the converging calyx segments.

Biennial, flowering in May and June.

This plant was formerly reputed to possess valuable medicinal properties, as a refrigerent, and was administered in fevers, inflammations, etc.; but it is not now used except when made into tea as an assistant to the action of other and more powerful means. The Italians gather the young leaves, and use them as a vegetable. Their mode of cooking them is first to dip them in batter made of flour, milk and eggs, and then fry them in boiling oil or lard until they are brown and crisp, in which state they are served up to table.

MYOSOTIS, Linn. *Scorpion Grass*. *Orecchio di topo*, Ital.

M. arvensis, Hoffm. *Field-scorpion Grass* or *Mouse-ear*.

Calyx, half 5-cleft, closed when in fruit, shorter than the diverging pedicles, the tube with spreading, hooked bristles; limb of the corolla, concave, equalling the tube in length; clusters, stalked.

Flora Romana, p. 92. *Florig. Brit.* i. 236.

Stem, 6 to 18 inches high, erect, or curved at the base, simple or branched, more or less hairy; leaves of the root, ovate, spatulate, on a dilated footstalk, upper ones sessile, lanceolate, tapering towards the base; racemes, mostly in pairs, often with 1 or 2 leaves at the base; flowers, numerous, small, the tube the length of the calyx, the limb as long the tube, blue, the throat yellow.

Annual, flowering from April to August.

This is the only species of this beautiful genus that we have found growing among the vast ruins of the Colosseum; but

many others are found in Italy, the most striking of which is the *M. palustris*, commonly known as the *Forget-me-not*, which obtained its name, we are told, and is selected as the emblem of affection, from the circumstance that "two lovers were walking by the river (the Rhine I believe), when the lady, seeing and wishing for a flower of the *M. palustris*, the cavalier attempted to gather it for her, but in so doing slipped into the river, and was drowned, exclaiming, as he sunk, *Vergiß mich nicht! Forget-me-not.*"

CYNOGLOSSUM, Linn. *Hound's Tongue*. *Cinoglossa*, Ital.

C. pictum, Ail. *Madeira Hound's Tongue*. Stem, erect; leaves, acute, clothed with close, soft pubescence, the lower oblong, tapering into a footstalk, the upper lanceolate, subcordate at the base; racemes, without bractea; corolla, veiny, about as long as the calyx; fruit, convex.

Flora Romana, p. 93.

Stem, about 2 feet high; flowers, pale blue or flesh-coloured, marked with darker veins, the scales in the mouth of the tube pink or red.

Biennial, flowering in April and May.

ANCHUSA, Linn. *Alkanel*. *Ancusa*, Ital.

A. Italica, Retz. *Italian Alkanel*. Stem, branched, erect; leaves, lanceolate, waved, bristly, glossy; flowers, in lax racemes; bractea, linear, lanceolate; calyx, segments awl-shaped, as long as the tube of the corolla; scales of the corolla, oblong, hairy.

Stem, about 2 feet high; leaves, narrow, the upper ones heart-shaped at the base, slightly decurrent; corolla, deep blue or purple, somewhat irregular; the segments roundish. The whole plant is bristly, of a glossy, yellowish green.

Perennial, flowering in April and May.

XLV. NAT. ORD.—**Primulaceæ**, Vent.

ANAGALLIS, Linn. *Pimpernel*. *Anagiride*, Ital.

A. arvensis, Linn. *Scarlet Pimpernel* or *Poor Man's Weather-glass*. Stem, widely-spreading; leaves, opposite, ovate, sessile, dotted beneath; corolla, crenate on the margin and fringed with glandular hairs.

Flora Romana, p. 94. *Florig. Brit.* i. 248.

A. cærulea. Corolla, blue, toothed on the margin, scarcely with any glandular hairs.

Florig. Brit. i. 248. *A. cærulea*. *Flora Romana*, p. 94.

Stem, square, smooth, many-branched, frequently dotted, like the leaves, with purple dots; leaves, 3-ribbed at the base, bright green, rarely hairy; flowers, solitary, on a slender, axillary pedicle, longer than the leaves, recurved in fruit; corolla, scarlet or blue, the tube short; capsules, 5-ribbed, crowned with the persistent style.

Annual, flowering from May to August.

This pretty ornament to our fields and uncultivated places is one of those remarkable plants which close their petals over the stamens and pistils, to protect them from injury on the approach of rain: hence it is that it has obtained the name of the Poor Man's Weather-glass. It has been lauded as a remedy in the cure of epilepsy, and even as a cure of hydrophobia; but it has now entirely lost its reputation.

CYCLAMEN, Linn. *Cyclamen*. *Pan porcino*, Ital.

C. hederifolium, Willd. *Ivy-leaved Cyclamen* or *Sow Bread*. Leaves, ovate, angular, crenate, deeply heart-shaped at the base; orifice of the tube of the corolla with 10 teeth.

Flora Romana, p. 95. *Florig. Brit.* i. 421.

Tubers, large, globose; leaves, all radical, on long, slender footstalks, smooth, the upper side beautifully variegated with dark and pale glaucous green, the under mostly of a purplish hue; flowers, single, drooping, on a long, slender scape, becoming twisted as the seed ripens, and thus conveys them to the earth; corolla, pale pink, the tube purplish, the segments twisted.

Perennial, flowering in March.

C. Europæum, Linn. *Common Cyclamen*. Leaves, roundish, ovate, pointed, deeply heart-shaped at the base, the margin crenated or repandate; orifice of the tube of the corolla entire, the segments acute.

C. Neapolitanum, Ten. *Flora Romana*, p. 95.

Similar to the above species in its general character, but the leaves are more roundly heart-shaped, obtuse, or slightly pointed; the corolla is a deeper purple; the segments, roundish ovate, or roundish obtuse, and not spurred on each side at the mouth of the tube.

Perennial, flowering in September and October.

The common English name of Sow Bread, and the Italian *Pan porcino*, by which the plants of this genus are called, appears to have arisen from the circumstance of its tubers being much sought after by swine. In Sicily and many parts of Italy it forms a considerable portion of the food of the wild boar, although it possesses acrid and stimulating properties. They are very common and extremely ornamental plants in various parts of Italy, especially in woody or shady waste places, road-sides, etc.; some of the species flowering in the early Spring, and others late in the Autumnal season.

XLVI. NAT. ORD. *Convolvulaceæ*, Juss.

CONVOLVULUS, Linn. *Bindweed*. *Il vilucchio*, Ital.

C. arvensis, Linn. *Small Bindweed*. *Corregiola*, Ital. Stem, climbing; leaves, arrow-shaped, with acute lobes; peduncles mostly 1-flowered; bractea, small, distant from the flower.

Flora Romana, p. 98. *Florig*. *Brit. i.* 261.

Stem, angular, simple or branched, twining or prostrate, leafy; leaves, alternate; flowers, arising from the axis of the leaves, solitary, rarely 2 together, beautifully variegated with pink and white.

Perennial, flowering in June and July.

This is an extremely pretty, ornamental plant, but a most troublesome weed to the farmer from the circumstance of its long, deep, branched roots being difficult to extirpate.

C. sepium, Linn. *Great Bindweed. Campanella*, Ital. Stem, climbing; leaves, arrow-shaped, with truncated lobes; peduncles, 1-flowered, 4 sided; bractea, large, heart-shaped, close beneath the calyx.

Flora Romana, p. 98. *Florig. Brit.* i. 262.

Stem, twining, many feet long, many branched; leaves, large, smooth, rather distant, on slender footstalks; flowers, solitary from the axis of the leaves, large, handsome, white, or with a pale pink ray; bractea, enclosing the calyx; fruit, imperfectly 2-celled.

Perennial, flowering from May to August.

This is a very luxuriant plant, and climbs over shrubs, walls, ruins, etc., forming most elegant festoons, and giving a wild, careless, though gay appearance to them, adding greatly to their picturesque character.

XLVII. NAT. ORD.—Solanææ, Juss.

GENERA.

Fruit dry capsular.

Corolla funnel-shaped..... HYOSCYAMUS.

Corolla wheel-shaped..... VERBASCUM.

Fruit a fleshy berry SOLANUM.

HYOSCYAMUS, Linn. *Henbane. Giusquiamo.*

H. albus, Linn. *White Henbane.* Leaves, all stalked, roundish, ovate, obtusely lobed and sinuated, the upper ones toothed; flowers, nearly sessile.

Flora Romana, p. 96.

The whole plant clothed with soft, viscid hairs, and of a foetid odour; stem, 1 to 2 feet high, simple or branched; flowers, in terminal, leafy, curved racemes, of a white or pale yellow colour.

Annual, flowering from May to August.

The whole plant possesses narcotic properties, though in a much less degree than that of the *H. nigra*, which has sessile leaves and purple-veined flowers.

VERBASCUM, Linn. *Mullein*. *Tasso-barbasso*, Ital.

V. sinuatum, Linn. *Scollop-leaved Mullein*. Leaves, woolly, the radical and lower stem leaves sinuated, the upper sessile, crenated, slightly decurrent; racemes, paniced; filaments, covered with purple woolliness; anthers, equal.

Flora Romana, p. 96.

Stem, 3 to 4 feet high, branched; leaves, large, yellowish-green, thickly clothed with close, thick, woolly pubescence, much scalloped and curled on the margin; flowers, numerous, yellow, the filaments purple.

Biennial, flowering during the summer months.

V. Blattaria, Linn. *Moth Mullein*. Leaves, crenate, smooth, the lower ovate, oblong, obtuse, sinuate, at the base attenuated, upper ones oblong, sessile, subcordate at the base, embracing the stem; stem, erect, branched; flowers, in a long raceme, solitary, on a footstalk, half as long again as the bractea.

Flora Romana, p. 96. *Florig. Brit.* i. 271.

Stem, erect, 2 to 4 feet high, smooth, branched; flowers, in terminal racemes, rather large, yellow; filaments, with purple hairs, the 2 longer hairy on the inside only.

Annual, flowering from May to July.

This beautiful species is frequently cultivated in gardens, and sometimes a white-flowered variety is produced. The leaves and tender branches are said to be destructive to the cockroach (*Blatta orientalis*); and from this circumstance the Romans called it *Blattaria*, the specific name by which it is now distinguished.

SOLANUM, Linn. *Nightshade*. *Solatro-nero*, Ital.

S. dulcamara, Linn. *Woody Nightshade* or *Bitter-sweet*. Stem, shrubby, flexuous; leaves, ovate, heart-shaped, upper ones lobed at the base; corymbs, drooping, opposite the leaves.

Flora Romana, p. 97. *Florig. Brit.* i. 281.

Stem, woody, slender, branched and straggling, several feet long, smooth below, downy at the extremities; leaves,

smooth, alternate, on footstalks; flowers, dark purple, in a lax branched corymb, arising opposite to the leaves; anthers, long, yellow, united into a cone, opening at the apex; fruit, an ovate berry, bright scarlet or yellow.

Shrub, flowering from May to August.

The whole plant has, when masticated, at first a bitter taste, changing to that of considerable sweetness; hence it is that it has obtained the name of "Bitter-sweet." It is slightly narcotic, and has been used in medicine for various affections, especially in some forms of chronic diseases of the skin. It does not possess the same violent poisonous properties which at one time it was supposed to do.

S. nigrum, Linn. *Common Garden Nightshade*. Stem, herbaceous, with tuberculated angles; leaves, ovate, obtusely toothed or waved; umbels, simple, lateral, drooping.

Flora Romana, p. 97. *Florig. Brit.* i. 282.

Stem, 1 to 2 feet high, many-branched and spreading, hairy; leaves, numerous, on footstalks; flowers, white, with a musky odour, in small umbels, arising from the space between the branches, the pedicles hairy, thickened towards the extremity; anthers, yellow, united into the form of a tube, opening at the apex; fruit, round, smooth, black berries, containing numerous ovate, compressed seeds.

Annual, flowering from May to July.

S. villosum, Lam. *Orange-berried Nightshade*. Stem, herbaceous, with obtuse, subtuberculated angles; leaves, ovate, angular, toothed, and with the stem somewhat woolly; racemes simple, the pedicles of the fruit thickened at the end and deflexed.

Flora Romana, p. 97.

Stem, 1 to 2 feet high, branched and spreading, scarcely angular, and, like the leaves, more or less woolly; leaves, numerous, alternate, on footstalks; flowers, white or pale violet, in small umbels, arising from the space between the branches; anthers, yellow, united into a tube, opening at the apex; fruit, a yellow, orange berry, round, smooth.

Annual, flowering from May to August.

XLVIII. NAT. ORD.—**Gentianæ**, Juss.**CHLORA**, Linn. *Yellow-wort.*

C. perfoliata, Linn. *Perfoliated Yellow-wort.* Leaves of the stem, triangular, ovate, united at the base, perforated, glaucous; calyx-segments, awl-shaped, shorter than the corolla.

Flora Romana, p. 140. *Florig. Brit.* ii. 564.

Stem, erect, 12 to 18 inches high, simple, and, like the whole plant, a glaucous green; leaves, in pairs, the lower ones oblong, lanceolate, on short stalks; panicle, forked, with a solitary flower in the axis; flowers, numerous, bright yellow, expanding only in the sunshine.

Perennial, flowering from June to August.

This is a pretty, gay, ornamental plant, possessing bitter and tonic properties, in which, as well as in some peculiarities of structure, it is nearly allied to the following genus, *Erythræa*; for, like them, the corolla is spiral in the bud, the tube membranous and persistent, and the limb expands only when the sun is unclouded—the explanation of which is to be sought for in the difference of the texture between the limb and the tube of the corolla, which are differently acted upon by heat, and also by the state of the atmosphere being dry or humid.

ERYTHRÆA, Ren. *Centaury.*

E. centaurium, Pers. *Common Centaury.* Stem, erect, branched above, quadrangular; leaves, elliptic, oblong, the upper ones acute; flowers, nearly sessile, in corymbose panicles; calyx, about half as long as the tube of the corolla; segments of the corolla, oval.

Florig. Brit. ii. 257. *Chironia. Flora Romana*, p. 99.

Stem, 6 to 18 inches high, usually simple below; leaves, opposite, smooth, 3-ribbed; flowers, in lax panicles, the lateral ones sessile, between the small floral leaves; the tube, long, pale, with numerous slender veins; the limb, pink, of 5 ovate segments, spreading only in the sunshine.

Annual, flowering from June to August.

So extremely delicate are the flowers of this plant, that they will only show their blushing beauty at the solicitation of a glowing sun, when they may expect numerous passing visits from the insect throng, to pay homage to their beauty, and inspect the curious structure of their spiral cells.

The whole plant is without odour, but is strongly impregnated with a bitter resinous matter and mucus, which is imparted to boiling water or spirits of wine. It is tonic and antidyspeptic; and, before the introduction of Cinchona bark, was used in cases of fever. It is not used in modern practice, but is one of the great remedies of the village doctress, and is no doubt useful in some dyspeptic complaints, taken in the form of powder—or half an ounce of the herb infused in half a pint of boiling water, taking a fourth part of it two or three times a day.

E. lutea, Bertol. *Yellow Centaury*. Stem, angular, branched above; leaves, many-ribbed, the lower ovate, the upper oblong, lanceolate; segments of the corolla, elliptic; stamens, single; style, bifid.

Flora Romana, p. 100.

Stem, about a foot high, smooth; leaves, with numerous ribs, the lower ones on short footstalks; flowers, lemon-colour, in terminal forked panicles.

Annual, flowering in June.

XLIX. NAT. ORD.—Ericaceæ, Desv.

GENERA.

Fruit a granulated berry ARBUTUS.
Fruit a dry capsule ERICA.

ARBUTUS, Linn. *Strawberry-tree*. *Arbuto*, Ital.

A. unedo, Linn. *Strawberry-tree*. Trunk, erect; bark, rough; leaves, obovate or oblong, lanceolate, serrated, smooth, leathery; panicle, terminal, nodding; pedicles, smooth,

Flora Romana, p. 147. *Florig. Brit.* ii. 593.

A bushy, evergreen tree, with reddish-brown bark; leaves, leathery, a dark shining green above, paler beneath; flowers, white or pale pink, pendulous; fruit, a granular berry, of a fine scarlet colour, the size of a cherry.

Tree, flowering in October, the fruit ripe in December.

This is a handsome low tree or shrub, growing abundantly in the mountain districts and other parts of Italy. The wood is hard and prettily veined, rendering it of considerable value to turners, cabinet-makers, etc. The fruit, when ripe, is by no means ungrateful, and is commonly sold in the streets of Rome, but apparently is not a favourite fruit; it is, nevertheless, applied to many useful purposes. They are used as a dessert-fruit, and preserved with sugar, or pickled with salt, and are much used for garnishing dishes, and other ornamental purposes. The fruit also, when fully ripe, is broken up into a pulp, and fermented into a kind of wine or vinegar; and the fermented liquor is also distilled for the spirit, which by some people is considered not an unpleasant kind of brandy.

ERICA, Linn. *Heath.* *Erica*, Ital.

E. arborea, Linn. *Tree-Heath.* Anthers, spurred at the base, within the corolla; style, protruded; stigma, peltate; corolla, bell-shaped, 4-cleft, the segments ovate, obtuse; leaves, ternate, linear, obtuse; branches, downy; flowers, in paniced racemes.

Flora Romana, p. 140.

A shrub, 6 to 8 feet high; leaves, with short footstalks, roughish, furrowed on the under-side; flowers, flesh-coloured, fragrant; pedicles, pink; bractea, 2 or 3 the same colour; stigma, peltate, protruded, red.

Shrub, flowering in April.

The genus *Erica* is the most extensive in our catalogue of plants—amounting, as it does, to near 700 known species; all of which, with the exception of a few found in Europe, are natives of the Cape of Good Hope; and they are, perhaps, the prettiest and most graceful of any genus. Some of them are very splendid, others are remarkably curious, and

collectively present the greatest conceivable variety in the shape and character of their leaves, as well as in the form and disposition of the flowers, rendering them great favourites in every collection of greenhouse plants.

L. NAT. ORD.—**Amaranthaceæ**, Juss.

AMARANTHUS, Linn. *Amaranth.* *Amaranto*, Ital.

A. Blitum, Linn. *Wild Amaranth.* Flowers, in small axillary clusters, and a small, terminal, naked spike; perianth, 3-parted; stamens, 3; stem, spreading, smooth; leaves, ovate, obtuse; bractea, short; capsules, roundish, ovate.

Flora Romana, p. 328. *Florig. Brit.* iii. 1198.

Stems, several, smooth, furrowed, branched at the base; leaves on footstalks, often notched at the apex, bright green; flowers, small, pale green, sessile; seeds, smooth, shining, subglobose, almost black.

Annual, flowering from June to October.

A. retroflexum, Linn. *Hairy Amaranth.* Flowers, in terminal and axillary compound globose spikes; stem, erect, hairy; leaves, ovate, lanceolate, obtuse; bractea, twice as long as the flowers, spinous, bristle-shaped; lacine of the perianth, linear, oblong, obtuse.

Flora Romana, p. 328.

Stem, about a foot high, striated, hairy, branched; leaves, on long, slender footstalks, veiny beneath, entire, waved, or crenated; flowers, pale green; seeds, smooth, shining, ovate, black.

Annual, flowering from May to August.

Many of the species of this genus are handsome, ornamental border-flowers, having long, pendant, crowded, bright-coloured spikes.

LI. NAT. ORD.—**Santalaceæ**, Brown.OSYRIS, Linn. *Poet's Cassia*.

O. alba, Linn. *White Poet's Cassia*. Leaves, linear, acute.
Flora Romana, p. 336.

A low shrub, with long, slender, striated branches; leaves, scattered, simple, linear, acute; flowers, several together, in a cluster, on a short peduncle, each with a small bractea at the base, yellow; fruit, a globose, scarlet, or orange-coloured berry.

Shrub, flowering in April and May.

LII. NAT. ORD.—**Euphorbiaceæ**, Juss.EUPHORBIA, Linn. *Spurge*. *Euforbio*, Ital.

E. Peplis, Linn. *Purple Spurge*. Stem, procumbent, branched, smooth; leaves, opposite, oblong, oblique, lobed on one side, entire or toothed; stipules, small; glands of involucre with small, membranous scales beneath; capsules, smooth, of 3 keeled valves; seeds, obovate, angular, smooth, white.

Flora Romana, p. 162. *Florig. Brit.* iii. 1132.

Stem, 4 to 8 inches long; leaves, nearly sessile; stipules, small; flowers, solitary, axillary; the stem and whole plant often of a reddish-purple hue.

Annual, flowering from February to September.

This plant appears to have been used by the Greeks as a purgative medicine; but although less pungent than most of the species, is of too drastic a nature for internal use.

E. chamæsyæ, Linn. *Scollop-leaved Spurge*. Stem, procumbent, branched, and, like the leaves, smooth or hairy; leaves, opposite, roundish, the base oblique, the end slightly crenated, on footstalks, with stipules at the base; flowers, axillary, solitary, the glands entire; capsule-valves keeled, smooth; the seeds transversely rugose.

Flora Romana, p. 162.

Stem, procumbent, 3 to 6 inches long, smooth, or covered with hairs, as are the leaves; flowers, solitary, obscure, purple, the glands reddish.

Annual, flowering from May to August.

E. Helioscopia, Linn. *Sun-Spurge*. Leaves, membranous, obovate, wedge-shaped, obtuse or notched, serrated towards the point or entire, smooth; umbel, of 5 principal branches; glands, entire; capsules, smooth; seeds, netted and pitted.

Flora Romana, p. 163. *Florig. Brit.* iii. 1133.

The whole plant smooth, pale green, occasionally scattered over with a few hairs; stem, erect, about a foot high, often purplish; leaves, scattered; umbels, terminal; involucre, bell-shaped; capsules, smooth, 3-celled, keeled; seeds, beautifully netted and pitted.

Annual, flowering from May to August.

The milky juice with which the plant abounds, is very acrid; and from the country-people commonly using it as an application for the dispersion of warts, it has the name of "Wart-wort." The umbels are mostly of a bright, shining yellow colour in the centre; and, surrounded with the green bractea, have a very pretty appearance, which has probably given rise to the plant being called Sun-Spurge.

E. exigua, Linn. *Dwarf Spurge*. Leaves, membranous, linear or linear wedge-shaped, acute or obtusely pointed, with a bristle, smooth, entire, sessile; umbel mostly of 3 bifid branches; glands, rounded, with 2 long horns; bractea, ovate, lanceolate, or wedge-shaped; capsules, smooth, or nearly so; seeds, obovate, netted, brownish.

Flora Romana, p. 163. *Florig. Brit.* iii. 1141.

The whole plant smooth, of a pale green; stem, erect, from 3 to 12 inches high; leaves, scattered; capsules, subglobose, 3 lobed, smooth or roughish, with elevated points; seeds, somewhat angled.

Annual, flowering in May and June.

MERCURIALIS, Linn. *Mercury. Mercorella, Ital.*

M. perennis, Linn. *Perennial* or *Dog's Mercury*. Root, creeping; stem, simple; leaves, rough, ovate, lanceolate, stalked, fertile; flowers, on long peduncles.

Flora Romana, p. 338. *Florig. Brit.* iii. 1291.

Root, widely creeping; stem, erect, square, leafy, about a foot high; leaves, opposite, obtusely serrated; stipules, small, ovate, reflexed; flowers, pale green, in interrupted, axillary spikes; fruit, 2 globose cells attached to a column, each lobe single-celled, containing a globose seed.

Perennial, flowering in April and May.

This plant possesses poisonous properties, and is deleterious both to man and animals. When eaten it causes vomiting and purging, which are succeeded by coma and death. The accidents which have arisen from it are chiefly from having turned sheep or cattle into fields or woods where it grows abundantly, and where there is a deficiency of other green food. To man accidental poisoning has occurred from the plant having been mistaken for *Chenopœdia* and other pot herbs. The young plants turn blue in drying; but when they are in fruit they retain their green colour.

M. annua, Linn. *Annual Mercury*. Root, fibrous; stem, branched; leaves, smooth, lanceolate, or ovate, stalked; fertile flowers, nearly sessile.

Flora Romana, p. 338. *Florig. Brit.* iii. 1291.

Root, fibrous; stem, erect, many-branched and leafy, 6 to 12 inches high, smooth; leaves, opposite, smooth, glossy and serrated; flowers, small, pale, greenish, yellow; fruit, 2 globose cells, attached to a central column, rough, with rigid hairs, each lobe single-seeded.

Annual, flowering most of the year.

This plant appears to be less deleterious than the above species, abounding more in mucilage, and, when boiled, it is eaten like spinach in some parts of Germany; but the water in which it has been boiled becomes possessed of cathartic and diuretic properties, and has been used as a medicine.

LIII. NAT. ORD.—**Polygoneæ**, Juss.

GENERA.

Perianth 6-parted, the inner ones enlarged after
flowering..... RUMEX.

Perianth 5-parted, not enlarged after flowering POLYGONUM.

RUMEX, Linn. *Dock*, and *Sorrel*. *Acetosa*, Ital.

R. pulcher, Linn. *Fiddle-Dock*. Enlarged petals, ovate, oblong, netted with raised veins, numerously toothed, mostly only one bearing a tubercle; lower leaves oblong, fiddle-shaped, upper lanceolate, acute; stem, procumbent; branches, spreading.

Flora Romana, p. 134. *Florig. Brit.* ii. 523.

Stem, slender, straggling, branched; leaves on channelled footstalks, alternate, the margin more or less waved and crisped, paler beneath; flowers, few, in rather distant whorls, drooping, on short stalks, and each whorl accompanied by a narrow lanceolate leaf.

Perennial, flowering in July and August.

R. acetosella, Linn. *Sheep's Sorrel*. Enlarged pieces of the perianth ovate, heart-shaped, entire, not tuberculated, the outer pieces erect, close-pressed; leaves, lanceolate, spear-shaped, entire; stipules, torn.

Flora Romana, p. 134. *Florig. Brit.* ii. 528.

Stem, 6 to 12 inches high, erect, slender, simple or branched; leaves, alternate, the radical ones numerous, on channelled footstalks, variable in size, the lobe on each side at the base narrow, acute, spreading; flowers, in small, distant whorls, leafless, the segments green or red; nuts, a dark shining brown.

Perennial, flowering in May and June.

This is a very abundant plant in the Colosseum; becoming, after flowering, a deep crimson colour.

POLYGONUM, Linn. *Persicaria*. *Bistort*.

P. Persicaria, Linn. *Spotted Persicaria*. Spike, oblong, cylindrical, dense, erect; flowers, smooth, as well as the peduncles; styles, 2, united half way up, at length spreading; leaves, lanceolate, or ovate-lanceolate, on short stalks; stipules, hairy; the margin, ciliated.

Flora Romana, p. 142. *Florig. Brit.* ii. 572.

Stem, erect, or curved at the base, branched and leafy; leaves, entire or waved, shining, green above, and often marked with a dark linear spot about the middle, paler beneath, the sheath short, striated, hairy; flowers, in dense, erect, or drooping spikes, greenish white or reddish; nut, smooth, scarcely covered with the perianth, brown, compressed, or when there are 3 styles, it is 3-angled.

Annual, flowering during the summer months.

P. mite, Schrank. *Slender Persicaria*. Spike, slender, lax, filiform, interrupted, drooping; flowers, smooth, as well as the peduncles; styles, 2, united half way up; leaves, lanceolate or ovate-lanceolate, stalked; stipules, hairy, the margin ciliated with strong hairs.

Florig. Brit. ii. 573.

Stem, erect, 1 to 2 feet high, branched, enlarged at the joints; leaves, alternate, entire, or slightly waved; sheaths, short, hairy; the stipules membranous, fringed with long, stout hairs; flowers, whitish green or pink, in scattered, interrupted, drooping, terminal and axillary spikes; nut, compressed, or of 3 obtuse angles, ovate, pale, its sides roughish.

Annual, flowering from June to August.

P. aviculare, Linn. *Knot-grass*. *Centinodia*, Ital. Flowers, axillary, 1 to 3 together; leaves, elliptic, lanceolate, rough on the margin, flat-stalked; stipules, short, ribbed, bifid at length much divided; stem, herbaceous, many-branched; nuts, shorter than the perianth, striated, with raised points.

Flora Romana, p. 143. *Florig. Brit.* ii. 575.

Stems, several, prostrate, round, smooth, striated, numerous jointed, leafy, and branched from almost every joint; leaves, alternate, on short footstalks, green above, paler beneath; flowers, small, sessile, white, pink, or green, axillary; stamens, 8 to 10; nuts, shorter than the perianth, acutely 3-angled, an opaque, brownish black, rough, with close lines of elevated points enveloped in the persistent perianth.

Annual, flowering during the summer months.

This is an extremely common and very variable plant in size and the shape of the leaves, from the circumstance of its growing in such various situations; and, like all other of our

common plants, it is most useful, not only in clothing waste places, and fringing the road-sides with its slender stems and copious leaves, but its herbage is eaten with a relish by all cattle; and its numerous seeds, abounding in nutriment, afford a large supply of food to small birds. According to Thumberg, a dye is prepared from the plant, resembling in colour the indigo.

P. dumetorum, Linn. *Bush Buckwheat*. Stem, twining, angular, striated; leaves, triangular, heart-shaped; segments of the perianth, winged; nut, triangular, very smooth and shining.

Flora Romana, p. 143.

Stem, climbing to the height of 3 to 6 feet, roughish; leaves, alternate, heart-shaped, with the lobes pointed in an arrow-shaped manner; flowers, in axillary clusters, each on a short stalk; segments of the perianth, a pale green, winged.

Annual, flowering all the summer.

This is a very long, climbing plant, often very troublesome in corn-fields, though mostly growing in bushy places, hedge-rows, etc.; and from its hanging down in long, twisted festoons, is very ornamental. It produces an abundant quantity of seeds, the food of small birds.

LIV. NAT. ORD.—Urticaceæ, Endlich.

GENERA.

Herbaceous plants.

Perianth of the fertile flowers, 4-parted..... *PARIETARIA*.

Perianth of the fertile flowers, 2-valved..... *URTICA*.

Trees.

Capsules compressed, winged all round. *ULMUS*.

Fruit a fleshy hollow receptacle *FICUS*.

PARIETARIA, Linn. *Wall-Pellitory*. *Parietaria*, Ital.

P. officinalis, Linn. *Common Pellitory of the Wall*. Leaves, ovate, lanceolate, 3-ribbed above the base; cymes, 2 axil-

lary, bifid; segments of involucre, about 7, ovate, obtuse.

Flora Romana, p. 327. *Florig. Brit.* i. 199.

Stem, 1 to 2 feet high, erect, reddish, branched, pubescent; leaves, alternate, on slender footstalks, pale and hairy beneath; flowers, small, axillary, hairy clusters, reddish; involucre, 2-leaved, each cut into 7 segments, 7-flowered, the central flower fertile, of the 3 flowers on each side, the central one is fertile, but without stamens—the others with stamens and pistil; filaments, jointed, elastic; fruit, small, ovate, black and shining.

Perennial, flowering nearly all the year.

The stamens of this curious plant are very remarkable: at first they are incurved, the anthers closely surrounding the pistil in the centre of the flower; when the flower is completely expanded, the filaments, which are jointed about the middle, have become highly elastic, but retain their original position until further progress of vegetation is made, or some excitement is given to them by external causes; the stamens are then thrown backwards by the elastic power of the filaments, and the shock at the same time bursts the anthers, and the pollen is profusely scattered around. This remarkable property in the stamens may be best observed on a hot summer's day, when they are easily excited into action by the least movement of the plant.

The whole plant abounds in nitre; so much so, that a mass of the extract, while being prepared, has been known to take fire. It is on account of the presence of this salt, that it has been used in medicine as a diuretic. The country-people in Italy gather the fresh plant, bruise it into a pulp, and apply it as a poultice to cuts and recent wounds, which they say are speedily healed by it.

URTICA, Linn. *Nettle.* *Ortica*, Ital.

U. pilulifera, Linn. *Roman Nettle.* Leaves, opposite, ovate, or heart-shaped, acuminate, coarsely serrated; stipules, oblong, ovate; fertile flowers, in globose heads, stalked; seeds, tuberculated.

Flora Romana, p. 327. *Florig. Brit.* iii. 1192.

Stem, about 2 feet high; leaves, stalked, with a mid-rib and transverse lateral veins; flowers, green, the perianth hairy; seeds, ovate, compressed, brown.

Perennial, flowering during the summer months.

U. ureus, Linn. *Small Nettle*. Leaves, opposite, ovate, acute, deeply serrated, with about 5 parallel ribs; spikes of flowers, axillary, nearly simple, 2 together, shorter than the petioles; seeds, smooth.

Flora Romana, p. 327. *Florig. Brit.* iii. 1192.

Stem, about a foot high; leaves, opposite, deeply cut, and often doubly serrated, furnished with numerous venomous hairs; flowers, pale green, in simple racemose spikes, hairy; seeds, ovate, compressed, pale brown, polished.

Annual, flowering from March.

U. dioica, Linn. *Great Nettle*. Leaves, opposite, oblong, heart-shaped, coarsely serrated; flowers, in axillary panicles, many-branched, and longer than the petioles; seeds, smooth.

Flora Romana, p. 327. *Florig. Brit.* iii. 1193.

Stem, about 3 feet high; leaves, large, rough, the teeth often doubly serrated; flowers, in many-branched, spreading panicles; fruit, ovate, acute, smooth, compressed.

Perennial, flowering during the summer months.

U. membranacea, Willd. *Membranous Nettle*. Leaves, opposite, ovate, coarsely serrated; upper racemes of barren flowers, in pairs longer than the petioles; the rachis linear, naked beneath; the fertile flowers, in short, nearly sessile, globose heads.

Flora Romana, p. 327.

Stem, about 2 feet high; leaves, rough, deeply toothed; the barren flowers, on a long, linear, dilated, membranous rachis.

Perennial, flowering during the summer months.

The Nettles are well known as troublesome weeds in gardens, hedges, etc.; and almost any rambler in the fields, or incautious gardener, is acquainted with the effects of their poisonous weapons. The rigid hairs with which they are furnished, when examined with a magnifying power, will be found all

of a tubular form, tapering to a fine open point, the base being dilated into an oblong receptacle, having at the bottom a gland embedded in the cellular substance of the leaf. This gland secretes an acrid juice which is retained in the receptacle. Thus furnished, when any obtrusive hand is applied to the point, it readily enters the skin, and the pressure forces the fluid along the tube into the wound it has made. This remarkable contrivance is very similar to the structure of the poisonous fang of the rattle-snake, viper, etc., and differs from the sting of the wasp in being open at the apex, while that of the wasp has the opening below the point; so that this little insect is ever furnished with a ready weapon which is less liable to become deranged from repeated use by the point being more acute, and the opening for the escape of the poisonous fluid being on one side, below it, is less liable to become obstructed; a contrivance so admirably adapted, in each case, to the uses for which these arms are required.

The tops of the young, common Nettles are gathered in the spring in many parts of the country, and made into porridge, and is a popular remedy for the cure of eruptive diseases of the skin. The roots of *U. dioica* boiled with alum dyes yarn of a yellow colour, and the stems furnish a strong, fibrous substance, the same as hemp. The leaves furnish food for the larva of many insects. It is remarkable that all the plants of this genus do not flourish well unless nitrate of potass forms a component part of the soil in which they grow; hence it is that they are found most luxuriant among the decayed remains of buildings.

ULMUS, Linn. *Elm.* *Olmo*, Ital.

U. Campestris, Linn. *Common small-leaved Elm.* Leaves, rhomboid, ovate, acuminate, wedge-shaped, and oblique at the base, rough above, doubly and irregularly serrated, serratures incurved, downy beneath branches, wiry, slightly corky, when young, bright brown, and pubescent; fruit, oblong, deeply cloven, naked.

Flora Romana, p. 108. *Florig. Brit.* i. 431.

A tree, the trunk mostly crooked, the bark rough and rugged,

its branches widely-spreading, and more or less winged with corky excrescences; leaves, alternate, about 2 inches long, oblique at the base; stigmas, a downy line on the upper margin of the pointed, curved, short styles, which at length become much dilated into a thin, palish green membrane of an oblong, wedge-shaped form, forming a winged border to the small, oblong, pale brown, shining, single-seeded capsule, with a deep, dilated sinus at the apex.

Tree, flowering in February and March.

This is considered the most valuable of the Elms for the durability of its wood, being harder, tougher, and less liable to decay when exposed in damp situations; qualities which render it more suitable for various purposes, especially the nave of wheels and instruments of husbandry.

FICUS, Linn. *Fig-tree. Fico sylvatica, Ital.*

F. carica, Linn. *Common Fig-tree.* Leaves, heart-shaped, 3 to 5-lobed, rough above, pubescent beneath.

Flora Romana, p. 336.

A smooth-barked tree, with spreading branches; leaves, alternate, large, more or less deeply lobed; fruit, axillary, nearly sessile when ripe, green, purple or reddish, turbinate, fleshy, soft, and hollow within.

Tree, flowering in the summer months.

The Fig is a well-known fruit, both in the fresh and dried state, of which there are numerous species, all natives of warm countries. The *F. carica* is supposed to be originally from Caria, in Asia, and from thence has been brought and cultivated, and now naturalised in the South of Europe. In many parts of the Levant and Southern Italy both the fresh and dried fruit form an important article of food. All the species of *Ficus* abound in a milky juice, and it is from *F. elastica*, as well as from some other allied plants, that the well-known indian-rubber is produced.

LV. NAT. ORD.—**Ambrosiaceæ**, Link.**XANTHIUM**, Link. *Burweed*.

X. spinosum, Linn. *Spiny Burweed*. Spine, ternate; leaves, entire, or 3-lobed, the middle lobe elongated, and acuminate; fruit, terminated in a single spine.

Flora Romana, p. 328.

Stem, herbaceous, erect, branched, 1 to 2 feet high; leaves, stalked, pale green above, with short, close pubescence, white and silky beneath; spines, axillary, long, very acute, ternate or forked; fruit, deflexed, covered with rigid, spinous hairs, and terminating in a sharp spine.

Annual, flowering in August.

X. strumarium, Linn. *Small Burweed*. Stem, unarmed; lower leaves, heart-shaped, 3-lobed, and toothed; fruit, 2-horned, and covered over with hooked, prickly hairs.

Flora Romana, p. 328. *Florig. Brit.* iii. 1197.

Stem, 1 to 2 feet high, furrowed, downy; leaves, downy, stalked, pale green above, paler beneath; barren flowers, in dense, globose clusters; fertile flowers, mostly several, all nearly sessile; fruit, 2-beaked, covered over with rigid hairs, hooked at the apex.

Annual, flowering in August.

LVI. NAT. ORD.—**Chenopodiaceæ**, Lind.

GENERA.

Flowers perfect, containing stamens and pistil **CHENOPODIUM**.

Flowers imperfect, some containing stamens, others pistils **ATRIPLEX**.

CHENOPODIUM, Linn. *Goose-foot*.

C. polyspermum, Linn. *Many-seeded Goose-foot*. Leaves, ovate, entire, smooth; racemes elongated, leafless; perianth, spreading when in fruit; seeds, glossy, very finely dotted.

Florig. Brit. i. 420.

Stem, erect, branched, spreading or prostrate, 6 to 12 inches high, smooth, palish green; leaves, alternate, on slender footstalks, ovate, or ovate oblong, acute, bristle-pointed; flowers, very small, in small, crowded clusters, on slender

stalks, in racemes or spikes, and more or less spreading, pale green.

Annual, flowering from June to September.

C. ambrosioides, Linn. *Mexican Goose-foot*. Leaves, lanceolate, tapering at both ends, remotely toothed, scattered over with sessile glands on the under side; racemes, leafy.

Flora Romana, p. 106.

Stem, erect, striated, branched and spreading; leaves, alternate, 2 inches long or more, coarsely and distantly toothed; flowers, pale green, in simple, axillary racemose leafy clusters.

Perennial, flowering during the summer months.

C. vulvaria, Linn. *Stinking Goose-foot*. Stem, spreading; leaves, entire, ovate, rhomboid, mealy; flowers, in dense, leafless racemes; seeds, very small, shining, very finely dotted.

Flora Romana, p. 106. *C. olidum*. *Florig. Brit.* i. 419.

Stems, several, with spreading branches, and, as well as the whole plant, covered over with a greasy, pulverulent, foetid substance; leaves, numerous, small, on slender footstalks; flowers, very small, green, in oblong clusters, or small, dense spikes.

Annual, flowering from June to September.

The whole plant, when bruised, exhales an extremely nauseous odour, something like that of putrid fish, which depends upon there being present a quantity of ammonia, combined with a portion of oil and resinous matter. It was formerly much used as a curative means in hysterical and nervous affections.

C. album, Linn. *White Goose-foot*. Leaves, ovate, rhomboid, sinuated and toothed, entire below, the upper ones oblong, entire; flowers in branched, nearly leafless racemes; seeds, smooth and shining, obtusely keeled at the margin.

Flora Romana, p. 106. *Florig. Brit.* i. p. 425.

Stem, mostly erect, many-branched, and spreading, 1 to 3 feet high, often streaked with pale, yellowish lines, and, as is the whole plant, covered over with a white mealiness; leaves, numerous, 3-ribbed from the base, on channelled footstalks; flowers, small, very numerous, green, in crowded, terminal, and axillary, racemose clusters.

Annual, flowering in July and August.

This is a very common and variable plant, especially in the size and shape of the leaves. The whole plant is inodorous, and has been used as a substitute for the cultivated spinach.

C. muralis, Linn. *Nettle-leaved Goose-foot*. Leaves, ovate, rhomboid, unequal, and sharply toothed, entire below, shining; flowers in leafless, many-branched, spreading cymes; seeds, gray, finely dotted, surrounded with a keeled margin.

Flora Romana, p. 106. *Florig. Brit.* i. 424.

Stem, erect, 1 to 3 feet high, branched and spreading, smooth, as is the whole plant, often of a purplish hue; leaves, numerous, on channelled footstalks, the teeth mostly curved inwards; flowers, very numerous, small, in spreading, cymose branches; seeds, compressed, finely dotted.

Annual, flowering from June to August.

C. hybridum, Linn. *Maple-leaved Goose-foot*. Leaves, heart-shaped, with angular teeth, and an acuminate point; flowers, in many-branched, leafless, cymose spikes; seeds, large, opaque, black, deeply dotted.

Florig. Brit. i. 425.

Stem, erect, branched, spreading, 1 to 2 feet high, green, striated with yellow or purple lines; leaves, on short, channelled footstalks, pale-green, with 3 to 4 angular, distant teeth on each side, the upper ones entire; flowers, small, green, scattered on numerous, spreading, branched, terminal and axillary cymes; seeds, large, deeply pitted.

Annual, flowering in July and August.

ATRIPLEX, Linn. *Brache*.

A. patula, Linn. *Spreading halbert-leaved Brache*. Stem, mostly erect, with ascending branches; leaves, green, smooth, the lower ones ovate, hastate, with 2 horizontally-spreading lobes, irregularly toothed, the upper ones lanceolate, nearly entire; flowers, in interrupted spikes, the perianth of the fruit triangular, rhomboidal, nearly entire, slightly mucated, at the back, longer than the opaque, roughish seed.

Flora Romana, p. 107. *Florig. Brit.* iii. 1299.

Stem, mostly erect; leaves, numerous, dark green, occasionally mealy; flowers, in terminal and axillary, interrupted, crowded spikes, in unequal clusters; perianth of the fruit

enlarged, triangular, entire or toothed on the margin, longer than the seed.

Annual, flowering during the summer.

This is a very common and variable species, especially in the size of the perianth of the fruit, and its being entire or toothed more or less deeply, as well as being smooth or muricated at the back, and the leaves being entire, toothed, or the lobes at the base larger or smaller.

LVII. NAT. ORD.—**Phytolaceæ**, Brown.

PHYTOLACEA, Linn. *Virginian Poke*. *Pianta lacea*, Ital.

P. decandra, Linn. *Virginian Poke*. Flowers, with 10 stamens and 10 stigma.

Flora Romana, p. 159.

Herbaceous; root large, branched; stem, erect, 5 to 6 feet high, branched and spreading, mostly of a pink colour; leaves, alternate, lanceolate, 6 to 12 inches long, and 2 to 4 inches broad, smooth, deep green; flowers, in axillary and terminal spikes, white, numerous; fruit, a dark purple, smooth berry.

Perennial, flowering in August.

This large, handsome, herbaceous plant is very common in waste places in most parts of Italy, and is commonly called by the country people *Uvetta Spagnuola*. A tincture made of the berries has acquired a reputation as a remedy in the cure of some forms of chronic rheumatism, and said to be more valuable than Guaiacum. The powdered root is emetic and purgative; but its action is so violent, and is accompanied with narcotic symptoms, as to render it unsafe for internal use. The berries are said to be used in Portugal for the purpose of giving a darker colour to the port wine. They stain paper and linen of a beautiful purple colour, which, however, soon disappears. If some process could be found of fixing the colour, they might be used for the purpose of dying. The

leaves are extremely acrid; but the young shoots, which lose their pungent property, when boiled in water, are eaten in America as asparagus.

LVIII. NAT. ORD.—Orchideæ, Juss.

GENERA.

- Flower with the lower lip spurred*..... ORCHIS.
Flower with the lower lip not spurred OPHRYS.

ORCHIS, Linn. *Orchis*.

O. pyramidalis, Linn. *Pyramidal Orchis*. Lip of 3 equal, entire lobes, with 2 protuberances at the base, above; sepals, ovate, lanceolate, acuminate, the lateral ones spreading; spur, slender, filiform, as long or longer than the ovary; glands of the pollen masses, united; leaves, linear, lanceolate.

Flora Romana, p. 302. *Florig. Brit.* iii. 1105.

Tubers, globose; stem, erect, about a foot high, clothed with leafy sheaths; leaves, long, linear, lanceolate, acuminate, a bright, unspotted green; flowers, numerous, crowded into a broad, pyramidal spike of a rich crimson colour, varying to a delicate pink or white; bractea, membranous, 3-ribbed at the base, as long as the ovary; sepals, ovate, lanceolate, acute, the lateral ones spreading; lip, reflexed, of 3 nearly equal, entire lobes, and near the base are 2 lamellar protuberances; spur, slender, as long as the ovary.

Perennial, flowering in May and June.

O. papilionacea, Linn. *Butterfly Orchis*. Lip, roundish, ovate, undivided, toothed; spur, shorter than the ovary; sepals, ovate, lanceolate, connivent; bractea, 3 to 5-ribbed; leaves, lanceolate; tubers, undivided; pollen masses, stalked, not united.

Flora Romana, p. 307.

Bulb, globose; stem, a foot high; spike, of about 8 flowers; bractea, membranous, longer than the ovary, red, with greenish-red nerves; perianth, reddish, the lip obovate, tapering at the base, the margin more or less toothed or

crenated, veiny; spur, awl-shaped or conical, the apex obtuse, reddish, shorter than the ovary.

Perennial, flowering in April and May.

This beautiful species of *Orchis* is very abundant about Rome. It is readily distinguished from all the other species, by the shape and colour of the flowers.

OPHRYS, Linn. *Ophrys* or *Insect Orchis*.

O. arinifera, Huds. *Early Spider Orchis*. Lip, oblong, ovate, convex, tumid, velvety, variegated, the margin reflexed, 3-lobed, the middle lobe largest, notched; sepals, as long as the lip; petals, linear, smooth; cells of the pollen masses, with a short, obtuse, incurved point.

Flora Romana, p. 310. *Florig. Brit.* iii. 1118.

Tubers, globose, woolly; stem, erect, about a foot high; leaves, oblong, lanceolate; flowers, 4 to 6, in a terminal spike; bractea, large, leafy, lanceolate, many-ribbed; sepals, oblong, 3-ribbed, pale green; petals, linear, smooth, a pale green, and rather shorter than the sepals; lip, oblong, ovate, convex, and somewhat tumid, the margin slightly reflexed, more or less distinctly 3-lobed, the middle one notched; the surface a fine velvety, glossy brown, with a smooth disk, and 2 lateral lines connected with a cross-bar, but very variable in the markings.

Perennial, flowering in February and March.

This is a very common plant in Italy, and very variable in the markings of the lip of the corolla.

LIX. NAT. ORD.—*Irideæ*, Juss.

GENERA.

Limb of the perianth half as long as the tube CROCUS.

Limb of the perianth as long as the tube TRICONEMA.

CROCUS, Linn. *Crocus*.

C. minimus, Red. *Least purple Crocus*. Stigma, erect, within the flower, longer than the stamens, and divided into 3 obtuse lobes; bulb, clothed with a subcoriaceous coat, separating in rings at the base.

Florig. Brit. i. 40. *C. vernus*; *V. minor*. *Flora Romana*, p. 16.

Bulb, globose, covered with several coats of brown, sub-membranous pieces; scape, with several membranous sheaths; leaves, short, linear, with a pale mid-rib; flowers, small, the segments equal, white, or pale blue, the 3 outer ones marked with 3 branched, darker veins, very elegant.

Perennial, flowering in February.

TRICONEMA, Ker. *Trichonema*.

T. Columna, R. *Columna's Trichonema*. Scape, single-flowered, drooping, shorter than the leaves; leaves, filiform, compressed, furrowed, recurved.

Florig. Brit. i. 43. Romulea columnæ. Flora Romana, p. 17.

Bulb, ovate, solid, surrounded with torn, membranous sheaths; leaves, numerous, longer than the scape; scape, 1 or several, 2 to 4 inches high, erect in flower, recurved in fruit; flowers, blue or purple, yellow in the lower part within; spatha, of 2 lobes.

Perennial, flowering in February.

LX. NAT. ORD.—*Amaryllideæ*, Brown.

NARCISSUS, Linn. *Daffodil*.

N. poeticus, Linn. *Narcissus of the poets*. Leaves, linear, obtuse, flat, with an obtuse keel; spatha, mostly single-flowered, on a compressed scape; crown, very short, concave, membranous, with a scarlet, crenated margin.

Flora Romana, p. 124. Florig. Brit. ii. 468.

Bulb, ovate; leaves, about 4, enveloped at the base in thin, membranous sheaths; scape, as long or longer than the leaves; flowers, large, fragrant, white, with a yellow crown, the margin scarlet, crenated.

Perennial, flowering in March and April.

This most beautiful *Narcissus* grows very abundantly in various places about Rome. The flowers are very variable in the size of the segments of the perianth, and some are ovate, others wedge-shaped, and sometimes they are very narrow and ligulate, and with or without a terminal point;

the leaves, also, are variable in length. The flowers are pure white, with the crown in the centre, a pale or deep yellow, fringed with scarlet; they are very fragrant. The derivation of the name of the genus is from *ναρκισσος*. *Narcissus*, which is derived from *ναρκη*, stupor, from the strong, stupefying smell of the flowers, or from the fabled youth Narcissus, the son of the river Cephissus and the nymph Liriope, who, it is related, died for the love of himself, and was changed into a flower, of whom Shelley says:—

Narcissi, the fairest among them all,
Who gaze on their eyes in the stream's recess,
Till they die of their own dear loveliness.

LXI. NAT. ORD.—*Liliaceæ*, Lind.

GENERA.

Bulbous.

Perianth globose or subcylindrical MUSCARIA.

Perianth spreading.

Flowers in terminal umbels ALLIUM.

Flowers in a spike or raceme..... ORNITHOGALUM.

Tuberous fascicles, or fibrous ASPHODILUS.

Root fibrous, stem herbaceous or woody.

Flowers perfect (containing stamens and stigma)..... ASPARAGUS.

Flowers unisexual (stamens and stigma in separate flowers).

Style, 1 RUSCUS.

Styles, 3..... SMILAX.

MUSCARIA, Tourn. *Grape Hyacinth.* *Il giacinto*, Ital.

M. racemosum, Mill. *Starch Grape Hyacinth.* Flowers, ovate, with 6 furrows, nodding, crowded, the upper ones abortive, nearly sessile; leaves, linear, channelled, flaccid, recurved, longer than the scape.

Flor. Brit. ii. 470. *Hyacinthus.* *Flora Romana*, p. 130.

Leaves, numerous, keeled at the back; flowers, numerous, dark, purplish-blue; style, erect, short; stigma, granulated.

Perennial, flowering in April and May.

This pretty little plant is very common in corn-fields, vineyards, etc., throughout Italy, and is very ornamental. The odour of the flowers is peculiar, resembling that of wet starch.

M. comosum, Mill. *Purple Grape Hyacinth*. Flowers, angular, cylindrical, 6-toothed, the lower ones distant, spreading, the upper on long, erect pedicles, crowded together, abortive; leaves, linear, channelled.

Hyacinthus. *Flora Romana*, p. 130.

Leaves, long, linear, flaccid; flowers, numerous, the perfect ones on a short, horizontal, spreading pedicle, brownish-purple, olive at the base and apex, the barren ones terminal, on long, slender, erect pedicles, crowded together like a tassel, pale-purple or bluish.

Perennial, flowering in March and April.

This is a more common species than the last, and grows in similar situations, and very frequently together.

ALLIUM, Linn. *Garlic*. *Onion*. *Aglio*, Ital.

A. ampeloprasum, Linn. *Great round-headed Garlic*. Stem, round, leafy to the middle; leaves, flat; spatha, elongated; umbels, globose, with or without bulbs; keel of the external perianth, rough; stamens, exserted, the 3 inner filaments deeply 3-cleft; bractea, with a long point; bulb, compound.

Flora Romana, p. 125. *Florig. Brit.* ii. 482.

Bulb, large, globose, compound; leaves, linear, flat, flaccid, about an inch broad and about 2 feet long; stem, round, erect, 2 to 3 feet high, terminating in a large, simple, globose umbel of numerous light purplish flowers; fruit, a 3-acutely-angular, 3-celled capsule, containing black, angular seeds.

Perennial, flowering in May and June.

This species of *Allium* has much the habit of *A. porrum*, the leek, but is readily distinguished by its numerous clusters of perennial bulbs. The garlic; onion, *A. cepa*; shalot, *A. ascalonicum*; and chives, *A. schænoprasum*, are all more or less esteemed as condiments, or food, and were admitted into the

list of pharmacopœial remedies, possessing a strong, unpleasant smell, and acrid, pungent taste, more or less stimulating, diuretic and expectorant; which qualities seem to depend upon the free phosphoric acid which they contain, which is soluble in water, acids, alkalies, and alcohol, and also by heat; so that, though pungent and acrid in a raw state, by cooking they become comparatively mild. The common garlic is far the most powerful in its qualities of the whole tribe; and, when taken into the stomach, it acts as a strong stimulant, diffusing its offensive alliaceous odour throughout the whole system, not only tainting the breath, but the perspiration, and all the excretions of the body. It is a very favourite article of consumption with the lower order of people in most parts of the continent; and the odour which they exhale, even to a person passing at a moderate distance, is very disagreeable; but, where a number of these people are congregated together in a room it is more so than can be conceived.

Leeks, onions and garlic are considered milder when grown in warm climates; their texture is not so firm, and they attain a much larger size than when grown in colder countries. Amongst the eastern nations they form a considerable article of consumption, especially in Egypt, where they seem to have been in use from a very early period, as we find that the complaining Israelites, in their march, were discontented at the loss of their usual food (Numb. xi. 5). "We remember the fish which we did eat in Egypt freely; the cucumbers and the melons, and the *leeks*, and the *onions*, and the *garlic*." Not only do they appear to have been cultivated as a common article of food, but were esteemed one of their greatest luxuries; for it seems, from the records of these ancient people, that, lest their priests should become too luxurious, and think more of pampering their appetites than fulfilling the duties of their calling, they were forbidden the use of onions by law.

A. vineale, Linn. *Crow Garlic*. Stem, round, leafy to the middle; leaves, round, hollow, linear, slightly channelled above; spatha, 1-valved, short, with a slender, elongated point; umbel, globose, with numerous bulbs; stamens, exserted, the 3 inner ones 3-pointed.

Flora Romana, p. 127. *Florig. Brit.* ii. 486.

Bulb, small, ovate, white; stem, round, smooth, slender, from 1 to 3 feet high, leafy to about the middle; leaves, long, often withering before the flowers are expanded; umbels, small, globose, with numerous crowded bulbs, often without the intermixture of flowers, which are purplish; the pedicels of irregular lengths; capsules, rarely or never found.

Perennial, flowering in May and June.

A. roseum, Linn. *Pink-flowered Crow Garlic*. Scape, round, leafless; leaves, radical, broadly linear, acuminate, flat, keeled at the back, the end rolled inwards, the margin rough, with small teeth; spatha, 2 to 4 lobes, persistent; umbel, convex; stamens, without teeth, shorter than the perianth; bulb, roundish.

Flora Romana, p. 125.

Scape, 6 to 12 inches high; leaves, striated; umbel, of beautiful rose-coloured flowers, the base marked with green, sometimes mixed with bulbs; spatha, short, white, membranous.

Perennial, flowering in May.

A. subhirsuta, Linn. *Downy-leaved Crow Garlic*. Scape, round, leafless; leaves, radical, broadly linear, acuminate, flat, the keel and margins ciliated with hairs; spatha, ovate, entire, much shorter than the umbel; stamens, simple, much shorter than the perianth; bulb, roundish.

Flora Romana, p. 125.

Scape, 6 to 12 inches high; leaves, all radical; umbel, simple or mixed with bulbs; flowers, pure white; spatha, about half the length of the umbel.

Perennial, flowering in April and May.

This is a very common and abundant plant on ruins and old walls, waste places, banks, etc., and is a very pretty and ornamental flower.

A. album, Nob. *White Crow Garlic*. Scape, 3-angled; leaves, radical, flat, linear, smooth; umbel, simple, bearing capsules, few-flowered; stamens, simple, shorter than the ovate, subcrenated segments of the perianth; bulbs, roundish.

Flora Romana, p. 125.

Scape, about a foot high, 2 of the angles acute, the others obtuse; umbels, simple; flowers, white, green at the base.

Perennial, flowering in March and April.

ORNITHOGALUM, Linn. *Star of Bethlehem. Ornithogalo, Ital.*

O. umbellatum, Linn. *Common Star of Bethlehem.* Flowers, corymbose; pedicles, longer than the linear, lanceolate bracts, spreading in fruit; filaments, lanceolate, simple; leaves, linear, smooth, with a pale groove in the centre.

Flora Romana, p. 127. *Florig. Brit.* ii. 480.

Bulb, ovate, increasing by numerous offsets; leaves, radical, numerous, linear, flaccid, soon withering; scape, erect, 6 to 12 inches high, round; flowers, in a corymb, white within, green externally, spreading.

Perennial, flowering in April and May.

This is a very common plant throughout Italy, especially in corn-fields and uncultivated places, road-sides, etc.

The name ornithogalum is from *ορνις*, a "bird," and *γαλα*, "milk," the meaning of which appears to have puzzled all etymologists; and whether it is from the resemblance of the flowers to "bird's milk" (that is the white milky fluid which is more or less abundant with the dung of birds, and is the urinary secretion), appears doubtful.

The bulbs of the *O. umbellatum*, and, probably, other allied species, are eaten in Palestine, and, according to Linnæus, were the dove's dung mentioned in the following passage (2 Kings vi. 25), "and the fourth part of a cab of dove's dung (sold) for five pieces of silver."

O. Narbonense, Linn. *Narbonne Star of Bethlehem.* Racemes, elongated, many-flowered; filaments, all dilated at the base; peduncles, equal, spreading in flower, erect in fruit; bractea, lanceolate, as long as the peduncles; leaves, linear, appearing before the flowers.

Flora Romana, p. 127. *Florig. Brit.* ii. 479.

Bulb, ovate, white; leaves, radical, long, linear, channelled, spreading, rounded at the back; scape, erect, round, smooth, from 1 to 2 feet high, terminating in a long, race-

mose spike of numerous flowers, white within, green at the back; capsules, enveloped in the perianth, 3-angled, 3-furrowed, 3-celled.

Perennial, flowering in April and May.

ASPHODELUS, Linn. *Asphodel. Asfodelo*, Ital.

A. fistulosus, Linn. *Onion-leaved Asphodel*. Scape, naked, branched at the end; leaves, upright, striated, subulate, subfistulate.

Flora Romana, p. 129.

Scape, about 2 feet high; leaves, nearly cylindrical, striated; perianth, of white segments, having a yellowish line at the back; bractea, yellowish.

Perennial, flowering in April.

This pretty little plant grows on the upper part of the ruins of the Colosseum, which is the only place that it is known to grow in about Rome. It is a very much smaller plant than the *A. ramosus*, which is very abundant on banks, waste places, etc., in all parts of the Campagna, and its fleshy, fasciculated roots afford an abundant supply of food for foxes, which are very numerous.

ASPARAGUS, Linn. *Asparagus. Sparagio*, Ital.

A. acutefolius, Linn. *Acute-leaved Asparagus*. Stem, shrubby, angular, unarmed, the branches downy; leaves, evergreen, rigid, linear, roundish, with a bristle point; tube of the perianth as long as the segments.

Flora Romana, p. 130.

Stem and branches long, slender, widely-spreading; leaves, numerous, short, rigid; flowers, small, yellowish fragment.

Perennial, flowering in September.

The young, quick-grown, tender stems of the *A. officinalis* are well known as a culinary vegetable. But the young and tender shoots of all the wild species growing in the hedges and bushy places in most parts of Italy, are indiscriminately cut and sold in the markets for the use of the table. In the wild state the shoots are much smaller, harder, and of a

stronger flavour than those which are cultivated and quicker grown.

RUSEUS, Linn. *Butcher's Broom.* *Ruseo*, Ital.

R. aculeatus, Linn. *Common Butcher's Broom.* Stem, rigid, branched; leaves, ovate, acuminate, very rigid and pungent, bearing a solitary flower on the surface, subtended by a minute, scarious, 1-veined bractea.

Flora Romana, p. 339. *Florig. Brit.* iii. 1277.

Stem, furrowed, many-branched, 1 to 2 feet high; leaves, numerous, scattered, dark green, smooth, of a firm, rigid texture, numerously ribbed evergreen; flowers, small, 1, rarely 2 together, pale green, or white, arising from the disk of the leaf; fruit, a globose, scarlet berry, the size of a small cherry.

Shrub, flowering in February.

After the berry is formed the leaf turns round, so that the under surface becomes the upper, by which means the berry is protected from injury, and the rain is prevented deteriorating it by this simple, but admirable contrivance; for, if the berry in the bosom of the leaf remained upwards, moisture would be lodged about it, and speedily decay it; but, by its being turned with the keel upwards, all danger from this is removed. The green branches tied together, and formed into brooms, were formerly much used by butchers for cleaning their blocks; whence the common English name of *Butcher's Broom*. The common Italian name of the plant is *Scaccia ragni*, and it is sold in the streets of Rome, in the spring, tied up into bunches, and fastened at the end of a long reed, and used for the purpose of removing cobwebs, etc., from the ceilings of rooms, etc.

SMILAX, Linn. *Rough Bindweed.* *Smilace*, Ital.

S. aspera, Linn. *Rough Bindweed.* Stem, acutely angular, flexuous, prickly; leaves, oblong, heart-shaped or ovate, lanceolate, 7 to 9-ribbed, leathery; teeth, spinous.

Flora Romana, p. 338.

Stem, woody, long, slender, flexuous, branched, more or less

prickly; leaves, scattered; flowers, white or pale yellow, in racemose clusters, fragrant; fruit, a dark, ovate, smooth, shining berry.

Shrub, flowering in September.

The roots of this species greatly resemble those of the medicinal plant Sarsaparilla, the *S. sarsaparilla*, but are not considered so efficacious. It is an elegant, wild-looking plant, hanging in festoons in hedges or among bushes, and is common in most parts of Italy.

LXII. NAT. ORD.—**Junceæ**, De Cand.

JUNCUS, Linn. *Rush*.

J. bufonius, Linn. *Toad-rush*. Stem, leafy, branched; leaves, linear, bristle-shaped; panicle, forked, with solitary, nearly sessile, unilateral, distant flowers, longer than the bractea; perianth of 6 lanceolate, long, taper, pointed, unequal pieces, longer than the oblong, obtuse capsule.

Flora Romana, p. 132. *Florig. Brit.* ii. 507.

Stems, numerous, 4 to 8 inches high, branched or simple, slender, and mostly bearing only 1 leaf; leaves, numerous at the base, linear, flat above, channelled at the base; flowers, distant, in terminal forked panicles; perianth, of nearly equal segments, with 2 green ribs at the back.

Annual, flowering from May to July.

This is an extremely variable plant as to size and luxuriance, depending upon the soil in which it grows being more or less humid.

LXIII. NAT. ORD.—**Araceæ**, Schott.

ARUM, Linn. *Cuckoo-pint*. *Aro*, Ital.

A. italicum, Mill. *Italian Cuckoo-pint*. Leaves, hastato-sagittate, with white veins; spadix, erect, clavate, shorter than the spathe.

Flora Romana, p. 331.

Leaves, all radical, arrow-shaped, with large, spreading lobes at the base, and mostly marked with white veins; the spatha large, pale, yellowish-green, membranous, enveloping the spadix, terminating in a club as long as the footstalk; fruit, bright scarlet; berries remaining in an oblong crowded spike, after the rest of the plant is decayed.

Perennial, flowering in March and April.

The whole of the plants of this order possess acrid and pungent properties. The above species is commonly called *giara*, or *pan de' serpi*, by the Italians, and is very common in hedge-bottoms and waste places.

LXIV. NAT. ORD.—*Cyperaceæ*, Juss.

CYPERUS, Linn. *Cyperus*.

C. longus, Linn. *Sweet Cyperus* or *English Galingale*. Spikelets, linear, lanceolate, in erect, twisted, compound umbels; peduncles of the partial umbels, erect, unequal; general involucre of several very long, leafy bractea, partial ones small; stigmas, 3; root, creeping.

Flora Romana, p. 24. *Florig. Brit.* i. 45.

Root, creeping, aromatic and astringent; stem, triangular, 3 to 5 feet high, erect, leafy, the margin rough; leaves, long, keeled, nearly flat; umbel, doubly compound, very large, unequal, its stalks triangular and closely sheathed at the base; spikelets, linear, lanceolate, compressed, of numerous shining brown, green-keeled glumes, arranged in 2 opposite, closely-imbricated ranks; seeds, pointed.

Perennial, flowering in June and July.

C. fuscus, Linn. *Brown Cyperus*. Spikelets, linear, lanceolate, in small, simple, terminal umbels; involucre of 3 unequal, leafy bractea; glumes, spreading; stigmas, 3; root, fibrous.

Flora Romana, p. 23. *Florig. Brit.* i. 45.

Stems, several, flaccid, 6 to 12 inches long, smooth, leafy at the base; leaves, linear, curved, sheathing at the base; umbel, of 3 or more unequal rays, sometimes compound;

spikelets, compressed, linear, acute, of numerous dark-brown glumes, with a green keel and margin; seeds, acutely triangular.

Annual, flowering during the summer months.

The genus *Cyperus* is very large, containing about 240 known species. Most of them are natives of the tropics, gradually diminishing in number towards the colder regions; 13 are natives of Italy, and only 2 are found in England. The Egyptian papyrus, *C. papyrus*, or *Papyrus antiquorum* of some authors, is interesting, as being the plant from which the ancients chiefly made their paper, ropes, and cables, and also their boats, from the account of Pliny.

CAREX, Linn. *Carex* or *Sedge*.

C. depauperata, Gooden. *Starved Wood-Carex*. Barren spikelets, solitary, with long, acute scales, fertile, distant, few-flowered, on long, slender peduncles; bractea, leafy sheathing; fruit, large, globose, inflated, striated with a long, slender beak, bifid, pointed, longer than the ovate, lanceolate scales; leaves, linear, rough; stem, smooth; root, somewhat creeping.

Florig. Brit. iii. 1176.

Stem, 12 to 18 inches high, erect, smooth, obtusely angular; leaves, linear, rough at the edges and keel, the sheath long, close, striated; bractea, long, leafy, erect; fertile spikelets distant, of about 5 lax florets; the scales ovate, lanceolate, green, with a broad, pale, membranous margin; fruit, large globose, inflated, smooth, green, numerous, striated, the beak long, bifid, smooth or rough on the margins.

Perennial, flowering in April and May.

LXV. NAT. ORD.—Gramineæ, Juss.

TRIBES.

Inflorescence a loose or close spike-like panicle.

Spikelets compressed on the sides, 1 or 2-flowered.

- Barren flowers* 1 or 2, *below* the perfect ones 1. PHALARIDÆÆ.
Barren flowers rudimentary, *above* the perfect ones.
Inflorescence a spike-like panicle .. 2. PHLEINÆÆ.
Inflorescence a loose panicle..... 3. AGROSTIDÆÆ.
Spikelets with 2 or more flowers, the upper ones often barren.
Glumes as long, or nearly as long, as the spikelets 4. AVENINÆÆ.
Glumes shorter than the lowest spikelet 5. FESTUCINÆÆ.
Inflorescence imbricated or 2-sided spikes.
Spikelets solitary, or 2 or 3 together, sessile, on opposite sides of a channelled and toothed rachis 6. HORDENIÆÆ.
Inflorescence a flattened rachis, with the spikelets in 2 rows on one side.
Spikelets compressed at the back..... 7. PANICÆÆ.
Spikelets compressed on the sides 8. CHLORIDÆÆ.

GENERA.

TRIBE 1.—Phalaridææ.

- Stamens*, 2 ANTHROXANTHUM.
Stamens, 3 PHLARIS.

TRIBE 2.—Phleineææ.

- Glumes* simple, awnless ALOPECURUS.
Glumes keeled, or mostly terminating in an awn..... PHLEUM.

TRIBE 3.—Agrostydeææ.

- Glumes* pointed or awned.
Awn simple AGROSTIS.
Awn jointed at the base PIPTATHERUM.

TRIBE 4.—Avenineææ.

- Inflorescence* a spike-like panicle.
Glumes with a feathered awn LAGURUS.
Glumes with a bristly awn..... KOLERIA.
Inflorescence mostly a loose panicle, spikelets 2 or many-flowered.
Glumes nearly equal, the outer 2-pointed; awn from the middle of the back..... AVENA.

TRIBE 5.—**Festucineæ.***Flowers awnless.**Glumes* unequal at the base BRIZA.*Glumes* equal at the base.*Glumelles* hardened on the fruit MELICA.*Glumelles* not hardened on the fruit.*Flowers* jointed at the axis POA.*Flowers* not jointed at the axis.... ERAGROSTIS.*Flowers awned.**Spikelets* with a pectinated bractea at the back..... CYNOSURUS.*Spikelets* clustered, 3 or 4-flowered DACTYLIS.*Spikelets* not clustered, many-flowered.*Outer Glumella* awned below the bifid apex..... BROMUS.*Outer Glumella* terminating in a point or awn FESTUCA.TRIBE 6.—**Hordeniææ.***Glumes*, 2.*Spikelets* 2 or 3 from the same point, 2 or 3-flowered ELYMUS.*Spikelets* 1-flowered, 3 together, the lateral ones mostly imperfect..... HORDEUM.*Spikelets* many-flowered, all perfect.*Glumella* with a twisted awn at the back..... GAUDINIA.*Glumella* pointed or awned at the apex.*Glumes* nearly equal, keeled at the back TRITICUM.*Glumes* unequal, keeled at the back BRACHYPODIUM.*Glumes* rounded at the back, not keeled, 2 to 4-toothed ÆGILOPS.*Glume*, 1 LOLIUM.TRIBE 7.—**Paniceæ.***Glumes* 2, the outer minute TRAGUS.*Glumes* 3 (the outer a barren flower), with a bristly involucre at the base.. SETARIA.TRIBE 8.—**Chlorideæ.***Spike* fingered; glumes 1-flowered, nearly equal, spreading..... CYNODON.

PHALARIS, Linn. *Canary-Grass.* *Falari*, Ital.

P. aquatica, Linn. *Aquatic Canary-Grass.* Panicle, an oblong spike; valves, with an acuminate, bristly point; margin, 1-nerved, back-winged, erose and toothed; glumes, smooth; stem, bulbous at the base.

Flora Romana, p. 31.

Root, bulbous; stem, 2 to 3 feet high; leaves, narrow, acute, striated, the sheaths loose; panicle, pale green or violet; glumes, with a prominent, membranous, winged keel, more or less toothed and eroded, the inner valve with 2 green nerves.

Perennial, flowering in May.

This is a common grass in humid pastures and situations occasionally inundated with water, and where, too, in certain seasons, it is often exposed to long-continued dryness; and unless it was provided with some means of supporting itself against these contingencies, would often become dried up, and perish without having perfected its seed. We find, however, that Nature has made a most admirable provision against such an accident; for at the base of the stem there are enlarged, fleshy, tuberous masses, receptacles of nutriment, which are capable of supporting the plant for a long period, without any additional moisture; so that it is enabled, even through long droughts, to support itself and bring its seed to perfection.

It is a circumstance of no ordinary interest to the lover of Nature's works, to find located within the limits of one vast ruin, plants of almost every variety of habit; but the grass before us has an additional interest, for it leads the mind back to the thought of those historical events which have revolutionised the spot on which it grows: for we can have little doubt but the same species of grass grew and flourished on the same place in past ages, and probably on the banks of Nero's fish-pond, before it was destined to be the site of Rome's proudest monument, and now its grandest ruin—and that it has continued to flourish there, and pass through its annual courses, irrespective of the mighty changes passing around it.

P. paradoxa, Linn. *Bristle-spiked Canary-Grass*. Panicle, a cylindrical spike; the branches, 6-flowered; intermediate flowers, perfect, the lateral barren, much smaller, their glumes obtuse and crenated; glumes of the fertile flowers, lanceolate; the margin, 3-nerved; the keel, a lanceolate-toothed wing.

Flora Romana, p. 32.

Stem, 1 to 2 feet high or more, the lower branches bent at the joints; panicle, 1 to 2 inches long, oblong, ovate, obtuse, lobed, before flowering enveloped in the dilated sheath of the upper leaf.

Annual, flowering in May and June.

ANTHROXANTHUM, Linn. *Vernal Grass*. *Antoxanto*, Ital.

A. odoratum, Linn. *Sweet-scented Vernal-Grass*. Panicle, a loose, oblong spike; florets, on short footstalks, longer than the awns.

Flora Romana, p. 10. *Florig. Brit.* i. 33.

Stem, 12 to 18 inches high, smooth, slender; leaves, flat; panicle, becoming yellow; imperfect florets, awned, obtuse, brown, hairy; seeds, glossy brown.

Perennial, flowering in April and May.

It is this grass which chiefly gives the peculiar and well-known agreeable scent to new-made hay. The valves of the glumes are thickly studded with small (when dry), pale-coloured dots, and are probably the organs which secrete the volatile matter—the cause of the odour—which is said to be benzoic acid. It is remarkable that the scent of this plant is not given out while it is in a growing state; but when cut and in the act of drying, it is strongest.

ALOPECURUS, Linn. *Foxtail-Grass*. *Alopecuro*, Ital.

A. agrestis, Linn. *Slender Foxtail-Grass*. Stem, erect, rough upwards; panicle, spiked, slender, cylindrical, tapering; glumes, nearly smooth, united from the base to about the middle floret with an awn from near the base, and about as long again.

Flora Romana, p. 29. *Florig. Brit.* i. 76.

Stems, numerous, 1 to 2 feet high, rough in the upper part, leafy at the base; leaves, rough on the under side, on the edges, and sheath—the upper sheath longer than the leaf; glumes, lanceolate, acute, 3-ribbed, with a row of fine short hairs at the back; styles, short, united; stigmas, feathery.

Annual, flowering in May.

This species is not considered of any agricultural value, and is refused by all cattle. It prefers poor, exhausted soil, and may be taken as a natural witness of its ill-conditioned state; and it is a remarkable circumstance in the habit of this grass, that when the land on which it is growing is brought into good condition, it will no longer flourish, but disappears.

A. utriculatus, Linn. *Bladder Foxtail-Grass*. Stem, erect or ascending; spike, ovate, or ovate-oblong; peduncles, 1 to 2-flowered; valves, united to the middle, beyond which it is suddenly contracted into a depressed point; sheath of the upper leaf, much inflated.

Flora Romana, p. 29.

Stem, 12 to 18 inches high; spike, about an inch long, whitish-green; glumes, sub-triangular, the keel callous; glumelles, lanceolate, acute, with a long awn from the base jointed about the middle; leaves, linear, the upper one with the sheath much dilated, and swollen into a bladder-like shape.

Annual, flowering in April.

The Bladder-sheathed Foxtail-Grass is so called, from the circumstance of the sheath of the upper leaf being dilated into the form of an inflated bladder—a character which is common to the species of this genus, but is most remarkable in this. The spikes are pale and conspicuous, and the whole plant is delicate and slender: it is a common grass in pastures and fertile places, road-sides, etc., in the south of Europe, and has located itself in the damp, accumulated soil on the north side of the Colosseum, near that arch which is considered to have been the royal entrance to the interior.

PHLEUM, Linn. *Cat's-tail-Grass.*

P. Michelii, All. *Michelian Cat's-tail-Grass.* Stem, erect; panicle, spiked, cylindrical; glumes, lanceolate, taper-pointed, downy, ciliated at the back.

Flora Romana, p. 34. *Florig. Brit.* i. 85.

Stem, smooth, 1 to 2 feet high, with sterile, leafy shoots at the base; leaves, short; panicle, 2 to 3 inches long; glumes, compressed, ciliated, ribbed, the keel rigid at the point; glumelles, unequal, obtuse, hairy; style, short; stigmas, feathery.

Perennial, flowering in June.

AGROSTIS, Linn. *Bent Grass.*

A. vulgaris, With. *Fine Bent Grass.* Panicle, spreading, nearly smooth; glumes, nearly equal, outer one toothed on the upper part of the keel; glumelles, with the outer valve 3-ribbed; ligula, abrupt, extremely short.

Flora Romana, p. 27. *Florig. Brit.* i. 94.

Root, tufted; stem, ascending, 1 to 2 feet high, roughish above; leaves, linear, its sheath long, close; ligula, very short; panicle, spreading during and after flowering; glumes, mostly purple; glumelles, membranous, the outer 3-nerved, rarely with a dorsal awn, arising from about the middle of the valve, the inner valve about half the size, 2-nerved, bifid; style, separate; stigma, sessile.

Perennial, flowering in June and July.

PIPTATHERUM, Beau. *Pipthatherum.*

P. multiflorum, Beau. *Many-flowered Pipthatherum.* Panicle, spreading; spikelets, ovate, lanceolate; glumelles, smooth; leaves, flat.

Agrostis milium-comosum. *Flora Romana*, p. 26.

Stem, 3 to 4 feet high, erect; leaves, flat, linear, taper-pointed; panicle, a foot long, or more, the branches whorled, spreading, slender, rough; glumes, ovate, turgid, smooth, often violet-coloured at the back; glumelles, broad, with an awn twice its own length.

Perennial, flowering in June and July.

This very beautiful species of grass grows in large, matted tufts, and loves to locate itself on the tops of old walls and ruins, from whence its long stems and leaves can freely expand on every side, and triumph, in its wild luxuriance, over the destructive work of time, giving that elegant character to them which adds so much of grace even to those which have no feature of beauty of their own, but, drooping over the lofty arches, and hanging in their pendant tufts on those architectural forms of beauty, and massive piles, they add to the wild grandeur of the scene, and seem to be the perennial weepers, with their deshrivelled forms, mourning over the vast destruction which reigns around them.

LAGURUS, Linn. *Hare's-tail-Grass*.

L. ovatus, Linn. *Hare's-tail-Grass*. Glumella, surrounded at the base externally with hairs, the inner valve with a small, abortive, feathery floret at its base.

Flora Romana, p. 25. *Florig. Brit.* i. 86.

Stem, 6 to 18 inches high, naked above; leaves, broadly linear, downy; spike, nearly white, very soft and woolly.

Annual, flowering in April and May.

This extremely beautiful and ornamental grass is very abundant in waste places in most parts of Italy, and is the only known species of the genus.

KÆLERIA, Pers. *Kæleria*.

K. cristata, Pers. *Crested Kæleria*. Panicle, compact, spiked, oval, interrupted below; outer glumella, acute, 3-ribbed; leaves, narrow, rough at the edges, ciliated.

Flora Romana, p. 61. *Aira cristata*. *Florig. Brit.* i. 97.

Root, crowned with the undivided sheaths of the old leaves; stem, 6 to 18 inches high, more or less downy, leafy, and smooth below; leaves, linear, glaucous, smooth or downy; spike, smooth or downy; glumes, unequal, lanceolate, with a rough keel; glumelles, equal, the outer one 3-ribbed.

Perennial, flowering in June and July.

This plant grows in thick tufts, and is not uncommon in

mountain-pastures: it has located itself upon the Colosseum, probably, from seeds brought in hay.

K. phleoides, Pers. *Cat's-tail Kæleria*. Panicle, a cylindrical spike; spikelets, 4 to 5-flowered, villous, the lower flowers awned beneath the apex; leaves, broadly linear, hairy; stem, smooth.

Flora Romana, p. 61.

Stem, smooth, 6 to 12 inches high, bent at the joints; leaves, linear, flat; ligula, truncated, torn; panicle, lobed; spikelets, compressed; glumes, unequal, acuminate, hairy, the margins membranous; glumelles, the outer one hairy, with a slender, rough awn below the apex, green at the back, the margins white, the inner one smaller, bifid, with marginal ciliated nerves; root, without fasciculated leaves.

Annual, flowering in April and May.

AVENA, Linn. *Oat-Grass*. *Vena*, Ital.

Upper Glume, 5 to 9-nerved.

A. sterilis, Linn. *Sterile Oat-Grass*. Panicle, one-sided; spikelets, mostly 4-flowered; upper glume, 9-nerved; florets, lanceolate, the apex toothed and bifid, the 2 lower ones awned at the back, and clothed with bristly hairs from the base to the middle, the upper smooth.

Flora Romana, p. 43.

Stem, 4 or 5 feet high; panicle, lax; spikelets, about an inch long, or longer; florets, 4 or 5, the 2 or 3 outer ones hairy at the base, the awn twisted and jointed, the inner ones smaller, smooth-stalked, imperfect.

Annual, flowering in May.

A. fatua, Linn. *Wild Oat*. Panicle, equal on all sides, spreading; spikelets, mostly 3-flowered; upper glume, 9-nerved; florets, lanceolate, the apex toothed and bifid, with an awn at the back, and all clothed with bristly hairs from the base to the middle.

Flora Romana, p. 43. *Florig. Brit.* i. 138.

Stem, 3 to 4 feet high; panicle, large, spreading; spikelets, drooping, about half an inch long; florets, 3 or 4, hairy at the base, the awn twisted and jointed.

Annual, flowering in May.

The long awn of these two species form excellent hygrometers; but that of *A. sterilis* is the most sensitive, and is kept constantly in an apparent spontaneous motion, and has some resemblance to an insect; hence it has received the name of "animal oat." The florets are sometimes used by anglers in the place of artificial flies. Both these species are distinguished from the common cultivated oat, *A. sativa*, in having the florets hairy; while in *A. sativa* they are quite smooth, and its awn is much smaller and more slender.

A. hirsuta, Roth. *Hairy Oat-Grass*. Panicle, one-sided; spikelets, mostly 2-flowered; upper glume, 9-nerved; florets, lanceolate, the apex bifid, with the teeth terminating in straight bristly awns, clothed with bristly hairs from the base to the middle, and with a twisted awn at the back.

Stem, erect, stout, 3 to 4 feet high; leaves, long, linear; panicle, large, one-sided, somewhat drooping; spikelets, about an inch long; glumes, lanceolate, nearly equal; florets, 2, shorter than the glumes, the outer valve lanceolate, bifid at the apex, the segments running into long, slender, bristly awns, thickly clothed with white, shining, bristly hairs from the base to the middle, and furnished at the back with a long, rough-jointed, twisted awn.

Annual, flowering in May.

Upper glumes, 1 to 3-nerved.

A. caryophylla, Wigg. *Silvery Oat-Grass*. Panicle, spreading, trichotomous; spikelets, 2-flowered, shorter than the glumes, somewhat hairy at the base; awn arising from below the middle of the outer valve, jointed, and about as long again; valve, bifid at the apex; leaves, bristle-shaped.

Aira caryophylla. *Flora Romana*, p. 37. *Florig. Brit.* i. 99.

Stem, 6 to 12 inches high, very slender, smooth, and shining; leaves, few, short, bristle-shaped; panicle, spreading, the branches hair-like, roughish; spikelets, small, somewhat congested at the ends of the branches; glumes, nearly equal, lanceolate, acute; florets, 2, hairy at the base.

Annual, flowering in May.

This is a pretty, elegant little grass, and is greedily eaten by sheep; but, from the small quantity of herbage which it produces, it is comparatively a valueless grass.

BRIZA, Linn. *Quaking-Grass.* *Briza*, Ital.

B. Maxima, Linn. *Large Quaking-Grass.* Panicle, nodding at the end; spikelets, ovate, 9 to 17-flowered; ligula, elongate, lanceolate, acute.

Flora Romana, p. 53.

Stem, 12 to 18 inches high, slender; panicle of 2 to 6 large solitary spikelets, on slender peduncles; spikelets, ovate, heart-shaped, compressed, smooth and shining; outer glumelle, boat-shaped, green, and rounded at the back, the margin white, the inner small, flat, entire.

Annual, flowering in May and June.

This is a common plant throughout Italy; and when growing in great abundance, as it generally does on bank-sides, etc., it is very elegant and ornamental.

B. media, Linn. *Common Quaking-Grass.* Panicle, erect, spreading; spikelets, ovate, heart-shaped, 5 to 10-flowered; glumes, shorter than the florets; ligula, very short and truncated.

Flora Romana, p. 53. *Florig. Brit.* i. 123.

Stem, 1 to 2 feet high, slender, smooth; leaves, linear, roughish, sheaths long; ligula, short, obtuse; panicle, widely spreading; spikelets, nodding; glumes, ovate, obtuse, very concave, 3-ribbed, purplish; florets, about 7; glumelles, unequal, the outer large, concave, the inner small, flat.

Perennial, flowering in April and May.

This elegant grass is of considerable value in pastures, especially on a slightly sandy or poor soil, producing much herbage, and containing a large portion of nutritive matter, and is greatly relished by cattle.

B. minor, Linn. *Small Quaking-Grass.* Panicle, erect, spreading; spikelets, triangular, 5 to 7-flowered; glumes, longer than the florets; ligula, elongate, lanceolate, acute.

Flora Romana, p. 54. *Florig. Brit.* i. 124.

Stem, 3 to 6 inches high; leaves, linear, roughish; sheaths, close, smooth; ligula, elongated; panicle, widely spread-

ing; spikelets, smooth, shining green or white, rarely purplish; glumes, longer than the florets; glumelles, unequal, the outer very concave and swollen at the base, the inner small, flat.

Annual, flowering in May and June.

MELICA, Linn. *Melic-Grass.*

M. pyramidalis, Roem. and Sch. *Pyramidal Melic-Grass.*

Panicle, branched, the branches racemose, spreading; spikelets, nodding, 3-flowered; glumes, ovate, acute; glumelles, unequal, naked, 2-flowered, perfect, the barren one terminal, stalked, small, obtuse; ligula, large, truncated, torn.

Flora Romana, p. 39.

Stem, 2 to 3 feet high, mostly simple, erect, tufted; leaves, linear, the margins and sheath rough, becoming convolute and bristle-shaped; panicle, 4 to 6 inches long, racemose in the upper part, the first branch bifid, the rest simple, gradually shorter upwards; spikelets, one-sided, nodding; pedicles, short, hairy; glumes, purplish.

Perennial, flowering in May.

This very beautiful species of Melic-Grass grows in large tufts, thickly matted together, on various parts of the crumbling ruins of the Colosseum, and forms no mean ornament when it is in full bloom. It is a plant which only flourishes in dry, arid situations; and it seems immaterial to its development, whether it locates itself upon the dry, exposed hill-side, or in stony or rocky situations, or on old walls and ruins.

POA, Linn. *Meadow-Grass.* *Poa*, Ital.

Flowers webbed at the base.

P. bulbosa, Linn. *Bulbous Meadow-Grass.* Panicle, close, erect; spikelets, ovate, of 3 to 4 acute flowers, downy at the keel, and connected by a web at the base; leaves, short; upper sheath below the middle of the stem, much longer than its leaf; ligula, prominent, acute; stem, swollen into a bulb at the base.

Flora Romana, p. 50. *Florig. Brit.* i. 118.

Stem, 4 to 6 inches high, erect above, bent at the base; leaves, narrow, short, rough on the margins; panicle, spreading; spikelets, compressed, white, variegated with purple, 4 or 5-flowered, the upper ones often expanded into small leaves.

Perennial, flowering in March and April.

This singular species of grass is peculiarly fitted to dry, sandy situations. The bulbs formed at the base of the stem and leaves, are blown about on the surface of the sand during the greater part of the summer months, until the ground becomes humid, when they also become fixed, and shortly put out their fibrous roots deeply into the sand, and during the early part of the spring shoot forth an abundance of leaves, which form a grateful, and indeed the chief part of the herbage for cattle in many parts where the sand is loose, especially on downs. In Italy and Germany, the flowers often become viviparous.

P. trivialis, Linn. *Roughish Meadow-Grass*. Panicle, spreading; spikelets, ovate, of about 3 florets, 5-ribbed, the dorsal rib hairy, the rest smooth, and connected by a web at the base; leaves, roughish, upper sheath much longer than its leaf; ligula, acute, long; roots, fibrous.

Flora Romana, p. 49. *Florig. Brit.* i. 120.

Root, tufted; stem, 1 to 2 feet high, roughish; leaves, numerous, flat, linear, roughish, as well as the long, slightly-compressed, striated sheaths; panicle, erect, many-branched, spreading; glumes, unequal.

Perennial, flowering in May.

This is one of our most valuable meadow-grasses, possessing highly nutritive properties, and is a favourite food of cattle. It grows to the greatest perfection in moist, rich soils, and especially in sheltered situations, or amongst other grasses; and is one of the best grasses for permanent pastures.

P. compressa, Linn. *Flat-stemmed Meadow-Grass*. Panicle, rather close, spreading when in flower, partly turned to one side; spikelets, ovate, oblong; florets, 5 to 7, obtuse, slightly webbed at the base; upper glumelle, with 3 hairy

nerves; upper sheath, about as long as its leaf; ligula, short, obtuse; stem, compressed.

Flora Romana, p. 50. *Florig. Brit.* i. 116.

The whole plant more or less of a glaucous green; root, with creeping stems; stems, procumbent at the base, erect, above much compressed; leaves, short, roughish above, the sheath somewhat inflated; panicle, mostly one-sided; spikelets, nearly sessile; glumes, 3-ribbed; florets, 5 to 7, the lower ones webbed at the base.

Perennial, flowering in May and June.

Flowers not webbed at the base.

P. annua, Linn. *Annual Meadow-Grass*. Panicle, spreading, erect, with a triangular outline; spikelets, ovate, oblong, 5 to 6-flowered; glumes, unequal; outer glumelle, 5-ribbed, all more or less silky, but without web at the base; upper sheath, longer than its leaf; ligula, oblong, acute.

Flora Romana. p. 49. *Florig. Brit.* i. 121.

Root, fibrous; stems, numerous, ascending or procumbent; leaves, linear, flaccid, often waved; sheaths, close, compressed, smooth; panicle, many-branched; glumes, unequal, the outer smallest, single-ribbed, the inner 3-ribbed; florets, rather distant; glumelles, unequal, the outer 5-ribbed, the inner 2.

Annual, flowering nearly all the year.

This little grass is one of the most troublesome weeds, growing upon old walls, roofs, road-sides, gravel paths, etc.; and in the spring increases so abundantly in most of the public squares in Rome, as to give them almost a green covering.

ERAGROSTIS, Beau. *Love-Grass*.

E. pilosa, Beau. *Hairy Love Grass*. Panicle, branched, the lower branches 4 or 5, in half-whorls; spikelets, linear, 5 to 12-flowered; florets, acute, with slender lateral nerves; sheaths of the leaves, hairy at the top; root, fibrous.

Poa pilosa, Linn. *Flora Romana*, p. 51.

Stem, slender, 1 to 2 feet high, bent and branched at the base; leaves, flat; sheaths, smooth, short; ligula, very

short, truncated, and accompanied with a tuft of numerous long, white hairs; panicle, elegant, at first contracted, then spreading the slender branches; spikelets, slender, about 8-flowered, compressed, purplish; glumes, small, unequal; glumelles, nerveless, the outer large, ovate, obtuse, violet-coloured, the inner white.

Annual, flowering in June and July.

This elegant and ornamental grass is very common on the walls and ruins about Rome, and is found in most parts of Italy.

CYNOSURUS, Linn. *Dog's-tail-Grass.*

C. cristatus, Linn. *Crested Dog's-tail-Grass.* Panicle, spiked, linear; florets, with a short awn or point.

Flora Romana, p. 65. *Florig. Brit.* i. 146.

Plant, tufted; stem, erect, 1 to 2 feet high, slender; panicle, a racemose spike, one-sided, 1 to 2 inches long; spikelets, 3 to 5-flowered, on a waved rachis, each spikelet with pectinated bractea at the base (an abortive spikelet); glumes, linear, lanceolate; glumelles, with the outer valve keeled, and terminating in a roughish point or short awn.

Perennial, flowering in May and June.

This is a valuable pasture-grass, from its having long, fibrous roots, and producing large tufts of herbage, rendering it a grass of long endurance, especially in dry lands, and well-suited for sheep.

C. echinatus, Linn. *Rough Dog's-tail-Grass.* Panicle, spiked, ovate; florets, with a long awn.

Flora Romana, p. 65. *Florig. Brit.* i. 146.

Stem, erect, 1 to 2 feet high, slender; leaves, short, broad; sheath, somewhat inflated; panicle, a dense, ovate spike; spikelets, small, 1 to 2-flowered; bractea, pectinated, large, each valve with a long tapering point or awn; glumes, with a long, tapering, roughish point and keel; glumelles, equal, the outer terminating in a long, rough, slender awn.

Annual, flowering in May and June.

DACTYLIS, Linn. *Cock's-foot-Grass.*

D. Glomerata, Linn. *Rough Cock's-foot-Grass.* Panicle, distantly branched; spikelets, in dense, globular tufts, turned to one side; leaves, flat, linear, rough.

Florig. Brit. i. 144.

Root, tufted; stem, 1 to 3 feet high, rough; leaves, roughish; sheaths, keeled; panicle, with long, spreading branches; spikelets, dense, ovate; florets, compressed; glumelles, equal, the outer with a rough keel, terminating in a short awn between the bifid apex.

Perennial, flowering from May to August.

As a pasture Grass this is considered one of the most productive and highly nutritive, but is not as valuable for mowing, from its tendency to grow too coarse and rank.

BROMUS, Linn. *Brome-Grass.*

Glumes 2, unequal, the lower 3-, and the upper 5-nerved.

B. racemosus, Linn. *Smooth Brome-Grass.* Panicle, erect, simple; spikelets, ovate, smooth, somewhat compressed; flowers, closely imbricated, about as long as the awn; midrib of the glumes and glumelles rough towards the top; leaves and sheaths, slightly hairy.

Flora Romana, p. 54. *Florig. Brit.* i. 139.

Stem, erect, 1 to 2 feet high; leaves, narrow, linear; sheath, rather long; ligula, short, obtuse, torn; panicle, erect, or slightly drooping, close, its branches simple, rarely divided, short; spikelets, ovate, oblong, smooth, the outer glumelle 7-nerved, with an awn as long as itself.

Annual, flowering in May and June.

B. mollis, Linn. *Soft Brome-Grass.* Panicle, erect, simple, or compound; spikelets, ovate, downy, somewhat compressed; flowers, closely imbricated, about as long as the awn; midrib of the glumes and glumelles, not rough; leaves and sheaths, downy or hairy.

Flora Romana, p. 55. *Florig. Brit.* i. 127.

Stem, erect, 1 to 2 feet high; leaves, linear, very soft and downy, as well as the close sheaths; ligula, short, obtuse,

torn; spikelets, numerous, ovate, oblong, downy, the outer glumelle, 7-nerved, with an awn as long as itself.

Annual, flowering in May and June.

B. arvensis, Linn. *Taper Field Brome-Grass*. Panicle, spreading, at length drooping, its branches subdivided; spikelets, compressed, smooth, loosely imbricated, about as long as the straight awn; leaves and sheaths, hairy.

Florig. Brit. i. 134.

Stem, erect, often procumbent, and rooting from the joint; leaves, spreading, many-ribbed, and, as well as the close sheaths smooth, or closed with deflexed pubescence; spikelets, linear, lanceolate; florets, elliptic, lanceolate, the outer glumelle 7-nerved, with an awn as long as itself, and often curved.

Annual, flowering in May and June.

The whole of the above species of Brome-Grass are rough and coarse, containing but little nutritive matter, and of little or no value for agricultural purposes, and are refused by almost all cattle.

Glumes 2, unequal, the lower 1-, and the upper 3-nerved.

B. aspera, Murr. *Hairy-wood Brome-Grass*. Panicle, drooping, the branches slender; spikelets, compressed, lanceolate; florets, remote, linear, lanceolate; outer glumelle, hairy, 5-ribbed, longer than the inner, and longer than its awn; the lower leaves and sheaths, hairy.

Flora Romana, p. 56. *Florig. Brit.* i. 132.

Stem, erect, 4 to 6 feet high; leaves, broad, flat, the lower ones hairy; panicle, large, spreading, drooping, with slender, rough branches; spikelets, about an inch long; florets, lanceolate; glumes, very unequal; glumelles, 2, the outer ribbed, roughish, and hairy, the apex bifid; awn, stout, straight, rough, about as long as the valve, the inner valve with 2 ciliated ribs.

Annual or Biennial, flowering in May and June.

B. sterilis, Linn. *Barren Brome-Grass*. Panicle, drooping, its branches simple, scarcely divided; spikelets, compressed, oblong; flowers, remote, lanceolate, the outer valve bifid at the apex; the awn, erect, longer than itself, 7-ribbed, the inner ciliated with hairs; leaves, flat, downy.

Flora Romana, p. 57. *Florig. Brit.* i. 133.

Stem, 1 to 2 feet high, slender, leafy to the panicle; leaves, narrow, downy; sheaths, rather short; panicle, large, drooping, its branches long, slender, rough, dilated near the end; spikelets, about an inch long; florets, about 8; glumes, very unequal; glumelles, rough, very unequal, the outer long, narrow, bifid at the apex, the keel and ribs united into a long, slender awn.

Annual, flowering in May and June.

B. madritensis, Linn. *Upright annual Brome-Grass*. Panicle, erect, scarcely branched; the pedicles, short; spikelets, lanceolate; florets, linear, remote, subcylindrical; awn, rough, as long as the outer, 7-ribbed valve; leaves, slightly pubescent, flat.

Flora Romana, p. 57. *B. diandrus*. *Florig. Brit.* i. 133.

Stem, erect, 12 to 18 inches high, smooth, leafy; leaves, narrow, smooth or downy; panicle, erect, somewhat spreading, its branches short, stiff, dilated towards the end; spikelets, each about an inch long, 8-flowered, roughish; florets, inserted upon the stalk by a swollen base; glumes, very unequal; glumelles, very unequal, the outer long, narrow, bifid at the apex, 7-ribbed, the keel terminating in a long, rough awn; stamens, mostly only 2.

Annual, flowering in May and June.

B. maximus, Desf. *Large Brome-Grass*. Panicle, erect, lax at length, nodding, slightly branched; peduncles, dilated above, elongated after flowering; spikelets, compressed, lanceolate, downy, outer valve 7-ribbed; awn, three times as long, slender, straight; leaves, slightly pubescent.

Flora Romana (sup.) p. 18.

Stem, erect, about 2 feet high, smooth, leafy; leaves, broad, linear, flat, slightly downy; sheaths, close, striated; ligula, obtuse, torn; panicle, large, erect, its branches short, unequal, rough; spikelets, 1 to 2 inches long, compressed, downy; florets, remote, lanceolate, outer valve bifid at the apex, with 2 ribs on each side, near the margin, the keel terminating in a long, slender, straight awn; stamens, mostly 2.

Annual, flowering in May and June.

FESTUCA, Linn. *Fescue-Grass.* *Festuca*, Ital.

Panicles rigid; pedicles short, thick, equal.

F. rigida, Kunth. *Rigid Fescue-Grass.* Panicle, unilateral, rigid; branches and pedicles, 3-angled; spikelets, oblong, 6 to 12-flowered; glumes, linear, obtuse, notched, and with a very short point; roots, fibrous.

Poa rigida, Linn. *Flora Romana*, p. 52. *Florig. Brit.* i. 116.

Stem, very rigid and wiry, 3 to 6 inches high, erect, or bent below, smooth, green, or of a purplish hue; leaves, short; panicle, 2-ranked; spikelets, linear, turned to one side; glumes, unequal; florets, rather distant; glumelles, nearly equal, the outer scarcely ribbed, the inner with 2 lateral, roughish ribs, bifid at the apex.

Annual, flowering in May.

Panicle one-sided; pedicles club-shaped; glumelles with a long awn.

F. Myurus, Linn. *Wall Fescue-Grass.* Panicle, elongated, rather close, somewhat drooping; spikelets, leaning one way; glumes, very unequal; florets, shorter than the awn; the outer valve lanceolate, awl-shaped, the margins densely ciliated; ligula, with 2 auricles; root, fibrous.

F. Myurus minor. *Flora Romana*, p. 46.

Stem, erect, from 12 to 18 inches high; leaves, linear, bristle-shaped; panicle, long, nearly erect, close, linear; glumes, very unequal; florets, 5 to 8, outer valve with long, ciliated margins; the awn, straight, slender.

Annual, flowering in May.

F. Pseudo-myurus, Soyer. *False Wall-Fescue-Grass.* Panicle, one-sided, subspicate, outer glume acute, inner very much shorter; florets, lanceolate, awl-shaped, with a long, slender, rough awn; stem, clothed with leaves to the panicle; ligula, with 2 auricles; root, fibrous.

Flora Romana, p. 46.

Stem, erect, 6 to 18 inches high, covered with leaves and their sheaths to the panicle; leaves, linear, awlshaped; panicle, one-sided, the branches short; spikelets, linear; florets, about 8, lanceolate, awl-shaped, the outer valve

smooth or slightly rough, not hairy; awn, slender, erect, as long or longer than the valve.

Annual, flowering in April and May.

F. Romana, Deak. *Roman Fescue-Grass*. Panicle, branched, one-sided; outer glume, 5-nerved, longer than the spikelets; the keel terminating in a short awn, the inner very small; florets, 3 to 5, distant; outer valve, obscurely 5-nerved; the keel, rough, terminating in a slender awn, about its own length; stem, naked above; leaves, awl-shaped; ligula, auriculated.

Stem, 1 to 3 feet high, erect, slender, smooth, simple, naked above; leaves, awl-shaped, from the margins being rolled inwards, the lower long, and fasciculated at the root, the upper short, with long, close sheaths, erect; ligula, very short, obtuse, somewhat auriculated; panicle, 3 to 5 inches long, branched, and turned to one side, the branches rough, the pedicles thickened upwards into an oblong, club-shape; glumes, very unequal, the outer large, lanceolate, as long or longer than the spikelets, green or purplish on the back, terminating in a short, rough awn, the inner very small and obscure; florets, 3 to 5, the lower sessile, the upper on a zigzag rachis, swollen at their insertion; the outer valve lanceolate, awlshaped, the ribs obscure; keel, rough, terminating in a slender, rough awn, about as long as the valve; the inner valve linear, obtuse, smooth, very thin.

Annual, flowering in May.

This species we have hitherto only found on the lower part of the ruins of the Colosseum, but have no doubt that it will be found in many other places. It differs essentially from *F. bromoides* in its larger-branched panicle.

F. ovina, Linn. *Sheep's Fescue-Grass*. Panicle, at length, spreading; spikelets, 4 to 8-flowered; flowers, lanceolate, acute, awned; the awn, short, or longer than the florets; outer valve, obscurely 5-nerved, the upper one oblong, lanceolate, the apex bifid; leaves, bristle-shaped; root, fibrous.

Flora Romana, p. 48. *Florig. Brit.* i. 125.

Stems, numerous, 6 to 18 inches high, leafy below, naked and angular above; leaves, numerous, tufted, awl-shaped from the sides, being rolled inwards; ligula, short, with an

auricle on each side; panicle, one-sided, the branches rough; spikelets, oblong, often purplish; glumes, unequal; florets, rather distant.

Perennial, flowering in May and June.

This is a very variable and common Grass, but one of the best for sheep, especially in a dry or sandy situation, and is generally distributed as well upon the mountains as the plains, and is peculiarly suited for such situations on account of its long, fibrous roots penetrating deep into the soil, which enables it to bear long periods of dry weather without injury; and it has the credit of giving a peculiar, agreeable flavour to the meat of the sheep fed upon it. It is one of the most frequent grasses growing upon the vast wilds of the Campagna, around Rome, on which the numberless flocks of sheep and cattle are fed; and, though mutton is a meat by no means a favourite with the Romans, it is now becoming much more used than it was some years since; but they do not appear to have so great an objection to the meat of lambs and young kids, for they are consumed in great numbers. It may be asked to what useful purpose the countless number of the large flocks of sheep seen in all parts of the Campagna of Rome are applied, watched over as they are with such care by their picturesque-looking shepherds, whose coats, etc., are made of the uncurried hides of their sheep, and gaily trimmed with bright yellow, and scarlet, and blue cloth. The ewes are valued for the milk they give; which, during the summer months, together with that of goats, is the only kind that can be obtained, and this is made into recotta, or cheese, articles which command a ready sale, and the wool and hides are well known as articles of value for clothing, etc. Besides the ordinary white sheep not unfrequently are seen large flocks of black ones, the wool of which is said to be more valuable than that of the white ones for the purpose of making black cloth, on account, it is said, of its taking a more permanent black dye. It may be observed that the sheep are taught in Italy and the south of Europe to follow their shepherd, and are not driven before him, as is the case in England and the north of Europe.

F. segetum, Savi. *Corn-field Fescue-Grass*. Panicle, equal, spreading, the branches capillary; spikelets, smooth, and shining, 3 or 4-flowered; awn, long from below the apex; leaves, flat, hairy.

Flora Romana, p. 48.

Stem, 1 to 2 feet high; leaves, broadly linear, flat, and, as well as the sheaths, hairy; ligula, short, truncated, ciliated; panicle, pyramidal, the branches in alternate, half whorls, rough; spikelets, 3 or 4-flowered, dense, green and silvery-looking; glumes, unequal, lanceolate, acuminate, the keel rough; glumelles, 2, the outer keeled with a long awn from below the apex, the inner smooth, flat, truncated.

Annual, flowering in May.

This is an extremely beautiful grass; its large panicles of a pale, shining, silvery green are very ornamental upon old walls and ruins growing in large, thick, matted tufts.

ELYMUS, Linn. *Lyme-Grass*.

E. Europæus, Linn. *European Lyme-Grass*. Spike, erect; spikelets, mostly 2-flowered, rough, awned, the awn twice its length, the outer valve linear, awl-shaped; leaves, flat, smooth, the sheaths hairy.

Hordeum sylvaticum, Huds. *Florig. Brit.* i. 151.

Stem, 2 to 3 feet high; leaves, broad, rough, the sheaths rather short; spike, 2 to 3 inches long; spikelets, 3 together, from a notch of the rachis; spikelets, 1 or 2-flowered, mostly perfect; glumes, 2, on the outside of the florets, rough towards the point; glumelles, equal, the outer concave, roughish, terminating in a slender awn, the inner flat, with 2 lateral, rough ribs.

Perennial, flowering in May.

This species is so nearly allied to the following genus as to be difficult to determine to which it belongs.

HORDEUM, Linn. *Barley*. *Orzo*, Ital.

H. murinum, Linn. *Wall-Barley*. Spike, erect; glumes of the intermediate floret, linear, lanceolate, ciliated, those of the lateral florets bristle-shaped.

Flora Romana, p. 65. *Florig. Brit.* i. 151.

Stem, 1 to 2 feet high; leaves, flat, rough; sheaths, loose, smooth; panicle, a close, round spike, 2 to 3 inches long; spikelets, 3 together, on short, flat, ciliated stalks; glumelles, terminating in a long, rough awn.

Annual, flowering from March to August.

H. pratense, Huds. *Meadow-Barley*. Spike, erect; glumes, all bristle-shaped and rough.

Florig. Brit. i. 152. H. striatum. Flora Romana, p. 64.

Stem, erect, 1 to 2 feet high, often bulbous at the base; leaves, narrow, linear, rather short, roughish or hairy; sheaths, close, more or less hairy; spikelets, 3 together, on short, flat, ciliated stalks, the central one sessile and perfect; glumes, all bristle-shaped and rough; glumelles, equal, the outer valve of the perfect floret terminating in a long, rough awn.

Annual, flowering from April to June.

GAUDINIA, Beau. *Gaudinia*.

G. fragalis, Beau. *Brittle-Gaudinia*. Spike, linear, jointed, brittle at the joints.

Avena fragalis. Flora Romana, p. 44.

Stem, 1 to 2 feet high, slender, leafy to the spike; leaves, flat, hairy; sheaths, close; spike, erect, linear, 6 to 8 inches long or more, jointed, and very brittle at the joints; spikelets, about 5-flowered, the upper ones often sterile, distant; glumes, very unequal; glumelles, 2, the outer with a long, jointed awn at the back, the lower part twisted.

Annual, flowering in May and June.

TRITICUM, Linn. *Wheat-Grass*.

T. villosum, Marsch. *Hairy Wheat-Grass*. Spikelets, about 4-flowered; glumes, compressed, wedge-shaped, truncated, awned, and, as well as the florets, downy and ciliated at the back; leaves, with bulbous hairs.

Secale villosum. Flora Romana, p. 67.

Stem, 2 to 4 feet high, leafy; leaves, flat, hairy; spike, 2 to 4 inches long, large; glumes, wedge-shaped, ribbed, the keel terminating in a long, rough awn, and ciliated in the lower part with bundles of long white hairs; glumelles, 2,

the outer lanceolate, ribbed, the dorsal rib terminating in an awn, and ciliated with bundles of white hairs.

Annual, flowering in April and May.

T. repens, Linn. *Creeping Wheat-Grass* or *Couch-Grass*. Spikelets, 4 to 8-flowered; glumes, lanceolate, acute, many-ribbed, the outer one rough; rachis, rough, angular; leaves, flat, roughish or hairy; root, creeping.

Flora Romana, p. 68. *Florig. Brit.* i. 155.

Root, with long, creeping, under-ground stems; stem, erect, 2 to 3 feet high; leaves, flat; spike, erect, 3 to 4 inches long, the rachis zigzag and angular; spikelets, alternate, distant or crowded; glumes, lanceolate, acute or awned at the apex; florets, 4 to 8, spreading when in flower; glumelles, equal, the outer with a rough keel, terminating in an acute point or rough awn of variable length.

Perennial, flowering during the summer months.

The common Italian name of this grass is *gramigna* or *gramiccia*. It is esteemed for its under-ground stems, which contain a considerable quantity of nutritive matter: they are collected, dried, and laid up for winter store; and when they are wanted for use, are washed and given to horses.

BRACHYPODIUM, Beau. *False Brome-Grass*.

B. sylvaticum, Beau. *Slender false Brome-Grass*. Spike, drooping; florets, numerous, awned; awn, longer than the outer valve, hairy; leaves, flat, linear, lanceolate; root, fibrous.

Florig. Brit. i. 161. *Bromus sylvaticus*. *Flora Romana*, p. 59.

Plant, tufted; stem, 2 to 3 feet high, leafy; leaves, broadly linear; sheaths, close, and mostly hairy, as well as the upper side of the leaf; spike, simple; spikelets, alternate, nearly cylindrical; glumes, lanceolate, many-nerved; florets, 8 to 10; glumelles, unequal, the outer terminating in a slender, rough awn longer than itself—the inner with ciliated marginal ribs.

Perennial, flowering in May and June.

B. pinnatum, Beau. *Heath false Brome-Grass*. Spike, erect; spikelets, 2-ranked; florets, numerous, awned; awn,

slender, shorter than the outer valve; leaves, flat, linear, lanceolate; root, creeping.

Florig. Brit. i. 161. *Bromus pinnatus. Flora Romana*, p. 59.

Stem, 1 to 3 feet high; leaves, narrow, and, as well as the sheaths, smooth or hairy; spike, simple; spikelets, linear, alternate, on a rough, waved rachis; glumes, unequal; florets, crowded, the outer valve lanceolate, acute, with a rough, slender awn shorter than the valves, or wanting—the inner flat, obtuse, with 2 ciliated marginal ribs.

Perennial, flowering in May and June.

B. distachyon, Roem. and Schult. *Rigid false Brome-Grass*. Spike, erect; spikelets, 1 to 6, alternate; florets, 6 to 12-awned; awn longer than the florets; stem, smooth; leaves, flat; roots, fibrous.

Bromus distachyon. Flora Romana, p. 59.

Stem, 6 to 18 inches high, erect, smooth, the joints downy; leaves, linear, lanceolate, downy and ciliated; spikelets, compressed, large, rigid; glumes, lanceolate, many-ribbed; glumelles, 2, the outer lanceolate, terminating in a long, rough awn—the inner ciliated on the margin, with rigid hairs.

Annual, flowering in May.

ÆGILOPS, Linn. *Hard-Grass. Egilope*, Ital.

Æ. ovata, Linn. *Ovate Spiked Hard-Grass*. Spikelets, ovate; glumes, hairy, 3 or 4 nerved; awns, nearly equal at the base, the margins rough; outer glumelle, 2 or 3 awned, the awns, spreading; stem, ascending.

Flora Romana, p. 66.

Stem, 6 to 12 inches high, bent at the lower joints; leaves, short, the margins hairy as well as the sheaths; spikelets, ovate, 3 to 5 on a compressed, flexuous, jointed rachis; glumes, 2, concave, thick, hard, striated, rough; awns, 4, sometimes 3 or 5; glumelles, similar to the glumes, smaller, smoother, the outer with 3 spreading awns, the inner ciliated.

Annual, flowering in April and May.

This curious grass is common in most parts of Italy, especially in the south; and the Sicilian peasantry, it is said,

gather it when ripe, and tie the heads up into bunches, and set them on fire. They burn with rapidity, and so give the seeds they contain a slight roasting, which are then considered an agreeable food.

LOLIUM, Linn. *Darnel*. *Logio*, Ital.

L. perenne, Linn. *Perennial Darnel* or *Rye-Grass*. Spikelet, 6 to 8-flowered, longer than the glumes; outer glumelle usually awnless; root, perennial, producing leafy, barren shoots.

Flora Romana, p. 63. *Florig. Brit.* i. 162.

Stems, several, 1 to 2 feet high, leafy; leaves, linear, with a long, tapering point; panicle, a 2-ranked spike, from 2 to 12 inches long; spikelets, compressed, sessile, many-flowered; glume, lanceolate, ribbed, shorter than the spikelets; glumelles, 2, equal, the outer pointed or awned.

Perennial, flowering from April to June.

L. multiflora, Lam. *Italian Rye-Grass*. Spikelets, 9 to 18-flowered, longer than the glumes; outer glumelle, with a long awn; root, annual, without barren shoots.

Flora Romana, p. 64.

Stem, 2 to 3 feet high, ascending, numerous, in tufts; leaves, linear; spike, 12 to 18 inches long, erect or curved; spikelets, numerous, compressed; glume, lanceolate, striated; florets, lax, very numerous, the outer valve lanceolate, with a slender, straight, erect, rough awn from below the point, in the upper florets it is often longer than the valve, and in the lower ones it is shorter, sometimes wanting.

Perennial, flowering in May.

These two species, but especially the last, are esteemed as being amongst the most valuable grasses for agricultural purposes, and are extensively cultivated: they produce an abundance of seeds, and are a favourite food of most cattle. There is another species, the *L. temulentum*, which is an interesting plant, and grows very commonly among corn in Italy. It is the only known species of grass that produces deleterious effects when the seed is taken as food. It appears to possess powerful narcotic, at the same time acrid properties, pro-

ducing disagreeable and even fatal effects, and serious accidents have sometimes occurred by its accidental mixture with wheat. It is said to be used sometimes for giving an intoxicating quality to fermented liquors; and in China and Japan, where it also grows, its use is forbidden by law. The deleterious effects of *Lolium* appears to have been long known. Among the Arabs it is called *zivan*, and it is thought the word *rosch*, in some instances, means the same thing. It is generally supposed that it is this plant which is referred to by Virgil,—

—————interque nitentia culta
Infelix *Lolium* et sterilis dominanter avenæ.

for in warm climates *Lolium* and the barren oat sometimes grow so rank and abundant as to choke the wheat. Various authors think that the Greek word *ζιζανια*, which is translated *tares* in our version, Matt. xiii. 25, and following verses, would be better *darnel*, and would convey the meaning of the parable more fully. From the parable here referred to it will appear with what care the Jews disposed of the base grain by destroying it with fire after selecting it from the wheat.

TRAGUS, Desfont. *Iragus* or *Bur-Grass*.

T. racemosus, Desf. *Branched Tragus*. The only species.

Flora Romana, p. 35. *Cenchrus*, Linn. *Lappago*, Schreb.

Stem, branched, about 6 inches high; panicle, simple, spiked, the branches 3 to 5-flowered; glumes, 2, the outer nerved and rough, with soft, hooked, prickly bristles.

Annual, flowering in July and August.

SETARIA, Beau. *Bristle-Grass*.

S. verticillata, Beau. *Rough Bristle-Grass*. Panicle, spiked, lobed in the lower part, branches whorled, bristles of the involucre several, rough, with reversed teeth.

Florig. Brit. i. 106. *Panicum*. *Flora Romana*, p. 35.

Stem, 1 to 2 feet high, roughish above; leaves, rough; ligula, a tuft of hairs; panicle, 1 to 3 inches long, cylindrical,

whorled, interrupted, the branches short, rough; involucre, bristles, short, rough.

Annual, flowering during the summer.

S. viridis, Beau. *Green Bristle-Grass*. Panicle, spiked, continuous, cylindrical; bristles of the involucre, several, rough, with teeth pointed upwards.

lorig. Brit. i. 106. *Panicum. Flora Romana*, p. 35.

Stem, about 1 foot high; leaves, rough; ligula, a tuft of hairs; panicle, 1 to 2 inches long, cylindrical, whorled, continuous; bristles of the involucre more numerous than in the last species, and the teeth are pointed in the opposite direction.

Annual, flowering during the summer.

CYNODON, Rich. *Dog's-tooth-Grass*.

C. dactylon, Pers. *Creeping Dog's-tooth-Grass*. Spikes, 3 to 5 together; glumelles, smooth, ciliated; leaves, downy beneath; root, with long, creeping, under-ground stems.

Flora Romana, p. 36. *Florig. Brit. i.* 168.

Stems, numerous, prostrate, branched, and matted, often rooted at the joints, leafy, hairy, 2 to 4 inches long, terminating in from 3 to 5 straight, spreading, rigid spikes; leaves, short, hairy, beneath glaucous; ligula, hairy; spikes, linear; spikelets, one-sided, in 2 or 3 rows, purplish, nearly sessile; glumes, narrow, acute, keeled, spreading, giving the spikes a spiny appearance; glumelles, unequal, smooth, compressed, keeled, the outer valve broadest, slightly hairy on the keel and inner border, enwrapping the inner valve; fruit, small, enclosed in the hardened valves of the glumelles.

Perennial, flowering in June and July.

This is a very common plant in all parts of Italy, especially in sandy situations, and has the common name of *Gramigna*, *Graminicia* and *Erba canina*. It is gathered by the poor people, and sold in bundles in the markets and road-sides, as provender for horses, and is greatly esteemed for its nutritive qualities, even more so than the *Triticum repens*.

LXVI. NAT. ORD.—**Filices**, Ferns.

GENERA.

<i>Sori</i> naked, circular clusters	POLYPODIUM.
<i>Sori</i> oblong, clusters covered by an elongated, reflexed portion of the frond.....	ADIANTUM.
<i>Sori</i> linear, clusters covered by a membranous indusium	ASPLENIUM.

POLYPODIUM, Linn. *Polypody*. *Polipodio*, Ital.

P. vulgare, Linn. *Common Polypody*. Fronds, oblong, lanceolate, pinnatifid, the pinnæ linear, obtuse, or acute, entire, crenated, serrated or lobed.

Florig. Brit. iv. 37.

Root, brown, fibrous; rhizoma, somewhat woody, long, creeping, covered with a scaly cuticle, which falls away and leaves the rhizoma smooth; fronds, usually about 8 inches long, often much longer, smooth, a cheerful green; rachis, slender, scattered over with a few brown, lanceolate scales; sori, naked, circular clusters alternate on the back of the upper pinnæ; thecæ, numerous, crowded, globose, with a beaded, elastic ring attached at the base by a slender pedicle formed of elongated, transparent cells.

Perennial, in perfection in the autumn.

This, the Common Polypody, or Wall Fern, or Polypody of the Oak, was formerly much esteemed for its expectorant qualities, and is supposed to be the “rheum-purging Polypody” of Shakespear; but it is not now used in England; it is retained in the list of the *Materia Medica* of Italy, and is used by the Italians as a demulcent, in the form of a decoction. The fronds, when burned, afford a good deal of carbonate of potass, for which purpose it is often collected. The ashes of the burnt plant are boiled in water, and the liquor strained and evaporated until the crystals of salt are formed. The common Polypody loves to fix itself upon the trunks of trees, especially the stumps of the pollard—willow and hornbeam, and the thatched roofs of buildings; from thence hanging down its graceful fronds in crowded clusters,

it forms an elegant, verdant ornament, for a considerable period of the year.

ADIANTUM, Linn. *Maiden-Hair*. *Adenantera*, Ital.

A. capillus Veneris, Linn. *True Maiden-Hair*. Fronds, bipinnate; pinnules, alternate, thin, oblong, wedge-shaped, cut and lobed, the ends pale, membranous, reflexed over the linear sori.

Florig. Brit. iv. 49.

Root, long, black, wiry and fibrous; rhizoma, short, thick, black and scaly; fronds, 6 to 12 inches high, erect, or mostly drooping; thecæ, very small, globose, encircled with a beautiful beaded, reddish, elastic ring, in linear clusters beneath the reflexed ends of the lobes of the frond; sporules, minute, smooth, ovate; rachis, deep purple-brown or black, quite smooth, shining, brittle, often having more than the lower half naked.

Perennial, in perfection in May and June.

This is perhaps the most elegant of our European Ferns: it is most constant in its form, and is most delicately constructed; and, where it grows abundantly, it is a gay, living mantle, gracefully drooping over the traces of Time's destructive march upon old walls or crumbling rocks. It is extremely common in the south of Europe, triumphing over and throwing its slender form, in glowing tapestry, equally over the mouldering remnants of the splendid pagan temples and the vast remains of Roman luxury, or the ruined tomb; but no where is it seen in greater beauty, or more gracefully drooping, than in that enchanted grotto where the ancient Romans, according to the story of Ovid, represented that Egeria was so disconsolate at the death of Numa, that she melted into tears, and was changed into a fountain by Diana: and here

The mosses of the fountains still are sprinkled
With thine Elysian water-drops; the face
Of the cave-guarded spring, with years unwrinkled,
Reflects the meek-eyed genius of the place,
Whose green, wild margin now no more erase
Art's works; nor must the delicate waters sleep
Prison'd in marble; bubbling from the base
Of the cleft statue, with a gentle leap,
The rill runs o'er, and round *fern* flowers and ivy creep,
Fantastically tangled.

ASPLENIUM, Linn. *Spleenwort. Asplenio, Ital.*

A. Trichomanes, Linn. *Common Wall-Spleenwort.* Frond, narrow, linear, elongated, simple, pinnate; pinnæ, roundish, oblong, obtuse, unequally crenated, on a short footstalk; rachis, simple, black; lateral veins branched from near the base, and terminating before reaching the margin; the anterior branch bearing sori about its middle; indusium, linear, with an even margin.

Florig. Brit. iv. 73.

Root, long, slender, black, fibrous; rhizoma, tufted, black and scaly; frond, linear, oblong, gracefully drooping, from 4 to 14 inches long; stem, simple, smooth, shining, purplish-brown or black, very brittle; the pinnæ alternate or opposite, on short footstalks, generally of a roundish, oblong, obtuse form, somewhat wedge-shaped at the base, and more or less deeply and unequally crenated on the margin; indusium, linear, thin and membranous; sori, as they expand, become confluent, and cover the whole back of the pinnæ in one mass of thecæ, which are small, globose, encircled with a beautiful elastic ring.

Perennial, in perfection in July and August.

This is one of the most common and generally-distributed ferns, frequently forming, in situations favourable to its growth, on old damp walls or bridges, a most beautiful and elegant covering. As a medicinal plant, it was much celebrated in former days, for the cure of coughs, colds, and various affections of the chest, being administered in the form of tea, or made into a syrup; but it has now lost its reputation, and is rarely if ever used for such-like affections.

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