This book was bound through
the generosity of the
NATIONAL CAPITAL SHELL CLUB

Division of Marine
Sectional Library

John B. Hudson
Washington

15²

594.0954
H24
Moll
QL
126.
I39H2
1876
MOLL

CONCHOLOGIA INDICA:

ILLUSTRATIONS OF THE

LAND AND FRESHWATER SHELLS

OF

BRITISH INDIA.

EDITED BY

SYLVANUS HANLEY, F.L.S.

AND

WILLIAM THEOBALD,

OF THE GEOLOGICAL SURVEY OF INDIA.

Division of Mollusks
Sectional Library

LONDON:

L. REEVE & CO., 5 HENRIETTA STREET, COVENT GARDEN.

1876.

LONDON: PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND PARLIAMENT STREET

NOTICE

**AFTER CAREFUL EXAMINATION OF THE
INNER MARGIN AND TYPE OF MATERIAL
WE HAVE SEWN THIS VOLUME BY HAND
SO IT CAN BE MORE EASILY OPENED
AND READ.**

5
6346-128
BENHAB

PREFACE.

NOT because it is complete, not because we could not render it much more complete, but because the stimulus given to collectors by our iconography has added such a multitude of species to the conchological fauna of British India as to render it impossible to keep pace with modern discoveries, is the reason that we have resolved to terminate a publication whose anticipated limits have already been exceeded. We never either intended, or hoped, to publish an exhaustive work; our aim was merely to assemble in one book species which were dispersed in scores of other volumes. We have shown what has been done up to 1873, and thus facilitated the labours of those who may aspire to produce a more perfect conchology. It is something to have caused the delineation of types before they were lost, forgotten, or destroyed; and the search for the actual specimens originally described by Benson, Pfeiffer, Hutton, Blanford, &c. has consumed both time and money.

Our best thanks are due to Major Sankey (the executor of our late dear friend W. Benson), to Major Godwin-Austen, Major Hutton, the late Frederic Layard, and last, not least, to W. Blanford: their friendly aid has enabled us to rightly determine and illustrate many a puzzling species.

The Editors regret that the figures of some of the more minute shells are not so well executed as they expected; but lithography is scarcely compatible with sharp definition, and to correctly magnify such little objects strains the eyesight to an extent few artists will dare to venture.

It is important to observe that the inclusion of a species in the systematic list which follows by no means indicates that the Editors recognise its distinctive merits; their aim

has been mere elucidation, and friendship forbids all criticism (however tacit) which can possibly be avoided. The list itself is not put forth as a scientific arrangement, but only as a convenient sequence.

After an interval of two or three years it is hoped that materials for a Supplement (the malacological portion of which will be edited by Major Godwin-Austen) will be accumulated, and to further that design collectors are earnestly requested to forward specimens to the English Editor, to the care of his publishers, Reeve and Co.

SYSTEMATIC LIST OF SPECIES

PUBLISHED UP TO 1874.¹

BIVALVES.

<p>TANYSIPHON. rivalis, Bn. t. 116, f. 1, 4.</p>	<p>regularis, Prime, t. 138, f. 5, 6. striatella, D. t. 138, f. 7, 10. trigona, D. t. 155, f. 7.</p>	<p>UNIO.⁶ Birmanus, Bl. t. 42, f. 1. Bhamoensis, Th. t. 155, f. 2.</p>
<p>NOVACULINA. Gangetica, Bn. t. 116, f. 7 : var. ? f. 10.</p>	<p>SCAPHULA. celox, Bn. t. 116, f. 8, 9. Deltæ, Bl. t. 116, f. 2, 3. pinna, Bn. t. 116, f. 5, 6.</p>	<p>Bonneaudi, Eyd. and Soul., t. 10, f. 6 ; t. 46, f. 5, 6. cæruleus, Lea, t. 12, f. 3. consobrinus,⁷ Lea, t. 41, f. 7. corbis, Bn. t. 45, f. 10. corrugatus,⁸ Müll. t. 44, f. 5, 6 ; t. 45, f. 2 to 5.</p>
<p>PISIDIUM. Clarkianum, Nev. t. 155, f. 9.</p>	<p>MYCETOPUS. Bensonianus,⁴ Lea, t. 9, f. 1 (as Soleniformis).</p>	<p>crispatus, Gould, t. 45, f. 1. crispiculatus, Bn. t. 11, f. 5. exolescens, Gould, t. 107, f. 5. favidens,⁹ Bn. t. 11, f. 1, 2, 3 ; t. 41, f. 3 ; t. 42, f. 2.</p>
<p>CYCLAS. Indica, D. t. 155, f. 10. Avana,² Th. (Ava).</p>	<p>TRIGONODON. crebristriatum, t. 9, f. 3, 5.</p>	<p>Feddeni,¹⁰ Th. (River Pempunga, Cl. India.) foliaceus, Gould, t. 42, f. 3.</p>
<p>CORBICULA.³ Bengalensis, Desh. t. 155, f. 6. Bensoni, D. t. 138, f. 1, 4. Cashmirensis, D. t. 138, f. 2, 3. Iravadica, Bl. t. 155, f. 7. occidens, D. t. 138, f. 8, 9.</p>	<p>PSEUDODON. Avæ,⁵ Th. (Ava). inoscularis, Gould, t. 9, f. 3.</p>	

¹ The Editors do not acknowledge the validity of many of these species, but merely illustrate them : as to the arrangement it does not pretend to be scientific, but useful for grouping the allied forms of shells, not mollusks. Some species only just published have been added in our last part to fill up vacancies in the plates.

² Journ. Asi. Soc. Ben. 1873, pt. 2, pl. 17.

³ In Prime's monograph of this genus we find recorded as Indian five of his species, which are wholly unknown to us : *C. subradiata* (An. Lyc. N. York, 1864, vol. 8, p. 75, f. 23), *C. Agrensis* (do. f. 24), *C. parvula* (do. p. 76, f. 25), *C. consanguinea* (do. 1867, vol. 8, p. 417), *C. imperialis* (do. 1869, vol. 9). The last is stated to come from Pondicherry, always a suspicious locality ; the two first are probably immature, the two next insufficiently defined. Chemnitz (Conch. Cab. vol. 6, f. 321) has erroneously identified as the fluviatilis of Müller, a Tanjore shell which may possibly be intended for *occidens*. The *Velorite* being estuary shells (*C. Cyprinoides*, Gray, and *C. Cochinnensis*, Han.) are purposely omitted.

⁴ Lea justly remarks that although edentulous when mature, the young have manifest teeth. The name has been changed

because D'Orbigny had previously published a *Soleniformis* in Guérin's *Mag. de Zool.*

⁵ *Monocondylæa* Avæ, Th. J. Asi. Soc. Beng. 1873, pt. 2, p. 209, pl. 17, f. 5.

⁶ It is possible that the *U. luteus* of Lea (J. Ac. Philad. n. s. vol. 3, pl. 24, f. 4) from Newville, Tavoy, may be identical with one of our list, but the specimen delineated was in too bad a condition for positive recognition.

⁷ The *U. exanthematicus* of Kuster's Chemnitz (*Unio*, p. 243, pl. 81, f. 2) has somewhat the aspect of this shell ; it is said to come from that indefinite locality the "E. Indies."

⁸ Mörch states the *U. gibbus* of Spengler (Skriv. Nat. Kiöben. vol. 3, pt. 1) said to come from Tranquebar, is allied to this : its Latin description is utterly inadequate for the purpose of identification.

⁹ To this may be referred the *U. Merodabensis* of Von dem Busch in Kuster's monograph of *Unio* (ed. Chemn. U. pl. 78, f. 4). Perhaps, too, the *U. Rajahensis* of Lea (Obs. Un. vol. 3, p. 77, pl. 23, f. 53), which has been vainly sought for in the Rajah's Tank near Calcutta, its recorded locality, may prove, if indigenous, a distorted form of this or some allied species.

¹⁰ J. Asi. Soc. Beng. 1873, pt. 2, p. 208, pl. 17, f. 3.

generosus, Gould, t. 46, f. 4, 7; t. 9, f. 7 (as lamellatus, var.)	marginalis, ³ Lam. t. 42, f. 7; t. 43, f. 2 to 5; t. 44, f. 1 to 4.	Sikkimensis, Lea, t. 11, f. 4; t. 107, f. 6, 7.
Gowhatensis, ¹ Th. (R. Gowhattan, Assam).	Nuttallianus, Lea, t. 41, f. 5, 6.	smaragdites, Bn. t. 10, f. 5.
Indicus, Sow. t. 107, f. 1, 4.	olivarius, Lea, t. 10, f. 1.	Tavoyensis, Gould, t. 154, f. 6, and var. ? f. 7.
involutus, Bn. t. 41, f. 2.	pachysoma, Bn. t. 12, f. 1.	Tementii, Han. t. 45, f. 7, 8, 9.
Jenkinsianus, Bn. t. 41, f. 4.	parma, Bn. t. 154, f. 1: var. ? t. 154, f. 2.	theca, Bn. t. 12, f. 5.
lamellatus, Lea, t. 44, f. 7.	pugio, Bn. t. 10, f. 7.	Thwaitesii, Bn. t. 43, f. 1.
Layardi, Lea, t. 41, f. 1.	radula, Bn. t. 10, f. 3.	triembolus, ⁴ Bn. t. 107, f. 2.
leioma, ² Bn. t. 12, f. 6.	rugosus, Gmelin, t. 154, f. 3.	trirostris, ⁵ Han. t. 11, f. 6.
macilentus, Bn. t. 10, f. 2, 4: var. t. 154, f. 5.	scobina, Bn. t. 46, f. 2.	Valcauus, Han. t. 155, f. 3.
Mandelayanus, Th. t. 154, f. 4.	scutum, Bn. t. 46, f. 1: var. t. 46, f. 3.	Wynegungensis, Lea, t. 45, f. 6.
marceus, Han. t. 42, f. 4, 5, 6.		

INOPERCULATED LAND SHELLS.⁶

VITRINA.		
Ataranensis, ⁷ Th.	membranacea, Bn. t. 152, f. 10.	forabilis, Bn. t. 147, f. 1, 4.
Bensoni, Pf. t. 65, f. 1, 4.	ovata, ¹⁰ H. Bl.	schistostelis, Bn. t. 147, f. 5, 6.
Birmanica, Phil. t. 152, f. 7.	Peguensis, ¹¹ Th. t. 65, f. 2, 3.	
cassida, Bn. t. 152, f. 2, 3.	præstans, Gould, t. 65, f. 5, 6.	HELIX. ¹³
Ceylanica, ⁸ Beck.	Salus, Bn. t. 65, f. 8, 9.	acalles, Pf. t. 128, f. 1, 4.
Christianæ, Th. t. 66, f. 7, 10.	scutella, Bn. t. 66, f. 1, 4.	achatina, Gray, t. 13, f. 1; t. 57, f. 8, 9.
Edgariana, ⁹ Bn.	solida, ¹² G. A. t. 152, f. 6.	acris, Bn. t. 54, f. 6.
Flemingiana, Pf. t. 66, f. 5, 6.	succina, Reeve, t. 65, f. 7, 10.	acuducta, Bn. t. 50, f. 5.
gigas, Bn. t. 66, f. 2, 3.	venusta, Th. t. 152, f. 5.	Akontongensis, Th. t. 15, f. 4.
heteroconcha, H. Bl. t. 152, f. 8, 9.		albizonata, Dohrn, t. 52, f. 6.
irradians, Pf. t. 66, f. 8, 9.	SOPHINA.	ampulla, Bn. t. 25, f. 4.
monticola, Bn. t. 152, f. 1, 4.	Calias, Bn. t. 147, f. 2, 3, and var. discoidalis, 7.	anax, Bn. t. 57, f. 1, 2, 3.
	conjungens, Stolic. t. 145, f. 8, 9.	anceps, Gould, t. 30, f. 1.

¹ J. Asi. Soc. Beng. 1873, pt. 2, p. 208, pl. 17, f. 4.

² Compare with this and macilentus the U. Shurtleffianus of Lea (J. Ac. Philad. n. s. vol. 3 (Obs. U. vol. 6), p. 23, pl. 27, f. 17), from Nagpore, and with this and cæruleus his U. evitatus (Obs. U. vol. 12, p. 39, f. 92).

³ Mörch regards the U. truncatus of Spengler as a form of this most variable species.

⁴ Compare with this the tripartitus of Lea (Proc. Philad. 1863), from the river Jellinghur.

⁵ The trirostris of Reeve seems cæruleus, to which species the semiplicatus of Troschel (Wieg. Arch. Nat. 1837, p. 180), if a Unio at all, for the description reminds one of Novaaculina, may possibly belong.

⁶ Limax and Parmacella have been omitted for want of materials: according to Benson's manuscript the Vitrina baccata of Hutton is the fry of P. rutella. Our work being to illustrate shells, not mollusks, the rudimentary Helicarion Theobaldi of G. Austen (Proc. Z. 1872) and his H. croceus (517, pl. 30, f. 9) have been omitted. So poor are we for space.

⁷ J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 401. From near the river Ataran, Maratban.

⁸ In Appendix to Index Moll. Chr. Fred. p. 1. Reeve

(Conch. Icon. Vit. f. 67) has figured what may possibly be the fry of a species described as twice or thrice the size of Audebardi. The plate referred to by Pfeiffer and Reeve has not been issued; indeed very few copies of even the Appendix were distributed.

⁹ An. Nat. His. 1853, ser. 2, vol. 12, p. 93. Ceylon.

¹⁰ J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 44, pl. 2, f. 7 (as Helicarion). Darjiling.

¹¹ Our figures precisely represent the type of the V. auriformis of Blanford (J. Asi. Soc. Beng. 1865, vol. 36, pt. 2, p. 36) from the Nilgherries.

¹² See, too, J. Asi. Soc. Beng. 1875, t. 2, f. 5. In that plate are delineated, also, Helicarion Shillinghense, brunneum and Nagense, the shields of which hardly merit to be called shells.

¹³ In addition to those in our list we must specify the African H. Perotteti of Pfeiffer (Reeve and Kuster's figures are very unlike), and the Singapore H. lychnia of Benson, both ascribed to the Nilgherries, the Nanina fragilis of Hutton, which is most inadequately (J. Asi. Soc. Beng. vol. 7, p. 216) defined. Compare with our minute trochiform species the H. (Kaliella) peliosanthi of Mörch (Aftryk. Nat. Kjobenhavn, 1872) from Calcutta, which we have not seen.

- Andersoni, Bl. t. 30, f. 1.
 Angelica, Pf. t. 85, f. 5, 6.
 anguina, Gould, t. 13, f. 7.
 anserina, Th. t. 112, f. 7, 10.
 apicata, Bl. t. 54, f. 5.
 Arakanensis, Th. t. 15, f. 10 (as tapeina, var. Ar.).
 arata, Bl. t. 84, f. 8, 9.
 artificiosa, Bn. t. 55, f. 3.
 arx, Bn. t. 54, f. 8.
 asperella, Pf. t. 131, f. 8, 9.
 aspidēs, Bn. t. 62, f. 7, 8, 9.
 aspirans, Bls. t. 16, f. 4.
 Ataranensis, Th. t. 84, f. 5, 6.
 Atkinsoni, Th. t. 15, f. 9; t. 74, f. 2, 3.
 atricolor,¹ G. A. (North Cachar Hills).
 attega,² Bn. t. 86, f. 7.
 aulopis, Bn. t. 30, f. 8, 9.
 Austeni, Bl. t. 50, f. 8, 9.
 Baconi, Bn. t. 56, f. 7.
 Bactriana, Hut. t. 130, f. 1, 4.
 Bajadera, Pf. t. 111, f. 5.
 Barrakporensis, Pf. t. 87, f. 7.
 bascauda, Bn. t. 16, f. 1.
 Basilessa, Bn. t. 25, f. 2; t. 52, f. 4.
 Basileus, Bn. t. 25, f. 7.
 Basseinensis, Bl. t. 30, f. 7.
 Beddomeæ, Hanley, t. 150, f. 2.
 Beddomei, Bl. t. 150, f. 10.
 Belangeri, Desh. t. 29, f. 6.
 Bensoni, Busch, t. 132, f. 10.
 biciliata, Pf. t. 159, f. 1, 4.
 bidenticulata, Bn. t. 60, f. 6.
 bifoveata, Bn. t. 14, f. 8.
 bilirata,³ Bls.
 Birmana,⁴ Pf. t. 51, f. 2 (as acerra).
 bistrialis, Beck, t. 29, f. 1.
 Blanfordi, Th. t. 60, f. 1, 2, 3.
 bolus,⁵ Bn. t. 53, f. 7.
 Bombayana, Grat. t. 29, f. 5.
 brachyplecta, Bn. t. 57, f. 10.
 bullula, Hutt. t. 61, f. 2, 3.
 cacuminifera, Bn. t. 54, f. 2.
 calpis, Bn. t. 16, f. 8.
 camura, Bn. t. 55, f. 2.
 Candaharica, Hutt. t. 131, f. 5, 6.
 capessens, Bn. t. 60, f. 5.
 capitium, Bn. t. 14, f. 5.
 carneola, Pf. t. 128, f. 2, 3.
 cassidula, Bn. t. 16, f. 3.
 Castor, Th. t. 26, f. 3.
 castra, Bn. t. 83, f. 1, 2, 3.
 catostoma, Bl. t. 56, f. 2, 3.
 causia, Bn. t. 90, f. 2, 3.
 ceraria, Bn. t. 28, f. 4.
 cestus, Bn. t. 29, f. 7.
 Ceylanica, Pf. t. 29, f. 3.
 Charpentieri, Pf. t. 14, f. 1.
 Chenui, Pf. t. 25, f. 1; t. 27, f. 4.
 Cherraensis, Bl. t. 26, f. 6.
 chloroplax, Bn. t. 32, f. 1, 4.
 choinix, Bn. t. 51, f. 1.
 Cingalensis, Bn. t. 54, f. 1, 2.
 clathratula, Pf. t. 132, f. 1, 4.
 climacterica, Bn. t. 55, f. 4, 5.
 compluvialis, Bl. t. 88, f. 1, 4.
 concavospira,⁶ Pf. t. 86, f. 1.
 confinis, Bl. t. 159, f. 8.
 consepta, Bn. t. 88, f. 5, 6.
 contracta,⁷ Hutt. t. 55, f. 8, 9.
 conulus, Bl. t. 129, f. 5, 6.
 convallata, Bn. t. 88, f. 2, 3.
 convexa, Reeve, t. 84, f. 1, 4.
 convexiuscula, Pf. t. 128, f. 5, 6.
 coriaria, Pf. t. 53, f. 10.
 corylus, Reeve, t. 150, f. 3.
 costata, Müller (from Cashmere).
 crassicostata,⁸ Bn. t. 50, f. 10.
 crinigera, Bn. t. 60, f. 7.
 cyclaspis,⁹ Bn. t. 13, f. 10.
 cycloides, Albers, t. 88, f. 8, 9.
 cycloplax, Bn. t. 26, f. 7.
 cyclotrema, Bn. t. 28, f. 10.
 cyix, Bn. t. 29, f. 4.
 cysis,¹⁰ Bn. t. 25, f. 5 (var. Ampullarioides).
 daghoba, Bls. t. 150, f. 10.
 decussata, Bn. t. 112, f. 1, 2, 3.
 delibrata,¹¹ Bn. t. 14, f. 9 (?), 10.
 dextrorsa,¹² G. A. t. 13, f. 9 (as refuga, var. dex.).
 diplodon, Bn. t. 60, f. 8.
 Emiliana, Pf. t. 56, f. 9, 10.
 erronea, Albers, t. 14, f. 3.
 euomphalos, Bls. t. 129, f. 1, 2, 3.
 exul,¹³ Bn. t. 62, f. 1, 2, 3.
 falcata, Bl. t. 54, f. 10.
 fallaciosa, Fér. t. 84, f. 8, 9.
 fastigiata, Hut. t. 16, f. 5.
 fastosa, Albers, t. 127, f. 5.
 febrilis, Bls. t. 129, f. 4.
 Feddeni, Bl. t. 131, f. 1, 2, 3.
 Footei, Stolic. t. 149, f. 10.
 frillata, Bn. t. 86, f. 8, 9, 10.
 fulva, Draparnaud (from Cashmere).
 gabata, Bn. t. 14, f. 4.
 galea, Bn. t. 54, f. 7.
 galerus, Bn. t. 83, f. 5, 6.
 ganoma, Pf. t. 111, f. 4, 7.
 Gardneri, Pf. t. 84, f. 7.
 glauca, Bn. t. 63, f. 10.
 Gordoniae, Bn. t. 27, f. 1; 2.

¹ J. Asi. Soc. Beng. 1875, vol. 44, pt. 2, p. 2, pl. 1, f. 2.

² The eulmen of Blanford (J. Asi. Soc. Beng. 1865, vol. 34) is a synonym, *testo* Stoliczka.

³ J. Asi. Soc. Beng. 1861, vol. 30, p. 352, pl. 1, f. 7: *Cont. Mal.* pt. 2.—Pf. Mon. Hel. vol. 5, p. 85: *Shevroys*, and *Kolamullies*.

⁴ Proc. Zool. 1857, p. 107. The types are identical.

⁵ The type of Reeve's (C. Icon. Hel. f. 445) ideal of Souleyet's *Touranensis* most closely resembles our shell.

⁶ Reeve's sculptured shell does not harmonise with the 'vix striatula' of Pfeiffer: erase the reference.

⁷ Compare with this and its allies the *H. Nagporensis* of Pfeiffer (Pr. Z. 1860: Mon. H. vol. 5). The type (certainly not a distinct species) cannot be found.

⁸ The Indian locality of *H. albicostis* Pf. (Mon. Hel. vol. 5,

p. 381) was probably based upon the fact that one of his three types was the young of this or Footei; the other two come nearer the *H. obtecta*, from Madeira.

⁹ The *H. revoluta* of Pfeiffer (Mon. Hel. vol. 5, p. 416) is referred to this by Stoliczka.

¹⁰ The two shells figured by Reeve as *cysis* and *auris* (Pfeif. Z. P. 1854, p. 286.—Reeve, f. 1382) are not even varieties; our own shell is his *H. Ampullarioides* (C. Ic. Helix, f. 1423), which many, and perhaps rightly, will think distinct.

¹¹ The variety *fasciata* of Godwin-Austen (J. Asi. Soc. Beng. 1875 (44, pt. 2), p. 1, pl. 1, f. 1, must surely be distinct.

¹² Godwin-Austen, Pr. Zool. 1875, p. 44.

¹³ The *Orobia Andamanensis* of Tryon (Amer. J. C. vol. 5, p. 110, p. 10, f. 4), is referred to this by Stoliczka.

gratulator, Bl. t. 16, f. 2, 6.
 Grevillei, Pf. t. 127, f. 7.
 Guerini,¹ Pf. t. 55, f. 1, 2.
 hæmastoma, Lin. t. 127, f. 2.
 hariola, Bn. t. 14, f. 6.
 Haughtoni,² Bn. t. 28, f. 3.
 hebesceus, Bl. t. 149, f. 1.
 helicifera, Bl. t. 50, f. 3, 4.
 Helferi, Bn. t. 28, f. 8, 9.
 hemiopta, Bn. t. 30, f. 4; t. 53, f. 8.
 Hodgsoni, Bl. t. 30, f. 1, 2, 3.
 honesta, Gould, t. 90, f. 10.
 humilis, Hutt. t. 61, f. 4, 5, 6.
 Humberti, Brot, t. 159, f. 9.
 Huttoni, Pf. t. 15, f. 8.
 hyba, Bn. t. 30, f. 2, 3.
 hyphasma, Bn. t. 54, f. 3.
 hypoleuca, Bl. t. 64, f. 6, 7.
 immerita, Bl. t. 150, f. 7.
 Indica, Pf. t. 55, f. 10.
 infausta, Bl. t. 159, f. 2, 3.
 infrendens,³ Gould, t. 15, f. 3, var.
 (as Tickellii).
 infula, Bn. t. 54, f. 9.
 Ingrami, Bl. t. 60, f. 9, 10.
 injussa, Bl. t. 132, f. 5, 6.
 interrupta,⁴ Bn. t. 27, f. 3.
 intumescens, Bl. t. 111, f. 6.
 Isabella, Pf. t. 27, f. 7.
 Juliana, Gray, t. 52, f. 7.

Karenorum, Bl. t. 13, f. 6.
 Koondaensis, Bl. t. 56, f. 5, 6.
 Kumahensis,⁵ Th. & Stol.
 labiata, Pf. t. 27, f. 5.
 lævipes,⁶ Müll.
 Laidlayana, Bn. t. 58, f. 3, 4, 5.
 Layardi, Pf. t. 56, f. 8.
 lecythis, Bn. t. 63, f. 7, 8, 9.
 leiophis,⁷ Bn. t. 13, f. 8.
 levicula, Bn. t. 90, f. 1, 4.
 ligulata,⁸ Fér. t. 28, f. 9.
 liratula, Pf. t. 150, f. 5, 6.
 liricincta, Stol. t. 132, f. 7.
 lixa, Bl. t. 149, f. 5, 6.
 lubrica, Bn. t. 51, f. 8, 9.
 macromphalos, Th. t. 83, f. 8, 9.
 macropleuris,⁹ Bn. t. 87, f. 10.
 Maderaspata, Gray, t. 28, f. 2.
 mammillaris, Bl. t. 50, f. 1, 2.
 melanotragus, Born, t. 127, f. 3.
 Merguensis, Phil. t. 14, f. 7.
 miccylla, Bn. t. 129, f. 8, 9.
 molecula, Bn. t. 30, f. 8, 9.
 mononema, Bn. t. 87, f. 2, 3.
 monticola, Hutt. t. 52, f. 3.
 mucosa,¹⁰ Bls. t. 90, f. 5, 6.
 Munipurensis,¹¹ G. A. (Munipur).
 Nagaensis,¹² G. A. (Prowi, Naga
 Hills).
 nana,¹³ Hutt. t. 61, f. 7, 8, 9.

nebulosa, Bl. t. 64, f. 8, 9, 10.
 Neherensis, Bn. t. 32, f. 5, 6.
 nepos, Pf. t. 132, f. 2, 3.
 Nicobarica, Beck, t. 52, f. 1.
 Nilagirica, Pf. t. 55, f. 6, 7.
 nitida, Müller (Cashmere).
 novella, Pf. t. 150, f. 8.
 nuda, Pf. t. 31, f. 7, 10.
 ochthoplax, Bn. t. 26, f. 4.
 odontophora, Bn. t. 57, f. 4, 5, 6.
 Oldhami, Bn. t. 15, f. 7.
 orcula, Bn. t. 87, f. 1, 4.
 ornatissima, Bn. t. 60, f. 4.
 Orobia, Bn. t. 28, f. 8.
 oxytes, Bn. t. 26, f. 1.
 palmaria, Bn. t. 30, f. 5, 6.
 pansa, Bn. t. 56, f. 1.
 partita,¹⁴ Pf. t. 84, f. 5, 6.
 Patane, Bn. t. 130, f. 5, 6, 7.
 pauxillula, Bn. t. 90, f. 8, 9.
 pedina, Bn. t. 51, f. 3.
 Peguensis, Bn. t. 58, f. 6.
 perarcta, Bl. t. 13, f. 3.
 percompressa,¹⁵ Bl.
 perfucata,¹⁶ Bn.
 perpaula,¹⁷ Bn.
 Petasus, Bn. t. 89, f. 8, 9.
 petrosa,¹⁸ Hutt. t. 88, f. 7, 10.
 Phayrei, Th. t. 15, f. 1.
 Phidias, Thorp. t. 149, f. 4.

¹ Compare with this and *cruiigera* the Nilgherry *H. tabida* of Pfeiffer (Mon. Hel. vol. 4, p. 27: Novit. vol. 1, pl. 12, f. 11, 12). It is larger and not keeled.

² The *H. Chamberi* of Tryon (Amer. J. C. vol. 5, pl. 10, f. 2) is a synonym.

³ In Proc. Bost. 1843, p. 139, and Bost. J. Nat. H. vol. 4, p. 453, pl. 24, f. 6. Pfeiff. Mon. Hel. vol. 1, p. 152. Reeve, C. Icon. Hel. f. 770. The variety *Tickellii* only differs in being more carinated, and having the twin teeth closer together.

⁴ The true *H. Himalayana* of Lea (Obs. Unio, vol. 1, pl. 19, f. 66) is referred by Blanford to this species; but Benson's erroneous ideal (Zool. J. vol. 5) was the *H. cicatricosa*.

⁵ J. Asi. Soc. Beng. 1872, vol. 41, pt. 2, p. 334, pl. 11, f. 9, 10: Kumah Hills, Sandoway, Aracan Hills.

⁶ See Pf. Mon. Hel. vol. 3, p. 75, and Kust. Ch. Hel. pl. 84, f. 22, 23.

⁷ If this should prove, as is possible, the true *refuga* of Gould, that name has priority: it resembles the *refuga* of Reeve, Philippi, and Kuster: yet the latter (Hel. t. 66, f. 21-23) does not show the lamella correctly, nor the spiral sculpture, and almost equally with the second makes the outline of the last whorl opposite the mouth as prominent below as above, instead of slanting inwards below as in *leiophis*.

⁸ The unique example from Tranquebar of the *Nanina turbinata* of Beck (Ap. Mol. Christ. Fred. p. 5, and Mörch, J. Con.

vol. 20 (1872, p. 33), said to remind one of this shell, being in the Danish Museum is inaccessible to us.

⁹ The *H. corys* of Benson (An. Nat. 1859, ser. 2, vol. 3, p. 265) is the young of this shell.

¹⁰ The *H. seposita* of Benson (An. Nat. Hist. 1859, April) is only known to us by a sketch of Benson's, which precisely resembles shells given us by Blanford as his *mucosa*.

¹¹ Z. P. 1874, p. 610, pl. 73, f. 6, as *H. (Plect.)*.

¹² Z. P. 1874, p. 609, pl. 73, f. 4, as *H. (Plect.)*.

¹³ Benson states that the *bullula* of Reeve represents this shell.

¹⁴ In the Zoology of Belanger's Voyage we find (Moll. p. 414, pl. 1, f. 8, 9, 10) a *H. semifusca*, from near Pondicherry. Its figure reminds us of this shell, but it is said to have eight or nine whorls (four more than are represented). That of Pfeiffer is really Indian, and quite distinct. The *H. marcida* of Benson (An. Nat. 1853, p. 92) is generally considered a form of *partita*, or some near ally (*subopaca*, &c.). The date is subsequent to that of the species so named by Shuttleworth (1852).

¹⁵ Pr. Zool. 1869, p. 446. Near *sais*: from Bhamo.

¹⁶ An. Nat. H. 1853, p. 93.—Pf. Mon. Hel. vol. 4, p. 50 from Ceylon.

¹⁷ An. Nat. H. 1859, p. 390.—Pf. Mon. Hel. vol. 5, p. 69: from Phie Than, Tenasserim.

¹⁸ Benson erroneously identified this shell with the imperforated five-whorled *H. vitrinoides* of Deshayes (Mag. de Z. 1831, pl. 26), of which the locality was then unknown. In Kuster's

Phoenix, Pf. t. 127, f. 6.
 phyllophila, Bn. t. 61, f. 10.
 pilidion, Bn. t. 53, f. 6.
 pinacis,¹ Bn. t. 13, f. 5; t. 84, f. 1, 4.
 Pirieana, Pf. t. 87, f. 5, 6.
 planiuscula, Hut. t. 32, f. 7, 10.
 plectostoma, Bn. t. 13, f. 2.
 plicatula, Bl. t. 28, f. 1.
 politissima, Bn. t. 31, f. 8, 9.
 Pollux, Th. t. 26, f. 2, 5.
 polypleuris, Bl. t. 16, f. 7.
 Poongee, Th. t. 16, f. 9.
 propinqua, Pf. t. 30, f. 10.
 prospera, Albers, t. 150, f. 4.
 proxima, Fér. t. 28, f. 5.
 pseudophis,² Bl. & G. A.
 pulchella, Müll. (Cashmire).
 pylaica, Bn. t. 15, f. 2.
 radicola, Bn. t. 62, f. 10.
 refuga,³ Gould, (Tavoy, Birmah).
 regulata, Bn. t. 31, f. 5, 6.
 repercussa, Gould, t. 13, f. 4.
 resplendens,⁴ Phil. t. 51, f. 4.
 retifera, Pf. t. 87, f. 8, 9.
 retrorsa, Gould, t. 25, f. 6.
 rimicola,⁵ Bn. t. 61, f. 1.
 Rivolii, Desh. t. 14, f. 2.
 rorida, Bn.⁶
 Rosamunda, Bn. t. 59, f. 5, 6.
 rotatoria, V. Buseh, t. 15, f. 5.
 rubello-cincta, Bl. t. 51, f. 5, 6.
 ruginosa, Fér. t. 84, f. 2, 3.
 sanis, Bn. t. 83, f. 4, 7.
 Saturnia, Gould, t. 25, f. 3.
 scalpturita, Th. t. 53, f. 9.
 scenoma, Bn. t. 53, f. 3, 4, 5.
 semidecussata, Pf. t. 58, f. 1, 2.

semirugata, Beck, t. 59, f. 4.
 sequax, Bn. t. 63, f. 1, 2, 3.
 sericata,⁷ G. A. t. 132, f. 8, 9.
 serrula, Bn. t. 50, f. 7.
 Shanensis, Stol. t. 149, f. 8, 9.
 Shiplayi, Pf. t. 131, f. 7, 10.
 Shiroyensis, G. A. t. 159, f. 7.
 Shisha,⁸ G. A. (Naga and Khasi Hills).
 similis,⁹ Fér. t. 53, f. 1, 2.
 Sisparica, Bl. t. 112, f. 4, 5, 6.
 Skinneri, Reeve, t. 111, f. 1.
 solata, Bn. t. 28, f. 6.
 splendens, Hutt. t. 51, f. 7, 10.
 stephus, Bn. t. 62, f. 4, 5, 6.
 subconoidea, Pf. t. 84, f. 7, 10.
 subcornea, Pf. t. 149, f. 2, 3.
 subdecussata, Pf. t. 56, f. 4.
 subjecta, Bn. t. 64, f. 1, 2, 3.
 superba, Pf. t. 127, f. 4.
 tapeina, Bn. t. 15, f. 5.
 Taprobanensis, Dohrn, t. 29 f. 2.
 tenuicula, Adams, t. 89, f. 7, 10.
 tertiana, Bl. t. 16, f. 10.
 textrina, Bn. t. 52, f. 2, 5.
 Theodori, Phil. t. 59, f. 7, 8.
 Thwaitesii, Pf. t. 128, f. 7, 10.
 thyreus, Bn. t. 27, f. 6.
 todarum, Bl. t. 64, f. 4, 5.
 Tranquebarica, Fab. t. 59, f. 3.
 Travancorica, Bn. t. 50, f. 5, 6; t. 149, f. 7.
 tricarinata, Bls. t. 129, f. 7, 10.
 trifasciata, Bl. t. 131, f. 2.
 triflosa,¹⁰ Pf.
 trilamellaris,¹¹ G. A.
 trochalia,¹² Bn. t. 28, f. 7.

turritella, Ad. t. 86, f. 4.
 tugurium, Bn. t. 29, f. 10.
 umbrina, Pf. t. 89, f. 1, 2, 3.
 undosa, Bl. t. 111, f. 2, 3 (var.).
 uter, Th. t. 58, f. 7, 8.
 vallicola, Pf. t. 128, f. 8, 9.
 verrucula, Pf. t. 150, f. 9.
 vesicula, Bn. t. 62, f. 4, 5, 6.
 vidua, Bl. t. 130, f. 2, 3.
 vilipensa, Bn. t. 89, f. 4, 5, 6.
 vitellina, Pf. t. 59, f. 1, 2.
 vittata, Müll. t. 130, f. 10.
 Waltoni, Reeve, t. 127, f. 1.
 Woodiana, Pf. t. 30, f. 2, 3.
 Zoroaster, Th. t. 86, f. 2, 3.

BOYSIA.

Bensoni, Pf. t. 8, f. 1.

HYPSELOSTOMA.

Bensonianum, Bl. t. 8, f. 2.
 Dayanum, Stol. t. 147, f. 10.
 tubiferum, Bn. t. 8, f. 3.

STREPTAXIS.

Andamanica, Bn. t. 8, f. 6.
 Blanfordi, Th. t. 8, f. 5, as Birmanica.
 bombax, Bn. t. 156, f. 9; t. 31, f. 1, 4 (young).
 Burmanica, Bl. t. 156, f. 10; var. edentula, t. 8, f. 10, as Blanfordi.
 Canarica, Bed. t. 156, f. 7.
 Cingalensis, Bn. t. 98, f. 2, 3.
 exacuta, Gould, t. 98, f. 8, 9.
 Elisa,¹³ Gould.
 Layardiana, Bn. t. 98, f. 1, 4.

Chemnitz (Helix, pl. 110) the true vitrinoides (f. 13, 14, 15), and the spurious (f. 10, 11, 12) are both delineated as one species.

¹ The H. (Corilla) pettos of Martens (Mal. Blät. 1868, p. 158), from the Himalayah, may be compared with this and its allies.

² Z. P. 1874, p. 610, pl. 74, f. 3, as H. (Plect.).—Thayet, Myo, Pegu. Compare H. refuga of Philippi, &c.

³ Proc. Bost. vol. 2, 1846, p. 99; Otia, p. 198. The species (one or more) figured by Philippi (Ab. Conch.), Reeve, and Kuster (Hel. t. 66, f. 21, 22, 23) does not suit the "viridicornea" of our author, who states it is almost exactly like "carabinata" (Rivolii). Our supposed dextral var. has been lately named dextrorsa.

⁴ This is the H. exopolita of Deshayes (Fér. H. Moll. pl. 87, f. 1). The resplendens of Beck, said to come from Bombay, was described, but not strictly published in the Appendix to his Catalogue. Compare our figure 2 of pl. 51 with his definition.

⁵ The H. (Arianta) elatior of Martens (Mal. Blät. 1868, p. 157) is, probably, this shell in fine condition.

⁶ An. Nat. 1859, s. 3, vol. 3, p. 266.—Pfeif. Mon. Hel. vol. 5, p. 111; Darjiling, and Sunhul Hill.

⁷ Pr. Z. 1874, p. 608, pl. 73, f. 5.

⁸ J. Asi. Soc. Beng. 1875, vol. 44, pt. 2, p. 2, pl. 1, f. 3.

⁹ To this may be referred the H. sordida of Pfeiffer (Kust. ed. Chem. Hel. pl. 60, f. 19, 20).

¹⁰ Proc. Zool. 1853, p. 125; Mon. Hel. vol. 4, p. 37; Ceylon. The type could not be found; our ideal would be retifera with a narrower perforation.

¹¹ Proc. Zool. 1875, p. 43.

¹² The Ampelita Bigsbyi of Tryon in the Amer. J. C. vol. 5, p. 110, pl. 10, f. 3.

¹³ Proc. Bost. 1856, p. 12; Otia, p. 220: from an islet in the Mergui Archipelago.

obtusa,¹ Stol. (near Moulmein).
 Perotteti,² Petit, t. 98, f. 5, 6.
 Petiti, Gould, t. 8, f. 4.
 Sankeyi,³ Bn.
 solidula, Stol. t. 98, f. 7.
 Theobaldi, Bn. t. 8, f. 9.
 Watsoni, Bls. t. 8, f. 8.

PUPA.

Avanica, Bn. t. 160, f. 7.
 bathyodon, Bn. t. 100, f. 7.
 (En.) bicolor, Hutt. t. 100, f. 6.
 Blanfordiana, G. A. t. 100, f. 2.
 brevicostis,⁴ Bn.
 (En.) Ceylanica, Pf. t. 100, f. 4.
 cylindroidea, Stol. t. 160, f. 10.
 diopsis, Bn. t. 101, f. 10.
 eurina, Bn. t. 101, f. 7.
 Evezardi, Bl. t. 101, f. 5, 6.
 (En.) fartoides, Th. t. 100, f. 5.
 filosa, Th. & St. t. 160, f. 5.
 gutta, Bn. t. 101, f. 9.
 Himalayana, Hutt. t. 101, f. 4.
 Huttoniana, Bn. t. 101, f. 3.
 Indica, Pf. t. 160, f. 8.
 lapidaria, Hutt. t. 100, f. 10.
 lignicola, Stol. t. 160, f. 6.
 mimula, Bn. t. 160, f. 4.
 muscerda, Bn. t. 160, f. 2.
 (En.) Pirriei, Pf. t. 100, f. 1.
 planguncula, Bn. t. 101, f. 2.
 pligidens, Bn. t. 100, f. 3.
 Salemensis, Bl. t. 160, f. 10.

Salwiniana, Th. t. 100, f. 9.
 (En.) sculpta, Bl. t. 160, f. 1.
 seriola, Bn. t. 101, f. 8.
 serrula,⁵ Bn.
 stenopylis, Bn. t. 101, f. 1.
 tutula, Bn. t. 156, f. 6.
 vara, Bn. t. 100, f. 3.

CLOSTOPHIS.

Sankeyi, Bn. t. 133, f. 10.

CLAUSILIA.

Arakanensis, Th. t. 118, f. 8, 9.
 Asaluensis, G. A. t. 159, f. 5.
 bacillum,⁶ Bn. t. 24, f. 1.
 bulbosus, Bn. t. 24, f. 5.
 Ceylanica, Bn. t. 118, f. 1.
 cylindrica, Gray, t. 24, f. 4.
 ferruginea, Bl. t. 118, f. 5, 6.
 fusiformis, Bl. t. 24, f. 6.
 Gouldiana, Pf. t. 118, f. 2, 3.
 insignis, Gould, t. 24, f. 2, 3.
 Ios, Bn. t. 24, f. 10.
 loxostoma, Bn. t. 24, f. 7.
 Masoni, Th. t. 24, f. 8.
 monticola, G. A. t. 118, f. 7.
 ovata, Bl. t. 118, f. 4.
 Philippiana, Pf. t. 118, f. 10.
 Theobaldi,⁷ Bl.
 Vespa,⁸ Gould (Birmah).
 tuba, Hanl. t. 24, f. 9.
 Waageni,⁹ Stolic.

BULIMUS.¹⁰

Abyssinicus,¹¹ Rap. t. 21, f. 1.
 adumbratus, Pf. t. 148, f. 8.
 Agrensis, Kurr, t. 23, f. 1.
 albizonatus, Reeve, t. 21, f. 8.
 Andamanicus, Thorp, t. 148, f. 10.
 arcuatus, Hutt. t. 20, f. 2.
 atricallosus,¹² Gould (Tavoy).
 Bengalensis, Lam. t. 80, f. 7; t. 148, f. 6.
 Bontiae, Chem. t. 80, f. 5.
 Boysianus, Bn. t. 22, f. 6.
 Calcadensis, Bedd. t. 148, f. 2, 3.
 candelaris, Pf. t. 19, f. 2.
 Ceylonicus, Bn. t. 21, f. 2; t. 148, f. 9, var.
 Chion, Pf. t. 22, f. 1.
 Cingalensis, Bn. t. 79, f. 1.
 coelebs, Bn. t. 80, f. 1; var. ceratinus, t. 80, f. 2.
 cœnopictus,¹³ Hutt. t. 22, f. 9.
 densus, Pf. t. 79, f. 6.
 domina, Bn. t. 22, f. 5.
 eremita, Bn. t. 23, f. 6.
 Estellus, Bn. t. 22, f. 4.
 Fairbanki, Pf. t. 20, f. 9.
 gracilis, Hutt. t. 23, f. 4.
 Griffithi, Bn. t. 23, f. 5.
 Haughtoni, Bn. t. 19, f. 1; t. 89, f. 5.
 hebes, Bl. t. 79, f. 10.
 insularis, Ehr. t. 22, f. 10.
 intermedius, Pf. t. 19, f. 6, 8.

¹ J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 166, pl. 7, f. 11, 12, 13.

² Compare the *S. Footei*, or *Perotteti Footei* var. of the Blanford's (*J. Asi. Soc. Beng.* 1861, p. 358, pl. 2, f. 6) from Southern India.

³ Our supposed variety (pl. 8, f. 7) has been separated by Stoliczka as *S. Hanleyana* (*J. Asi. Soc. Beng.* 1871, pl. 7, f. 15): he is quite right in regarding the form with a more tapering and rounded mouth as better suited to Benson's description (Pfeif. Mon. Hel. vol. 5, p. 442), although Benson's drawing (in our possession) represents the other. Had we then possessed the typical *Sankeyi*, we should have preferentially figured it: it is very like our pl. 98, f. 10, only has not a smooth base or a second lamellar tubercle. Our figured specimen is quite as large as the more characteristic form (*J. Asi. Soc. Beng.* 1871, vol. 40, pt. 2, p. 167, pl. 7, f. 14).

⁴ Bens. An. Nat. H. 1849, ser. 2, vol. 4.—Pfeif. Mon. Hel. vol. 3, p. 560: Kust. ed. Chemn. Pup. pl. 17, f. 21, 22. Barrakpore, Bengal.

⁵ An. Nat. Hist. 1863, ser. 3, vol. 11, p. 427.—Pfeif. Mon. Hel. vol. 6, p. 319. Central India.

⁶ Identical with the undescribed ignota of Th.

⁷ *J. Asi. Soc. Beng.* 1872, vol. 41, pt. 2, p. 201, pl. 9, f. 5: Tonghu; Birmah.

⁸ Proc. Bost. N. H. 1859, vol. 6, p. 12: Otia, p. 220.—Pf. Mon. vol. 6, p. 409: from Tavoy; has six whorls only. Can it be *Philippiana*? Compare also the *vespa* of *J. Asi. Soc. Beng.* 1872, vol. 41, pt. 2, p. 209, pl. 9, f. 15.

⁹ *J. Asi. Soc. Beng.* 1872, vol. 41, pt. 2, pl. 9, f. 19: Changuigalli, near Marri, W. Himalayah.

¹⁰ See, also, the *B. Huttoni*, Pf. (Symb. pt. 3, p. 55; Mon. Helic. vol. 2, p. 118; Kust. ed. Chz. Bul. t. 17, f. 3, 4) from the "E. Indies."

¹¹ To this group belongs the *B. Malabaricus* of Pfeiffer (Mal. Blät. 1857, p. 156); Mon. Hel. vol. 4, p. 411, from Ahmednuggur.

¹² Proc. Bost. 1843, vol. 1 (copied Otia, p. 189); Bost. J. Nat. H. vol. 4, p. 457, pl. 24, f. 3.—Desh. Fér. Mol. t. 130, f. 9, 10.

¹³ The types of the *B. lardeus* of Pfeiffer (Proc. Z. 1852, p. 157), from the "E. Indies," belong to this species.

Janus, ¹ Pf. t. 19, f. 5 (as atrical- losus).	Sylheticus, Reeve, t. 19, f. 9.	facula, Bn. t. 35, f. 1.
Jerdoni, ² Bn. t. 21, f. 7.	terebrales, ⁷ Th.	Fairbanki, Bn. t. 18, f. 3.
Khasianus, G. A. t. 148, f. 7.	Thcobaldianus, ⁸ Bn. t. 19, f. 10.	filosa, Bl. t. 36, f. 10.
Kunawarensis, Hutt. t. 19, f. 3.	trifasciatus, Brug. t. 21, f. 3.	fusca, Ad. t. 78, f. 4.
latebricola, Bn. t. 79, f. 7.	trutta, Bl. t. 80, f. 4.	gemma, Bn. t. 36, f. 7.
Layardi, Bn. t. 79, f. 2, 3.	vibex, Hnt. & Bn. t. 22, f. 8; t. 23, f. 3; t. 20, f. 5.	hastula, Bn. t. 18, f. 4.
lepidus, Gould, t. 80, f. 6.	vicarius, Bl. t. 22, f. 2.	hebes, Bl. t. 156, f. 2.
lubricus, Brug. (Cashmire).	Walkeri, Bn. t. 79, f. 4.	Hugeli, Pf. t. 78, f. 2.
Mavortius, Reeve, t. 148, f. 5.		illustris, ¹² G. A. t. 102, f. 9.
Moussonianus, Pf. t. 21, f. 4.	COILOSTELE.	inornata, Pf. t. 17, f. 2, 3?
Munipurensis, G. A. t. 148, f. 1, 4.	scalaris, Bn. t. 156, f. 5.	Isis, Han. t. 155, f. 5.
Nilagiricus, Pf. t. 23, f. 3.		Jerdoni, Bn. t. 78, f. 10.
nivicola, Bn. t. 22, f. 9.	ACHATINA.	leptospira, Bn. t. 35, f. 2, 3.
orbis, Bl. t. 20, f. 1.	amentum, Bn. t. 35, f. 3.	lyrata, ¹³ Bl. t. 18, f. 9.
Pertica, Bn. t. 22, f. 7.	Anamullica, ⁹ Bl.	Mullorum, Bl. t. 102, f. 5.
physalis, Bn. t. 21, f. 9.	Arthurii, Bn. t. 36, f. 3.	nitens, Gray, t. 17, f. 1.
plicifer, Bls. t. 80, f. 8.	baculina, Bl. t. 78, f. 6.	notigena, Bn. t. 35, f. 8, 9.
prætermisus, Bls. t. 19, f. 4.	balanus, Bn. t. 102, f. 10.	obtusa, Bl. t. 36, f. 6.
pretiosus, Cant. t. 23, f. 7.	Beddomei, Bl. t. 102, f. 8; 156, f. 4.	Oreas, Bn. t. 75, f. 9.
proletarius, ³ Bn. t. 80, f. 3.	Bensoniana, Pf. t. 102, f. 3.	Orobia, Bn. t. 18, f. 7, 8.
punctatus, ⁴ Ant. t. 20, f. 10.	botellus, Bl. t. 35, f. 4.	orthoceras, G. A. t. 159, f. 6.
pusillus, ⁵ Bl. t. 79, f. 8.	Bottampotana, Bed. t. 156, f. 1.	pachycheila, ¹⁴ Bn.
putus, Bn. t. 80, f. 9.	brevis, Pf. t. 18, f. 10.	panætha, Bn. t. 36, f. 2.
rufopictus, Bn. t. 21, f. 10.	Burraillensis, ¹⁰ G. A. (East Burrail Range).	parabilis, Bn. t. 35, f. 7.
rufostriatus, Bn. t. 20, f. 4; t. 23, f. 10.	Butleri, ¹¹ G. A. (East Burrail Range.)	paupercula, Bls. t. 102, f. 1.
salsicola, Bn. t. 20, f. 8.	capillacea, Pf. t. 156, f. 3.	Peguensis, Bl. t. 102, f. 6.
scrobiculatus, Bl. t. 79, f. 9.	Cassiaca, Bn. t. 36, f. 5.	Perotteti, Pf. t. 35, f. 6.
segregatus, Bn. t. 80, f. 10.	Ceylanica, Pf. t. 17, f. 4.	pertenuis, Bl. t. 18, f. 5.
Sikkimensis, Bn. t. 19, f. 7.	Chessoni, Bn. t. 18, f. 8.	prælustris, Bn. t. 17, f. 6, 7.
Sindicus, Bn. t. 20, f. 6.	corrosula, Pf. t. 18, f. 2.	pulla, Bl. t. 78, f. 1.
Sinensis, ⁶ Bn. t. 21, f. 5, 6.	crassilabris, Bn. t. 36, f. 1.	Punctogallana, Pf. t. 102, f. 4.
Smithei, Bn. t. 20, f. 3.	crassula, Bn. t. 36, f. 4.	pyramis, Bn. t. 18, f. 6.
spelæus, Hutt. t. 23, f. 8.	Deshayesiana, Pf. t. 102, f. 2.	rugata, Bl. t. 102, f. 7.
stali, Bn. t. 22, f. 3.	erosa, Bl. t. 78, f. 5.	Sarissa, Bn. t. 35, f. 10.
		scrutillus, Bn. t. 18, f. 1.
		senator, Han. t. 155, f. 4.

¹ Proc. Z. 1852, p. 85, with the misleading locality of New Hebrides. The type has been examined.

² Pfeiffer has referred his *B. Redfieldi* (Mal. Blät. 1854) to this species.

³ A dwarf form of this precisely agrees with the *B. Panos*, of Benson (Ann. N. H. 1853, ser. 2, vol. 2, p. 94.—Pf. Mon. H. vol. 4, p. 417).

⁴ The *B. acutus*? of Hutton, from Jeypur, was probably this shell.

⁵ The unique type of the *Bulimulus pusillus* of Adams (Pr. Z. 1867, p. 3, pl. 19, f. 17) proves to be identical with the British *Balea perversa*, which can scarcely be a native of Ceylon.

⁶ The supposed *B. citrinus* so briefly referred to by Benson in the Asiatic Journal (Beng. vol. 5) was probably this, *flavus*, or *Sylheticus*. The yellow form comes from Akyab, the banded from near Prome.

⁷ J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 401. Shan Provinces. Belongs to the *Stenogyra* section (*Opeas*).

⁸ Although the type does not at all agree with Gould's description of the mouth of his *B. moniliferus*, it is certain that he sent a specimen of it so named to one of his correspondents. If identical, Gould's name must take priority.

⁹ J. Asi. Soc. Beng. 1866, p. 37: Cont. Mal. pt. 6.—Pf. vol. 6, p. 223. Anamullay Hills. Only a broken specimen known to us.

¹⁰ J. Asi. Soc. Beng. 1875, vol. 44, pt. 2, p. 3, t. 1, f. 6.

¹¹ Id. p. 4, t. 1, f. 7.

¹² Described by G. A. in J. Asi. Soc. Beng. 1875, vol. 44, pt. 2, p. 3.

¹³ See, also, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 20 (as *Glessula*), pl. 3, f. 19, and var. *Matheranica*, from near Bombay.

¹⁴ An. Nat. Hist. 1853, p. 94.—Pf. Mon. H. vol. 4, p. 608. Ceylon.

serena, Bn. t. 78, f. 8.
 Shiplayi, Pf. t. 36, f. 9.
 Singhurensis, Bl. t. 78, f. 7.
 subfusiformis,¹ Bl.

Tamalica, Bl. t. 17, f. 9.
 tenuispira, Bn. t. 36, f. 8.
 textilis, Bl. t. 17, f. 10.
 Theobaldi,² Hanl. t. 17, f. 5.

Tornensis, Bl. t. 78, f. 3.
 Vadalica, Bn. t. 35, f. 5.
 veruina, Bn.³

OPERCULATED LAND SHELLS.

DIPLOMMATINA.

affinis, Th.⁴
 Anamallayana,⁵ Bedd. (Anamallays).
 angulata, Th. & St. t. 140, f. 7 (enlarged).
 Austeni, Bl. t. 119, f. 1, 4.
 Blanfordiana, Bn. t. 119, f. 5, 6.
 Burtii,⁶ G. A. (Assam).
 Canarica,⁷ Beddome (N. Canara).
 carnicola, Stol. t. 140, f. 4 (enlarged).
 Ceylanica,⁸ Bedd. (Pedrotalle Galle, Ceylon).
 convoluta,⁹ G. A. (Eastern Burrail).
 costulata, Hutt. t. 120, f. 8, 9.
 crispata, Stol. t. 141, f. 6.
 depressa, G. A. t. 120, f. 5, 6.
 diplocheilus, Bn. t. 140, f. 2, 3 (enlarged).
 exilis, Bl. t. 119, f. 10.
 folliculus, Pf. t. 140, f. 8, 9 (enlarged).
 Fairbanki, Bl. t. 141, f. 9.
 gibbosa, Bl. t. 120, f. 1, 4.
 gracilis,¹⁰ Bedd. (Gudam Hills, Vizagapatam).
 Huttoni, Pf. t. 139, f. 5, 6 (enlarged).
 insignis, G. A. t. 139, f. 10 (enlarged).
 Jaintiaca, G. A. t. 120, f. 2, 3.
 Jatingana, G. A. t. 139, f. 7 (enlarged).
 Kingiana, Bls. t. 141, f. 1.
 labiosa, Bl. t. 119, f. 9.

liricineta, Bl. t. 141, f. 2.
 minima,¹¹ Bedd. (Gudam Hills, Vizagapatam).
 nana, Bl. t. 140, f. 1 (enlarged).
 Nilgirica, Bl. t. 141, f. 4.
 nitidula, Bl. t. 141, f. 5.
 oligopleuris, Bl. t. 119, f. 2, 3.
 pachycheila, Bn. t. 140, f. 5, 6 (enlarged).
 parvula, G. A. t. 139, f. 4 (enlarged).
 Pedronis,¹² Bedd.
 polypleuris, Bn. t. 140, f. 10 (enlarged).
 pullula, Bn. t. 119, f. 7.
 Pulneyana, Bl. t. 141, f. 3.
 Pupaeformis,¹³ Th.
 Puppensis, Bl. t. 139, f. 8, 9 (enlarged).
 Richthofeni, Stol. t. 141, f. 7, 8.
 Salwiniana,¹⁴ Th.
 scalaris, Bl. t. 139, f. 2, 3 (enlarged).
 scalaroides, Th. t. 141, f. 10.
 semisculpta, Bl. t. 120, f. 7.
 Sherfaiensis, G. A. t. 119, f. 8.
 sperata,¹⁵ Bl.
 subovata,¹⁶ Bedd.
 tumida, G. A. t. 139, f. 1 (enlarged).
 ungulata, H. Bl. t. 120, f. 10.

STREPTAULUS.

Blanfordi, Bn. t. 133, f. 5, 6.

RAPHAULUS.

chrysalis, Pf. t. 133, f. 7.
 pachysiphon, Th. & St. t. 133, f. 4.

CATAULUS.

aureus, Pf. t. 106, f. 9.
 Austenianus, Bn. t. 106, f. 7.
 Blanfordi, Dohrn, t. 106, f. 3.
 Calcadensis, Bl. t. 106, f. 10.
 decorus, Bn. t. 106, f. 5.
 duplicatus,¹⁷ Pf. t. 106, f. 2.
 eurytrema, Pf. t. 146, f. 3.
 haemastoma, Pf. t. 106, f. 4.
 Layardi, Gray, t. 106, f. 8.
 leucocheilus, Ad. and R. t. 146, f. 1.
 marginatus, Pf. t. 145, f. 6.
 pyramidatus, Pf. t. 146, f. 5.
 recurvatus, Pf. t. 146, f. 2.
 Templemani, Pf. t. 106, f. 1.
 Thwaitesii,¹⁸ Pf. t. 106, f. 6.

PUPINA.

artata, Bn. t. 7, f. 5.
 arula, Bn. t. 7, f. 4.
 Blanfordi, Th. t. 7, f. 6.
 imbricifera, Bn. t. 7, f. 7.
 Peguensis,¹⁹ Bn.

MEGALOMASTOMA.

funiculatum, Bn. t. 7, f. 2; t. 133, f. 1.
 gravidum,²⁰ Bn. t. 7, f. 1.

¹ Pr. Zool. 1869, p. 449, as A. (Glessula): Ponsee in Yunan.

² From Teria Ghat.

³ An. Nat. Hist. 1853, p. 94.—Pf. Mon. Hel. vol. 4, p. 615: Nalanda, Ceylon.

⁴ J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 398. Shan Provinces.

⁵ Proc. Zool. Soc. 1875, p. 443, pl. 52, f. 5, 6.

⁶ J. Asi. Soc. Beng. 1875, vol. 44, pt. 2, p. 8, pl. 4, f. 1.

⁷ Proc. Zool. Soc. 1875, p. 442, pl. 52, f. 1.

⁸ Id. 1875, p. 444, pl. 52, f. 9.

⁹ J. Asi. Soc. Beng. 1875, vol. 44, pt. 2, p. 8, pl. 4, f. 8.

¹⁰ Proc. Zool. 1875, p. 442, pl. 52, f. 2.

¹¹ Id. 1875, p. 442, pl. 52, f. 3, 4.

¹² Proc. Zool. Soc. 1875, p. 443, pl. 52, f. 8.

¹³ J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 398. Shan Provinces.

¹⁴ Id. 1870, vol. 39, pt. 2, p. 398. Shan Provinces.

¹⁵ Id. 1862, vol. 30, p. 142: Cont. Mal. pt. 3.—Pf. Mon. Pa, vol. 3, p. 10. Arakan Hills. Unique.

¹⁶ Proc. Zool. Soc. 1875, p. 443, pl. 52, f. 7.

¹⁷ Runs into Templemani.

¹⁸ In this we include the C. Cumingii of Pfeiffer (Proc. Zool. 1856, p. 339.—Sow. Th. vol. 3, pl. 264, f. 3).

¹⁹ An. Nat. Hist. 1860, ser. 3, vol. 6, p. 192.—Pfeif. Mon. Pneum. vol. 3, p. 35; Pegu. In Calcutta Museum.

²⁰ The Otopoma blennus of Benson is the young.

pauperculum, Bn. t. 133, f. 3.
sectilabrum, Gould, t. 7, f. 3.

POMATIAS.

Himalayæ, Bn. t. 7, f. 9.
Peguensis, Th. t. 7, f. 8.
pleurophora, Bn. t. 7, f. 10.

CREMNOCONCHUS.

carinatus, Lay, t. 146, f. 10.
conicus, Bl. t. 146, f. 8.
Fairbanki, Bl. t. 146, f. 7.
Syhadrensis, Bl. t. 146, f. 6.

OMPHALOTROPIS.¹

disterrina, Bn. t. 145, f. 10.

ACMELLA.

hyalina,² Th. & St. (near Moulmein).
tersa, Bn. t. 117, f. 1.

HYDROCÆNA.³

Blanfordiana, Stol. t. 117, f. 2.
fraterna,⁴ Th. & St.
frustillum, Bn. t. 117, f. 5.
illex, Bn. t. 117, f. 4.
liratula,⁵ Stol.
pyxys, Bn. t. 117, f. 3.
Rawesiana, Bn. t. 117, f. 6.
saritta, Bn. t. 117, f. 7.

JERDONIA.⁶

Phayrei,⁷ Th. t. 135, f. 3.
trochlea, Bn. t. 135, f. 5, 6.

CRASPEDOTROPIS.

cuspidatus, Bn. t. 135, f. 1, 4.
fimbriata,⁸ G. A. (W. Naga Hills).
Salemensis,⁹ Bedd. (Salem district,
S. India).

MYCHOPOMA.

hirsutum, Bed. t. 136, f. 1, 4.
limbiferum, Bl. t. 136, f. 2, 3.
seticinctum,¹⁰ Bed. (Anamallay
Mountains.)

CYATHOPOMA.

Ceylanicum, Bed. t. 145, f. 8.
Coonoorensis,¹¹ Bl. t. 135, f. 10.
Deccanense, Bl. t. 82, f. 8, 9.
filocinctum, Bn. t. 82, f. 2, 3.
Kalryenense,¹² W. and H. Blan.
Kolamullienae, Bls. t. 135, f. 8, 9.
latilabre,¹³ Bedd. (S. Canara Ghats).
Malabaricum, Bls. t. 82, f. 1, 4.
malleatum, Bls. t. 82, f. 5, 6.
procerum, Bl. t. 135, f. 7.
Shevaroyanum,¹⁴ Bedd. (Salem dis-
trict, S. India).

tignarium, Bn. t. 82, f. 7, 10.
Travancoricum,¹⁵ Bedd. (Travancore
Mountains).
vitreum, Bed. t. 145, f. 9.
Wynaadense,¹⁶ Bl.

OPISTHOSTOMA.

Fairbanki, Bl. t. 117, f. 8.
macrostoma, Bed. t. 117, f. 9.
Nilgircum,¹⁷ Bls. t. 117, f. 10.

ALYCÆUS.¹⁸

amphora, Bn. t. 91, f. 2, 3.
Andamaniæ, Bn. t. 91, f. 7, 10.
armillatus, Bn. t. 93, f. 10.
Avæ, Bl. t. 94, f. 8, 9, 10.
bembex, Bn. t. 95, f. 2, 3.
birennatus,¹⁹ G. A.
bifrons, Th. t. 93, f. 1, 4.
Burtii,²⁰ G. A.
conicus, G. A. t. 103, f. 8, 9.
constrictus, Bn. t. 95, f. 1, 4.
crenatus, G. A. t. 103, f. 2, 3.
crenulatus, Bn. t. 97, f. 1, 4.
crispatus,²¹ G. A.
cucullatus, Th. t. 96, f. 1, 4.
diagonus, G. A. t. 103, f. 1.
digitatus,²² Bl.

¹ The *O. aurantiaca* of Desh. (Voy. Belang. Z. 416, pl. 1, f. 16, 17, as *Cyclot.*) is a native of the Isle of Bourbon, and not from "Pondicherry."

² J. Asi. Soc. Beng. 1872, vol. 41, pt. 2, p. 333, pl. 11, f. 7.

³ The type of the *H. mifium* of Benson (An. Nat. H. 1853, ser. 2, vol. 11, p. 158), figured by Godwin-Austen (Proc. Zool. 1872, pl. 30, f. 3) is the fry of some larger shell, possibly of a Pupa.

⁴ J. Asi. Soc. Beng. 1873, vol. 41, pt. 2, p. 332, pl. 11, f. 5, 6. Ataran Valley, near Moulmein.

⁵ Id. 1871, vol. 40, pt. 2, p. 157, pl. 6, f. 6. Damotha, near Moulmein.

⁶ At the last moment, and too late for redistribution into our groups, a paper (Proc. Zool. 1875) on *Cyathopoma* (in a broader sense than usual) has reached us from Col. Beddome. The following species are regarded by him as belonging to *Jerdonia*, which he regards as a section of the genus: *nitidum*, *Blanfordi*, *album* (? our *Kolamullienae*), *Anamallayanum*, *ovatum*, *Sivagherrianum*, *atrosetosum*, *elatum*; they are all figured in pl. 52, and if correctly delineated, such shapes as 14 and 17 can scarcely rank as members of the same genus.

⁷ The *Cyclop. biliratus* of Beddome (Z. P. 1875, p. 452, pl. 53, f. 34) is a synonym.

⁸ J. Asi. Soc. Beng. 1875, vol. 44, pt. 2, p. 7, pl. 4, 1.

⁹ Proc. Zool. 1875, p. 453, pl. 53, f. 35 (as *Cyclophorus*).

¹⁰ Id. 1875, p. 449, pl. 53, f. 23, 24 (as *Cyathop.*).

¹¹ The striae should be closer, and not visible in the mouth. The ridges should be more marked and fewer.

¹² J. Asi. Soc. Beng. 1861, vol. 30, p. 352, pl. 2, f. 1 and Cont. Mal. pt. 2, as *Cyclotus*.—Pfeif. Mon. Pn. vol. 2, p. 33, as *Cyclot.*—Bl. J. Conch. 1868, pl. 12, f. 4, as *Cya.* *Kalryen Hills*, near Salem, S. India.

¹³ Proc. Zool. 1875, p. 450, pl. 53, f. 28, 29.

¹⁴ Id. 1875, p. 451, pl. 53, f. 32, 33.

¹⁵ Id. 1875, p. 451, pl. 53, f. 30, 31.

¹⁶ Jour. Conch. 1868, p. 259, pl. 12, f. 3. Wynaad, N. side of Nilgherries.

¹⁷ Compare *O. Deccanense*, Bedd. Proc. Zool. 1875, p. 444, pl. 52, f. 10, 11. See, too, his *O. distortum*, p. 445.

¹⁸ In the J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, will be found drawings of *A. Ingrami*, var. *Nagaensis* (pl. 4, f. 3) and *A. otiphorus* (pl. 5, f. 6).

¹⁹ Id. 1874, vol. 43, pt. 2, p. 148, pl. 3, f. 5.

²⁰ J. Asi. Soc. Beng. 1874, vol. 43, pt. 2, p. 149, pl. 3, f. 9.

²¹ Id. 1871, vol. 40, pt. 2, p. 91, pl. 4, f. 1, and f. 2 (var.). *Khasia Jaintia* and *N. Cachar Hills*.

²² Id. 1871, vol. 40, pt. 2, p. 41, pl. 2, f. 4. Darjiling.

expatriatus, Bl. t. 145, f. 1, 4.
 Feddenianus, Th. t. 91, f. 1, 4.
 Footei,¹ Bls.
 gemmula, Bn. t. 93, f. 7.
 glaber, Bl. t. 97, f. 8, 9, 10.
 globulus,² G. A.
 graphicus, Bl. t. 96, f. 7, 8, 9.
 hebes, Bn. t. 93, f. 5, 6.
 humilis, Bl. t. 93, f. 8, 9.
 Jaintiacus,³ G. A.
 inflatus,⁴ G. A.
 Ingrami, Bl. t. 92, f. 7, 10.
 Khasiacus, G. A. t. 103, f. 5, 6.
 Kurzianus, Th. & St. t. 145, f. 2, 3.
 margarita, Th. t. 95, f. 10: t. 97,
 f. 7.
 multirugosus,⁵ G. A.
 nitidus, Bl. t. 94, f. 4, 7.
 otiphorus, Bn. t. 96, f. 5, 6.
 physus, Bn. t. 92, f. 5, 6.
 plectocheilus, Bn. t. 96, f. 5, 6.
 politus, Bl. t. 94, f. 1, 2, 3.
 polygonoma, Bl. t. 96, f. 2, 3.
 prosectus, Bn. t. 92, f. 2, 3.
 pusillus, G. A. t. 103, f. 7, 10.
 pyramidalis, Bn. t. 91, f. 5, 6.
 Richthofeni, Bl. t. 94, f. 5, 6.
 serratus,⁶ G. A.
 sculptilis, Bn. t. 97, f. 5, 6.
 Stoliczkii,⁷ G. A.
 strangulatus, Hutt. t. 93, f. 2, 3.
 strigatus,⁸ G. A.
 sculpturus,⁹ G. A. (Munipur).

succineus, Bl. t. 96, f. 7, 10.
 stylifer, Bn. t. 92, f. 1, 4.
 Theobaldi, Bl. t. 97, f. 2, 3.
 umbonalis, Bn. t. 92, f. 8, 9.
 urnula, Bn. t. 91, f. 8, 9.
 vestitus, Bl. t. 103, f. 4.
 Vulcani, Bl. t. 96, f. 8, 9.

PTEROCYCLOS.¹⁰

Andersoni (Spir.) Bl. t. 49, f. 3, 4.
 ater, St. t. 142, f. 5, 6.
 Avanus, (Spir.), Bl. t. 134, f. 8, 9.
 Beddomei (Spir.), Bl. t. 134, f. 5, 6.
 bifrons, Pf. t. 142, f. 8, 9.
 bilabiatus, Sow. t. 5, f. 2.
 cetra, Bn. t. 134, f. 7, 10.
 Cingalensis, Bn. t. 5, f. 5.
 Cumingii, Pf. t. 49, f. 7, 8.
 Fairbanki, (Spir.), Bl. t. 49, f. 1, 2.
 Feddeni, Bl. t. 5, f. 9; t. 134, f. 1.
 Gordoni (Spir.), Bn. t. 49, f. 9, 10.
 Haughtoni, (Rhios.), Bn. t. 5, f. 10.
 hispidus, (Spir.) Pears. t. 5, f. 4.
 insignis, Th. t. 5, f. 6, 7.
 Mastersi, Bl. t. 5, f. 1.
 nanus, Bn. t. 49, f. 5, 6.
 parvus,¹¹ Pears. t. 5, f. 3; t. 142, f.
 5, 6.
 pullatus, Bn. t. 134, f. 2, 3, 4.
 rupestris, Bn. t. 5, f. 8.

AULOPOMA.

grande, Pf. t. 47, f. 1, 2.

Helicinum, Pf. t. 4, f. 8.
 Hoffmeisteri, Guér. t. 47, f. 3, 4.
 Itieri,¹² Tros. t. 4, f. 6, 7.
 sphæroideum,¹³ Dohrn (Ceylon).

LAGOCHEILUS.

leporinus, Bl. t. 135, f. 2.
 scissimargo, Bn. t. 6, f. 7.
 tomotrema, Bn. t. 6, f. 8.

LEPTOPOMA.¹⁴

apicatum, Bn. t. 142, f. 1.
 aspirans,¹⁵ Bn. t. 6, f. 4.
 conulus, Pf. t. 105, f. 1.
 cybeus, Bn. t. 6, f. 1.
 elatum, Pf. t. 142, f. 2.
 flammeum, Pf. t. 142, f. 3.
 halophilum, Bn. t. 6, f. 3.
 orophilum, Bn. t. 142, f. 4.
 semiclausum, Pf. t. 6, f. 2.

CYCLOTUS.¹⁶

semistriatus,¹⁷ Sow. t. 4, f. 9.
 subdiscoideus,¹⁸ Sow. t. 4, f. 10.

DITROPIS.

Beddomei, Bl. t. 136, f. 8, 9.
 convexus, Bl. t. 136, f. 7, 10.
 planorbis, Bl. t. 136, f. 5, 6.

CYCLOPHORUS.¹⁹

affinis, Th. t. 2, f. 7; t. 48, f. 2; t.
 104, f. 1.

¹ J. Asi. Soc. Beng. 1861, p. 348, pl. 1, f. 3.—Pf. Mon. Pn. vol. 3, p. 53. Kolamullies, S. India.

² Id. 1873, vol. 43, pt. 2, p. 147, pl. 3, f. 4.

³ Id. 1871, vol. 40, pt. 2, p. 92, pl. 5, f. 3. Nongjinghi Hill, Jaintia.

⁴ Id. 1874, vol. 43, pt. 2, p. 146, pl. 3, f. 1.

⁵ Id. 1874, p. 149, pl. 3, f. 7.

⁶ Id. 1874, p. 148, pl. 3, f. 6.

⁷ Id. 1874, p. 147, pl. 3, f. 3.

⁸ Id. 1874, p. 146, pl. 3, f. 2.

⁹ Id. 1875, vol. 44, pt. 2, p. 8, pl. 4, f. 2.

¹⁰ Including, perhaps wrongly, Spiraculum and Rhiostoma. The P. Troscheli, named by Benson from a mere drawing (An. Nat. H. 1851, ser. 2, vol. 8, pl. 5), which reminds one of the P. pictus of Troschel, was unknown even to Benson himself.

¹¹ The Albersi of Benson (not Pf.) proved, when washed, to be a mere form of this very variable species.

¹² A most variable shell, to which Pfeiffer refers the cornu-venatorium of Adams, and to which we must probably assign the f. 42 (not 41) of the Cyclostoma c. v. of Sowerby's

Thesaurus.

¹³ Malak. Blät. 1857 (vol. 4), p. 85.—Pfeif. Mon. Pneum. vol. 2, p. 39.

¹⁴ The L. Birmanum of Pfeiffer (in Kuster's Chemnitz. Cyclos. pl. 47, f. 3, 4, 5) is merely a young Cyclophorus, and the type of the L. subconicum of Reeve has the locality attached of "Cochin China," not Ceylon, as printed.

¹⁵ Benson's type of C. vitreum from the Andamans was a bad specimen of this; compare, likewise, the young with his Helix ceryx (An. Nat. H. 1859, p. 184).

¹⁶ The Malabar locality of the C. spureus of Grateloup has not been confirmed.

¹⁷ The specimen figured links the less turbinate typical form with the C. montanus of Reeve (C. Icon. Cyclot. f. 58 (as of Pf. Mon. Pn. vol. 2, p. 23)).

¹⁸ We include the C. Trailli of Pfeiffer (Proc. Zool. 1862, pl. 12, f. 4).

¹⁹ We have purposely omitted C. cucullatus of Gould (Proc. Bost. N. H. 1856, and Otia, p. 256), the typical specimen figured in Reeve's "Iconica," being a mere monstrosity.

alabastrum, Pf. t. 144, f. 5.	Haughtoni, ⁵ Th. t. 1, f. 3; t. 3, f. 6; t. 48, f. 6.	ravidus, Bn. t. 105, f. 5, 6.
altivagus, Bn. t. 34, f. 2, 3, 6.	Himalayanus, Pf. t. 34, f. 4.	scurra, Bn. t. 105, f. 2, 3.
annulatus, Tros. t. 143, f. 1, 4.	hispidulus, Bl. t. 47, f. 5, 6.	serratizona, Thorpe, t. 144, f. 7.
arthriticus, Th. t. 1, f. 4.	Indicus, Desh. t. 48, f. 3.	Shiplayi, Pf. t. 143, f. 7, 10.
aurantiacus, Schum. t. 33, f. 4.	Inglisianus, Stol. t. 143, f. 8, 9.	Siamensis, Sow. t. 48, f. 7.
Aurora, Bn. t. 3, f. 4.	involutus, Müll. t. 2, f. 1.	speciosus, Ph. t. 104, f. 4, 7.
Bairdi, Pf. t. 4, f. 1.	Jerdoni, Bn. t. 33, f. 5, 6.	stenomphalos, Pf. t. 34, f. 1.
balteatus, Bn. t. 3, f. 1.	Layardi, Ad. t. 104, f. 2, 3.	stenostoma, Sow. t. 105, f. 7, 8; var? f. 9.
Bensoni, Pf. t. 34, f. 5.	loxostoma, ⁶ Pf.	sublaevigatus, Bl. t. 34, f. 7.
cadiscus, Bn. t. 105, f. 10; t. 3, f. 8, as Thwaitesii.	Malayanus, Bn. t. 48, f. 4.	subplicatulus, Bedd. t. 145, f. 5, 7.
calyx, Bn. t. 4, f. 4.	Menkeanus, Phil. t. 33, f. 3.	Theobaldianus, Bn. t. 1, f. 2; var. t. 144, f. 2.
Ceylanicus, ¹ Pf. t. 33, f. 2.	Nilagiricus, ⁷ Bn. t. 1, f. 5.	Thwaitesii, Pf. t. 3, f. 9 (not 8).
caloconus, ² Bn. t. 4, f. 5.	ophis, Hanl. t. 144, f. 6.	tristis, Bl. t. 143, f. 5, 6.
cornu-venatorium, Bn. t. 104, f. 5, 6.	parapsis, ⁸ Bn. (Ceylon).	tryblum, Bn. t. 48, f. 1; var. t. 47, f. 10.
cratera, Bn. t. 47, f. 8.	parma, Bn. t. 143, f. 2, 3.	zebrinus, Bn. t. 2, f. 2.
cryptomphalos, Bn. t. 3, f. 7.	patens, ⁹ Bl. t. 3, f. 5.	
cytopoma, ³ Bn. t. 47, f. 9.	Pearsoni, Bn. t. 48, f. 5 (not t. 1, f. 5 ¹⁰).	
deplanatus, Pf. t. 3, f. 10.	pernobilis, Gould, t. 1, f. 7.	
expansus, Pf. t. 2, f. 3, 4.	Phayrei, Th. t. 144, f. 3, 4.	
exul, Bn. t. 47, f. 10.	phaenotopicus, Bn. t. 4, f. 3.	
eximius, Mous. t. 33, f. 1.	pinnulifer, Bn. t. 4, f. 2.	
flavilabris, Bn. t. 1, f. 1.	polynema, ¹¹ Pf. t. 2, f. 8.	
foliaceus, ⁴ Chem. t. 2, f. 5, 6.	porphyriticus, Bn. t. 105, f. 4.	
fulguratus, Phil. t. 144, f. 1; t. 3, f. 3; t. 3, f. 2?	pyrotrema, ¹² Bn. t. 2, f. 9, 10.	

OTOPOMA.

Hinduorum, Bl. t. 6, f. 5, 6.

HELICINA.

Andamanica,¹³ Bn. t. 6, f. 10.

Arakanensis, Bl. t. 6, f. 9.

scrupulum, Bn. t. 133, f. 8, 9.

FRESHWATER SHELLS.

NERITINA.¹⁴

coluber, Thorp. t. 157, f. 10.

fuliginosa, Th. t. 157, f. 8, 9.

obtusa, Bn. t. 157, f. 7, 10.

Perotetiana, Récl. t. 157, f. 2, 3.

reticularis, Sow. t. 157, f. 5, 6.

¹ The reference to Sowerby by Pfeiffer, who at first (in Kuster's Chemnitz) attributed the species to Sowerby, was f. 320, 321; the latter was omitted by our printer; the former is, however, the less like our ideal.

² The fine white basal groove which indents the inner lip is a useful distinguishing characteristic.

³ Having washed the type, the band alluded to by Benson proved to be mere dirt, and in place of paler flames near the apex there were red wavy lines on a paler ground.

⁴ The C. Leai of Tryon (Amer. J. C. vol. 5, p. 111, pl. 10, f. 6), who doubts its identity with the Chemnitzian species.

⁵ Reeve, who did not know this shell, quotes it as a synonym of excellens (said to come from Birmah), the single type of which is much nearer his labiosus.

⁶ Proc. Zool. Soc. 1852, p. 146; Kast. Chemn. Cycl. pl. 49, f. 12, 13, as Cyclost.; Mon. Pneum. vol. 1, p. 93. Ceylon. Reeve's figure (C. Icon. Cyclop. f. 83) looks very different from Kuster's, yet both were from Cuming's types.

⁷ Found also in the jungle of Coorg.

⁸ An. Nat. 1853, ser. 2, vol. 12, p. 96.—Pf. Mon. Pneum. vol. 2, p. 66. Reeve's figure is not our ideal.

⁹ This species is figured in Pfeiffer's "Novitates," pl. 98,

f. 3, 4.

¹⁰ This appears either a form of Theobaldianus (?), or possibly an unrecognised species.

¹¹ Cyclostoma, f. 115, of Sowerby's Thesaurus (vol. 1) seems identical.

¹² In Benson's manuscript I note that he regards this species as identical with the torquatus of Hutton (J. Asi. Beng. vol. 3, p. 82) from Rajmahal.

¹³ According to Sowerby, this is the Merguensis of Pfeiffer (Pr. Z. 1857, p. 111, and Mon. Pneum. vol. 2, p. 216); if so, that name would have priority, but he is wrong.

¹⁴ To limit our work, we have excluded the estuary species (of course the marine), and, perhaps, a few fluviatile ones, at least such as are found far off from the sea. The omitted shells are N. Peguensis, Bl. (? = Bengalensis, Potiez); N. rostrata, Reeve; N. crepidularia, Lam.; N. violacea, Gmel. (depressa, Bn.); N. cornucopia, Bn. (melanostoma, Tros. and India Soul.); with which estuary shells may be compared N. pileolus, Récl.; N. intermedia, Desh., and N. mitrula, Beck (in Gal. Douai); N. Layardi, Reeve; N. Colombaria, Récl.; N. triserialis, Sow.; N. Smithii, Gray (tigrina, Benson, hamuligera, Tros.); and N. Coromandeliana of the Conchological Illustrations.

NAVICELLA.

caerulescens, Reeve, t. 137, f. 2, 3.
compressa, Pear. t. 137, f. 1, 4.
Livesayi, Dohrn, t. 137, f. 8, 9.
reticulata, Reeve, t. 137, f. 5, 6.
squamata, Dohrn, t. 157, f. 1, 4.

ANCYLUS.¹

Ceylanica, Bn. t. 81, f. 1, 4.
verruca, Bn. t. 81, f. 2, 3.

CAMPTONYX.

Theobaldi, Bn. t. 81, f. 5, 6.

SUCCINEA.²

acuminata, Bl. t. 68, f. 7.
Baconi, Pf. t. 68, f. 1, 4.
Bensoni, Pf. t. 67, f. 9.
Ceylanica, Pf. t. 158, f. 10.
collina, Bl. t. 68, f. 8, 9, 10.
crassiuscula, Bn. t. 68, f. 5, 6.
daucina, Pf. t. 67, f. 7.
Girnarica, Th. t. 67, f. 5, 6.
Indica, Pf. t. 67, f. 1, 4.
Pfeifferi, Rossm. (Cashmire).
plicata, Bl. t. 67, f. 8.
putris, Lin. (Cashmire).
rutilans, Bl. t. 67, f. 10.
subgranosa, Pf. t. 158, f. 8, 9.
semiserica, Gould, t. 67, f. 2, 3.
vitrea, Pf. t. 68, f. 2, 3.

LITHOTIS.

rupicola, Bl. t. 81, f. 7.
tumida, Bl. t. 81, f. 8, 9.

PHYSA.

(?) Coromandelica,³ Dunker.

CAMPTOCERAS.

Austeni, Bl. t. 158, f. 3, 4.
lineata, Bl. t. 158, f. 5, 6.
terebra, Bl. t. 158, f. 1, 2.

LIMNEA.⁴

acuminata, Lam. t. 69, f. 8, 9.
amygdalus, Trosch. t. 69, f. 7, 10.
auricularia,⁵ Linnæus.
brevicauda, Sow. t. 158, f. 7.
chlamys,⁶ Bn. t. 69, f. 5, 6.
luteola, Lam. t. 70, f. 5, 6.
marginata,⁷ Michaud, in Drap. Sup.
ovalis, Gray, t. 70, f. 2, 3, 4.
peregra,⁵ Linnæus.
pinguis, Dohrn, t. 70, f. 7, 8, 10.
rufescens, Gray, t. 69, f. 1, 4; t. 70,
f. 1, 9.
stagnalis,⁵ Lin.
tigrina,⁸ Dohrn.
truncatula,⁵ Müller.

MELANIA.⁹

acanthica, Dohrn (as of Lea), t.
110, f. 10.
baccata, Gould, t. 75, f. 1 to 4.
Batana, Gould, t. 74, f. 8, 9.
Broti, Dohrn, t. 71, f. 2, 3.
confusa, Dohrn, t. 72, f. 4.
datura, Dohrn, t. 73, f. 10.

episcopalis, Lea, t. 72, f. 7; t. 75,
f. 5, 7.

fusca, Born, t. 109, f. 4.
gloriosa, Anth. t. 72, f. 1, 2.
Hanleyi, G. A. t. 110, f. 5.
Herculea, Gould, t. 72, f. 5; t. 109,
f. 7.
Hugeli, Phil. t. 71, f. 5, 6.
humerosa,¹⁰ Gould (Tavoy).
Iravadica, Bl. t. 71, f. 1.
jugicostis, Bn. t. 110, f. 8, 9.
Layardi, Dohrn, t. 73, f. 9.
lineata, Gray, t. 71, f. 7.
Menkiana, Lea, t. 110, f. 6.
pagodula, Gould, t. 153, f. 3.
Peguensis,¹¹ Ant. t. 72, f. 6.
præmorsa, Tryon, t. 153, f. 2.
pyramis, Bn. t. 110, f. 3, 4.
Reevei, Brot. t. 72, f. 3; t. 153, f. 1, 5.
Riqueti, Grat. t. 71, f. 10.
rudis, Lea, t. 74, f. 7, 10.
scabra, Müll. t. 73, f. 1 to 4; var.
elegans, t. 73, f. 5, 6, 7; var. ?
spinulosa, t. 110, f. 7.
spinata, G. A. t. 109, f. 1.
terebra, Bn. t. 71, f. 8, 9.
tigrina, Hutt. t. 110, f. 1, 2.
Tirouri ? Fér. t. 74, f. 5, 6.
tuberculata, Müll. t. 74, f. 1 to 4;
t. 73, f. 8, as Layardi.
variabilis,¹² Bn. t. 109, f. 2, 3, 5, 6;
var. spinosa, t. 75, f. 5, 6.
zonata, Bn. t. 71, f. 4.

¹ The A. Baconi of Bourignat, if distinct, has not been found by our Indian collectors.

² Compare with our species the S. rugosa of Pfeiffer (Mon. Helic. vol. 2, p. 517), said to have only two and a half whorls, an extremely short spire, and to come from near Pondicherry.

³ Mal. Blät. 1862. Two immature specimens of a short-spined Physa were obtained at Quilon by Benson, but have not the carinated spire of this (Australian?) species.

⁴ Kuster's monograph has been vainly studied. Besides sundry from that latitudinarian locality "E. Indies," there is a L. oliva (? = luteola) from Bengal, and a L. striata (as of Benson!) from Barrakpore. Mr. W. Blanford has sent us a specimen from near Lé, Thibet, of what proves to be the L. scalaris of the Conch. Iconica, which is perhaps the biformis of Kuster, and possibly the lagotis of Kobelt (Mal. Blät. 1872). It is possibly a distorted peregra. In Wiegmann's Archives for 1837 is a paper by Troschel on the Gangetic species, but the descriptions are much too brief. His prunum seems our pinguis, var. (f. 8), and not unlikely is the succinea of Deshayes (Voy. Belang. Zool. pl. 2, f. 13, 14) from Malabar, which is not the shell so termed in Reeve's 'Iconica'; his patula we refer to rufescens; his

impura is unknown to us; his cerasum, sulcatula, and nucleus, are evidently either ovalis or luteola.

⁵ From Afghanistan and Cashmire: too well known to figure. L. Bactriana of Hutton (inadequately described in J. Asi. Beng. 1849, p. 656) was, perhaps, peregra.

⁶ L. hians of Sowerby's monograph (C. Icon. Lim. f. 57, a) is the young.

⁷ From the Shan Provinces.

⁸ The type is just like a streaked form of Benson's L. bulla; we doubt it as a species.

⁹ See also M. fluctuosa of Gould (Pr. Bost. N. H. vol. 2, p. 219; Otia, p. 200) from Tavoy, which is too curiously described to be identified. The Travancore Clea! Anneslyi (Pseudoliva Nassoides Hanl.) of Benson (An. Nat. H. 1860, p. 258), lives in saltish water.

¹⁰ Proc. Bost. N. H. vol. 2 (1847); Otia, p. 200. "Allied to M. Virginica, Say."

¹¹ The reference to the American Journal must be expunged; it is only a manuscript species.

¹² Too much latitude has been given to this species. We have figured the variabilis, var. vittata of Theobald (J. Asi. Beng.

TRICULA.

montana, Bn. t. 155, f. 1.

PALUDOMUS.

abbreviata, Reeve, t. 125, f. 7.
 acuta, Reeve, t. 123, f. 7.
 area, Reeve, t. 121, f. 5.
 bacula, Reeve, t. 124, f. 10.
 bicincta, Reeve, t. 123, f. 10.
 Chilinoidea, Reeve, t. 123, f. 2.
 clavata, Reeve, t. 123, f. 4.
 conica, Gray, t. 124, f. 4.
 constricta, Reeve, t. 126, f. 1, 4.
 Cumingiana, Dohrn, t. 126, f. 5, 6.
 decussata, Reeve, t. 123, f. 3.
 distinguenda, Dohrn, t. 122, f. 3.
 dilatata, Reeve, t. 125, f. 5, 6.
 dromedarius, Dohrn, t. 122, f. 9.
 erinaceus, Reeve, t. 121, f. 1.
 fulgurata, Dohrn, t. 123, f. 1.
 funiculata, Reeve, t. 125, f. 1, 4.
 Gardneri, Reeve, t. 122, f. 6.
 globulosa, Gray, t. 123, f. 5.
 Hanleyi, Dohrn, t. 125, f. 10.
 labiosa,¹ Bn. t. 108, f. 9.
 Layardi, Reeve, t. 121, f. 6.
 lævis, Lay. t. 108, f. 3.
 loricata, Reeve, t. 121, f. 2.
 lutosa, Sonl. t. 123, f. 6.
 Manus, Reeve, t. 124, f. 2, 3.
 melanostoma, Thorpe, t. 121, f. 8, 9.
 monile, Thorpe, t. 108, f. 10.
 nasuta, Dohrn, t. 124, f. 7.
 Neritoides, Reeve, t. 122, f. 8.
 nigricans, Reeve, t. 124, f. 1.
 nodulosa, Dohrn, t. 126, f. 8, 9.
 obesa, Phil. t. 126, f. 7, 10.
 ornata, Bn. t. 108, f. 8.

Paludinoides, Reeve, t. 123, f. 9.
 palustris, Lay. t. 126, f. 2, 3.
 parva, Lay. t. 108, f. 7.
 picta, Reeve, t. 122, f. 7.
 pyriformis, Dohrn, t. 125, f. 2, 3.
 Reevei, Lay. t. 124, f. 5.
 regalis, Lay. t. 121, f. 7.
 regulata, Bn. t. 108, f. 5, 6.
 reticulata, Bl. t. 108, f. 4.
 rotunda, Bl. t. 108, f. 2.
 Skinneri, Dohrn, t. 121, f. 4.
 similis, Lay. t. 122, f. 1.
 solida, Dohrn, t. 122, f. 4.
 sphaerica, Dohrn, t. 124, f. 8.
 stephanus, Bn. t. 122, f. 10.
 spiralis, Reeve, (C. Ic. Pal. f. 15).
 stomatodon, Bn. t. 108, f. 1.
 sulcata, Reeve, t. 122, f. 2.
 Swainsoni, Dohrn, t. 124, f. 6.
 Tanschaurica, Gmel. t. 123, f. 8.
 Tennantii, Reeve, t. 122, f. 5.
 Thwaitesii, Lay. t. 125, f. 8, 9.
 torrenticola, Dohrn, t. 124, f. 9
 (badly).
 trifasciata,² Reeve (Ganges).
 undata, Reeve, t. 121, f. 3.
 violacea,³ Lay. (Ceylon).
 Zeylanica, Lea.

AMPULLARIA.⁴

carinata, Sw. t. 114, f. 1.
 cinerea, Reeve, t. 113, f. 1.
 corrugata ?⁵ Swain. t. 113, f. 2.
 globosa, Swain. t. 113, f. 4, 5.
 Layardi, Reeve, t. 114, f. 4.
 Maura,⁶ Reeve (Assam).
 maestra, Reeve, t. 115, f. 6.
 Malabarica, Phil. t. 114, f. 2.

nux, Reeve, t. 115, f. 1.
 olea, Reeve, t. 114, f. 8, and 9?
 Paludinoides, Phil. t. 114, f. 5;
 vars. f. 6, 7.
 saxea, Reeve, t. 115, f. 3, and var.
 f. 4.
 Theobaldi, Hanl. t. 115, f. 2.
 Tischbeini, Dohrn, t. 114, f. 3.
 Woodwardi, Dohrn, t. 115, f. 5.

PALUDINA.

Bengalensis, Lam. t. 76, f. 8, 9, 10;
 var. gigantea, t. 77, f. 5.
 Ceylanica, Dohrn, t. 77, f. 1, 2.
 crassa, Hutt. t. 76, f. 2, 3.
 digona, Bl. t. 115, f. 7.
 dissimilis,⁷ Müll. t. 77, f. 3, 4.
 doliaris, Gould, t. 77, f. 6.
 Heliciformis, Frau. t. 77, f. 7, 10.
 lecythis, Bn. t. 76, f. 6, and var.
 ampullacea, f. 7.
 Naticoides, Th. t. 76, f. 1, 4.
 oxytropis, Bn. t. 76, f. 5.
 Remossii, Bn. t. 77, f. 8, 9.
 variata, Frau. t. 115, f. 8.

PALUDINELLA.

(?) subsinuata,⁸ Dunk.

AMNICOLA.

cincta,⁹ Gould (Birmah).
 parvula, Hutt. t. 151, f. 8,

LITHOGLYPHUS.

Martabanensis, Th. t. 81, f. 10.

BYTHINIA.¹⁰

cerameopoma, Bn. t. 38, f. 1, 4.
 costigera, Beck, t. 151, f. 10.

1865, vol. 34, pt. 2, pl. 9, f. 4) in pl. 153, f. 7, and variabilis, var. turrita of the same (do. f. 6) in pl. 153: f. 6; f. 5 of the same plate is closely allied to the latter, and perhaps all three are abnormal forms of *M. baccata*.

¹ Compare Gould's *Paludina petrosa* (Pr. Bost. N. H. vol. 1, p. 144; Otia, p. 191) from Birmah.

² Pr. Zool. 1852, p. 127. The worn type is very like our figure of *decussata*, but is not that species.

³ Pr. Zool. 1854, p. 92.

⁴ In addition to those indicated *A. Dolioides*, from S. America, has been wrongly referred to Bombay by Reeve, and *A. Luzonica* of Reeve with *A. Sumatrensis* of Philippi, attributed to Ceylon by Dohrn; these localities have not been confirmed. The *A. pygmaea* of Récluz, from Bombay, if not an immature shell, is

probably the *Amphibola* referred to by Blanford as very close to his *A. Birmah*.

⁵ Compare the *A. hepataria* of Reeve (C. Icon. Amp. f. 77).

⁶ Conch. Icon. Ampullaria.

⁷ Martens assigns to this long-forgotten species the *P. fallax* of Frauenfeld and Reeve (C. Icon. Pal. f. 51), and agrees with Mörch and Tröschel as to the identity, also, of Swainson's *P. carinata* (Zool. Ill. ser. 1, pl. 98) from the Ganges; this last is referred by Frauenfeld to *Remossii*. The type of Reeve's *melanostoma* (very badly figured) in C. Icon. Pal. f. 27, is, at most, a variety of *dissimilis*.

⁸ Mal. Blät. 1862, p. 40. Pondicherry.

⁹ Proc. Bost. N. H. vol. 2; Otia, p. 199. Birmah.

¹⁰ See, too, the *B. truncata* of Souleyet (Voy. Bonite, Zool.

goniostoma, Hutt. t. 37, f. 7 (as lutea¹).

inco conspicua, Dohrn, t. 37, f. 5, 6.

Iravadica, Bl. t. 37, f. 10.

Nassa,² Th. t. 37, f. 8, 9.

orecula,³ Bn. t. 38, f. 8, 9.

pulchella, Bn. t. 38, f. 5, 6.

stenothyroides, Dohrn, t. 38, f. 7, 10.

Travancorica, Bn. t. 38, f. 2, 3.

VALVATA.

piscinalis, Müller. (Cashmire).

PLANORBIS.

calathus, Bn. t. 39, f. 1, 2, 3.

Cantori, Bn. t. 40, f. 1, 2, 3.

cænosus, Bn. t. 39, f. 7, 8, 9.

compressus, Hut. t. 99, f. 1, 4.

convexiusculus, Hut. t. 99, f. 8, 9, 10.

elegantulus, Dohrn, t. 151, f. 1, 2, 3.

exustus, Desh. t. 39, f. 10; t. 40, f. 10.

hyptiocyclos, Bn. t. 99, f. 5, 6, 7.

labiatus,⁴ Bn.

Merguensis, Phil. t. 151, f. 5, 6.

rotula, Bn. t. 99, f. 2, 3.

Sindicus, Bn. t. 40, f. 4, 5, 6.

Stelzneri, Dohrn, t. 151, f. 6, 7.

Trochoideus, Bn. t. 39, f. 4, 5, 6.

umbilicalis, Bn. t. 40, f. 7, 8, 9.

? zebrinus, Dunk.

BRACKISH - WATER SHELLS.

NEMATURA.⁵

Deltæ, Bn. t. 37, f. 2.

foveolata, Bn. t. 37, f. 3.

minima,⁶ Sow. t. 37, f. 1.

monilifera,⁷ Bn. t. 37, f. 4.

348, pl. 31, f. 22, 23, 24) from the Ganges, said to have a black peristome. It reminds one of *cerameopoma*.

¹ Three species were found on Gray's type-tablet, of which the one which agreed the best with his very bald and indefinite description was nearer *inco conspicua*.

² Add to the synonymy "J. Asi. Soc. Beng. 1870, vol 39, pt. 2, p. 402, pl. 18, f. 8."

³ The inadequately defined *pusilla* of Gray (An. Phil. 1825) may be compared.

⁴ Ann. Nat. H. 1850, p. 50. The type, said to have a whitish rib near its mouth, a character perceptible in several species which do not exhibit the other features required, could not be described in Benson's collection. Moradabad.

⁵ Strictly speaking, this genus should have been excluded from our work; our design was at first too comprehensive.

⁶ Add "Chilka Lake."

⁷ Add "*Stenothyra m.* Bl. Cont. Mal. pt. 8, pl. 2, f. 15, from Port Dalhousie, Bassein, Pegu."

LAND AND FRESHWATER SHELLS

OF

BRITISH INDIA.

PLATE I.

CYCLOPHORUS.

1. **C. flavilabris**, Benson, An. Nat. Hist. ser. 3, vol. 6 (1860), p. 193.—Pfeif. Mon. Pneum. vol. 3, p. 68. Pegu.
2. **C. Theobaldianus**, Benson, An. Nat. Hist. ser. 2, vol. 19 (1857).—Pfeif. Mon. Pneum. vol. 2, p. 47.—Reeve, Conch. Icon. Cyclop. f. 41. Tenasserim Valley; Moulmein; Thayet Myo, Birimah.
3. **C. Haughtoni**, Theobald, Journ. Asi. Soc. Beng. vol. 27 (1859), p. 314. The Farm-caves, Moulmein, Tenasserim.
4. **C. arthriticus**, Theobald, Journ. Asi. Soc. Beng. vol. 33 (1864), p. 246. Hills near the river Pegu.
5. **C. Nilagiricus**, Benson, Malak. Blätt. 1854, p. 83.—Pfeif. Mon. Pneum. vol. 2, p. 52.—Reeve, Conch. Icon. Cycloph. f. 6.—C. Pirrieianus, Pfeif. Proc. Zool. 1853. Nilgherries; Khoondah Hills.
6. **C. Pearsoni**, Benson, An. Nat. Hist. ser. 2, vol. 8 (1857), p. 185.—Pfeif. Mon. Pneum. vol. 2, p. 42: Kust. ed. Chemn. Cyclos. f. 649.—Reeve, Conch. Icon. Cycloph. f. 10. Iacot and Chaila, Khasia Hills; Assam.
7. **C. pernobilis**, has been considered identical with the *Aurantiacus* of Schumacher, but the figures of Chemnitz (1064, 5) suit better the shell delineated by Reeve (Cycl. f. 3), Gould, Boston Jour. Nat. His. 1844, p. 458, pl. 24, f. 11. Mergui; Tavoy.

PLATE II.

CYCLOPHORUS.

1. **C. involvulus**, Müller, Hist. Verm. pt. 2, p. 84 (as *Helix*).—Pfeif. Mon. Pneumon. vol. 1, p. 59.—Reeve, C. Icon. Cycloph. f. 1.—*Turbo volvulus*, Chemn. Conch. vol. 9, p. 1066. Ceylon.
2. **C. zebrinus**, Benson, Journ. Asi. Soc. Beng. vol. 5 (1836), p. 355 as (*Cyclostoma*).—Pfeif. Mon. Pneum. vol. I, p. 71; Kust. ed. Chem. Cyclost. pl. 34, f. 21, 22, 23.—Reeve, C. Icon. Cycloph. pl. 11, f. 46. Nanclai; Tenasserim.

Was at first erroneously supposed to be the *perdix* of Sowerby.
- 3, 4. **C. expansus**, Pfeiffer, Proc. Zool. 1851, p. 242; Mon. Pneum. vol. 1, p. 65; Kust. ed. Chem. Cyclos. pl. 39, f. 20, 21.—Reeve, C. Icon. Cycloph. f. 18. Tenasserim.
- 5, 6. **C. foliaceus**, Chemnitz, Conch. Cab. vol. 9, f. 1069, 1070 (as *Turbo*).—Pfeif. Mon. Pneumon. vol. 3, p. 65. Andamans.
7. **C. affinis**, Theobald, Journ. Asi. Soc. Beng. vol. 27 (1859), p. 314. Moulmein.
8. **C. polynema**, Pfeiffer, Proc. Zool. 1854, p. 126; Mon. Pneum. vol. 2, p. 46. Midnapore, &c.
9. **C. pyrotrema**, var. Benson.

10. *C. pyrotrema*, Benson, An. Nat. Hist. ser. 2, vol. 14, p. 112.—Pfeif. Mon. Pneum. vol. 2, p. 45.—Reeve, C. Icon. Cycloph. f. 13.

Sikrigalli, Pathargata, Behar, Rajmahal.

According to Benson was erroneously supposed by him (Zool. Journ. vol. 5, p. 62) to be the true *involutus*.

PLATE III.

CYCLOPHORUS.

1. *C. balteatus*, Benson, An. Nat. Hist. ser. 2, vol. 19 (1857, March): separate pamphlet, p. 7.—Pfeif. Mon. Pneum. vol. 2, p. 45.
Pegu.
2. *C. arthritic*, var. *fulgurans*, Theobald.
3. *C. fulguratus*, Pfeiffer, Proc. Zool. 1852, p. 63; Mon. Pneum. vol. 1, p. 80.—Reeve, C. Icon. Cycloph. f. 35.
Between Thayet Myo and Rangoon.
4. *C. Aurora*, Benson, An. Nat. H. ser. 2, vol. 8 (1851), p. 186 (as *Cyclostoma A.*)—Pfeif. Mon. Pneum. vol. 2, p. 51.—Reeve, C. Icon. Cycloph. f. 36.—*Cyclostoma stenomphalum*, var. *Pf.* in Kust. ed. Chemn. Cycl. pl. 50, f. 11-13.
Darjiling, Sikkim-Himalaya.
Pfeiffer's original description of *Himalayanus* suits this shell better than it does the specimen figured by Mr. Reeve, as that species.
5. *C. patens*, Blanford, Journ. Asi. Soc. Beng. 1862, p. 143.—Pfeif. Mon. Pneum. vol. 3, p. 62.
Thayet Myo, Prome, Henzada, Pegu.
6. *C. Haughtoni*, var. Theobald.
7. *C. cryptomphalus*, Benson, An. Nat. Hist. ser. 2, vol. 19 (1857), March.—Pfeif. Mon. Pneum. vol. 2, p. 58.—Reeve, C. Icon. Cycloph. f. 37.
Ava.
- 8, 9. *C. Thwaitesii*, Pfeiffer, Proc. Zool. Soc. 1854, p. 127: Mon. Pneum. vol. 2, p. 66.—Cyclop. annulatus, var. *Thwaitesii*, Reeve, C. Icon. Cycloph. pl. 18, f. 87.
Ceylon.
10. *C. deplanatus*, Pfeiffer, Proc. Zool. 1854, p. 301: Mon. Pneum. vol. 2, p. 62.—*C. annulatus*, var. Reeve, C. Icon.
Khoondah Mountains.

PLATE IV.

CYCLOPHORUS AND ALLIED GENERA.

1. *C. Bairdi*, Pfeiffer, Proc. Zool. 1852, p. 144, pl. 13, f. 1: Mon. Pneum. vol. 1, p. 91.
Ceylon.
2. *C. pinnulifer*, Benson, An. Nat. Hist. ser. 2, vol. 19 (1857).—Pfeif. Mon. Pneum. vol. 2, p. 41; Novit. vol. 1, pl. 37, f. 22, 23, 24.—Reeve, Conch. Icon. Cycloph. f. 103.
Teria Ghat.
3. *C. phænotopicus*, Benson, An. Nat. Hist. ser. 2, vol. 8, p. 190, and ser. 2, vol. 10, p. 271.—Pfeif. Mon. Pneum. vol. 2, p. 54; Kust. ed. Chemn. Cyclost. pl. 50, f. 20, 21.—Reeve, C. Icon. Cycloph. f. 91.
Darjiling, Sikkim Himalayah.
4. *C. calyx*, Benson, An. Nat. Hist. ser. 2, vol. 17, p. 228.—Pfeif. Mon. Pneum. vol. 2, p. 56; Novit. vol. 1, pl. 37, f. 25, 26, 27.—Reeve, C. Icon. Cycloph. f. 104.
Moulmein: Akoutong, near the Irawady, Birmah.
5. *C. cæloconus*, Benson, An. Nat. Hist. ser. 2, vol. 8, p. 189.—Pfeif. Mon. Pneum. vol. 2, p. 59: Chemn. ed. Kust. Cyclost. pl. 50, f. 9, 10.—Reeve, C. Icon. Cycloph. f. 89.
Nilgherries.
6. *Aulopoma Itieri*, var.
7. *Aulopoma Itieri*, Guérin, Mag. Zool. 1847, p. 1 (as *Cyclostoma*).—Pfeif. Mon. Pneum. vol. 1, p. 52.
Ceylon.
8. *Aulopoma Helicinum*, Pfeiffer, Mon. Pneum. vol. 1, p. 53 (as *Turbo H.* Chemn. vol. 9, f. 1067, 8).
Ceylon.
9. *Cyclotus semistriatus*, Sowerby (as *Cyclostoma*), Proc. Zool. Soc. 1843, p. 29: Thes. Conch. vol. 1, p. 91, pl. 23, f. 6.—Pfeif. Mon. Pneum. vol. 1, p. 22.—Reeve, C. Icon. Cyclot. pl. 4, f. 16.
Poonah, &c.
This is the *Cyclostoma fasciatum* of Hutton (Journ. Asi. Soc. Bengal. vol. 3, p. 82).
10. *Cyclotus sub discoideus*, Sowerby, Thes. Conch. vol. 2, p. 161*, pl. 31, B. f. 304, 305 (as *Cyclostoma*).—Reeve, C. Icon. Cyclot. pl. 4, f. 21.—Pf. Mon. Pneum. vol. 1, p. 31.—*Cyclostoma aratum*, Benson, An. Nat. Hist. 1851, vol. 8.—*Cyclostoma rusticum*, Pfeif. Proc. Zool. Soc. 1851.
Northern Circars.

PLATE V.

PTEROCYCLOS, INCLUDING SPIRACULUM AND RHIOSTOMA.

1. **P. (Sp.) Mastersi**, Blanford, MSS.
Assam.

The description will be found in the Zoological Proceedings, or the Asiatic Journal.

2. **P. bilabiatum**, Benson, Zool. Journ. vol. 5.—Cyclostoma b. Sowerby, Thes. Conch. vol. 1, p. 110, pl. 25, f. 81, 82.—Pfeif. Mon. Pneum. vol. 1, p. 49.—Reeve, Conch. Icon. Pter. pl. 3, f. 13.

Salem in Madras: Behar.

3. **P. parvus**, Pearson (as Spiraculum p.) Journ. Asi. Soc. Beng. vol. 2 (1833), p. 392.—Benson, Journ. Asi. Soc. Beng. vol. 5 (1836), p. 357.—Pfeif. Mon. Pneum. vol. 1, p. 48.—Reeve, C. Icon. Pter. pl. 31, f. 15.

Khasia Hills: Assam.

The painting of the Assam variety here figured is exactly that of the Cingalese *P. Cumingii*.

4. **P. (Sp.) hispidus**, Pearson, Journ. Asi. Soc. Beng. vol. 2, 1833, p. 592, as Spiraculum.—Benson, Journ. Asi. Soc. Beng. 1836, p. 355, as Pt.—Cyclos. spiraculum, Sow. Thes. Con. vol. 1, p. 110, pl. 31, f. 270–272.—Steganotoma Princepsii, Von dem Busch, in Philip. Abbild. N. Conch. vol. 1, p. 106, Cycl. pl. 1, f. 6.

Khasia Hills.

5. **P. Cingalensis**, Benson, An. Nat. Hist. ser. 2, vol. 11.—Pfeif. Mon. Pneum. vol. 2, p. 29.

Monahagalla, Ceylon.

- 6, 7. **P. insignis**, Theobald, Jour. Asi. Soc. Beng. 1865, vol. 34, pt. 2: separate pamphl. p. 6.

Shan States.

8. **P. rupestris**, Benson, Journ. Asi. Soc. Beng. vol. 1, 1832, p. 11, pl. 1, f. 2.—Reeve, C. Icon. Pteroc. pl. 2, f. 8.—Steganotoma picta, Troschel, Wieg. Archiv Naturges., vol. 3, 1837, p. 165, pl. 3, f. 12, 13, and in Philippi, N. Conch. vol. 1, Cyclos. pl. 1, f. 5 (teste Pfeif.).

Cuttack.

9. **P. Feddeni**, Blanford, Journ. Asi. Soc. Beng. 1865, p. 93: Contr. pt. 5.

Thayet Myo, Pegu.

10. **P. (Rh.) Haughtoni**, Benson, An. Nat. Hist. ser. 3, vol. 5, p. 96, as Rhiostoma.—Pfeif. Mon. Pneum. vol. 3, p. 39, as Rh.—P. H. Reeve, Conc. Icon. Pteroc. f. 30.

Near Moulmein.

PLATE VI.

LEPTOPOMA, OTOPOMA, HELICINA, &c.

1. **L. cybeus**, Benson, An. Nat. Hist. 1857, ser. 2, vol. 19.—Pfeif. Mon. Pneum. vol. 2, p. 74: Novit. pl. 37, f. 28, 29, 30.—Reeve, C. Icon. Lept. f. 7.

Nanclai.

2. **L. semiclausum**, Pfeiffer, Proc. Zool. 1854, p. 202; Mon. Pneum. vol. 2, p. 70.—Reeve, C. Icon. Lept. f. 35.

Ceylon.

3. **L. halophilum**, Benson, An. Nat. Hist. ser. 2, vol. 7, 1851, p. 265 (as Cyclostoma).—Pfeif. Mon. Pneum. vol. 1, p. 118 (ditto).—Reeve, C. Icon. Lept. f. 49 (as Lept.).

Point de Galle, and Colombo, Ceylon.

4. **L. aspirans**, Benson, An. Nat. Hist. ser. 2, vol. 17, p. 229.—Pfeif. Mon. Pneum. vol. 2, p. 72.—Reeve, C. Icon. Lept. f. 18.

Tenasserim.

5. **Otopoma Hinduorum**, Blanford, An. Nat. Hist. 1864, for *O. clausum*, Benson.—Pfeif. Mon. Pneum. vol. 3, p. 122 (as Cyclostus).

Kattiawar, Western India.

6. **Otopoma Hinduorum**, var.

7. **Lagocheilus scissimargo**, Benson, An. Nat. Hist. ser. 2, vol. 17, p. 228 (as Cyclop.?).—Pfeif. Mon. Pneum. vol. 2, p. 61 (as Cycloph.?).—Reeve, C. Icon. Cycloph. f. 105.—Blanf. An. Nat. 1864, June.

Phie Than, Tenasserim.

8. **Lagocheilus tomotrema**, Benson, An. Nat. Hist. 1857, ser. 2, vol. 19, (as Cyclop.?).—Pfeif. Mon. Pneum. vol. 2, p. 50 (as Cycloph.).—Blanford, An. Nat. Hist. 1864, June.

Teria Ghat, Khasia Hills.

9. **Helicina Arakanensis**, Blanford, Journ. Asi. Soc. Beng. 1865, p. 85.

Ramri Island, coast of Aracan.

10. **H. Andamanica**, Benson, An. Nat. Hist. ser. 3, vol. 6, 1860, p. 194.—Sow. Thes. Conch. Helic. pl. 276.

Andaman Islands.

PLATE VII.

MEGALOMASTOMA, PUPINA,
POMATIAS.

1. **M. gravidum**, Benson, An. Nat. Hist. ser. 2, vol. 17, 1856, p. 229.—*Cyclostoma pollex*, Gould, Proc. Boston Soc. N. H. vol. 6, 1856.—*Hybocystis* g. Pfeif. Mon. Pneum. vol. 3, p. 56.—*Pollicaria* g. Sow. Thes. Conch. vol. 3, pl. 263, f. 5.
Moulmein.
2. **M. funiculatum**, Benson, Journ. Asi. Soc. Beng. vol. 7, 1838, p. 217 (as *Cyclostoma*).—Pfeif. Mon. Pneum. vol. i. p. 133 (ditto).
Darjiling, Himalaya.
3. **M. sectilabrum**, Gould, Boston, J. Nat. Hist. 1844, p. 459, pl. 24, f. 10 (as *Cyclostoma*).—Pfeif. Mon. Pneum. vol. 2, p. 84 (ditto).
Tavoy; Yunglaw, Tenasserim.
4. **Pup. arula**, Benson, An. Nat. Hist. ser. 2, vol. 17, p. 230.—Sow. Thes. Conch. vol. 3, pl. 265, f. 3.—Pfeif. Mon. Pneum. vol. 2, p. 95.
Birmah.
5. **Pup. artata**, Benson, An. Nat. Hist. ser. 2, vol. 17, p. 230.—Pfeif. Mon. Pneum. vol. 2, p. 96.—Sow. Thes. Conch. vol. 3, pl. 265, f. 1.
Birmah.
6. **Pup. Blanfordi**, Theobald, Journ. Asi. Soc. Beng. 1864, vol. 33, p. 247.
Pegu.
7. **Pup. imbricifera**, Benson, An. Nat. Hist. ser. 2, vol. 17, p. 230.—Pfeif. Mon. Pneum. vol. 2, p. 94.—Sow. Thes. Conch. vol. 3, pl. 265, f. 4, 5.
Sylhet, and Teria Ghat.
8. **Pom. Peguensis**, Theobald, Journ. Asi. Soc. Beng. 1864, vol. 33, p. 348.
Pegu.
9. **Pom. Himalayæ**, Benson, An. Nat. Hist. ser. 3, vol. 3, 1859, p. 183.—Pfeif. Mon. Pneum. vol. 3, p. 169.—Sow. Thes. Conch. vol. 3, pl. 259, f. 19, 20.
Rungun: Darjiling.

10. **Pom. pleurophorus**, Benson, An. Nat. Hist. 1859, ser. 3, vol. 3, p. 183 (previously as *Bulimus*, 1857).—*Bulimus*, p. Pfeif. Mon. Helic. vol. 4, p. 474.

Teria Ghat; Khasia Hills.

PLATE VIII.

BOYSIA, HYPSELOSTOMA, AND
STREPTAXIS.

1. **B. Bensoni**, Pfeiffer.—*Tomogeres Boysii*, Pfeif. Symb. pt. 3, p. 82.—*Anostoma B.* Pfeif. (as of Benson MSS. in Kust. ed. Chemn. Helix, pl. 101, f. 25 to 28.
Chittore in Rajpootana, and Ajmere, Bengal.
2. **H. Bensonianum**, Blanford, Journ. Asi. Soc. Beng. vol. 32, p. 326.
Mya Leit Doung, S. of Mandalay, Ava.
3. **H. tubiferum**, Benson, An. Nat. Hist. ser. 2, vol. 17, p. 129 (as *Tanystoma*).
Mya Leit Doung, S. of Mandalay, Ava.
4. **S. Petiti**, Gould, Boston J. Nat. Hist. vol. 4, p. 456, pl. 24, f. 7.—Pfeif. Mon. Helic. vol. 1, p. 8.—Philip. Ab. N. Conc. vol. 2, Helix, pl. 8, f. 11.
Near Tavoy.
5. **S. Birmanica**, Blanford, J. Asi. Soc. Beng. 1865, p. 81.—Pfeif. Mon. Helic. vol. 5, p. 444.
Pegu.
6. **S. Andamanica**, Benson, An. Nat. Hist. ser. 3, vol. 6, 1860, p. 192.—Pfeif. Mon. Helic. vol. 5, p. 444.
Andaman Islands.
7. **S. Sankeyi**, Benson, An. Nat. Hist. 1859.
Near Moulmein.
8. **S. Watsoni**, Blanford, Journ. Asi. Soc. Beng. vol. 29, p. 126.—Pfeif. Mon. Helic. vol. 5, p. 448.
Koondah Hills; Nilgherries.
9. **S. Theobaldi**, Benson, An. Nat. Hist. 1859.—Pfeif. Mon. Helic. vol. 5, p. 449.
Nanclai, Khasia Hills.
10. **S. Blanfordi**, Theobald, Journ. Asi. Soc. Beng. vol. 33, 1864, p. 245.
Aracan Hills, Pegu.

PLATE IX.

**SPATHA, PSEUDODON, TRIGONODON,
UNIO.**

1. **S. Soleniformis**, Benson (as Anodon), Journ. Asi. Soc. Bengal, vol. 5 (1836, Nov.), p. 749. Cachar.

If this shell is a true *Mycetopus*, its specific name must be changed, as D'Orbigny published his *M. Soleniformis* in 1835 (Guerin's Mag. Zool.): it closely approaches the *M. (?) emarginatus* of Lea.

2. **P. inoscularis**, Gould, Proc. Bost. Soc. Nat. Hist. vol. 1, p. 160 (as Anodon), 161. — *Unio Vondembuschiana*, Reeve, Conch. Icon. Unio, t. 518, badly (from this specimen). River Salwen, Birmah.

May possibly prove identical with the *Margaritana Vondembuschiana* (Lea, Trans. Amer. Phil. Soc. vol. 8, pl. 18, f. 39,) a supposed Javanese species.

3. **T. crebristriatum**, Anthony, Amer. Journ. Conch. vol. 1 (1865), pl. 18, f. 1 (as *Monocondylæa*). — *Unio c.* Reeve, Conch. Icon. Unio, f. 517. British Birmah.

4. **P. Salwenianum**, Gould, Proc. Bost. Soc. Nat. Hist. vol. 1, p. 158, 160 (as Anodon and Pseudodon): Otia, p. 193. — *Unio S.* Reeve, Conch. Icon. Unio, f. 513. Salwen River, Birmah.

5. **T. crebristriatum**, var. Anthony.

The *Monocondylæa Peguensis* of Anthony (Amer. Conch. Journ. vol. 1) seems a form of this rather variable species.

6. **U. lamellatus**, var. Lea.

A peculiar winged form (like *Wahlamatensis* of Lea) from Mandelay.

Judging from the examination of many hundred specimens of Indian Uniones, confirmed by long and peculiar study of thousands of North American Naiades, we are compelled to believe that the teeth and muscular impressions of each species are so liable to modification through age and casualties as scarcely to present any permanent defining character. Not but that they merit examination, as the vividly green variety of *triembolus* can instantly be discriminated from *corrugatus* by its dentition.

According to our notions *cæruleus*, *marginalis*, *favi-*

dens, *corrugatus* have been unnecessarily subdivided, and several species founded on diseased or eroded shells; but as our aim is to indicate the names which have been applied to the several forms, we shall proceed to figure the more striking ones, never erasing a species from our lists without having traced it to its root by indisputable links.

PLATE X.

UNIO.

1. **Unio olivarius**, Lea, Trans. Amer. Phil. Soc. ser. 2, vol. 4 (Obs. on Unio, vol. 1, p. 113), pl. 16, f. 38. — Hanley, Recent Bivalve Sh. p. 195, pl. 22, f. 32. — Kuster, ed. Chem. Unio, pl. 82, f. 2. Rohilcund Streams.

- 2, 4. **U. macilentus**, Benson, An. Nat. Hist. ser. 3 (1862), p. 187. — *U. occatus*, Lea, Journ. Ac. Nat. Sc. Philad. 1863 (Obs. on Unio, vol. 10), pl. 50, f. 304. — Reeve, C. Icon. Unio, f. 412. "Bengal;" Mandelay.

The somewhat worn condition of the type (figure 2) prevented Lea from identifying the species.

3. **U. radula**, Benson, in Hanley's Recent Bivalve Sh. p. 382, pl. 23, f. 41. Assam.

Benson's unique type (with part of the ferruginous coating removed), from which Mr. Hanley drew up his description, has been once more figured.

5. **U. smaragdites**, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 190. Burhampooter River, Assam.

So rare a shell that the original types are the only examples known to us.

6. **U. Bonneaudi**, Eydoux and Souleyet, Guerin's Mag. de Zool. 1838, pl. 119, f. 1. Bhama, Upper Birmah (Blanford).

A very scarce shell, lent to us by Mr. Blanford, whose incomparable series of Indian Uniones was most liberally placed at our disposal.

7. **U. pugio**, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 193, Reeve, C. Icon. Unio, f. 516. Ava; Pegu (Theobald).

A rare shell which cannot be confused with any other of the known Indian Uniones.

PLATE XI.

UNIO.

1. *U. favidens*, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 188, for Glean. Sci. Calcutta, vol. 1, pl. 7, f. 1 (without name).—Reeve, Conch. Icon. Unio, f. 131.

Sunderbund, Bengal.

The species was not actually described until September, 1862.

2. *U. favidens*, var. *pinax*.—*U. pinax*, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 192.

Gungun Stream, near Moradabad, Rohilkund.

Figured from the worn type lent by Mr. Benson.

3. *U. favidens*, var. *plagiosoma*.—*U. plagiosoma*, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 191.

River Cane, near Banda, Bundelkund.

The beaks are eroded in the Bensonian type here figured.

4. *U. Sikkimensis*, Lea, Proc. Philad. 1859, p. 151; Obs. Unio, vol. 7, p. 69, pl. 39, f. 131.—Reeve, Conch. Icon. Unio, f. 400.

Sikkim.

This is in a better condition than Mr. Hanley's original type of the species.

5. *U. crispisulcatus*, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 193.—Reeve, Conch. Icon. Unio, f. 262.

Tenasserim; Pegu.

6. *U. trirostris*, Benson (not Reeve), in Hanley's Phot. Conch. pt. 1 (1862).

Moradabad.

This well marked form was distributed by Mr. Benson as his *U. trirostris* (a name, like very many other of his manuscript species) never actually published by himself. The specimen delineated in the Photographic Conchology had been previously sent to Dr. Lea, who regarded it as new to science. It may possibly prove a mere variety of *triembolus* or *favidens*.

PLATE XII.

UNIO.

1. *U. pachysoma*, Benson, An. Nat. ser. 3, vol. 10 (1862, Sept.): separate, p. 3.

Berhampooter River, Assam.

A much more solid and rare shell than the allied *cæruleus*. In England the only known specimens are in the collections of Benson and Hanley. The Calcutta specimen referred to by Benson is merely a *cæruleus*.

2. *U. Gerbidoni*, Eydoux and Souleyet, Guerin's Mag. de Zool. 1838, pl. 118, f. 2.

"Coromandel."

Almost runs into *cæruleus*; in characteristic examples, however, the anterior side is longer in proportion. It is not common.

3. *U. cæruleus*, Lea, Trans. Amer. Phil. Soc. vol. 4 (Obs. on *U.* vol. 1, p. 105) pl. 13, f. 25.—Hanley, Recent Bivalve Sh. p. 194, pl. 20, f. 49.—Reeve, C. Icon. Unio, f. 230.

River Hooghly, &c. &c.

4. *U. Gerbidoni*, variety, Eyd. and Soul.

5. *U. theca*, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862, Sept.): separate, p. 3.

River Cane, near Banda, Bundelkund.

Our drawing is taken from the unique example in Mr. Benson's collection. The specimen seems scarcely mature, and bears some small resemblance to the young of one of the *marginalis* group.

6. *U. leioma*, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862, Sept.), p. 192: separate, p. 9.

Near Bombay.

We have figured two shells, one the aged and eroded type of Benson, the other with the apical sculpture perfect. It approaches *cæruleus*, &c., very closely.

PLATE XIII.

HELIX : Section Plectopylis.

1. *H. achatina*, Gray MSS. in Pfeif. Zeitsch. Mal. 1845, p. 86 : Mon. Helic. vol. 1, p. 406, and vol. 5, p. 395.
Farm-caves, near Moulmein.
2. *H. plectostoma*, Benson, J. Asi. Soc. Beng. vol. 5 (1836), p. 351.—Pfeif. Mon. Helic. vol. 1, p. 415 ; vol. 5, p. 417.
Darjiling, and Khasia Hills.
3. *H. perarcta*, Blanford, J. Asi. Soc. Beng. 1865, p. 75 (as Plectop.): Cont. pt. 5, p. 11.—Pfeif. Mon. Helic. vol. 5, p. 397.
Near Ava.
4. *H. repercussa*, Gould, Proc. Boston Soc. N. H. vol. 6, 1856, p. 11 : Otia Conch. p. 219.—Pfeif. Mon. Helic. vol. 5, p. 396.
Tavoy and Mergui, in Birmah.
5. *H. pinacis*, Benson, An. Nat. Hist. ser. 3, 1859, April, p. 268.—Pfeif. Mon. Helic. vol. 5, p. 417.
Sikkim (Rungun, and near Pankabari).
6. *H. Karenorum*, Blanford, Journ. Asi. Soc. Beng. 1865, p. 73 (as Plectop.): Contr. Ind. Mal. pt. 5, p. 9.
Pegu.
7. *H. anguina*, Gould, Journ. Boston Soc. Nat. Hist. vol. 2 (1847), p. 218.
Manko, near Newville, Tavoy, Birmah.
8. *H. leiophis*, Benson, An. Nat. Hist. ser. 3, vol. 5 (1860), p. 246 (as Plectop.).—Pfeif. Mon. Helic. vol. 5, p. 396.
Thayet Myo.
9. *H. refuga*, var. *dextrorsa*, Philippi, Ab. N. Conc. vol. 3, Hel. pl. 10, f. 4, as of Gould, Proc. Bost. Phie Than, Tenasserim.
10. *H. cyclospis*, Benson, An. Nat. 1859, ser. 3, vol. 3, p. 273 (for *catinus*, Benson, not Pfeiffer), p. 185.
Near Moulmein, Tenasserim.

PLATE XIV.

HELIX.

1. *H. Charpentieri*, Pfeiffer, Proc. Zool. Soc. 1853, p. 127 : Mon. Hel. vol. 4, p. 296.—Reeve, C. Icon. Hel. f. 1285.
Ceylon.
2. *H. Rivolii*, Deshayes, Encyc. Méthod. Vers. vol. 2, p. 208 : Fer. Hist. vol. 1, p. 7.—Pfeif. Mon. Helic. vol. 4, p. 297.—Reeve, C. Icon. Helix, pl. 185, f. 1284.
Ceylon.
3. *H. erronea*, Albers, in Pfeif. Mon. Helic. vol. 5, p. 239.—Reeve, C. Icon. Hel. f. 413.—Pfeif. Mon. Helic. vol. 4, p. 298.
Ceylon.
4. *H. gabata*, Gould, Proc. Bost. Soc. Nat. Hist. and Journ. Bost. Soc. Nat. Hist. vol. 4, p. 154, pl. 24, f. 9.—Pfeif. Mon. Helic. vol. 1, p. 396 : vol. 3, p. 253.
Birmah.
5. *H. capitium*, Benson, An. Nat. Hist. 1848 (ser. 2, vol. 2), p. 160.—Pfeif. Mon. Hel. vol. 3, p. 220.—Reeve, C. Icon. Hel. f. 749.
Sicrigully, Behar, N. India.
6. *H. hariola*, Benson, An. Nat. H. ser. 2, vol. 18, p. 251.—Pfeif. Mon. Helic. vol. 4, p. 260, and vol. 5, p. 337 : Novit. vol. 1.
Birmah.
7. *H. Merguiensis*, Philippi, Zeitsch. Mal. 1846, p. 192.—Pfeif. Mon. Helic. vol. 1, p. 397.—Reeve, C. Icon. Helix. f. 1205.
Mergui, Birmah.
8. *H. bifoveata*, Benson, An. Nat. ser. 2, vol. 18, p. 251.—Pfeif. Mon. Hel. vol. 4, p. 296.
Tenasserim.
9. *H. delibrata* (?), var. Benson.—Runs into Zo-roaster.
10. *H. delibrata*, Benson, Journ. Asi. Soc. Beng. 1836, vol. 5, 1836, p. 352.—Pfeif. Mon. Helic. vol. 1, p. 369.—*H. procumbens*, Gould, Boston Journ. Nat. Hist. vol. 4, p. 453, pl. 24, f. 1.—Reeve, C. Icon. Hel. f. 435.
Moulmein and Tavoy, Birmah.

Gould's *procumbens* is said to be identical with the earlier published *delibrata*, a species whose brief description was certainly not suggestive of this shell.

PLATE XV.

HELIX.

1. **H. Phayrei**, Theobald, J. Asi. Soc. Beng. 1859, vol. 28, p. 310: Des. Burm. p. 2.
Near the Irawady, between Prome and Ava.
2. **H. pylaica**, Benson, An. Nat. H. ser. 2, vol. 18, p. 249.—Pfeif. Mon. Helic. vol. 4, p. 164.
Birmah.
3. **H. Tickellii**, Theobald, J. Asi. Soc. Beng. 1839, vol. 28, p. 310: Desc. Burm. p. 2.—Pfeif. Monog. Helic. vol. 5, p. 267.
Near Moulmein.
4. **H. Akoutongensis**, Theobald, J. Asi. Soc. Beng. vol. 28, 1859, p. 310: Desc. Burm. p. 2.—Pfeif. Mon. Helic. vol. 5, p. 408.
Akoutong, Pegu, near the banks of the Irawady.
5. **H. rotatoria**, Theobald (as of Von dem Busch), J. Asi. Soc. Beng. 1859, vol. 27, p. 317: Notes on distrib. Shells India, pt. 1. p. 5.
Akoutong, Pegu.

As some have doubted the identity of this with the Javanese species, it is merely delineated as the shell so termed by Indian collectors.
6. **H. tapeina**, Benson, J. Asi. Soc. Beng. vol. 5, 1836, p. 352.—An. Nat. Hist. vol. 9, p. 186.—Pfeif. Mon. Helic. vol. 1, p. 207; vol. 3, p. 204.—Reeve, Conch. Icon. Helix. f. 750 (from Benson).
E. frontier of Bengal.
7. **H. Oldhami**, Benson, An. Nat. Hist. ser. 3, vol. 3 (1859), p. 185.—Pfeif. Mon. Hel. vol. 5, p. 410: Mal. Blät. 1859, p. 31.
Birmah.
8. **H. Huttoni**, Pfeiffer, Symb. pt. 3: Mon. Hel. vol. 1, p. 202 (for *H. orbicula*, Hutton, J. Asi. Soc. Beng. vol. 7, pt. 1, 1838, p. 217, not D'Orb.).—Reeve, C. Icon. Hel. f. 786.
Simla and Mahassa, Himalaya.
9. **H. Atkinsoni**, Theobald, J. Asi. Soc. Beng. 1859, vol. 28, p. 309: Desc. Burm. p. 1.—Pfeif. Mon. Helic. vol. 5, p. 177.
Near Moulmein.

10. **H. tapeina**, Benson, var. *Arakanensis*.
H. Arakanensis, Theobald, MSS. (no description), J. Asi. Soc. Beng.
Aracan.

PLATE XVI.

HELIX.

1. **H. bascauda**, Benson, An. Nat. Hist. 1859, ser. 3, vol. 3, p. 186.—Pfeif. Mon. Helic. vol. 5, p. 256.
Teria Ghat, Khasia Hills.
2. **H. gratulator**, Blanford, J. Asi. Soc. Beng. 1865, p. 72: Cont. Mal. pt. 5, p. 8.—Pfeif. Mon. Helic. vol. 5, p. 94.
Irawady Valley, Pegu.
3. **H. cassidula**, Benson, An. Nat. Hist. 1859, ser. 3, vol. 3, p. 186.—Pfeif. Mon. Helic. vol. 5, p. 75.
Moulmein.
4. **H. aspirans**, W. and H. Blanford, J. Asi. Soc. Beng. 1861, p. 355, pl. 1, f. 12.—Pfeif. Mon. Helic. vol. 5, p. 81.
Near Pykara, Nilgherries.
5. **H. fastigiata**, Hutton, J. Asi. Soc. Beng. vol. 7, pt. 1, p. 217.—Pfeif. Mon. Helic. vol. 3, p. 40: Chemn. ed. Kuster, Helix. p. 141, f. 15, 16.
Simla and Landour, Himalaya.
6. **H. confinis**, Blanford, J. Asi. Soc. Beng. 1865, p. 71 (as *Nanina*): Cont. Mal. pt. 5, p. 7.—Pfeif. Mon. Helic. vol. 5, p. 83.
Thayet Myo, confines of Birmah.
7. **H. polypleuris**, Blanford, J. Asi. Soc. Beng. 1865, p. 76: Cont. Mal. pt. 5 (1865), p. 12.—Pfeif. Mon. Helic. vol. 5, p. 136.
Aracan Hills.
8. **H. calpis**, Benson, An. Nat. Hist. 1859, p. 258.—Pfeif. Mon. Helic. vol. 5, p. 64.
Rungun Valley, near Darjiling.
9. **H. Poongee**, Theobald, J. Asi. Soc. Beng. 1859, vol. 28, p. 311: Desc. Burm. p. 2.
Near Moulmein.
10. **H. tertia**, Blanford, J. Asi. Soc. Beng. 1861, p. 355, pl. 3, f. 11: Cont. Mal. pt. 2.—Pfeif. Mon. Helic. vol. 5, p. 71.
Pykara and Neddiwuttum, Nilgherries.

PLATE XVII.

ACHATINA : Section Electra.

1. *A. nitens*, Gray, An. Philos. 1825, p. 415 :
Spic. Zool. pl. 6, f. 18.
Ceylon.
2. *A. inornata*, Pfeiffer, Proc. Zool. Soc. 1851 :
Monog. Helic. vol. 3, p. 490.
Ceylon.
3. *A. inornata*, var. Pfeiffer
4. *A. Ceylanica*, Pfeiffer, Monog. Helic. vol. 2, p.
258 (not Reeve).—Philippi, Abbil. N. Con. vol. 2,
p. 213, Ach. pl. 1, f. 3. — *A. orophila*, Benson,
in Reeve, Conch. Icon. Ach. f. 105.
Nilgherries.
5. *A. Theobaldi*, Hanley, MSS.
Near the Salwen.

Differs from *A. Cassiaca*, of which it has been con-
sidered a variety, by its smoothness, more convex
whorls, &c.
6. *A. prælustris*, Benson, An. Nat. Hist. ser. 3,
vol. 5 (1860), p. 462. — Pfeif. Monog. Helic.
vol. 6, p. 222.
Orissa.
7. *A. prælustris*, var. Benson.
8. *A. Chessoni*, Benson, An. Nat. Hist. ser. 3,
vol. 5 (1860), p. 462. — Pfeif. Monog. Helic. vol. 6,
p. 222.
Mahabaleshwar Hills.
9. *A. Tamulica*, W. and H. Blanford, Journ. Asi.
Soc. Beng. 1861, p. 362. — Pfeif. Monog. Helic.
vol. 6, p. 232.
Cullagoody, near Trichinopoly.
10. *A. textilis*, Blanford, Journ. As. Soc. Bengal,
1866, p. 41. — Pfeif. Mon. Helic. vol. 6, p. 220.
Anamullay Hills.

PLATE XVIII.

ACHATINA : Section Electra.

1. *A. scrutillus*, Benson, An. Nat. Hist. ser. 3,
vol. 5 (1860), p. 463. — Pfeif. Mon. Helic. vol. 6,
p. 227.
Orissa; Nerbudda.
2. *A. corrosula*, Pfeiffer, Proc. Zool. Soc. 1856,
p. 35; Monog. Helic. vol. 4, p. 412; Novit. vol. 1,
pl. 29, f. 9, 10.
Nilgherries.
3. *A. Fairbankii*, Benson, An. Nat. Hist. (1865,
Jan.) p. 14. — Pfeif. Monog. Helic. vol. 6, p. 232.
Mahabaleshwar Hills.
4. *A. hastula*, Benson, An. Nat. Hist. ser. 3,
vol. 5 (1860), p. 461. — Pfeif. Monog. Helic. vol. 6,
p. 235.
Darjiling.
5. *A. pertenuis*, Blanford, Journ. As. Soc. Beng.
1865, p. 79. — Pfeif. Monog. Helic. vol. 6, p. 237.
Bassein, Pegu.
6. *A. pyramis*, Benson, An. Nat. Hist. 1860,
p. 463. — Pfeif. Monog. Helic. vol. 6, p. 226.
Khasia Hills.
7. *A. Orobia*, Benson, An. Nat. Hist. ser. 3, vol. 5
(1860), p. 460. — Pfeif. Monog. Helic. vol. 6,
p. 224.
Darjiling.
8. *A. Orobia*, var. Benson.
9. *A. lyrata*, Blanford, MSS. (from type).
10. *A. brevis*, Pfeiffer, Proc. Zool. Soc. 1861, p. 387 :
Monog. Helic. vol. 6, p. 227.
Ahmednuggur.

PLATE XIX.

SPIRAXIS AND BULIMUS.

1. **S. Haughtoni**, Benson, An. Nat. Hist. (1863, Feb.).—Pfeif. Monog. Helic. vol. 6, p. 189.
Port Blair, Andamans.
2. **B. candelaris**, Pfeiffer, Proc. Zool. Soc. 1846, p. 40 : Monog. Helic. vol. 2, p. 427.—Reeve, Conch. Icon. Bulim. f. 408.
Takht i. Suliman, Cashmire.
3. **B. Kunawarensis**, Hutton, in Reeve Conch. Icon. Bul. pl. 62, f. 426.—Pfeif. Monog. Helic. vol. 3, p. 349.
Landour, W. Himalaya.
4. **B. prætermisus**, Blanford, Journ. Asi. Soc. Beng. 1861, p. 361 : Cont. Ind. Mal. pt. 2.
Orissa.
A large var. which has the freckles of Mavortius.
5. **B. atricallosus**, Gould, Boston Journ. N. H. vol. 4, p. 457, pl. 24, f. 3.
Tavoy.
- 6, 8. **B. intermedius**, Pfeiffer, Proc. Zool. Soc. 1834, p. 291 : Monog. Helic. vol. 4, p. 386 : Novit. vol. 1.
Ceylon.
7. **B. Sikkimensis**, Benson, in Reeve Conch. Icon. Bul. f. 651 (fry only).
Darjiling, Sikkim Himalaya.
9. **B. Sylheticus**, Reeve, Conch. Icon. Bulim. f. 564.
—Pfeif. Monog. Helic. vol. 3, p. 322.
Sylhet, E. Himalayah.
10. **B. Theobaldianus**, Benson, An. Nat. Hist. (1857, April) : separate, p. 3.—Pfeif. Monog. Helic. vol. 4, p. 473.
Yunglaw, Tenasserim.

PLATE XX.

BULIMUS.

1. **B. orbus**, W. and H. Blanford, Journ. Asi. Soc. Bengal, 1861, p. 15, pl. 1, f. 14.—Pfeif. Monog. Helic. vol. 6, p. 150.
Cuttygoody, near Trichinopoly.
2. **B. arcuatus**, Hutton, in Pfeif. Monog. Helic. vol. 2, p. 118.—Pfeif. Kust. ed. Chemn. Conch. Bul. pl. 17, f. 1, 2.—Reeve, Conch. Icon. Bul. f. 478.
Mahassa; Moulmein.
3. **B. Smithei**, Benson, Ann. Nat. Hist. 1865, Jan. p. 15.—Pfeiffer, Monog. Helic. vol. 4, p. 56.
Banks of Sutlej, Punjab.
Identified from the type : the shape was incorrectly described. It has the general aspect of Nilagiricus.
4. **B. rufistrigatus**, var. *gracilis*, Benson, in Reeve Conch. Icon. Bul. f. 570.
Between the rivers Jumna and Sutlej, Punjab.
5. **B. vibex** ?, var., Hutton, in Pfeif. Mon. Helic. vol. 2, p. 118, and Reeve Conch. Icon. Bul. f. 299.
W. Himalaya.
6. **B. Sindicus**, Benson, in Reeve Conch. Icon. Bul. f. 303.—An. Nat. Hist. ser. 3, vol. 5 (1860), p. 464.
Darjiling.
7. **B. arcuatus**, var. Hutton.
8. **B. salsicola**, Benson, An. Nat. Hist. 1857, April : separate, p. 1.—Pfeif. Monog. Helic. vol. 4, p. 423.
Punjab.
9. **B. Fairbanki**, Pfeiffer, Proc. Zool. Soc. 1857, p. 159 : Monog. Helic. vol. 4, p. 410.
Ahmednuggur.
10. **B. punctatus**, Anton, in Pfeif. Monog. Helic. vol. 2, p. 212.—Reeve, Conch. Icon. Bul. f. 452.
Bundelkund, and Southern India.

PLATE XXI.

BULIMUS.

1. **B. Abyssinicus**, Ruppell, in Pfeif. Mon. Helic. vol. 2, p. 110.—Reeve, Conch. Icon. Bulim. f. 296.
Malwah, Central India.
 2. **B. Ceylanicus**, Pfeiffer, Symbol. pt. 3, p. 83 : Mon. Helic. vol. 2, p. 59.—Reeve, Conch. Icon. Bulim. pl. 43, f. 274.
Ceylon.
 3. **B. trifasciatus**, Bruguiere, Encycl. Méth. Vers, p. 317.—Pfeif. Mon. Helic. vol. 2, p. 58.—Reeve, Conch. Icon. Bulim. f. 237.
Ceylon.
- The *B. fuscoventris* of Benson (An. Nat. Hist. vol. 18, p. 96), is this species in a younger stage. We assert this after careful examination of the type.
4. **B. Moussonianus**, Petit, Journ. Conch. 1851, vol. 3, p. 266, pl. 7, f. 4.
Near Bombay.
 - 5, 6. **B. Sinensis**, Benson, An. Nat. Hist. 1851.—Pfeif. Mon. Helic. vol. 3, p. 320.
Sheeoay Gheen, Pegu.
 7. **B. Jerdoni**, Benson, in Reeve's Conch. Icon. Bulim. f. 297.—Pfeif. Mon. Helic. vol. 3, p. 335 : Kust. ed. Chemn. Bulim. pl. 20, f. 11, 12.
Deccan.
 8. **B. albizonatus**, Reeve, Conch. Icon. Bulim. pl. 81, f. 604.
Ceylon.
 9. **B. physalis**, Benson, An. Nat. Hist. 1857.—Pfeif. Mon. Helic. vol. 4, p. 386.
Khoonda Ghat, Nilgherries.
 10. **B. rufopictus**, Benson, An. Nat. Hist. 1856, p. 96.—Pfeif. Mon. Helic. vol. 4, p. 404.
Ceylon.

PLATE XXII.

BULIMUS.

1. **B. Chion**, Pfeiffer, Proc. Zool. Soc. 1856, p. 332 ; Mon. Helic. vol. 4, p. 463.
Punjaub.
2. **B. vicarius**, Blanford, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 18, pl. 3, f. 15.
Habiang in Garo Hills.
3. **B. stalix**, Benson, An. Nat. Hist. 1863, May.—Pfeif. Mon. Helic. vol. 6, p. 61.
Ceylon.
4. **B. Estellus**, Benson, An. Nat. Hist. 1857.—Pfeif. Mon. Helic. vol. 4, p. 462.
Sinde.
5. **B. domina**, Benson, An. Nat. Hist. 1857.—Pfeif. Mon. Helic. vol. 4, p. 425.
Cashmire.
6. **B. Boysianus**, Benson, in Reeve's Conch. Icon. Bulim. f. 575.
Kemaon, W. Himalayah.
7. **B. Pertica**, Benson, An. Nat. Hist. 1857.—Pfeif. Mon. Helic. vol. 4, p. 462.
Sinde.
8. **B. vibex**, var. Hutton and Benson. See plate 23, figure 2.
9. **B. nivicola**, Benson, in Reeve's Conch. Icon. Bulim. f. 496.
Liti Pass, W. Himalayah.
10. **B. insularis**, Ehrenburg, Symbol. Phys. (as Pupa).—Bul. i. Pfeif. in Kust. ed. Chemn. Bulim. pl. 36, f. 26, 27, 28. *B. pullus*, Gray, Proc. Zool. Soc. 1834.—Reeve, Conch. Icon. Bulim. f. 476.
Delhi, Bundelkund, &c.

PLATE XXIII.

BULIMUS.

1. *B. Agrensis*, Kurr, Mal, Blät. vol 2, 1855, p. 107.
—Pfeif. Mon. Helic. vol. 4, p. 463.
Agra.
2. *B. vibex*, Hutton MSS. in Pfeif. Mon. Helic. vol. 2, p. 118; Kust. ed. Chemn. Bulim. pl. 17, f. 5, 6.—Reeve, Conch. Icon. Bulim. f. 299.
Simla and Landour.
3. *B. Nilagiricus*, Pfeiffer, Proc. Zool. Soc. 1846, p. 418; Mon. Helic. p. 119.—Reeve, Conch. Icon. Bulim. f. 291.
North Khasi Hills: Nilgherries.
4. *B. gracilis*, Hutton, J. Asi. Soc. Beng. vol. 3, p. 84, 93.—Pfeif. Mon. Helic. vol. 2, p. 157.—Reeve, Conch. Icon. Bulim. f. 495.
Bundelkund, and the plain provinces of Bengal, &c. Ceylon. Birmah.
5. *B. Griffithi*, Benson, in Reeve's Conch. Icon. Bulim. f. 302.
Afghanistan.
6. *B. eremita*, Benson, in Reeve's Conch. Icon. Bulim. pl. 78, f. 573.
Bolan Pass, Afghanistan.
7. *B. pretiosus*, Cantor MSS. in Reeve, Conch. Icon. Bulim. f. 619.
Mimosa bushes, banks of Jhelum, Chillianwalla. Closely allied to the last species.
8. *B. spelæus*, Hutton, Journ. Asi. Soc. Beng. vol. 18, pt. 2 (1849), p. 653.
Bolan Pass, Afghanistan.
Closely allied to the two preceding, and considered by Benson identical with his *eremita*.
9. *B. cœnopictus*, Hutton J. Asi. Soc. Beng. vol. 3, p. 85, no. 9, and p. 93, and vol. 18, pt. 2, 1849, p. 654 (as Pupa).—Reeve, Conch. Icon. Bulim. f. 492.—Pfeif. Mon. Helic. vol. 3, p. 349.
Afghanistan, &c.: Upper Birmah.
10. *B. rufistrigatus*, Benson, in Reeve's Conch. Icon. Bulim. f. 570.
Between the rivers Jumna and Sutlej.
A somewhat doubtful species, which runs into *pretiosus* and *cremita*.

PLATE XXIV.

CLAUSILIA.

1. *C. bacillum*, Benson MSS. in Theobald's Notes on Distribution, in J. Asi. Soc. Beng. Nancalai, Khasi Hills.
No description appeared of this species, of which two specimens alone are known—the better, or type, of which is here delineated: the other is in the Bensonian collection.
2. *C. insignis*, Gould, Proc. Bost. Soc. N. H., and Journ. Boston Soc. Nat. Hist. vol. 4, p. 458, pl. 24, f. 8, from which Pfeif. Mon. Helic. vol. 2, p. 423.
Tavoy, Birmah.
3. *C. insignis*, var. *gracilior*, Pfeiffer (as of Gould), Mon. Helic. vol. 3, p. 589: Novit. Conch. vol. 1.
Moulmein, Birmah.
4. *C. cylindrica*, Gray, MSS. in Pfeif. Symbol. and Mon. Helic. vol. 2, p. 428; vol. 3, p. 590; Kust. ed. Chemn. Claus. pl. 11, f. 12 to 16.—*C. elegans*, Hutton MSS.
Landour.
5. *C. bulbosus*, Benson, An. Nat. Hist. 1863, May, p. 321.—Pfeif. Mon. Helic. vol. 6, p. 410.
Near Moulmein, Birmah.
6. *C. fusiformis*, Blandford, J. Asi. Soc. Beng. 1865, p. 80.—Pfeif. Mon. Helic. vol. 6, p. 410.
Aracan Hills.
7. *C. loxostoma*, Benson, J. Asi. Soc. Beng. vol. 5 (1836), p. 353.—Pfeif. Mon. Helic. vol. 2, p. 404.—*C. Bengalensis*, Von dem Busch's MSS. in Kust. ed. Chemn. Claus. pl. 2, f. 11—13, and Pfeif. Mon. Helic. vol. 2, p. 60.
Teria Ghat.
8. *C. Masoni*, Theobald, J. Asi. Soc. Beng. vol. 33 (1864), p. 246; separate pamphlet, p. 10.
Near Tonghoo, in the mountains between Pegu and Martaban.
9. *C. tuba*, Hanley, Proc. Zool. Soc. 1868.
Shan States (Theobald).
At present of extreme rarity (Mus. Theobald and Hanley).
10. *C. Ios*, Benson, An. Nat. Hist. ser. 2, vol. 10, p. 350.—Pfeif. Mon. Helic. vol. 4, p. 761.
Darjiling.

PLATE XXV.

HELIX.

See previous plates, xiii. xiv. xv. xvi.

1. **H. Chenui**, var. Pfeiffer.

See also plate 27, f. 4. This form exhibits a close approach to the next species.

2. **H. basilessa**, Benson, An. Nat. Hist. (1865), ser. 3, vol. 5, p. 11.—Pfeif. Mon. Helic. vol. 5, p. 244. Travancore.

The worn example delineated (Benson's), has no epidermis. A perfect example has subsequently been obtained, which will be figured in a later plate.

3. **H. Saturnia**, Gould, Proc. Bost. Soc. N. H. vol. 2, p. 99.—Pfeif. Mon. Helic. vol. 3, p. 250; vol. 4, p. 300.

Tavoy.

4. **H. ampulla**, Benson, in Reeve, Conch. Icon. Helix. f. 736.—Pfeif. Mon. Helic. vol. 3, p. 27.

Nilgherries: Anamullay Hills.

5. **H. cysis**, Benson, in Pfeif. Mon. Helic. vol. 3, p. 92; vol. 4, p. 194.—H. cystis, Reeve, Conch. Icon. Helix, f. 737.

Nilgherries.

6. **H. retrorsa**, Gould, Boston. J. Nat. Hist. vol. 4, pl. 24, f. 5.—Pfeif. Mon. Helic. vol. 1, p. 76. Birmah.7. **H. basileus**, Benson, An. Nat. Hist. 1861, 1864.—Pfeif. Mon. Helic. vol. 5, p. 120.—H. Titanica, Pfeif. Proc. Zool. Soc. 1862, pl. 17, f. 3.

Anamullay Hills, S. India.

PLATE XXVI.

HELIX.1. **H. oxytes**, Benson, J. Asi. Soc. Beng. 1836, vol. 5, p. 35.—Pfeif. Mon. Helic. vol. 1, p. 195.—Reeve, Conch. Icon. Helix, f. 734.

Bengal.

2. 5. **H. Pollux**, Theobald, J. Asi. Soc. Beng. 1859, vol. 27, p. 319: Notes Dist. pt. 2 (separate pamphlet), p. 7.—VAR. as Nanina P. Blanford, J. Asi. Soc. Beng. 1870 (vol. 39, pt. 2), p. 13.

Near Teria Ghat: the var. from Nongkulong, &c., Khasi Hills.

3. **H. Castor**, Theobald, J. Asi. Soc. Beng. 1859, vol. 27, p. 319; Notes, Dist. pt. 2, p. 7.

Nanclai, Khasi Hills.

4. **H. octhoplax**, Benson, An. Nat. Hist. 1860, p. 190.—Pfeif. Mon. Helic. vol. 5, p. 400.

Western Slope, Khasi Hills; Moyang in Khasi, and near Asaloo in North Cachar.

6. **H. Cherraensis**, Blanford, J. Asi. Soc. Beng. 1870 (vol. 39, pt. 2), p. 14, pl. 3, f. 8 (as Nanina). Cherra Punji, Khasi Hills.

Very closely allied, if, indeed, distinct from H. Castor.

7. **H. cycloplax**, Benson, An. Nat. Hist. s. 2, vol. 10, p. 34.—Reeve, Conch. Icon. Helix, f. 1156.—Pfeif. Mon. Helic. vol. 4, p. 181.

Darjiling, Sikkim Himalayah.

The keeled form (Benson's) here delineated runs into oxytes.

PLATE XXVII.

HELIX.1, 2. **H. Gordoniae**, Benson, An. Nat. Hist. 1863 (s. 3, vol. 11), p. 87.—Pfeif. Mon. Helic. vol. 5, p. 402. Moulmein.3. **H. interrupta**, Benson, Zool. Journ. vol. 5, p. 461; Proc. Zool. Soc. 1834, p. 90.—Pfeif. Mon. Helic. vol. 1, p. 63; vol. 5, p. 122.—Reeve, Conch. Icon. Helix, f. 1159.

Sicrigulli, Bahar, and near the river Jellinghy.

4. **H. Chenui**, Pfeiffer, Mon. Helic. vol. 1, p. 438.—Reeve, Conch. Icon. Helic. f. 370.

Ceylon.

5. **H. labiata**, Pfeiffer, Proc. Zool. Soc. 1845, p. 65: Mon. Helic. vol. 1, p. 73.

Landour.

6. **H. thyreus**, Benson, An. Nat. Hist. ser. 2, vol. 9 (1852), p. 405.—Pfeif. Mon. Helic. vol. 3, p. 251; vol. 4, p. 301.—Reeve, Conch. Icon. f. 735.

S. India.

Pfeiffer refers H. rysssolemna of Albers to this species.

7. **H. Isabellina**, Pfeif. Proc. Zool. Soc. 1854, p. 52: Mon. Helic. vol. 4, p. 66.—Reeve, Conch. Icon. Helic. f. 1280.

Ceylon.

PLATE XXVIII.

HELIX.

1. *H. plicatula*, Blanford, J. Asi. Soc. Beng. 1870 (vol. 39, pt. 2), p. 13, pl. 17, f. 7 (as *Nanina*).
Khasi Hills.
2. *H. Maderaspata*, Gray, Proc. Zool. Soc. 1834, p. 67.—Pfeif. Mon. Helic. vol. 1, p. 63.
Madras.
The *H. Pondicherriensis* of Pfeiffer, and the *H. Korekouke* of Férussac are regarded by Pfeiffer as identical.
3. *H. Haughtoni*, Benson, An. Nat. Hist. 1863 (ser. 3, vol. 11.), p. 87.—Pfeif. Mon. Helic. vol. 5, p. 92.
Andamans.
4. *H. ceraria*, Benson, An. Nat. Hist. s. 2, vol. 12, p. 91.—Pfeif. Mon. Helic. vol. 4, p. 67.—Reeve, Conch. Icon. Helic. f. 1291.
Norton Plains, Ceylon.
5. *H. proxima*, Férussac, Hist. Moll. pl. 71, f. 5.—Pfeif. Mon. Helic. vol. 1, p. 377.
Coimbatore, S. of Seringapatam.
6. *H. solata*, Benson, An. Nat. Hist. 1848 (ser. 2, vol. 2), p. 159.—Pfeif. Mon. Helic. vol. 3, p. 67; vol. 4, p. 170.—Reeve, Conch. Icon. Helix, f. 741.
Nilgherries.
According to Pfeiffer, Reeve's *Menkeana* is a form of this species.
7. *H. trochalia*, Benson, An. Nat. 1861, p. 82.—Pfeif. Mon. Helic. vol. 5, p. 329.
Port Blair, Andamans.
8. *H. Orobis*, Benson, An. Nat. Hist. 1848 (ser. 2, vol. 2), p. 158.—Reeve, Conch. Icon. Helix, f. 738.
Himalayah.
9. *H. ligulata*, Férussac, Hist. Moll. pl. 31, f. 2.—Pfeif. Mon. Helic. vol. 1, p. 71.—Reeve, Conch. Icon. Helix, f. 395.
Bundelkund, Bengal.
10. *H. cyclotrema*, Benson, An. Nat. Hist. 1863 (ser. 3, vol. 11), p. 88.—Pfeif. Mon. Helic. vol. 5, p. 123.
Himalayah.

PLATE XXIX.

HELIX.

1. *H. bistrialis*, Beck, Index Moll. p. 2.—Pfeif. Mon. Helic. vol. 1, p. 71 (as = *diaphana*, Lea, and *exilis*, Chemn). — Reeve, Conch. Icon. Helix, f. 483.
Tranquebar.
2. *H. Taprobanensis*, Dohrn, Malak. Blät. vol. 6 (1859), p. 206.—Pfeif. Mon. Helic. vol. 5, p. 116.
Ceylon.
3. *H. Ceylanica*, Pfeiffer, Zeits. Malak. 1850, p. 67; Mon. Helic. vol. 3, p. 71; Kust. ed. Chemn. Hel. pl. 127, f. 6, 7.—Reeve, Conch. Icon. Helix, f. 1420.
Ceylon.
4. *H. cyix*, Benson, An. Nat. Hist. ser. 3, vol. 5 (1860), p. 382.—Pfeif. Mon. Helic. vol. 5, p. 236.
Matelle, Ceylon.
5. *H. Bombayana*, Grateloup, Act. Lin. Soc. Bordeaux, vol. 11, p. 406, pl. 1, f. 1.—Desh. in Férus. H. Moll. pl. 69, I. f. 5.—Reeve, Conch. Icon. Helix, f. 1194, and 1457 (as *Belangeri*).—Pfeif. Mon. Helic. vol. 1, p. 41, and vol. 3, p. 76.
Bombay.
6. *H. Belangeri*, Deshayes, in Belang. Voy. Ind. Or. Zool. vol. 2, Mol. pl. 1, f. 1, 2, 3: Encyc. Méth. Moll. vol. 2, p. 233.—Férus. Hist. Moll. vol. 1, p. 160, pl. 69, f. 4.—Pfeif. Mon. Helic. vol. 1, p. 69 (not Reeve).
Pondicherry, Malabar.
7. *H. cestus*, Benson, J. Asi. Soc. Beng. vol. 5 (1836), p. 353 (amended in An. Nat. Hist. 1848, ser. 2, vol. 2, p. 182).—Reeve, Conch. Icon. Helix, f. 751.—Pfeif. Mon. Helic. vol. 3, p. 327.
Bengal.
- 8, 9. *H. Helferi*, Benson, An. Nat. Hist. ser. 3, vol. 6, p. 191.—Pfeif. Mon. Helic. vol. 5, p. 366.
Andamans.
10. *H. tugurium*, Benson, An. Nat. Hist. ser. 2, vol. 10, p. 348.—Reeve, Conch. Icon. Helix, f. 1155.—Pfeif. Mon. Helic. vol. 4, p. 124.
Darjiling.

PLATE XXX.

HELIX.

1. **H. anceps**, Gould, Boston, J. Nat. Hist. vol. 4, pl. 24, f. 6.—Pfeif. Mon. Helic. vol. 1, p. 80.
Birmah.
- 2, 3. **H. hyba**, Benson, An. Nat. Hist. ser. 3, vol. 7 (1861), p. 83.—Pfeif. Mon. Helic. vol. 5, p. 181.
Dahinkhoond, Sub-Himalayah, not far from the Sotlej.
4. **H. hemiopta**, Benson, An. Nat. Hist. 1863, ser. 3, vol. 11, p. 318.
Andamans.
- 5, 6. **H. palmaria**, Benson, An. Nat. Hist. ser. 3, vol. 13 (1864), p. 137.—Pfeif. Mon. Helic. vol. 5, p. 575.
Nundydroog, Mysore.
7. **H. Basseinensis**, Blanford, J. Asi. Soc. Beng. 1865, p. 70 (Nanina).—Pfeif. Mon. Helic. vol. 5, p. 89.
Near Bassein, Aracan.
- 8, 9. **H. anlopis**, Benson, An. Nat. Hist. ser. 3, vol. 11 (1863), p. 318.—Pfeif. Mon. Helic. vol. 5, p. 93.
Port Blair, Andamans.
10. **H. propinqua**, Pfeiffer, Proc. Zool. Soc. 1857, p. 109.—Pfeif. Mon. Helic. vol. 4, p. 280.
Bombay.

PLATE XXXI.

HELIX.

- 1, 4. **H. bombax**, Benson, An. Nat. Hist. ser. 3, vol. 3 (1859), p. 186.—Pfeif. Mon. Helic. vol. 5, p. 151.
Moulmein.
The striæ are closer than can be represented in a lithograph: the mouth is not usually so broad.
- 2, 3. **H. Hodgsoni**, Blanford MSS. in Benson, An. Nat. Hist. ser. 3, vol. 3 (1859), p. 267.—Pfeif. Mon. Helic. vol. 5, p. 110.
Pankabari; Darjiling.
- 5, 6. **H. regulata**, Benson, An. Nat. Hist. ser. 3, vol. 5 (1860), p. 383.—Pfeif. Mon. Helic. vol. 5, p. 125.
Kaluganga and Katukellekande, Ceylon.

- 7, 10. **H. nuda**, Pfeiffer, Mon. Helic. vol. 3, p. 18.—
Reeve, Conch. Icon. Helix, f. 781.
Himalayah.

- 8, 9. **H. politissima**, Pfeiffer, Proc. Zool. Soc. 1853, p. 125: Mon. Helic. vol. 4, p. 45.—Reeve, Conch. Icon. Helix, f. 1292.
Ceylon.

PLATE XXXII.

HELIX.

- 1, 4. **H. chloroplax**, Benson, An. Nat. Hist. ser. 3, vol. 15 (1865), p. 14.—Pfeif. Mon. Helic. vol. 5, p. 80.
Near Simla, Himalayah.
- 2, 3. **H. Woodiana**, Pfeiffer (not Lea), Proc. Zool. Soc. 1851: Mon. Helic. vol. 3, p. 88: Kuster ed. Chemn. Helix, pl. 144, f. 7, 8.—Reeve, Conch. Icon. Helix, f. 600.
Ceylon.
- 5, 6. **H. Neherensis**, Benson, An. Nat. Hist. ser. 3, vol. 13 (1864), p. 310.—Pfeif. Mon. Helic. vol. 5, p. 164.
Neher, Mahabaleshwar, W. India.
- 7, 10. **H. planiuscula**, Hutton, J. Asi. Soc. Beng. vol. 7, pt. 1 (1838), p. 218.—Pfeif. Mon. Helic. vol. 1, p. 60.
Simla; Landour.

- 8, 9. **H. molecula**, Benson, An. Nat. Hist. ser. 3, vol. 3 (1859), p. 389.—Pfeif. Mon. Helic. vol. 5, p. 69.
Rangoon, Birmah.

PLATE XXXIII.

CYCLOPHORUS.

See previous plates i. ii. iii. iv.

- 1, 7. **C. eximius**, Mousson, Moll. Java, p. 53, pl. 7, f. 1 (as Cyclostoma).—Reeve, Conch. Icon. Cyclop. f. 7.—Pfeif. Mon. Pneum. vol. 1, p. 69: Kust. ed. Chemn. Cyclost. pl. 33, f. 1, 2 (as Cyclost.).
Khasia Hills.

2. **C. Ceylanicus**, Pfeiffer, in Kust. ed. Chemn. p. 171, pl. 29, f. 1—3 (as *Cyclostoma*): Mon. Pneum. vol. 1, p. 70. — *Cyclostoma Indicum*, Sowerby, Thes. Conch. vol. 2, pl. 31 B, f. 320. — *Cycloph. Menkeanus*, Reeve, Conch. Icon. Cycl. f. 42, *a, b*.
Ceylon.

The figure 4 of *C. Indicum* in Belanger's work suits this shell fairly, but neither 5 nor the description by Deshayes will agree.

3. **C. Menkeanus**, Philippi, Zeitsch. Malak. 1847, p. 123 (as *Cyclostoma*).—Reeve, Conch. Icon. Cycloph. f. 42, *c, d*.—Pfeif. Mon. Pneum. vol. 1, p. 66: Kust. ed. Chemn. Cyclost. p. 171, pl. 28, f. 6, 7, 8 (as *Cyclostoma*).
Near Point de Galle, Ceylon.

4. **C. aurantiacus**, Schumacher, Essai, p. 196 (for *Turbo volvulus*, var. of Chemn. Conch. vol. 9, f. 1064), as *Annularia a.*—Reeve, Conch. Icon. Cycloph. f. 3.—Pfeif. in Kust. ed. Chemn. Cyclost. pl. 4, f. 8, 9 (as *Cyclostoma*).
Moulmein Pagoda.

- 5, 6. **C. Jerdoni**, Benson, An. Nat. Hist. 1851 (ser. 2, vol. 8), p. 185 (as *Cyclostoma*).—Pfeif. Mon. Pneum. vol. 2, p. 51: Kust. ed. Chemn. Cyclost. pl. 50, f. 1, 2, 3 (as *Cyclostoma*).
Nilgherries: Ceylon.

PLATE XXXIV.

CYCLOPHORUS.

1. **C. stenomphalus**, Pfeiffer, Zeitschr. Malak. 1846, p. 44, and in Kust. ed. Chemn. Cyclost. pl. 8, f. 5, 6 (not his var. pl. 50), as *Cyclostoma*; Mon. Pneum. vol. 1, p. 70 (not Reeve).
Khasia Hills.
- 2, 3. **C. altivagus**, Benson, An. Nat. Hist. ser. 2, vol. 14 (1854), p. 411.—Pfeif. Mon. Pneum. vol. 2, p. 57.—Reeve, Conch. Icon. Cycloph. f. 55.
Mahabaleshwar Hills, S. India.
The lower disk is devoid of either striæ or ribs.
4. **C. Himalayanus**, Pfeiffer, Proc. Zool. Soc. 1851, p. 242 (as *Cyclostoma*): Mon. Pneum. vol. 1, p. 55: Kust. ed. Chemn. Cyclost. pt. 2, p. 247 (not fig.) as *Cyclostoma H.*—Reeve, Conch. Icon. Cyclop. f. 14, *a*.
Darjiling, Sikkim Himalayah.
Approaches Aurora, but is broader (less so than

usual in the specimen delineated), is smoother below, and with a painting composed on the spire of dense angular brown lines.

5. **C. Bensoni**, Pfeiffer, Proc. Zool. Soc. 1852, p. 158; Mon. Pneum. vol. 1, p. 63.—Reeve, Conch. Icon. Cyclop. f. 38.

Northern part of Khasian Hills; Assam.

In the Annals of Natural History (1854, vol. 14, p. 414), this was considered by Mr. Benson a varietal form of *C. Pearsoni*! It seems so of Reeve's.

6. **C. altivagus**, var. Benson.—*Cyclostoma stenomphalus*, var. Pfeif. in Kust. Chemn. pl. 50, f. 11—13 (not pl. 8, f. 5).
Bombay.

7. **C. sublævigatus**, Blanford, Proc. Zool. Soc. 1869, p. 446.
Near Bhamo.

The type was kindly lent us by Mr. Blanford.

PLATE XXXV.

ACHATINA: Section Electra.

See previous plates, xvii. xviii.

- I. **A. facula**, Benson, An. Nat. Hist. ser. 3, vol. 5 (1860), p. 466, for *Perroteti*, Reeve (not Pfeif.), Conch. Icon. Achat. f. 102.—Pfeif. Mon. Helic. vol. 6, p. 224.
Nilgherries.
The mouth is higher in proportion to its breadth than is here represented.
2. **A. leptospira**, Benson, An. Nat. Hist. ser. 3, vol. 15 (1865), p. 14.—Pfeif. Mon. Helic. vol. 6, p. 233.
Soomeysur Hills.
3. **A. amentum**, Benson, in Reeve's Conch. Icon. Achat. f. 82.—Pfeif. Mon. Helic. vol. 3, p. 499.
Lower Bengal, and Nerbudda.
4. **A. botellus**, Benson, An. Nat. Hist. ser. 3, vol. 5 (1860), p. 465.—Pfeif. Mon. Helic. vol. 6, p. 226.
Nilgherries.

5. **A. Vadalica**, Benson, An. Nat. Hist. 1865, Jan. p. 15.—Pfeif. Mon. Helic. vol. 6, p. 229.
Wadalé, near Ahmednuggur.

The increase of the body-whorl above the mouth, and the obliquity of the sutures, are inadequately represented.

6. **A. Perroteti**, Pfeiffer, Mon. Helic. vol. 2, p. 260; vol. 3, p. 494.—Glandina P. Philippi, Abbild. N. C. vol. 1, Glandina, pl. 1, f. 12.—VAR. **A. Nilagirica**, Benson MSS. in Reeve, Conch. Icon. Ach. f. 87.
Nilgherries.
7. **A. parabilis**, Benson, An. Nat. Hist. ser. 2, vol. 18 (1856), p. 266.—Pfeif. Mon. Helic. vol. 4, p. 606.
Ceylon.
- 8, 9. **A. notigena**, Benson, An. Nat. Hist. ser. 3, vol. 5 (1860), p. 462.—Pfeif. Mon. Helic. vol. 6, p. 429.
Mahabaleshwar Hills, and near Bombay.
10. **A. Sarissa**, Benson, An. Nat. Hist. ser. 3, vol. 5 (1860), p. 463.—Pfeif. Mon. Helic. vol. 6, p. 234.
Lower Bengal.

PLATE XXXVI.

ACHATINA: Section Electra.

1. **A. crassilabris**, Benson, J. Asi. Soc. Beng. vol. 5 (1836), p. 353.—Reeve, Conch. Icon. Achat. f. 81.—Pfeif. Mon. Helic. vol. 2, p. 261; vol. 3, p. 493.
Khasia Hills.
2. **A. panætha**, Benson, An. Nat. Hist. ser. 3, vol. 5 (1860), p. 384.—Pfeif. Mon. Helic. vol. 6, p. 226.
Ceylon.
3. **A. Arthuri**, Benson, An. Nat. Hist. 1864, March, p. 209.—Pfeif. Mon. Helic. vol. 6, p. 224.
Mahabaleshwar Hills.
4. **A. crassula**, Benson, in Reeve's Conch. Icon. Achat. f. 120.—Pfeif. Mon. Helic. vol. 3, p. 496.
Darjiling.
5. **A. Cassiaca**, Benson, in Reeve, Conch. Icon. Achat. f. 86.—Pfeif. Mon. Helic. vol. 3, p. 499.
Khasia Hills.

6. **A. obtusa**, Blanford, Proc. Zool. Soc. 1869, p. 449.

Bhamo, Upper Birmah.

The sub-genus *Bacillum* is proposed by Mr. Theobald for this, the preceding, and other allied forms.

7. **A. gemma**, Benson, in Reeve's Conch. Icon. Achat. f. 123 (and *A. frumentum*, ditto, f. 124).—Pfeif. Mon. Helic. vol. 3, p. 496.

Lower Bengal, and Nerbudda.

8. **A. tenuispira**, Benson, J. Asi. Soc. Beng. 1836, vol. 5, p. 353 (not vars. in An. Nat. Hist.).—Pfeif. Mon. Helic. vol. 2, p. 262?

Khasia Hills: Darjiling.

9. **A. Shiplayi**; Pfeiffer, Mal. Blät. 1855, p. 169: Mon. Helic. vol. 4, p. 612; Novit. vol. 1, pl. 22, f. 13, 14.

Nilgherries.

10. **A. filosa**, Blanford, J. Asi. Soc. Beng. vol. 39, pt. 2 (1870), p. 20, pl. 3, f. 18 (as *Glessula*, f.).
Travancore.

PLATE XXXVII.

STENOTHYRA and BYTHINIA.

1. **S. minima**, Sowerby, in Mag. Nat. Hist. (Charlesworth's series), vol. 1 (1837), p. 217, f. 22, b (as *Nematura*).—Adams, Proc. Zool. Soc. 1851 (as *Nematura*).—Benson, An. Nat. Hist. ser. 2, vol. 17 (1856), p. 501.
Western India.
2. **S. Deltæ**, Benson, J. Asi. Soc. Beng. vol. 5 (1836), p. 78 (as *Nematura*); An. Nat. Hist. ser. 2, vol. 17 (1856), p. 499.—Sow. Mag. Nat. Hist. (Charlesworth's series), vol. 1 (1837), p. 217 (as *Nematura*).
River Hooghly, near Calcutta; also in a salt lake near Balliaghat.
3. **S. foveolata**, Benson, An. Nat. Hist. ser. 2, vol. 17, p. 497.
Ganges, near Sikrigali.
- Delineated from the worn type, the only example known to us.
4. **S. monilifera**, Benson, An. Nat. Hist. ser. 2, vol. 17 (1856), p. 497.
Mergui, Birmah.
- 5, 6. **B. inconspicua**, Dohrn, Proc. Zool. Soc. 1857, p. 123.
Ceylon.

7. *B. lutea*, Gray, Annals Phil. 1824, p. 277.—*B. goniostoma*, Hutton MSS.—*Paludina pulchella*, Kust. (not Bens.) ed. Chem. Palud. p. 30, pl. 6, f. 19.
Purneah.
- 8, 9. *B. Nassa*, Theobald, J. Asi. Soc. Beng. vol. 34, pt. 2 (1865).
Shan States.
10. *B. Iravadica*, Blanford, Proc. Zool. Soc. 1869, p. 446.
Marshes near Mandelay, Birmah.

PLATE XXXVIII.

BYTHINIA.

- 1, 4. *B. Cerameopoma*, Benson, Gleanings Sc. Calcut. vol. 2, p. 125 (name for species in vol. 1, p. 363), as *Paludina*: J. Asi. Soc. Beng. vol. 24 (1855), p. 131.—*B. Ceranospatana*, Frauenfeld, Verhandl. Zool. Bot. Wien. 1862, p. 1156.
River Ken: Coosa River.
- 2, 3. *B. Travancorica*, Benson, An. Nat. Hist. ser. 3, vol. 6 (1860).
Near Quilon, Travancore.
The minute spiral striolæ are characteristic.
- 5, 6. *B. pulchella*, Benson, J. Asi. Soc. Beng. vol. 5 (1836), p. 746.
Sylhet.
- This is stated to be the *Valvata* no. 9 of Hutton in the third volume of the Journal of the Asiatic Society of Bengal.
- 7, 10. *B. stenothyroides*, Dohrn, Proc. Zool. Soc. 1857, p. 123.
Ceylon; Nilgherries; Poonah; Madras; S. Arcot; Trichinopoly, &c.
- 8, 9. *B. orcula*, Benson, MSS. in Frauenfeld, Verhandl. Zool. Bot. Wien. 1862, p. 1154.
Purneah.

PLATE XXXIX.

PLANORBIS.

- 1, 2, 3. *P. calathus*, Benson, An. Nat. Hist. ser. 2, vol. 5 (1850), p. 349.
Near Moradabad; Kattiawar; Ceylon; Cashmire.

- 4, 5, 6. *P. Trochoideus*, Benson, J. Asi. Soc. Beng. vol. 5 (1836), p. 742 (Glean. Scien. Calcutta, vol. 1, pl. 8, f. 10); An. Nat. Hist. (1850), ser. 2, vol. 5, p. 352.

Barrakpore.

- 7, 8, 9. *P. cœnosus*, Benson, An. Nat. Hist. 1850, p. 349.

Near Moradabad: Ceylon.

10. *P. exustus*, Desh. Belang. Voy. Ind. Orient. Zool. p. 417, pl. 1, f. 11-13 (1834): ed. Lam. vol. 8, p. 392.—Müller, Synopsis Test. p. 34. *P. Indicus*, Benson, J. Asi. Soc. Beng. vol. 5, (1836), p. 743. —Martens, Mal. Blätt. vol. 14, p. 212.

Universally diffused, from Bombay to Cashmire.

Otho Müller (Verm. Ter. et. Fluv. pt. 2, p. 157), indicated this shell as the Coromandel form of *corneus*; hence probably the manuscript name of *P. Coromandelianus* (Kuster, as of O. Fabricius). Chemnitz figured it (Conch. Cab. vol. 9, pl. 127, f. 116, 117), as the Indian variety of the same species, to which it was referred with doubt, also, by Hutton (J. Asi. Soc. vol. 3). A figure of it appeared in the Gleanings of Science (vol. 1, pl. 8, f. 6).

PLATE XL.

PLANORBIS.

- 1, 2, 3. *P. Cantori*, Benson, An. Nat. Hist. 1850, p. 349.

Barrakpore.

- 4, 5, 6. *P. Sindicus*, Benson, An. Nat. Hist. (1850), p. 350.

River Indus, Upper Sindh.

Figured from the type, the only example known to us.

- 7, 8, 9. *P. umbilicalis*, Benson, J. Asi. Soc. Beng. vol. 5 (1836), p. 741.—An. Nat. Hist. ser. 2, vol. 5 (1850), p. 341. —Martens, Mal. Blät. vol. 14, p. 216.

E. Bengal.

10. *P. exustus*, Deshayes.—See plate 39, f. 10.

The species is often much flatter and larger than the specimen delineated.

A form with a very contracted aperture was taken from tanks near Chanda.

PLATE XLI.

UNIO.

See previous plates, ix. to xii.

1. **U. Layardi**, Lea, Proc. Ac. Nat. Sc. Philadelph. 1859, p. 153 : Journ. Ac. Nat. Sc. Philad. ser. 2, vol. 4 (and Obser. U. vol. 7), pl. 36, f. 122.—Reeve, Conch. Icon. Unio, f. 111.
Ceylon.

We are unable to distinguish the exact line of demarcation between this and *Thwaitesii*; in characteristic specimens, however, the front extremity is longer and more tapering.

2. **U. involutus**, Benson, in Hanley's Recent Bivalves, p. 385, pl. 23, f. 19.—Reeve, Conch. Icon. Unio, f. 177.
Assam.
3. **U. favidens**, var. *chrysis*, Benson, Ann. Nat. Hist. ser. 3, vol. 10 (1862), p. 188.
River Dojora at Kareily Ghât, near Bareilly.
4. **U. Jenkinsianus**, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 185.
River Berhampooter, Assam.

The unique type here figured will probably be considered an abnormal form of *marginalis* or *Corrianus*.

- 5, 6. **U. Nuttallianus**, Lea, Journ. Ac. Nat. Sc. Philad. ser. 2, vol. 3, p. 310, pl. 30, f. 25 : Obser. U. vol. 6, p. 30, pl. 30, f. 25.
Assam.
7. **U. consobrinus**, Lea, Journ. Ac. Nat. Sc. Philad. ser. 2, vol. 4 (and Obser. U. vol. 7), pl. 90, f. 192.—Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 195.
Cochin, Malabar.

Only two specimens, both in the Bensonian collection, are known to us. They approach *marginalis*, of which they may possibly prove a tumid variety, yet have a fibrous, not a satin-like, style of epidermis, a different shape, and a different disposition of colouring, the yellow band not being adjacent to the ventral edge. There is no appearance, moreover, of the two raised lines which adorn the umbonal slope near the beaks, which, unfortunately being eroded, do not exhibit any marked character. The front extremity is more prominent and rounded (not obliquely cut off below) than in the allied forms. According to Lea the original types came from China.

PLATE XLII.

UNIO.

1. **U. Birmanus**, Blanford, Proc. Zool. Soc. 1869, p. 450.
Bhamo, Upper Birmah.
2. **U. favidens**, var. *Deltæ*, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 188.
River Jellinghy, Upper Gangetic Delta, Bengal.

The radiation spoken of consists of almost imperceptible lines. A specimen from Tirhoot is of an uniform dark olivaceous hue.

3. **U. foliaceus**, Gould, Proc. Boston Soc. N. H. vol. 1, p. 141 : Otia Conch. p. 191.—*U. Peguensis*, Anthony, American J. of Conch. vol. 1 (1865), p. 351, pl. 25, f. 2.—Reeve, Conch. Icon. Unio, f. 519.
Tavoy, Birmah ; Pegu.

Gould's type (sent to Benson), is unmistakably the young of the adult *Peguensis*.

- 4, 5, 6. **marcens**, Hanley, for *U. favidens*, var. *marcens* of Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 188.
Berhampooter River, Assam.

The absence of all corrugation is a most important characteristic feature.

7. **U. marginalis**, var. *Anodontina*.—*U. Anodontinus*, Kuster (not Lamarck), ed. Chemn. Conch. Unio, pl. 80, f. 5.

River Godavery ; Nagpoor ; Sylhet.

Although we have not fully traced the intervening links between this elongated form and the typical *marginalis*, we cannot doubt its approximation to those specimens which have been supposed (perhaps erroneously) to represent the *U. bilineatus* of Lea. Virginia is the recorded, and probably the correct, locality of the Lamarckian *U. Anodontoides*, but the types are declared to be Indian, not American ; its dentition is said to be inconspicuous. In the specimen delineated the front teeth are short, strong, and very oblique ; the nacre is of a rather pale salmon-colour.

PLATE XLIII.

UNIO.

1. *U. Thwaitesii*, Lea, Proc. Philad. Ac. N.S. vol. 1 (1859), p. 152; J. Philad. s. 2, vol. 4, pl. 37, f. 125.—Reeve, Conch. Icon. Unio, f. 105.

Ceylon.

U. marginalis, Lamarck, Anim. s. Vert. ed. Desh. vol. 6, p. 544.—Hanley, Rec. Bivalves, p. 206, pl. 19, f. 53.—*U. testudinarius*, Spengler, Skriv. Nat. Selks. vol. 3, pt. 1, p. 65, and *U. truncatus*, p. 56 (fide Mörch).—*U. Grænlædicus* (in Lea) from Schröter, Fluss. Conch. p. 181, pl. 9, f. 1.

We describe the hinge of the typical form, which is but little modified in any of the varieties. In the right valve are two sloping anterior teeth, of which the upper and narrower arches more or less downwards, and the lower is strong and rather large; the single lateral one is strong, elongated, and bent at the end. In the left valve, besides the callus, there is one anterior and two lateral teeth, the latter scarcely divided until the second moiety, where they slant down. The principal anterior scar is decidedly large in proportion to its size in the allied species. After long examination of many scores of examples of this most variable species from nearly every part of British India, we can only arrive at the conclusion that the forms usually designated in cabinets, *bilineatus*, *lamellatus*, *Corrianus*, &c., all run into each other. We do not assert, however, that the shells intended by Lea are identical; for his figure of *bilineatus* looks like the young of some broadly-winged Siamese shell (of the *Houzei* type), and his *lamellatus* is notable for a peculiarity of dentition. We have delineated some of the more striking forms.

2. *U. marginalis*, var. *typica*.—*U. marginalis*, Encycl. Méth. Vers, pl. 247, f. 1.

Moradabad: Pegu.

The brief Lamarckian diagnosis is further defined by his reference, &c., and his figure.

3. *U. marginalis*, var. *obesa*.

River Irawadi, Birmah.

A giant form, which does not exhibit the ochraceous band, and is peculiarly swollen. It comes between the var. *lata*, and the typical form. The upper anterior tooth is almost linear; the lateral are not bent at the extremity, and the upper one in the left valve is scarcely developed.

4. *U. marginalis*, var. *Candaharica*, Hutton, J. Asi. Soc. Beng. vol. 17, pt. 1 (1849), p. 651.
River Sutlej.

The abnormal characters of shape and colouring are such that Hutton (its discoverer) suggested its possible distinctiveness. The nucleus very closely approaches *U. theca*, Benson; the adult cannot be separated from the form *bilineatus*.

5. *U. marginalis*, var. *tricolor*.—*U. tricolor*, Kuster. ed. Chemn. Unio, pl. 45, f. 1?

A very beautifully painted shell, which is usually more or less compressed.

PLATE XLIV.

UNIO.

1. *U. marginalis*, var. *cylandrica*.
2. *U. marginalis*, var. *zonata*.—*U. marginalis*, Desh. Encycl. Méth. Vers, vol. 2, p. 587.
Belgaum, Deccan.

3. *U. marginalis*, var. *bilineata*.—*U. bilineatus*, Reeve (as of Lea), Conch. Icon. Unio, f. 365.

Nearly all the varieties (especially the immature examples) exhibit two raised lines near the beaks on the umbonal slope. We are aware that Spengler intended to have indicated *U. marginalis* as *U. testudinarius*, but his Latin description is most utterly inadequate to define it; his *delphinus*, *conus*, and *gibbosus* (from the East Indies), must be ignored for a similar reason. The name *Grænlædicus* (the locality was subsequently corrected in the *Einleitung*, vol. 2, p. 621, by Schröter himself), would mislead.

4. *U. marginalis*, var. *Corriana*.—*U. Corrianus*, Lea, Trans. Amer. Phil. Soc. vol. 5, p. 177, pl. 9, f. 25, from which Hanley, Rec. Bivalves, p. 207, pl. 21, f. 60.

Near Calcutta, &c.

This form, always more or less indented in the middle, is sometimes elongated cylindrical, sometimes compressed and oval-oblong. The cardinal callosity (rarely absent) is more or less developed, and the anterior or hinge teeth are almost horizontal, curve outward, and are either rather elongated, or if shorter, are rather prominently elevated.

- 5, 6. **U. corrugatus**, var. *lævirostris*.—*U. lævirostris*, Benson, An. Nat. Hist. ser. 3, vol. 10 (1862), p. 191 (from types).

River Godavery; Pengunga, &c.

Benson's original examples were much worn at the beaks, hence the name. A perusal of Schröter's description of *Mya corrugata*, in his *Flüssconchylien*, shows that he was perfectly aware of the frequent absence of the characteristic corrugation.

7. **U. lamellatus**, Reeve (as of Lea, Trans. Amer. Phil. Soc. s. 2, vol. 6, and Obs. Un. vol. 2, p. 19, pl. 6, f. 16, from which Hanl. Rec. Biv. Shells, p. 194, pl. 21, f. 50), Conch. Ieon. Unio, f. 511.

Pegu.

Closely allied to *U. generosus*. The teeth, however, are peculiarly elongated. The form delineated is abnormally high; other examples since obtained are much narrower, and more like Lea's figures. The long lamellar hinge-teeth referred to by Lea, are very manifest, but whether the species is distinct from *generosus* may be doubted. Young examples are olivaceous yellow, changing to dark green on the very concave posterior slope.

PLATE XLV.

UNIO.

1. **U. crispatus**, Gould, Proc. Boston Soc. N. Hist. vol. 1, p. 141; Otia Conch. p. 191.

Tavoy, Birmah.

The specimen figured was sent to Benson by the American describer.

- 2 to 5. **U. corrugatus**, Müller.—*Mya c.* Müller, Besehaft. Ges. Naturf. Berlin, vol. 4, p. 58, pl. 3, f. 7.—Chemn. Conch. Cab. vol. 6, p. 31, f. 22 (from which Kust. ed. Chemn. Unio, pl. 97, f. 3, 4).—Mawe, Lin. Conch. pl. 4, f. 3.—Not of Martini and Wood (as *Mya*) or Reeve (as *Unio*).—*Mya spuria*, Gmel. Syst. 3222, from Schröter, Einleit. pl. 7, f. 5 (copied as *U. concentricus*, Valenc. in Ene. Méth. pl. 249, f. 3).

Near Madras; River Godavery; Nagpore; Pengunga, &c. &c.

Authors have recognised very different shells as the fragile and pellucid *Mya corrugata* of Müller (Verm. pt. 2, p. 214). His original description being utterly insufficient, had better be ignored; he defined the species, however, by his figure in the Berlin journal. We know of no adequate representations in the older works, hence Wood supposed it to be the very coarsely sculptured Cingalese (?) species, which we have called *Tennentii*, whilst Benson and others thought it *favidens*. The views of the exterior given by Chemnitz and Mawe are indefinite, the outlines of the interior (and the hinge in Mawe's figure) suit the present species. The range of character from entire smoothness (except near the tips) to a coarse divaricate corrugation over the dorsal half of the surface, from tumidity to compression, from thinness to solidity, from olive green to ochraceous green, can only be rivalled by its diversity of contour; every link, however, has been most cautiously traced. We believe that the *U. Nagporensis* of Lea (Journ. Ac. Nat. Sc. Philad. ser. 2, vol. 4, and Obs. U. vol. 7, p. 88, pl. 45, f. 150), will also prove a large variety, with worn beaks, of our form fig. 3, but dare not assert so positively.

2. Var. *solida*, from the River Godavery.

3. Var. *Nagporensis*. — ? *U. Nagporensis*, Lea, Journ. Ac. Nat. Sc. Philad. ser. 2, vol. 4 (Obs. Un. vol. 7, p. 88), pl. 45, f. 150.

Nagpoor; Pengunga.

The coincidence of locality and the general contour render it probable that Lea founded his species upon a worn aged example of this swollen form.

4. Var. *fragilis*.

A thin ventriose form, which, we are assured, has been taken from the inside of fishes.

5. **U. corrugatus**. Typical form from Madras and Southern India.

6. **U. Wynegungaensis**, Lea, Proc. Ac. Nat. Sc. Philad. vol. 8, p. 331 (Obs. Un. vol. 7, p. 89), pl. 45, f. 151.—Reeve, Conch. Ieon. Unio, f. 539.

River Wynegunga, &c.

- 7, 8, 9. **U. Tennentii**, Hanley, for *Mya corrugata*, Wood, General Conch. p. 108, pl. 24, f. 1, 2, 3.
"Ceylon."

Our locality is not well authenticated. The shell was found without name in the Bensonian collection, as from British India.

10. **U. corbis**, Benson, in Hanley's Recent Bivalves, p. 386, pl. 23, f. 43.
Assam.

So rare a shell, that we have only seen one perfect specimen. It is a solid little species.

PLATE XLVI.

UNIO.

1. **U. scutum**, Benson's MSS. in Reeve's Conch. Icon. Unio, f. 510.

Tenasserim River.

2. **U. scobina**, Benson, in Hanley's Recent Bivalves, p. 382, pl. 22, f. 40.

Assam; Mysore?

The specimen delineated is the almost unique original type, cleared partially of the ferruginous coating with which it was invested. The Mysore specimens are too worn to be positively pronounced identical.

3. **U. scobina?** var. Benson.

Belgaum, Deccan.

A half link between *scobina* and *occatus*.

4. **U. generosus**, Gould, Proc. Boston Soc. Nat. H. vol. 2, p. 220; Otia Conch. p. 201.

The shell here delineated was sent by Gould to Benson as typical; the alated form referred by us to *lamellatus* (pl. 9) belongs to it. Except for its dentition, this shell might be referred to the large Birmese form of *marginalis*, or even to the Cingalese *Thwaitesii*. Its affinities, on the other hand, incline closely to the *U. lamellatus* of Lea. The peculiar hinder surface, which Gould terms subcostated, results from a close superficial concentric sulcation.

- 5, 6. **U. Bonneaudi**, var. Eydoux and Souleyet.—Reeve, Conch. Icon. Unio, f. 515.

Pegu.

The sculpture is scarcely so strong in the smooth variety delineated as in another of our figures, and the shading here obscures the radiating sulci in front.

7. **U. generosus**, Gould, var. *angustior*.

Pegu.

PLATE XLVII.

CYCLOPHORUS and AULOPOMA.

See previous plates i. ii. iii. iv. xxxiii. xxxiv.

- 1, 2. **A. grande**, Pfeiffer, Proc. Zool. Soc. 1855, p. 104; Mon. Pneum. vol. 2, p. 39; Novit. Conch. vol. 1, pl. 19, f. 11 to 13.

Ceylon.

- 3, 4. **A. Hoffmeisteri**, Troschel, Zeitsch. Malak. 1847, p. 43.

Ceylon.

The description referred to is only in German, and very brief.

- 5, 6. **C. hispidulus**, Blanford, Jour. Asi. Soc. Beng. vol. 22 (1863), p. 321; Cont. Ind. Mal. pt. 4, p. 3.

Mya Leit Doung, near Ava.

The spiral hispid ridges of the umbilicus are not adequately rendered in our lithograph.

7. **C. exul**, Benson, An. Nat. Hist. ser. 2, vol. 14 (1854), p. 412.—Pfeif. Mon. Pneum. vol. 2, p. 46.—Reeve, Conch. Icon. Cyclop. f. 53.

Bhamoury, at the foot of the Rohillano-Himalayahs.

The delicate shell here depicted is unique.

8. **C. cratera**, Benson, An. Nat. Hist. ser. 2, vol. 18 (Aug. 1856).—Pfeif. Mon. Pneum. vol. 2, p. 55.

Ceylon.

Possibly a form of the *annulatus* of Troschel.

9. **C. cytopoma**, Benson, An. Nat. Hist. ser. 3, vol. 5 (1860), p. 385.—Pfeif. Mon. Pneum. vol. 3, p. 72.

Ceylon.

Scarcely differs from the previous species, except in fragility and the want of a double lip.

10. **C. tryblium**, Benson, var. *conica*. See plate xlviii. f. 1.

The typical form is delineated in our next plate; that here represented is remarkable for its narrow umbilicus and its elevated spire.

PLATE XLVIII.

CYCLOPHORUS.

1. **C. tryblium**, Benson, Ann. Nat. Hist. ser. 2, vol. 14 (1854), p. 413.—Pfeif. Mon. Pneum. vol. 2, p. 45.

Darjiling; Sikkim Himalayah.

2. **C. affinis**, Theobald. See pl. 2, f. 7.

The peculiarity of lip referred to by the author was simply accidental. The individual here represented, which reminds one of a dwarf carinated Siamensis, is almost the only one known to us, the supposed second example alluded to having proved to be distinct.

3. **C. Indicus**, Pfeiffer (as of Deshayes), Mon. Pneum. vol. 1, p. 77 (from Cuming's collection); Kuster, ed. Chemn. Cyclos. pl. 33, f. 3, 4 (as Cyclostoma).

Isle of Elephanta, near Bombay.

It may be doubted whether this can be the Cyclostoma Indicum of Deshayes in Belanger's Voyage (Zool. Moll. pl. 1, f. 4, 5), the lower face of which does not suit any example we have seen.

4. **C. Malayanus**, Benson, An. Nat. Hist. ser. 2, vol. 10 (1852), p. 269 (as Cyclostoma).—Pfeif. Mon. Pneum. vol. 2, p. 42.—Reeve, Conch. Icon. Cycloph. f. 2.

Shan States.

The previously recorded locality was Pulo Penang. The Cyclostoma volvulus of Souleyet (Voy. Bonite, Moll. pl. 30, f. 18–21) is considered by Pfeiffer to be identical.

5. **C. Pearsoni**, Benson. See plate 1, f. 6.

We have figured Benson's type, which displays no traces of that articulated keel which forms so prominent a feature in the next species.

6. **C. Haughtoni**, Theobald. See plate 1, f. 3, and plate 3, f. 6.

A characteristic form. In our previous figures the articulation was inadequately represented, few, if any, traces of it having been visible upon the portion delineated, though freely developed upon the opposite side.

7. **C. Siamensis**, Sowerby, Thesaur. Conch. vol. 1, p. 158*, pl. 31, f. 392, 3 (as Cyclostoma).—Benson, An. Nat. H. ser. 2, vol. 19.—Reeve, Conch. Icon. Cycloph. f. 19.—Pf. Mon. Pneum. vol. 1, p. 56.

Lacat, and Teria Ghat.

PLATE XLIX.

PTEROCYCLOS, including SPIRACULUM, and RHIOSTOMA.

See previous plate v.

- 1, 2. **P. (Sp.) Fairbanki**, Blanford, J. Asi. Soc. Beng. 1869, p. 135, and Cont. Ind. Mal. pt. 10 (as Spiraculum).

Pulney Hills, S. India.

- 3, 4. **P. (Sp.) Andersoni**, Blanford, Proc. Zool. Soc. 1869, p. 447 (as Spiraculum).

Near Bhamo, Upper Birmah.

- 5, 6. **P. nanus**, Benson, An. Nat. Hist. ser. 2, vol. 8 (1851), p. 450.—Reeve, Conch. Icon. Pter. f. 12.

Nilgherries.

- 7, 8. **P. Cumingi**, Pfeif. Proc. Zool. Soc. 1852, p. 158; Mon. Pneum. vol. 2, p. 29.—Reeve, Conch. Icon. Pter. f. 14.

Ceylon.

- 9, 10. **P. (Sp.) Gordoni**, Benson, An. Nat. Hist. 1863, May (as Opisth.).—Pfeif. Mon. Pneum. vol. 3, p. 36 (as Pt.).—Theob. J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 399, pl. 18, f. 6.

Sittonug, near Tongbu; near Moulmein, Birmah.

PLATE L.

HELIX.

- 1, 2. **H. mammillaris**, Blanford, J. Asi. Soc. Beng. 1865, p. 69, and Cont. Mal. pt. 5 (as Nanina).—Pfeif. Mon. Helic. vol. 5, p. 88.

Akoutong, Pegu.

- 3, 4. **H. Helicifera**, Blanford, J. Asi. Soc. Beng. 1866, p. 34, and Cont. Mal. pt. 5 (as Nanina).

Aracan Hills, near Prome.

5. **H. acuducta**, Benson, An. Nat. Hist. ser. 2, vol. 5 (1850), p. 214.—Reeve, Conch. Icon. Helix, f. 739.—Pfeif. Mon. Helic. vol. 3, p. 78; vol. 4, p. 67.

Nilgherries.

6. *H. Travancorica*, Benson, An. Nat. Hist. (1865), ser. 3, vol. 15, p. 13.—Pfeif. Mon. Helic. vol. 5, p. 131.

Hills of Travancore.

Lithography cannot adequately represent the rasp-like decussation of the sculpture of this species. The whorls are concave above the very sharp keel.

7. *H. serrula*, Benson, J. Asi. Soc. Beng. vol. 5 (1836).—Pfeif. Mon. Helic. vol. 1, p. 206.

Bengal.

- 8, 9. *H. Austeni*, Blanford, J. Asi. Soc. Beng. 1870 (vol. 39, pt. 2), p. 15, pl. 3, f. 10, and Cont. Ind. Mal. pt. 11 (as *Nanina*).

Habiang, in Garo Hills.

10. *H. crassicostata*, Benson, An. Nat. Hist. 1848 (ser. 2, vol. 1), p. 159.—Reeve, Conch. Icon. Helix, f. 747.

Southern India.

PLATE LI.

HELIX : Section Zonites.

1. *H. choinix*, Benson, An. Nat. Hist. 1861 (ser. 3, vol. 7), p. 183.—Pfeif. Mon. Helic. vol. 5, p. 117.

Andaman Isles.

2. *H. acerra*, Benson, An. Nat. Hist. ser. 3, vol. 3 (1859).—Pfeif. Mon. Helic. vol. 5, p. 100.

Mergui, Tenasserim.

3. *H. pedina*, Benson, An. Nat. Hist. ser. 3, vol. 15 (1865), p. 13.—Pfeif. Mon. Helic. vol. 5, p. 100.

Near Bombay, and Ahmednugger.

4. *H. resplendens*, Philippi, Zeits. Malak. 1846, p. 192.—Pfeif. Mon. Helic. vol. 1, p. 56; vol. 5, p. 100.—*H. expolita*, Desh. teste Pfeif.

Birmah.

- 5, 6. *H. rubellocincta*, Blanford, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 14, pl. 3, f. 9, and Cont. Ind. Mal. pt. 11 (as *Nanina*).

Habiang in Garo Hills, beyond the southern boundaries of Assam.

- 7, 10. *H. splendens*, Hutton, J. Asi. Soc. Beng. vol. 7, pt. 1, p. 215 (as *Nanina*).—Pfeif. Mon. Helic. vol. 1, p. 73; vol. 4, p. 124.

Mahassu, Fagu, &c., Himalayah.

- 8, 9. *H. lubrica*, Benson, An. Nat. Hist. ser. 2, vol. 10 (1852), p. 349.—Pfeif. Mon. Helic. vol. 4, p. 44.—Reeve, Conch. Icon. Helix, f. 1153.

Himalayah.

PLATE LII.

HELIX.

1. *H. Nicobarica*, Beck, Index Moll. Crist. Fred. Ap. p. 5 (as *Nanina*).—Pfeif. Mon. Helic. vol. 1, p. 40.—Reeve, Conch. Icon. Helix, f. 1157.

Cuddapah.

This rare shell was figured by Chemnitz (vol. 9, f. 911, 912), as a sinistral Nicobar form of *H. pomatia*.

- 2, 5. *H. tetrina*, Benson, An. Nat. Hist. ser. 2, vol. 17 (1856), p. 252.—Pfeif. Mon. Helic. vol. 4, p. 58; Novit. vol. 1, pl. 36, f. 5 to 7.—Martens, Ostas. Zool. vol. 2, p. 71 (as *Nanina*).

Tongoop Hills, Aracan; Birmah.

3. *H. monticola*, Hutton, Jour. Asi. Soc. Beng. vol. 7, pt. 1, p. 215 (as *Nanina*).—Pfeif. Mon. Helic. vol. 1, p. 130 (not vol. 5, p. 197).

Huttu and Mahassu, Himalayah.

4. *H. basilessa*, Benson. See plate xxv. f. 2.

6. *H. albizonata* (var.), Dohrn, Proc. Zool. Soc. 1858, p. 133; Pfeif. Mon. Helic. vol. 5, p. 90.

Trichoor (Benares); Ceylon.

7. *H. Juliana* (var. *Reevei*), Gray, Proc. Zool. Soc. 1834, p. 58 (as *Nanina*).—Reeve, Conch. Icon. Helix, f. 373.

Ceylon.

A very beautiful form, but not much like that originally described. As other varieties will be figured, no synonymy is here appended.

PLATE LIII.

HELIX.

1. *H. similaris*, Férussac, Hist. Moll. pl. 25, B. f. 1-4.—Pfeif. Mon. Helic. vol. 1, p. 336.—Reeve, Conch. Icon. Helix, f. 767.—*H. Woodiana*, Lea, and *translucens*, King, teste Pfeif.
Pegu.
2. *H. similaris* (var.) Férussac.—Allied to *bolus* and *Peguensis*.
- 3, 4. *H. scenoma*, var. Benson.
5. *H. scenoma*, Benson, An. Nat. Hist. 1863 (ser. 3, vol. 11), p. 319.—Pfeif. Mon. Helic. vol. 5, p. 331.
Near Moulmein.
6. *H. pilidion*, Benson, An. Nat. H. 1860 (ser. 3, vol. 6), p. 191.—Pfeif. Mon. Helic. vol. 5, p. 347.
Pegu.
7. *H. bolus*, Benson, An. Nat. Hist. ser. 2, vol. 18 (1856), p. 252.—Pfeif. Mon. Helic. vol. 4, p. 251.
Thyet Mio.
8. *H. hemiopta*, Benson, An. Nat. Hist. 1863 (s. 3, vol. 11), p. 318. See also pl. xxx. f. 4.
Andaman Isles.
9. *H. sculpturita*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 391.—Pfeif. Mon. Helic. vol. 5, p. 349.
Ava.
10. *H. coriaria* (var.), Pfeiffer, Zeits. Malak. 1847, p. 145.—Reeve, Conch. Icon. Helix, f. 417.
Ceylon.

Australian specimens cannot be distinguished from the shell here delineated.

PLATE LIV.

HELIX.

- 1, 2. *H. Cingalensis*, Benson, An. Nat. Hist. 1863 (ser. 3, vol. 5), p. 183.—Pfeif. Mon. Helic. vol. 5, p. 93.—*H. Emiliana*, Reeve (not Pfeif.), Conch. Icon. Helix, f. 608.
Matelle, Ceylon.

3. *H. hyphasma*, Pfeiffer, Proc. Zool. Soc. 1853, p. 124; Mon. Helic. vol. 4, p. 40.—Reeve, Conch. Icon. Helix, f. 1297.
Ceylon.

4. *H. cacuminifera*, Benson, An. Nat. Hist. 1850, ser. 2, vol. 5, p. 214.—Pfeif. Mon. Helic. vol. 4, p. 36.—Reeve, Conch. Icon. Helix, f. 744.
Nilgherries.

5. *H. apicata*, Blanford (as *Nanina*, section *Trochomorpha*), J. Asi. Soc. Beng. 1870 (vol. 39, pt. 2), p. 16, pl. 3, f. 13; Cont. Ind. Mal. pt. 11, p. 16.
Nilgherries in Southern India, at Coonoor, Neddiwuttom, &c.

6. *H. acris*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 387.—Pfeif. Mon. Helic. vol. 5, p. 333.
Teria Ghat; Khasia Hills.

7. *H. galea*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 388.—Pfeif. Mon. Helic. vol. 5, p. 264.
Teria Ghat; Birmah.

8. *H. arx*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 184.—Pfeif. Mon. Helic. vol. 5, p. 90.
Therabuin Hills, Tenasserim Valley.

9. *H. infula*, Benson, An. Nat. Hist. 1848 (ser. 2, vol. 2), p. 160 (changed from *turbiniiformis*, Calcut. J. Nat. Hist.).—Reeve, Conch. Icon. Helix, f. 783.
Rajmahal Hills.

10. *H. falcata*, Blanford, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 15, pl. 3, f. 11, and Cont. Ind. Mal. p. 15 (as *Nanina*).
Habiang in Garo Hills, beyond Southern boundaries of Assam.

PLATE LV.

HELIX.

1. *H. Guerini*, Pfeiffer, Revue Zool. Soc. Cuv. 1842, p. 304; Mon. Helic. vol. 1, p. 118.—Philip. Abbild. N. Conch. vol. 1, pl. 3, f. 6.
Nilgherries.

2. **H. camura**, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3) p. 269.—Pfeif. Malak. Blät. 1859, p. 23; Mon. Helic. vol. 5, p. 180.

Rungun valley near Darjiling.

3. **H. artificiosa**, Benson, An. Nat. Hist. ser. 2, vol. 18 (1856), p. 249.—Pfeif. Mon. Helic. vol. 4, p. 178: Novit. vol. 1, pl. 36, f. 8, 9, 10.

Aracan.

- 4, 5. **H. climacterica**, Benson, J. Asi. Soc. Beng. 1836, p. 352 (amended in An. Nat. Hist. 1848, ser. 2, vol. 2), p. 163.—Reeve, Conch. Icon. Helix, f. 742.—Pfeif. Mon. Helic. vol. 3, p. 170; Kuster Chemn. Helix, pl. 141, f. 9, 10.

Teria Ghat, Aracan Hills.

An imperforated species, with the whorls, which are flattened above, somewhat scalariform.

- 6, 7. **H. Nilagirica**, Pfeiffer, Proc. Zool. Soc. 1845, p. 130: Mon. Helic. vol. 1, p. 369.—Reeve, Conch. Icon. Helix, f. 450.

Nilgherries.

- 8, 9. **H. contracta**, Hutton MSS. in Benson An. Nat. Hist. ser. 3, vol. 12 (1864), p. 137.—Pfeif. Mon. Helic. vol. 5, p. 365.

Malwa.

10. **H. Indica**, Pfeiffer, Symb. Helic. pt. 3, p. 66: Mon. Helic. vol. 1, p. 80.—Reeve, Conch. Icon. Helix, f. 448.

Nilgherries.

PLATE LVI.

HELIX.

1. **H. pansa**, Benson, An. Nat. Hist. ser. 2, vol. 18 (1856), p. 252.—Pfeif. Mon. Helic. vol. 4, p. 28.

Akoutong, Birmah.

- 2, 3. **H. catostoma**, Blanford, Proc. Zool. Soc. 1869, p. 447 (as section Trachia).

Ponsee in Yunan.

4. **H. subdecussata**, Pfeiffer, Proc. Zool. Soc. 1857, p. 107; Mon. Helic. vol. 4, p. 28.

Bombay.

- 5, 6. **H. Koondaensis**, Blanford, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 16 (and Cont. Ind. Mal. pt. 11), pl. 3, f. 12 (as Nanina).

Sispara in Koonda Hills.

7. **H. Baconi**, Benson, An. Nat. Hist. 1850 (ser. 2, vol. 6), p. 251.—Pfeif. Mon. Helic. vol. 3, p. 5; Kuster. Chemn. Helix, pl. 141, f. 11, 12.—Reeve, Conch. Icon. Helix, f. 1166.

Banks of Gungun, near Moradabad.

The unique type here delineated is decidedly immature, and closely approaches subdecussata and Layardi.

- 8, 9. **H. Layardi**, Pfeiffer, Proc. Zool. Soc. 1851; Mon. Helic. vol. 3, p. 55.—Reeve, Conch. Icon. Helix, f. 614.

Ceylon.

10. **H. Emiliana**, Pfeiffer, Proc. Zool. Soc. 1852; Mon. Helic. vol. 3, p. 55; Kust. ed. Chemn. Helix, pl. 158, f. 33 to 38.—Not Reeve.

Ceylon.

PLATE LVII.

HELIX.

- 1, 2, 3. **H. anax**, Benson, An. Nat. Hist. 1865 (ser. 3, vol. 14).—Pfeif. Mon. Helic. vol. 5, p. 399.

Hills of Travancore.

The sculpture is close and obliquely concentric. There is a second more deeply-seated parietal lamella below the upcurving one, which the position selected by our artist did not enable him to exhibit.

- 4, 5, 6. **H. odontophora**, Benson, An. Nat. Hist. 1865 (ser. 3, vol. 14), Feb. p. 175.

From mountains 4500 feet high, Bandarewella and Bibiligamua, Ceylon.

Four remote palatal lamellæ can be descried from the exterior.

- 8, 9. **H. achatina**, Gray. See plate xiii. f. 1.

- 7, 10. **H. brachyplecta**, Benson, An. Nat. Hist. 1863, ser. 3, vol. 6, p. 319.

Banks of the River Attaran, near Moulmein.

PLATE LVIII.

HELIX.

1. **H. semidecussata**, Pfeiffer, Proc. Zool. Soc. 1851, p. 252; Kust. ed. Chemn. Helix, pl. 145, f. 8, 9.—Reeve, Conch. Icon. Helix, f. 567.

Ceylon.

Essentially identical with the Mauritian species.

2. **H. semidecussata**, Benson, var. *solida*.

Ceylon.

The solid and abnormal form here delineated has lost its epidermis, and almost unites *semidecussata* and *Rosamonda*.

3. **H. Laidlayana**, Benson, An. Nat. Hist. ser. 2, vol. 18 (1856), p. 253.—Pfeif. Mon. Helic. vol. 4, p. 31.—*H. parietalis*, Martens, Mal. Blät. 1864, p. 167, teste Pf.

Bengal.

- 4, 5. **H. Laidlayana**, Benson, var.

Cuttack (fig. 4).

6. **H. Peguensis**, Benson, An. Nat. Hist. 1860 (ser. 3, vol. 6), p. 192.—Pfeif. Mon. Helic. vol. 5, p. 346.

Sheeoay Gheen, Pegu.

- 7, 8. **H. uter**, Theobald, J. Asi. Soc. Beng. 1859 (vol. 28, p. 309): Desc. Birm. p. 1 (separate pamphl.).—Pfeif. Mon. Helic. vol. 5, p. 127.

Near Moulmein.

PLATE LIX.

HELIX.

- 1, 2. **H. vitellina**, Pfeiffer, Proc. Zool. Soc. 1848, p. 109: Mon. Helic. vol. 3, p. 72; Kust. ed. Chemn. pl. 122, f. 22, 23.—Reeve, Conch. Icon. Helix, f. 390.

Nilgherries.

3. **H. Tranquebarica**, Fabricius, in Beck's Index (name only) and in Pfeif. Mon. Helic. vol. 1, p. 41.—Reeve, Conch. Icon. Helix, f. 394.

Tranquebar.

4. **H. semirugata**, Beck, Index Moll. Crist. Fred. p. 42 (name only), for *H. globulus* of Chemnitz, vol. 9, f. 1159, 1160, not of Müller.—Pfeif. Mon. Helic. vol. 1, p. 40; Kust. ed. Chemn. Helix, pl. 3, f. 1112.—Reeve, Conch. Icon. Helix, p. 391.

Bengal.

- 5, 6. **H. Rosamonda**, Benson, An. Nat. Hist. 1860 (ser. 3, vol. 5), p. 381.—Pfeif. Mon. Helic. vol. 5, p. 77.

Pittewelle, Ceylon.

- 7, 8. **H. Theodori**, Philippi, Zeitsch. Malak. 1846, p. 191.—Pfeif. Mon. Helic. vol. 1, p. 70: Kuster ed. Chem. Helix, pl. 110, f. 1, 2, 3.—Reeve, Conch. Icon. Helix, f. 1188.

Birmah.

PLATE LX.

HELIX.

- 1, 2, 3. **H. Blanfordi**, Theobald, J. Asi. Soc. Beng. 1859 (vol. 28), p. 313: Desc. Birm. p. 4 (separate pamphlet).—Pfeif. Mon. Helic. vol. 5, p. 249.

Near Darjiling.

Very near *H. cycloplax*.

4. **H. ornatissima**, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 269.—Pfeif. Mon. Helic. vol. 5, p. 113.

Pankabari, near Darjiling.

5. **H. capessens**, Benson, An. Nat. Hist. 1856 (ser. 2, vol. 18), p. 250.—Pfeif. Mon. Helic. vol. 4, p. 194: Novit. vol. 1, pl. 36, f. 17 to 20.

Moulmein, Birmah.

6. **H. bidenticulata**, Benson, An. Nat. Hist. 1852 (ser. 2, vol. 9), p. 405.—Reeve, Conch. Icon. Helix, f. 1184.—Pfeif. Mon. Helic. vol. 3, p. 165.

Nilgherries.

7. **H. crinigera**, Benson, An. Nat. Hist. 1850 (ser. 2, vol. 5), p. 214.—Reeve, Conch. Icon. Helix, f. 746.—Pfeif. Mon. Helic. vol. 3, p. 112; vol. 4, p. 110.

8. **H. diplodon**, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 187.—Pfeif. Malak. Blät. 1859, p. 13; Mon. Helic. vol. 5, p. 256.

Teria Ghat.

- 9, 10. We found this *Helix* in Benson's collection as *H. Ingrami* of Blanford, but know not whether it has been published.

Aracan Hills.

PLATE LXI.

HELIX.

1. *H. rimicola*, Benson, An. Nat. Hist., 1859 (s. 3, vol. 3), p. 266.—Pfeif. Mon. Helic., vol. 5, p. 71.
Near Landour, in W. Himalayah: a variety from Rungun, near Darjiling.
- 2, 3. *H. bullula*, Hutton, J. Asi. Soc. Beng., vol. 7, pt. 1 (1838), p. 2.—Pfeif. Mon. Helic., vol. 1, p. 86.—Not Reeve.
Landour; Simla.
- 4, 5, 6. *H. humilis*, Hutton, J. Asi. Soc. Beng., vol. 7, pt. 1 (1838), p. 217.—Pfeif. Mon. Helic., vol. 1, p. 106; vol. 3, p. 83.—Reeve, Conch. Icon. Helix, f. 825.
Simla.
- 7, 8, 9. *H. nana*, Hutton, J. Asi. Soc. Beng., vol. 7, pt. 1 (1838), p. 218.—Pfeif. Mon. Helic., vol. 1, p. 31.
Simla.
10. *H. phyllophila*, Benson, An. Nat. Hist., 1863 (s. 3, vol. 11), p. 320.—Pfeif. Mon. Helic., vol. 5, p. 87.
Ceylon.

PLATE LXII.

HELIX.

- 1, 2, 3. *H. exul*, Theobald, J. Asi. Soc., Beng., 1861 (vol. 33), p. 245.
Andamans.
- 4, 5, 6. *H. stephus*, Benson, An. Nat. Hist., 1861 (ser. 3, vol. 7), p. 84.—Pfeif. Mon. Helic., vol. 5, p. 105.
Port Blair, Andamans.
- 7, 8, 9. *H. aspides*, Benson, An. Nat. Hist., 1863 (ser. 3, vol. 3), p. 320.—Pfeif. Mon. Helic., vol. 5, p. 197.
Birmah; Andamans?
10. *H. raditicola*, Benson, An. Nat. Hist., 1859 (s. 2, vol. 2), p. 161.—Pfeif. Mon. Helic., vol. 3, p. 219; Kust. ed. Chemn. Helix., pl. 141, f. 13, 14.—Reeve, Conch. Icon. Helix, f. 753.
Himalaya.

PLATE LXIII.

HELIX.

- 1, 2, 3. *H. sequax*, Benson, An. Nat. Hist., 1859, April (ser. 3, vol. 3), p. 270.—Pfeif. Mon. Helic., vol. 5, p. 118.
Darjiling; Rungun.
- 4, 5, 6. *H. vesicula*, Benson (as Nanina), J. Asi. Soc., Beng., 1838, vol. 7, p. 216.—Pfeif. Mon. Helic., vol. 1, p. 48; vol. 3, p. 47; Kust. ed. Chemn. Helix, pl. 129, f. 21, 22.—Not Reeve.
Sotee Durga, and Rajmahal.
- 7, 8, 9. *H. lecythis*, Benson, An. Nat. Hist., 1860, p. 246.—Pfeif. Mon. Helic., vol. 3, p. 47.—Reeve, Conch. Icon. Helix, f. 1164.
Rajmahal Hills.
10. *H. glauca*, Benson, in Pfeif. Symb. Helic., pt. 3, p. 65 (as Nanina); Mon. Helic., vol. 1, p. 48.—Philip. Ab. N. Conch., vol. 3 Helix, pl. 10, f. 8.—Reeve, Conch. Icon. Helix, f. 771.
Almorah, Bengal.

PLATE LXIV.

HELIX: Section Zonites.

- 1, 2, 3. *H. subjecta*, Benson, An. Nat. Hist., 1852, p. 407.—Pfeif. Mon. Helic. vol. 3, p. 48.—Reeve, Conch. Icon. Helix, f. 1165.
Rajmahal Hills.
- 4, 5. *H. todarum*, W. and H. Blanford, J. Asi. Soc. Beng. 1861, p. 352, pl. 2, f. 1.
Near Pykara and Neddiwuttom, Nilgherries.
- 6, 7. *H. hypoleuca*, Blanford, J. Asi. Soc. Beng. 1865, p. 67, and Cont. Mal. Ind., pt. 5, p. 3 (as Nanina).—Pfeif. Mon. Helic., vol. 5, p. 104.
Akoutong, Pegu.
- 8, 9, 10. *H. nebulosa*, Blanford, J. Asi. Soc. Beng., 1865, p. 66, and Cont. Mal. Ind., pt. 5, p. 2 (as Nanina).
Akoutong, Pegu.

PLATE LXV.

VITRINA.

- 1, 4. **V. Bensoni**, Pfeiffer, Proc. Zool. Soc. 1848, p. 107: Mon. Helic. vol. 2, p. 497.—Reeve, Conch. Icon. Vit. f. 9.

Howrah, near Calcutta.

- 2, 3. **V. Peguensis**, Theobald, J. Asi. Soc. Beng. vol. 33 (1864), p. 244: separate pamphlet, p. 8. Near Pegu.

- 5, 6. **V. præstans**, Gould, Proc. Bost. Soc. N. H. vol. 1 (1843), p. 140; Boston J. Nat. H. vol. 4, p. 456, pl. 24, f. 2.—Pfeif. Mon. Helic. vol. 2, p. 497.—Reeve, Conch. Icon. Vit. f. 12.

Tavoy.

Our figure 6 is scarcely round enough.

- 7, 10. **V. succinea**, Reeve, C. Icon. Vit. f. 8, for **V. planospira**, Benson (not Pfeiffer), An. Nat. Hist. ser. 3, vol. 3 (1859), p. 271, from which Pfeif. Mon. Helic. vol. 5, p. 14.

Pankabari; Rangoon; Khasia Hills.

- 8, 9. **V. Salius**, Benson, An. Nat. Hist. ser. 3, vol. 3 (1859), p. 189.—Pfeif. Mon. Helic. vol. 4, p. 799. Khasia Hills.

Our figure, from the position selected by the artist, does not seem deep enough on the body-whorl.

PLATE LXVI.

VITRINA.

- 1, 4. **V. scutella**, Benson, An. Nat. Hist. ser. 3, vol. 3 (1859, March).—Pfeif. Mon. Helic. vol. 4, p. 798.—Reeve, C. Icon. Vit. f. 13 (from Benson's specimen).

Teria Ghat; Khasia Hills; Cashmire (var).

- 2, 3. **V. gigas**, Benson, J. Asi. Soc. Beng. vol. 5, (1836), p. 350.—Pfeif. Mon. Helic. vol. 2, p. 496.—Reeve, Conch. Icon. Vit. f. 3.

Sylhet; Cherra, above Teria Ghat.

- 5, 6. **V. Flemingiana**, Pfeiffer, Proc. Zool. Soc. 1856, p. 324: Mon. Helic. vol. 4, p. 790; Novit. vol. 1, pl. 28, f. 1 to 3.—Reeve, Conch. Icon. Vit. f. 4.

Scinde.

- 7, 10. **V. Christianæ**, Theobald, J. Asi. Soc. Beng. vol. 33 (1864), p. 245: separate pamphlet, p. 9. Andaman Isles.

- 8, 9. **V. irradians**, Pfeiffer, Proc. Zool. Soc. 1852, p. 156: Mon. Helic. vol. 3, p. 3.—Reeve, Conch. Icon. Vit. f. 5. Ceylon.

PLATE LXVII.

SUCCINEA.

- 1, 4. **S. Indica**, Pfeiffer, Proc. Zool. Soc. 1849, p. 133: Mon. Helic. vol. 3, p. 8.

Bheemtâl.

- 2, 3. **S. semiserica**, Gould, Proc. Bost. Soc. Nat. H. (1846), vol. 2, p. 100.—Pfeif. Mon. Helic. vol. 3, p. 10.

Tavoy, Birmah.

- 5, 6. **S. Girnarica**, Theobald, J. Asi. Soc. Beng. 1859, vol. 28, p. 309: Desc. Burm. Hel. p. 5.—Pfeif. Mon. Helic. vol. 4, p. 792.

Girnar Hills, Gujerat.

7. **S. daucina**, Pfeif. Proc. Zool. Soc. 1854, p. 298: Mon. Helic. vol. 4, p. 810.

Calcutta.

8. **S. plicata**, Blanford, J. Asi. Soc. Beng. 1865, pt. 2, (vol. 34), p. 80: Cont. Mal. Ind. pt. 5.

Tongoop, Aracan; Pegu (var.).

9. **S. Bensoni**, Pfeiffer, Proc. Zool. Soc. 1849, p. 133: Mon. Helic. vol. 3, p. 9.

Moradabad.

10. **S. rutilans**, Blanford, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 23, pl. 3, f. 23.

Cherra Punji.

PLATE LXVIII.

SUCCINEA.

- 1, 4. **S. Baconi**, Pfeiffer, Proc. Zool. Soc. 1854, p. 298: Mon. Helic. vol. 4, p. 804.

Calcutta.

- 2, 3. **S. vitrea**, Pfeiffer, Proc. Zool. Soc. 1854, p. 298: Mon. Helic. vol. 4, p. 810.

Calcutta.

- 5, 6. *S. crassiuscula*, Benson's Mss. in Pfeif. Mon. Helic. vol. 3, p. 9.

Bundelkhund: Punjaub.

7. *S. acuminata*, Blanford, Proc. Zool. Soc. 1869, p. 449.

Momein in Yunan.

- 8, 9. *S. collina*, Blanford, Mss.

Mahabaleshwar.

10. *S. collina*, var.

PLATE LXIX.

LIMNÆA.

- 1, 4. *L. rufescens*, Gray, in Sowerby's Genera Shells, pt. 7, Limn. f. 2, and Reeve, Conch. System. pl. 191, f. 2.—*L. chlamys*, Benson, in part.

Ganges, &c., &c.

The name is infelicitous, because the reddish tint is rather abnormal than otherwise: it has however a long priority of date. Hereafter links may be discovered to unite the species with the still earlier-named *acuminata*. We suspect that eventually all the Indian forms (those of the Germanic region excepted) will be referred to *acuminata*, *luteola*, and *ovalis*.

- 2, 3. *L. rufescens*, var. *patula*.

Ganges.

Apparently the *L. patula* of Troschel in Wiegmann's Archives for 1837 (vol. 3, p. 167).

- 5, 6. *L. chlamys*, Benson, Journ. Asi. Soc. Beng. 1836, vol. 5, p. 744.

Moradabad, Benares, &c.

Runs into *rufescens*, which was apparently co-extensive as a Bensonian species. Yet as the links have not been obtained by us, this extreme form (from Benson's collection) may for convenience sake retain his appellation.

- 7, 10. *L. amygdalus*, Troschel, Wieg. Archiv. 1837, vol. 3, p. 168.—Kuster, ed. Chemn. Lim. p. 35, pl. 6, f. 15, 16.

Ganges.

Perhaps only a variety of *rufescens*, but the sutural line is not so oblique, and the colour differs.

- 8, 9. *L. acuminata*, Lamarck, Anim. s. Vert. vol. 6, pt. 2, p. 160.—Deles. Rec. Coq. Lam. pl. 30, f. 6. 30 miles S.E. of Hingola, &c.

Lamarck's Bengal specimens were probably *rufescens*,

but the shape of the individual delineated from his cabinet accords better with that which we have figured.

PLATE LXX.

LIMNÆA.

1. *L. rufescens*, Gray, var.

Some regard this abnormal form as the *L. pectinoides* of Kuster's monograph.

- 2, 3. *L. ovalis*, Gray, in Sow. Gen. Shells, pt. 7, Limn. f. 4, Reeve, Conch. Syst. pl. 191, f. 4.

Calcutta; Almorah.

4. *L. ovalis*, Gray, var. *strigata*.

Jounpore.

Has the aspect of *L. cerasum* of Troschel.

- 5, 6. *L. luteola*, Lamarck, Anim. s. Vert. vol. 6, pt. 2, p. 160.—Deles. Rec. Coq. Lam. pl. 30, f. 5.

Bengal, &c., &c.

This and *rufescens* seem diffused throughout India

- 7, 10. *L. pinguis*, Dohrn, Proc. Zool. Soc. 1858, p. 134.

Ceylon.

8. *L. pinguis*, Dohrn, var.

Calcutta.

Benson's types of his *L. bulla* (misprinted *butta*), a mere name for the almost undescribed *L. limosa*? of Hutton (J. Asi. Soc. Beng. vol. 3, 1834) chiefly belong to this form. The *L. bulla* of Kuster (ed. Chemn.) is more like the European *ovata* (*peregra* var. *ovata*). Our specimen almost unites *pinguis* with *luteola*.

9. *L. rufescens*, Gray, var. *Sylhetica*.

Marshes in Sylhet.

A rare form delineated from Benson's original type of the Sylhet variety of his *chlamys*.

PLATE LXXI.

MELANIA.

1. *M. Irawadica*, Blanford, Proc. Zool. Soc. 1869, p. 445.

Upper Irawady at Malé and Bhamo.

- 2, 3. *M. Broti*, Dohrn, in Reeve's Conch. Icon. Mel. f. 160.—*M. chocolatum*, Brot, Revue Zool. 1860, June, pl. 16, f. 2.

Ceylon.

4. *M. zonata*, Benson, Journ. Asi. Soc. Beng. 1836, vol. 5, p. 747.—Philippi, Ab. N. Conch. vol. 1, Mel. pl. 1, f. 12.—Reeve, Conch. Icon. Mel. f. 217. Sylhet.
- 5, 6. *M. Hugeli*, Philippi, Ab. N. Conch. vol. 1, p. 61, Mel. pl. 2, f. 8.—*M. siphonata*, Reeve, Conch. Icon. Melan. f. 143. Khasia Hills; Mysore.
7. *M. lineata*, Gray, Index Test. Sup. (1828), Helix, f. 68.—Trosch. in Wieg. Arch. Nat. 1837, p. 176.—*M. lirata*, Benson, Journ. Asi. Soc. Beng. 1836, vol. 5, p. 782, name only for nameless fig. D in Glean. Sci. Calcut. vol. 1 (1829).—Reeve, Conch. Icon. Mel. f. 170. River Goomty; Tenasserim, &c.
- 8, 9. *M. terebra*, Benson, Journ. Asi. Soc. Beng. 1836, vol. 5, p. 747.—Reeve, Conch. Icon. Mel. f. 9.—*M. torquata*, Busch. in Philippi Ab. N. Conch. vol. 1, Mel. pl. 1, f. 18. Sylhet.
10. *M. Riqueti*, Grateloup, Trans. Lin. Bordeaux, vol. 11, pl. 5, f. 28. Quilon, Travancore; Cochin.

According to Brot, the tornatella of Reeve, supposed by him to be identical, is not this species: his *b* is the veritable tornatella of Lea; his *a* seems the sculpta of Souleyet (Zool. Bonite), a near ally.

PLATE LXXII.

MELANIA.

- 1, 2. *M. gloriosa*, Anthony, Americ. J. of Conch. vol. 1 (1865), pt. 3, p. 207, pl. 18, f. 2. Bassein district, Pegu.
3. We had proposed the name of Goliah for this magnificent species, but as it is evidently identical with some smaller specimens which may possibly (?) prove the humerosa of Gould, or the infrapicta of Martens (so termed in Cuming's collection), we defer the naming of it until the next part of our publication.
4. *M. confusa*, Dohrn, Proc. Zool. Soc. 1858. Ceylon.

Closely allied to the Tirouri of Quoy, and the erosa of ("Lesson") Philippi.

5. *M. Herculea*, Gould, Proc. Bost. Soc. Nat. H. 1846, vol. 2, p. 110: Otia Conch. p. 199. Tavoy River.

Reeve (Conch. Icon. Mel. f. 4) has figured an *Herculea* from Ceylon! which is utterly unknown to us from that quarter.

6. *M. Peguensis*, Anthony, Amer. Journ. Conch. Pegu.
7. *M. episcopalis*, Lea, Proc. Zool. Soc. 1850, p. 184, in part. Diyang River, North Cachar Hills. See plate 75, f. 5, 7.

PLATE LXXIII.

MELANIA.

- 1, 2, 3, 4. *M. scabra*, Müller (as Buccinum s.), Hist. Verm. vol. 2, p. 136.—Chemn. Conch. Cab. f. 1259, 1260, badly, (as Helix s.).—Brug. Enc. Méth. Vers, vol. 1, p. 330 (as Bulimus s.).—Desh. ed. Lam. Anim. s. Vert. vol. 9, p. 443.—Helix aspera, Gmel. Syst. Nat. 3656.—Dillw. Cat. vol. 2, p. 950.—Wood, Ind. Testac. pl. 34, f. 141.—*M. elegans*, Reeve, Conch. Icon. Mel. f. 178. Poona; Coromandel; Cochin; River Goomti; Ceylon (fig. 3, 4), &c., &c.

A very variable shell, of which the coarser and more spinous form (f. 1) comes from Cochin and Beloochistan; the smoother and less opaque from Poona.

- 5, 6, 7. *M. scabra*, var. *elegans*.—*M. elegans*, Bens. Journ. Asi. Soc. Beng. vol. 5 (1836), p. 782, name only for the unnamed turreted form in Gleanings in Science, vol. 1 (1829), Melan. letter c.—Hutton, Journ. Asi. Soc. Beng. (vol. 17, pt. 1) 1849, p. 657. North of Oude, S. India.

Figure 6 is drawn from a shell marked by Benson as his type; figure 5 is peculiarly characteristic; figure 7 is an elongated variety, from the North of Oude.

- 8, 9. *M. Layardi*, Dohrn, Proc. Zool. Soc. 1858.—Reeve, Conch. Icon. Mel. f. 104. Ceylon.
10. *M. datura*, Dohrn, Proc. Zool. Soc. 1858.—Reeve, Conch. Icon. Mel. f. 213. Ceylon.

PLATE LXXIV.

MELANIA.

- 1, 2, 3, 4. *M. tuberculata*, Müller, Hist. Verm. pt. 2, p. 191 (as *Nerita* t.) and in Chemn. Conch. Cab. vol. 9, f. 1261, 1262.—Philippi, Ab. N. Conch. vol. 1, Mel. pl. 1, f. 19.—*Bulimus* t. Bruguière, Enc. Méth. Vers, vol. 1, p. 330.—*Strombus vibex*, Gmel. Syst. Nat. p. 3522.—Dillwyn, Desc. Cat. Sh. vol. 2, p. 950.—*Melanoides fasciolata*, Olivier, Voy. pl. 31, f. 7.

Abundantly diffused : the finest from Southern India.

- 5, 6. *M. Tirouri*, var. ? Férussac in Quoy and Gaim. Voy. Astrol. Zool. vol. 3, p. 159, pl. 56, f. 38, 39.

Puniar (or Pannaar) River, Cuddalore, S. India.

The only adult example known to us is the one here figured. It may possibly prove distinct from the species to which we doubtfully refer it, but we dare not delineate it as new. Perhaps it may be the *Helix turrita* of Chemnitz (Conch. Cab. vol. 9, pt. 2, p. 6, for *H. turrita crenulata*, p. 165, f. 1230), but it is devoid of the infrasutural crenæ.

- 7, 10. *M. rudis*, Lea, Proc. Zool. Soc. 1850, p. 186.—Reeve, Conch. Icon. Mel. f. 172.

Ceylon.

A very close approach to the spineless form of *Broti*. The *M. microstoma* of Lea, ascribed to Ceylon by Brot (not by Lea), and considered identical by some writers, does not agree with the specimen here delineated.

- 8, 9. *M. Batana*, Gould, Proc. Bost. Soc. Nat. H. vol. 1, p. 144 : *Otia* Conch. p. 191.

Tenasserim.

PLATE LXXV.

MELANIA.

- 1, 4. *M. baccata*, Gould, Proc. Bost. Soc. Nat. Hist. vol. 2, p. 219 ; *Otia* Conch. p. 200.

Thoungyin River, Birmah.

2. *M. baccata*, Gould, var. *fusiformis*.
Shan States.

3. *M. baccata*, Gould, var. *pyramidalis*.—*M. variabilis*, var. *pyramidalis*, Theobald, Journ. Asi. Soc. Beng. vol. 34, pt. 2 (1865), pl. 19, f. 7.

Shan States.

- 5, 7. *M. episcopalis*, Lea, Proc. Zool. Soc. 1850, p. 184, in part.—Reeve, Conch. Icon. Mel. f. 12.

Diyung River, North Cachar.

This is not the *episcopalis* of the Conchological Mis-

cellany (from Borneo), which, formerly confused with it, has been termed *Brookei* by Reeve (C. Icon Mel. f. 207).

6. *M. variabilis*, var. *spinosa*.—*M. spinosa*, Benson, in Hanley's Conch. Miscel. Mel. pl. 1, f. 7 (small form).—*M. variabilis*, var. *B.* Benson, Journ. Asi. Soc. Beng. vol. 5, p. 746.

River Jumna ; Sylhet, &c.

The spire in perfect examples of this rare form is wont to be quite smooth : the character, however, is not invariable.

PLATE LXXVI.

PALUDINA.

- 1, 4. *P. Naticoides*, Theobald, Journ. Asi. Soc. Beng. vol. 34, 1865, pt. 2, pl. 9, f. 1, 2, 3.

Shan States.

- 2, 3. *P. crassa*, Hutton Mss. in Benson Journ. Asi. Soc. Beng. vol. 5, 1836, p. 745.—Reeve, Conch. Icon. Palud. f. 33.—*P. obtusa*, Troschel, Wiegmann. Arch. Nat. Hist. 1837, p. 173.—Philippi, N. Conch. vol. 1, p. 116, Pal. pl. 1, f. 14.—Reeve, Conch. Icon. Palud. f. 33.

Bengal.

Varies much in elevation of spire.

5. *P. oxytropis*, Benson, Journ. Asi. Soc. Beng. vol. 5 (1836), p. 745.—Reeve, Conch. Icon. Palud. f. 9.—*P. pyramidata*, Philippi, Ab. N. Conch. vol. 1, Pal. pl. 1, f. 3, 4.—Kust. ed. Chemn. Palud. pl. 6, f. 1, 2.

Bengal (teste Reeve and Philippi).

Still very rare : figured from the original type.

6. *P. lecythis*, Benson, Journ. Asi. Soc. Beng. vol. 5 (1836), p. 745.

Upper Birmah.

We have figured the almost unique type.

7. *P. lecythis*, var. *ampulliformis*, Benson.—*P. ampulliformis*, Eydoux and Souleyet, Voy. Bonite, Zool. p. 549, pl. 31, f. 25, 26, 27.

Upper Birmah.

Only differs from the type by the absence of the infrasutural angle.

- 8, 9, 10. *P. Bengalensis*, Lamarck, Anim. s. Vert. (ed. Desh.) vol. 8, p. 513.—Deles. Rec. Coq. Lam. pl. 31, f. 2.—Reeve, Conch. Icon. Palud. f. 5.—Kust. ed. Chemn. Palud. f. 15, 16.—*P. elongata*, Swains. Zool. Ill. ser. 1, pl. 98, top.—*P. lineata*, Valenc. in Humb. & Bonpl. Voy. Zool. vol. 2, p. 255.

Ganges, &c.

Under this name Deshayes has figured a shell in Bélanger's voyage (Ind. Orient. Zool. p. 419, Moll. pl. 1, f. 14, 15) which differs remarkably from the ordinary type. Our figure 10 is from a rather uncommon variety.

PLATE LXXVII.

PALUDINA.

- 1, 2. *P. Ceylanica*, Dohrn, Proc. Zool. Soc. 1857, p. 123.—Reeve, Conch. Icon. Palud. f. 32.

Ceylon.

Possibly identical with the *P. biangulata* of Kuster.

- 3, 4. *P. dissimilis*, Müller, Hist. Verm. pt. 2, p. 184 (as *Neritad.*).—Schröter, Einleit. Conch. vol. 2, p. 254, pl. 4, f. 10, (ditto).—*Helix d.* Gmelin, Syst. Nat. 3647.—Dillwyn, Des. Cat. p. 941 (ditto).—*P. Remossii*, Kuster, (not Philippi) ed. Chemn. Palud. p. 26, pl. 5, f. 17, 18.

Tanks near Calcutta; Kondooruwave, &c.

This shell was fairly figured by Chemnitz as the Tranquebar variety of the *Helix vivipara* of Linnæus. The *P. dissimilis* of Reeve was not Indian, but from the Nile, and is not unlike unicolor: his melanostoma (*C. Icon. Pal. f. 27*) is regarded by Martens as a form of this species.

5. *P. Bengalensis*, Lamarck, var. *gigantea*.—*P. gigantea*, Von dem Busch, in Reeve's Conch. Icon. Palud. f. 7.

Bengal.

A swollen form of this widely diffused species.

6. *P. doliaris*, Gould, Proc. Bost. Soc. Nat. Hist. vol. 1, p. 144; *Otia Conch.* p. 191.—Reeve, Conch. Icon. Palud. f. 1.

British Birmah.

- 7, 10. *P. Heliciformis*, Frauenfeld, Verhandl. Zool. Bot. Wien, vol. 15 (1865), p. 533, pl. 22 (as *Vivivipara H.*): *Zool. Misc.* pt. 5.—*P. dissimilis*, var. *decussatula*, or *P. decussatula*, Blanford, Proc. Zool. Soc. 1869, p. 446.

Ava; Rangoon.

Comparison of the types shows their absolute identity. The specimen originally described was supposed to have come from Central Africa. The spire is usually eroded.

- 8, 9. *P. Remossii*, Philippi (erroneously as of Benson), Abbild. N. Conch. vol. 2, p. 134, Palud. pl. 2, f. 3.

Jounpore, Soobathur, &c.

We are aware that Benson supposed "*Remossii*" was an incorrect reading of his manuscript name

"*præmorsa*," yet as the species actually published under the latter designation by Reeve is much more like *dissimilis*, and the shell here delineated was the melanostoma of Hutton according to Benson's collection, we prefer to retain the printed name. It matters little, indeed, to science whether or not a Monsieur Remosse ever existed; much to science that published names should not be changed without the most absolute necessity. The *P. melanostoma* of Reeve (?= *dissimilis*) does not exhibit the dark-lipped mouth; no definition of Hutton's shell has, to our knowledge, appeared in print.

PLATE LXXVIII.

ACHATINA: Section Electra.

See previous plates, xvii, xviii, xxxv, xxxvi.

1. *A. pulla*, Blanford, Journ. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 21, pl. 3, f. 20 (as *Glessula p.*)

Torna.

2. *A. Hugeli*, Pfeiffer, Mon. Helic. vol. 2, p. 259.—*Glandina H.* Philip. Ab. Neuer Conch. vol. 1, p. 135, *Glandina*, pl. 1, f. 8.

Cashmire.

3. *A. Tornensis*, Blanford, Journ. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 22, pl. 3, f. 22 (as *Glessula*.)

Torna Hill, near Poona, Deccan.

4. *A. Sattaraensis*, H. Adams, Mss. for his *A. fusca*, Proc. Zool. Soc. 1868, p. 15, pl. 4, f. 10 (preoccupied).

Saharumpore, Ceylon.

This is not the *A. fusca* of Pfeiffer, which is near, if not identical with the *parabilis* of Benson.

5. *A. crosa*, Blanford, Journ. Asi. Soc. Beng. 1871, (vol. 40, pt. 2), p. 43, pl. 2, fig. 7 (as *Glessula e.*)

Darjiling.

6. *A. baculina*, Blanford, Journ. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 43, pl. 2, f. 6 (as *Glessula b.*)

Khersiong, Sikkim Himalayah.

7. *A. Singhurensis*, Blanford, Journ. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 19, pl. 3, f. 17 (as *Glessula S.*)

Singhur, near Poona, Deccan.

8. *A. serena*, Benson, Ann. Nat. Hist. 1860, ser. 3, vol. 5, p. 384, 460.—Pfeif. Mon. Helic. vol. 6, p. 223.

Ceylon.

9. *A. Oreas*, Benson, in Reeve's Conch. Icon. Achat. f. 113.—Pfeif. Mon. Helic. vol. 3, p. 495?

Nilgherries.

The single and slightly broken shell figured by Reeve must be regarded as the type, but as Pfeiffer's description does not well apply to it, and Benson had another species mixed with it, it is probable the specimen he lent Pfeiffer was not the original.

10. **A. Jerdoni**, Benson, in Reeve's Conch. Icon. Ach. f. 80.—Pfeif. Mon. Helic. vol. 3, p. 495.
Nilgherries.

PLATE LXXIX.

SPIRAXIS, &c.

See previous plates xix to xxiii.

1. **S. Cingalensis**, Benson, Ann. Nat. Hist. 1863, Feb. (ser. 3, vol. 11) p. 91.—Pfeif. Mon. Helic. vol. 6, p. 191.
Weelgamowe, Mattelle, Ceylon.
The apex of the unique example (which looks like a *Syrnola*) is broken off. Under *Spiraxis* authors have grouped most utterly different forms.
- 2, 3. **S. Layardi**, Benson, Ann. Nat. Hist. (ser. 3, vol. 11) 1863, Feb. p. 90.—Pfeif. Mon. Helic. vol. 6, p. 190.
Ceylon.
4. **S. Walkeri**, Benson, Ann. Nat. Hist. 1863, (ser. 3, vol. 11) p. 90.—Pfeif. Mon. Helic. vol. 6, p. 189.
Port Blair, Andamans.
5. **S. Haughtoni**, var. Benson.
The *Opeas* *Pealei* of Tryon (Americ. J. of Conch. vol. 5, p. 110, pl. 10, f. 5) is an additional synonym of this rare species.
6. **Bulimus densus**, Pfeiffer, Malak. Blat. 1855, p. 144: Mon. Helic. vol. 4, p. 424.
Malabar.
7. **B. latebricola**, Benson, in Reeve's Conch. Icon. Bulim. f. 572.—Pfeif. Mon. Helic. vol. 3, p. 401; Kust. ed. Chemn. Bul. pl. 20, f. 5, 6.
Landour, W. Himalayah.
8. **S. pusillus**, Blanford, Journ. Asi. Soc. Beng. vol. 34, 1865, p. 78: Cont. Mal. pt. 5.—Pfeif. Mon. Helic. vol. 6, p. 192.
Prome, Pegu.
9. **B. scrobiculatus**, Blanford, Journ. Asi. Soc. Beng. 1865 (vol. 34), p. 77: Cont. Mal. pt. 5, p. 13.—Pfeif. Mon. Helic. vol. 6, p. 151.
Pegu, west of the Irawady.
10. **S. hebes**, W. and H. Blanford, Journ. Asi. Soc. Beng. 1861, p. 361, pl. 1, f. 15: Cont. Mal. pt. 2.—Pfeif. Mon. Helic. vol. 6, p. 190.
Nilgherries.

PLATE LXXX.

BULIMUS.

See previous plates xix to xxiii.

1. **B. cœlebs**, Benson's Ms. in Pfeif. Symbol. pt. 3, p. 83: Mon. Helic. vol. 2, p. 119.—Reeve, Conch. Icon. Bulim. f. 301.
Near Almorah, Bengal; Landour and Kemaon, W. Himalayah.
2. **B. cœlebs**, var. *ceratina*.—*B. ceratinus*, Bens. in Reeve's Conch. Bulim. f. 569.
Almorah; Kemaon, W. Himalayah.
3. **B. proletarius**, Pfeiffer, Proc. Zool. Soc. 1854, p. 292: Mon. Helic. vol. 4, p. 417.
Ceylon.
4. **B. trutta**, Blanford, Journ. Asi. Soc. Beng. vol. 36, 1866, p. 42: Cont. Mal. pt. 6, p. 12.—Pfeif. Mon. Helic. vol. 6, p. 125.
Anamullay Hills.
5. **B. Bontiaë**, Chemnitz, Conch. Cab. vol. 9, f. 1216, 1217 (as *Helix*).—Pfeif. Mon. Helic. vol. 2, p. 194: Kust. ed. Chemn. Bul. pl. 10, f. 8, 9.
Southern India.
6. **B. lepidus**, Gould, Proc. Bost. Soc. Nat. H. 1856, p. 11: Otia Conch. p. 219.—Pfeif. Mon. Helic. vol. 6, p. 33.
Mergui Isles.
Except in being shorter, with more rounded whorls, and without a notch at the commencement of the pillar-lip, it might be taken for *Syllheticus*.
7. **B. Bengalensis**, Lamarck, Anim. s. Vert. (ed. Desh.) vol. 8, p. 233.—Deles. Rec. Coq. Lam. pl. 28, f. 1.—Pfeif. Mon. Helic. vol. 2, p. 194.—Reeve, Conch. Icon. Bulim. f. 289.
Bengal.
8. **B. plicifer**, Blanford, Journ. Asi. Soc. Beng. vol. 34, 1865, pt. 2, p. 78: Cont. Mal. pt. 5.—Pfeif. Mon. Helic. vol. 6, p. 102.
Prome, Pegu.
9. **B. putus**, Benson, Ann. Nat. Hist. ser. 2, vol. 19, 1857, April.—Pfeif. Mon. Helic. vol. 4, p. 502.
Tavoy.
10. **B. segregatus**, Benson, in Reeve's Conch. Icon. Bulim. f. 587.
Simla, W. Himalayah; Cashmire.

PLATE LXXXI.

**ANCYLUS, CAMPTONYX, LITHOTIS,
LITHOGLYPHUS.**

- 1, 4. **A. Ceylanicus**, Benson, An. Nat. Hist. 1864, ser. 3, vol. 13, p. 139.
Matelle, Ceylon.
- 2, 3. **A. verruca**, Benson, An. Nat. Hist. 1855, ser. 2, vol. 15, p. 12.
Bhimthal, Rohilkhund, Orissa: Jawai, Cachar.
- 5, 6. **C. Theobaldi**, Benson, An. Nat. Hist. 1858, ser. 3, vol. 1, p. 336, pl. 12, f. 1, 2.—Valenciennesia T. Fischer, Jour. Conch. 1859, vol. 7, p. 319.
Mount Girnar, Kattiawar, W. India.
7. **Lithotis rupicola**, Blanford, An. Nat. Hist. 1863, ser. 3, vol. 12, p. 186, pl. 4, f. 8, 9, 10.
Bori Ghah.
- 8, 9. **L. tumida**, Blanford, Jour. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 23, pl. 3, f. 24.
Singhur and Poorundjhur (subcostulate var.).
10. **Lithoglyphus Martabanensis**, Theobald, Jour. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 402, pl. 18, f. 9.
Martaban.

PLATE LXXXII.

CYATHOPOMA.

- 1, 4. **C. Malabaricum**, W. and H. Blanford, J. Asi. Soc. Beng. 1860 (Cont. Mal. pt. 1, p. 9), as Cyclostus.—Pfeif. Mon. Pneum. vol. 3, p. 32 (as Cyclostus).—W. Blanford, J. Conch. 1868, vol. 16, p. 261, pl. 12, f. 7 (as Cyath.).
Near Pykara.
The colour is solely in the epidermis.
- 2, 3. **C. filocinctum**, Benson, An. Nat. Hist. 1851, ser. 2, vol. 8, p. 188 (as Cyclostoma).—Pfeif. Mon. Helic. vol. 1, p. 221 (as ? Cyclostomus); vol. 2, p. 25 (as Cyclostus).—Blanf. J. Conch. 1868, vol. 16, p. 258, pl. 12, f. 1.—Reeve, Conch. Icon. Cyclost. f. 50 (as Cyclostus).
Nilgherries, Southern India.
- 5, 6. ? **C. malleatum**, Blanford, J. Asi. Soc. Beng. 1861 (vol. 30), p. 349, pl. 1, f. 6 (as Cyclophorus).—Pfeif. Mon. Pneumon. vol. 3, p. 71 (as Cyclop.).
Shevroy Hills, S. India.

We have doubtfully referred this shell to *Cyathopoma*, from its greater resemblance to the species here figured than to the *Cyclophori*: its operculum is unknown to us.

- 7, 10. **C. tignarium**, Benson, An. Nat. Hist. 1863, Dec. (ser. 3, vol. 12) p. 426 (as ? Cyath.).—Pfeif. Mon. Pneum. vol. 3, p. 33 (as Cyclostus).—Blanford, J. Conch. 1868, vol. 16, p. 263, pl. 12, f. 9.
Andaman Islands.

- 8, 9. **C. Deccanense**, Blanford, Journ. Conch. 1868, vol. 16, p. 258, pl. 12, f. 2.
Western Ghâts, not far from Bombay.

PLATE LXXXIII.

HELIX.

See previous plates, xiii. to xvi.; xxv. to xxxii.;
1. to lxiv.

- 1, 2, 3. **H. castra**, Benson, An. Nat. Hist. 1852 (ser. 2, vol. 10), p. 349.—Reeve, Conch. Icon. f. 1160.—Pfeif. Mon. Helic. vol. 3, p. 635.
Darjiling, Sikkim Himalayah.

The minute spiral striæ on the lower disk, near the keel, cannot be represented by lithography.

- 4, 7. **H. sanis**, Benson, An. Nat. Hist. 1861 (ser. 3, vol. 7), p. 84.—Pfeif. Mon. Helic. vol. 5, p. 186.
Port Blair, Andamans: Shan Provinces.

The lower disk has no spiral sculpture, but when very highly magnified seems rugosely shagreened. The keel seems too broad in figure 4.

- 5, 6. **H. galerus**, Benson, An. Nat. Hist. 1856 (ser. 2, vol. 18), p. 96.—Pfeif. Mon. Helic. vol. 4, p. 111.

Ceylon.

The base resembles that of *H. castra*.

- 8, 9, 10. **H. macromphalos**, Blanford, Jour. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 17, pl. 3, f. 14 (as *Plectopylis*).

Marung in Khasi Hills: small var. from Darjiling.

PLATE LXXXIV.

HELIX.

1, 4. *H. pinacis*, Benson. See previous reference, pl. 13, f. 5.

2, 3. *H. Atkinsoni*, Theobald. See previous reference, pl. 15, f. 9.

The surface is adorned, both above and below, with very fine and close riblets, which, under a powerful glass, appear subarticulated.

5, 6. *H. Ataranensis*, Theobald, J. Asi. Soc. Beng. 1870 (vol. 39, pl. 2), p. 401, pl. 18, f. 7 (as *Nanina*).

Near the river Ataran, in Martaban.

7. *H. Gardeneri*, Pfeiffer, in Kust. ed. Chemn. Helix, pl. 112, f. 12, 13: Mon. Helic. vol. 1, p. 47.—Reeve, Conch. Icon. Helix, f. 446.

Ceylon.

8, 9, 10. *H. arata*, Blanford, Proc. Zool. Soc. 1869, p. 445 (as *Nanina*, section *Rotula*).

Near Bhamo, Birmah.

PLATE LXXXV.

HELIX.

1, 4. *H. convexa*, Reeve (as of Benson), Conch. Icon. Hel. f. 762, for *H. monticola* of Pfeif. (erroneously Hutton) in Kust. ed. Chemn. Hel. pl. 160, f. 3–5. Himalayah.

2, 3. *H. ruginosa*, Férussac, Hist. Moll. pl. 71, f. 4 (*Helicella*).—Pfeif. Mon. Helic. vol. 1, p. 368: Kust. ed. Chemn. Helix, pl. 76, f. 7 to 10.—Reeve, Conch. Icon. Helix, f. 748.

Bengal.

5, 6. *H. partita*, Pfeif. Proc. Zool. Soc. 1853, p. 125: Mon. Helic. vol. 4, p. 55.—Reeve, Conch. Icon. Helix, f. 1311 (badly).

Ceylon.

Reeves's *H. subopaca* seems a mere variety.

7, 10. *H. subconoidea*, Pfeiffer, Proc. Zool. Soc. 1854, p. 51: Mon. Helic. vol. 4, p. 56, and vol. 5, p. 113.—Reeve, Conch. Icon. Helix, f. 1326.

Ceylon.

8, 9. *H. fallaciosa*, Férussac, Hist. Moll. pl. 71, f. 1, 2 (as *Helicella*).—Pfeif. Mon. Helic. vol. 1, p. 368.—Reeve, Conch. Icon. Helix, f. 459.

Coimbatore, Khoondah Hills: Ceylon.

Very like *asperella*, but is smooth.

PLATE LXXXVI.

HELIX.

1. *H. concavospira*, Pfeif. Proc. Zool. Soc. 1853, p. 124: Mon. Helic. vol. 4, p. 32.—Reeve, Conch. Icon. Helix, f. 1315.

Ceylon.

2, 3. *H. Zoroaster*, var. *concolor*, Theobald, Journ. Asi. Soc. Beng. 1859 (vol. 28), p. 310: Desc. Birm. p. 2.

Near the Irawadi, between Prome and Ava.

4. *H. turritella*, Adams (as *Nanina*), Proc. Zool. Soc. 1869, p. 275, for his *Nanina conulus* (pre-occupied), Proc. Zool. 1867, p. 307, pl. 19, f. 16.

Ceylon.

5, 6. *H. Angelica*, Pfeif. Proc. Zool. Soc. 1856, p. 33: Mon. Helic. vol. 4, p. 123: Novit. pl. 21, f. 4, 5, 6.

Punjaub.

7. *H. Attegia*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 184.—Pfeif. Mon. Helic. vol. 5, p. 91: Novit. pl. 78, f. 17, 18, 19.

Phie Than, Tenasserim.

8, 9, 10. *H. fritillata*, Benson, An. Nat. Hist. 1863 (ser. 3, vol. 11), p. 320.—Pfeif. Mon. Helic. vol. 5, p. 247.

Pegu.

PLATE LXXXVII.

HELIX.

1, 4. *H. orcula*, Benson, An. Nat. Hist. 1850 (ser. 2, vol. 6), p. 251.—Pfeif. Mon. Helic. vol. 3, p. 42.—Reeve, Conch. Icon. Hel. f. 1176.

Bengal, Behar, &c.

- 2, 3. *H. mononema*, Benson, An. Nat. Hist. 1853 (ser. 2, vol. 12), p. 92.—Pfeif. Mon. Helic. vol. 4, p. 37.—Reeve, Conch. Icon. f. 1339.

Ceylon.

- 5, 6. *N. Pirrieana*, Pfeif. Proc. Zool. Soc. 1854, p. 55: Mon. Helic. vol. 4, p. 154, and vol. 6, p. 417.—Reeve, Conch. Icon. Helix, f. 1341.

Walaghat in Koondah Hills.

7. *H. Barrakporensis*, Pfeiffer, Proc. Zool. Soc. 1852, p. 156: Mon. Helic. vol. 3, p. 59, and vol. 5, p. 86.

Barrakpore.

- 8, 9. *N. retifera*, Pfeiffer, Proc. Zool. Soc. 1845, p. 13: Mon. Helic. vol. 1, p. 119.—Reeve, Conch. Icon. Helix f. 1170.—Blanford, An. Nat. Hist. 1861 (ser. 3, vol. 7), p. 244 (as *Plectopylis*).

Nilgherries.

10. *N. macropleuris*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 5), p. 265.—Pfeif. Mon. Helic. vol. 5, p. 183, and Mal. Blät, 1859, p. 24.

Rungun Valley, near Darjiling.

PLATE LXXXVIII.

HELIX.

- 1, 4. *H. compluvialis*, Blanford, Journ. Asi. Soc. Beng. 1865, pt. 2 (vol. 34), p. 66: Cont. Mal. pt. 5. Aracan Hills.

- 2, 3. *H. convallata*, Benson, An. Nat. Hist. 1856, (ser. 2, vol. 18), p. 250.—Pfeif. Mon. Helic. vol. 4, p. 46: Novit. Conch. vol. 1, pl. 36, f. 14, 15, 16.

Birmah.

- 5, 6. *H. consepta*, Benson, An. Nat. Hist. 1860 (ser. 3, vol. 6), p. 190, and 1863, (ser. 3, vol. 11), p. 320.—Pfeif. Mon. Helic. vol. 5, p. 239.

Near Moulmein.

- 7, 10. *H. petrosa*, Hutton, Journ. Asi. Soc. Beng. 1834 (vol. 3), p. 84, for *Helix* no. 3 (from type).—Pfeif. Mon. 1, p. 56.—*H. vitrinoides*, Pfeif. (not Desh.) Mon. 1, p. 56.

Bengal.

Indian collectors term this fragile species *H. vitrinoides*, and it suits part of the figures (pl. 110, f. 11, 12), which illustrate that shell in Kuster's "Chemnitz."

It is certainly not the true *vitrinoides* of Deshayes figured without known locality in Guérin's "Magasin de Zoologie."

- 8, 9. *H. cycloidea*, Albers, Malak. Blätt. 1857 (vol. 4), p. 89, pl. 1, f. 1, 2, 3.—Pfeif. Mon. Helic. vol. 4, p. 43.

Near Moulmein.

PLATE LXXXIX.

HELIX.

- 1, 2, 3. *H. umbrina*, Pfeiffer, Mon. Helic. vol. 4, p. 49.—Reeve, Conch. Icon. Helix, f. 1335.

Ceylon.

- 4, 5, 6. *H. vilipensa*, Benson, An. Nat. Hist. 1853 (ser. 2, vol. 12), p. 93.—Pfeif. Mon. Helic. vol. 4, p. 49.

Ceylon.

- 7, 10. *H. tenuicula*, Adams, Proc. Zool. Soc. 1868, p. 14, pl. 4, f. 9 (as *Macrochlamys*).

Sattara, Bombay.

- 8, 9. *H. Petasus*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 388.—Pfeif. Mon. Helic. vol. 5, p. 97.

Phie Than, Tenasserim.

PLATE XC.

HELIX.

- 1, 4. *H. levicula*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 391.—Pfeif. Mon. Helic. vol. 5, p. 48.

Phie Than, Tenasserim.

- 2, 3. *H. causia*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 388.—Pfeif. Mon. Helic. vol. 5, p. 118.

Phie Than, Tenasserim.

- 5, 6. *H. mucosa*, W. and H. Blanford, Journ. Asi. Soc. Beng. 1861 (vol. 30), p. 353, pl. 1, f. 11.—Pfeif. Mon. Helic. vol. 5, p. 51.

Near Pykara, at Coonor Ghát and Seegoor Ghát, Nilgherries.

- 7, 8, 9. *H. pauxillula*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 390.—Pfeif. Mon. Helic. vol. 5, p. 119.

Thyet Myo.

This is not identical with the species so named by Gould (Exped. Shells, p. 40).

10. *H. honesta*, Gould, (not Reeve) Proc. Bost. Soc. N. H. vol. 2, p. 99.—Pfeif. Mon. Helic. vol. 4, p. 63.

Tavoy : Aracan Hills, Pegu.

PLATE XCI.

A L Y C Æ U S.

- 1, 4. *A. Feddenianus*, Theobald, Journ. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 397, pl. 18, f. 4.
Shan States, and Upper Salwen.

- 2, 3. *A. amphora*, Benson, An. Nat. Hist. 1856, ser. 2, vol. 17, p. 226.—Pfeif. Mon. Pneum. vol. 2, p. 34; Novit. vol. 1, pl. 35, f. 15, 16.
Moulmein, and Tenasserim.

- 5, 6. *A. pyramidalis*, Benson, An. Nat. Hist. 1856, ser. 2, vol. 17, p. 225.—Pfeif. Mon. Pneum. vol. 2, p. 225; Novit. Conch. vol. 1, pl. 35, f. 13, 14.
Therabuin Hill, Tenasserim, Birmah.

- 7, 10. *A. Andamaniæ*, Benson, An. Nat. Hist. 1861, ser. 3, vol. 7, p. 28.—Pfeif. Mon. Pneum. vol. 3, p. 47.
Port Blair, Andaman Islands.

- 8, 9. *A. urnula*, Benson, An. Nat. Hist. ser. 2, vol. 11 (1853), p. 284.—Pfeif. Mon. Pneum. vol. 2, p. 34.
Darjiling, Himalayah.

PLATE XCII.

A L Y C Æ U S.

- 1, 4. *A. stylifer*, Benson, An. Nat. Hist. ser. 2, vol. 19 (1857), p. 204.—Pfeif. Mon. Pneum. vol. 2, p. 37; Novit. vol. 1, pl. 35, f. 24-27.
Darjiling, Sikkim Himalayah.

- 2, 3. *A. prosectus*, Benson, An. Nat. Hist. ser. 2, vol. 19 (1857), p. 203.—Pfeif. Mon. Pneum. vol. 2, p. 36; Novit. vol. 1, pl. 35, f. 21-23.
Teria Ghât, Khasia Hills.

- 5, 6. *A. physis*, Benson, An. Nat. Hist. ser. 3, vol. 3 (1859), p. 179.—Pfeif. Mon. Pneum. vol. 3, p. 48.
Rungun Valley, near Darjiling.

- 7, 10. *A. Ingrami*, Blanford, Journ. Asi. Soc. Beng. 1862, vol. 31, p. 135.—Pfeif. Mon. Pneum. vol. 2, p. 48.
Near Tongoop, Aracan.

- 8, 9. *A. umbonalis*, Benson, An. Nat. Hist. 1856, ser. 2, vol. 17, p. 225.—Pfeif. Mon. Pneum. vol. 2, p. 36; Novit. Conch. vol. 1, pl. 35, f. 18, 19, 20.
Akaouktoung, near Irawadi, Birmah.

PLATE XCIII.

A L Y C Æ U S.

- 1, 4. *A. bifrons*, Theobald, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 396, pl. 18, f. 1.
Shan States.

- 2, 3. *A. strangulatus*, Hutton, Mss. in Pfeif. Zeitschr. Malak. 1846, p. 86.—Pfeif. Mon. Pneum. vol. 1, p. 120; Kuster, ed. Chemn. Cyclost. pl. 17, f. 7, 8, and pl. 38, f. 35.
Landour.

- 5, 6. *A. hebes*, Benson, An. Nat. Hist. ser. 2, vol. 19 (1857), p. 204.—Pfeif. Mon. Pneum. vol. 2, p. 37; Novit. pl. 35, f. 28-31.
Teria Ghât, Khasia Hills.

7. *A. gemmula*, Benson, An. Nat. Hist. ser. 3, vol. 3, (1859), p. 179.—Pfeif. Mon. Pneum. vol. 3, p. 52.
Rungun Valley.

- 8, 9. *A. humilis*, Blanford, J. Asi. Soc. Beng. 1862, vol. 31, p. 136; Cont. Mal. pt. 3.—Pfeif. Mon. Pneum. vol. 3, p. 49.

Akaouktoung, on the banks of the Irawadi: near Myanoung.

10. *A. armillatus*, Benson, An. Nat. Hist. 1856, ser. 2, vol. 17, p. 227.—Pfeif. Mon. Pneum. vol. 2, p. 37.
Thyet Myo, near river Irawadi, Birmah.

PLATE XCIV.

ALYCÆUS.

- 1, 2, 3. *A. politus*, Blanford, J. Asi. Soc. Beng. 1865, vol. 34, p. 83.
Phoungdo, near Cape Negrais, Aracan.
- 4, 7. *A. nitidus*, Blanford, J. Asi. Soc. Beng. 1862, vol. 31, p. 141.—Pfeif. Mon. Pneum. vol. 3, p. 51.
Tongoop, Aracan.
- 5, 6. *A. Richthofeni*, Blanford, J. Asi. Soc. Beng. 1863, vol. 32, p. 324.
Moulmein.
- 8, 9, 10. *A. Avæ*, J. Asi. Soc. Beng. vol. 32 (1863), p. 323.
Hills E. of Mandelay, and Ava.

PLATE XCV.

ALYCÆUS.

- 1, 4. *A. constrictus*, Benson, An. Nat. Hist. ser. 2, vol. 8 (1851), p. 188 (as Cyclostoma); vol. 10, p. 272.—Pfeif. Mon. Pneum. vol. 2, p. 35: Kuster ed. Chemn. Cyclos. pl. 49, f. 24, 25.
Darjiling, Sikkim Himalayah.
- 2, 3. *A. bembex*, Benson, An. Nat. Hist. ser. 3, vol. 3 (1859), p. 178.—Pfeif. Mon. Pneum. vol. 3, p. 46.
Rungun Valley, near Darjiling, Himalayah.
- 4, 6. *A. otiphorus*, Benson, An. Nat. Hist. ser. 3, vol. 3 (1859), p. 178.—Pfeif. Mon. Helic. vol. 3, p. 46.
Pankabari; Rungun Valley, near Darjiling, Himalayah.
- 7, 8, 9. *A. graphicus*, Blanford, J. Asi. Soc. Beng. 1862, vol. 31, p. 137.—Pfeif. Mon. Pneum. vol. 3, p. 46.
Aracan Hills.
- Our figure 7, represents the variety from the Shan States, referred to by Theobald (J. Asi. Soc. Beng. 1870), vol. 39, pt. 2, p. 398, pl. 18, f. 3.
- 10, and pl. 97, f. 7. *A. margarita*, Theobald, MSS.

Shan Provinces.

Although very near *graphicus*, differs in form, sculpture, and colouring.

PLATE XCVI.

ALYCÆUS.

- 1, 4. *A. cucullatus*, Theobald, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 396, pl. 18, f. 2.
Shan States.
- 2, 3. *A. polygonoma*, Blanford, J. Asi. Soc. Beng. 1862, vol. 31, p. 140.—Pfeif. Mon. Pneum. vol. 3, p. 51.
Aracan Hills.
- 5, 6. *A. plectocheilus*, Benson, An. Nat. Hist. ser. 3, vol. 3, (1859), p. 180.—Pfeif. Mon. Pneum. vol. 3, p. 53.
Rungun Valley.
- 7, 10. *A. succineus*, Blanford, J. Asi. Soc. Beng. 1862, vol. 31, p. 139.—Pfeif. Mon. Pneum. vol. 3, p. 50.
Aracan Hills.
- 8, 9. *A. Vulcani*, Blanford, J. Asi. Soc. Beng. 1863, vol. 32, p. 323.—Pfeif. Mon. Pneum. vol. 3, p. 47.
Peak of Puppa in Ava.

PLATE XCVII.

ALYCÆUS.

- 1, 4. *A. crenulatus*, Benson, An. Nat. Hist. ser. 3, vol. 3, (1859), p. 180.—Pfeif. Mon. Pneum. vol. 3, p. 55.
Rungun Valley.
- 2, 3. *A. Theobaldi*, Blanford, J. Asi. Soc. Beng. 1862, vol. 31, p. 142.—Pfeif. Mon. Pneum. vol. 3, p. 49.
Khasi Hills.
- 5, 6. *A. sculptilis*, Benson, An. Nat. Hist. 1856, ser. 2, vol. 17, p. 226.—Pfeif. Mon. Pneum. vol. 2, p. 35.
Thyet Myo, near Irawadi, not far from the boundary of British Birmah.
7. *A. margarita*, Theobald, see plate 95, f. 10.
- 8, 9, 10. *A. glaber*, Blanford, J. Asi. Soc. Beng. 1865, vol. 34, p. 84: Cont. Mal. pt. 5.
Akyab, Aracan Hills, S. of harbour.

PLATE XCVIII.

STREPTAXIS.

See previous plate, viii.*

- 1, 4. *S. Layardiana*, Benson, An. Nat. Hist. 1853 (ser. 2, vol. 12), p. 90.—Pfeif. Mon. Helic. vol. 4, p. 332.
Ceylon.

* In Plate viii. the figures 5 and 10 were erroneously transposed.

- 2, 3. **S. Cingalensis**, Benson, An. Nat. Hist. 1853 (ser. 2, vol. 12), p. 91.—Pfeif. Mon. Helic. vol. 4, p. 333.

Ceylon.

- 5, 6. **S. Peroteti**, Petit, Revue Zool. Cuv. 1841, p. 100 (as Helix).—Pfeif. Mon. Helic. vol. 3, p. 288, Kust. ed. Chemn. pl. 143, f. 29, 30, 31.

Nilgherries.

7. **S. solidula**, Stoliczka, J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 166, pl. 7, f. 10.

Near Moulmein.

- 8, 9, 10. **S. exacuta**, Gould, Proc. Bost. vol. 6 (1856): Otia Conch. p. 220.—Pfeif. Mal. Blät. 1856, (vol. 3) p. 258: Mon. Helic. vol. 4, p. 331.

Mergui, Birmah.

The abrupt increase of the antepenult whorl, and the smoothness of the base towards the mouth, easily distinguish the species from *S. Sankeyi*. The ribs, moreover, are coarser, and a second, though minute parietal lamella, surmounts the principal one.

PLATE XCIX.

PLANORBIS.

See previous plates, xxxix, xl.

- 1, 4. **P. compressus**, Hutton, J. Asi. Soc. Beng. vol. 3, p. 91 (No. 3), 93.—Bens. J. Asi. Soc. Beng. vol. 5, p. 743.—Martens, Malak. Blät. vol. 14, p. 213.

Ganges, &c.

The *P. Tondanensis* of Mousson is now regarded by that writer as a synonym.

- 2, 3. **P. rotula**, Benson, An. Nat. Hist. 1850, ser. 2, vol. 5, p. 351.

Near Moradabad.

- 5, 6, 7. **P. hyptiocyclos**, Benson, An. Nat. Hist. 1863, ser. 3, vol. 11, p. 89, and Pfeif. Mon. Helic. vol. 5, p. 117 (as Helix).

Fort M'Donald, Ceylon.

Despite of its supposed habitat, there can be no doubt as to the generic allocation. We have figured Benson's own examples.

- 8, 9, 10. **P. convexiusculus**, Hutton, J. Asi. Soc. Beng. vol. 18, pt. 2, (1849), p. 657.

Affghanistan.

PLATE C.

PUPA (including ENNEA).

1. **P. (En.) Pirreei**, Pfeiffer, Proc. Zool. Soc. 1854, p. 295 (as Pupa): Mon. Helic. vol. 4, p. 341 and Novit. Conch. vol. 1, p. 199, pl. 32, f. 12, 13, 14 (as Ennea).

Khoondah Mountains, near Calicut.

2. **P. (En.) Blanfordi**, Godwin-Austen, Proc. Zool. Soc. 1872.

Khasi Hills.

3. **P. (En.) vara**, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 188 (as Pupa, sect. Ennea).—Pfeif. Mon. Helic. vol. 5, p. 455 (as Ennea).

Nanclai, Khasi Hills.

4. **P. (En.) Ceylanica**, Pfeiffer, Proc. Zool. Soc. 1855, p. 9 (as Pupa, sec. Ennea).—Ennea C. Pfeif. Mal. Blät. vol. 2 (1855) p. 63.—Novit. Conch. vol. 1, pl. 32, f. 18, 19, 20; Mon. Helic. vol. 4, p. 341.

Ceylon.

5. **P. (En.) fartoides**, Theobald, J. Asi. Soc. Beng. vol. 39, pt. 2 (1870), p. 400 (as Pupa).

Shan Provinces.

6. **P. (En.) bicolor**, Hutton, J. Asi. Soc. Beng. 1834, vol. 3), p. 86, 93 (as Pupa).—Pfeif. Mon. Helic. vol. 2, p. 353, and Kust. ed. Chemn. Pupa, pl. 13, f. 9, 10 (as Pupa).—*P. mellita*, Gould, Proc. Bost. 1846, vol. 2, p. 99.—Pfeif. Mon. Hel. vol. 3, p. 545.

Mirzapore, &c.; Tavoy, &c.: Ceylon.

For further references, see Pfeiffer, Mon. Helic. vol. 6, p. 342.

7. **P. bathyodon**, Benson, An. Nat. Hist. 1863 (ser. 3, vol. 11), p. 426.—Pfeif. Mon. Helic. vol. 6, p. 326.

Nerbudda.

8. **P. plicidens**, Benson, An. Nat. Hist. ser. 2, vol. 4 (1849, Aug.).—Pfeif. Mon. Helic. vol. 3, p. 353: Kust. ed. Chemn. Pupa, pl. 17, f. 23, 24.

Himalayah.

9. **P. salwiniana**, Theobald, J. Asi. Soc. Beng. 1870 (vol. 39, pt. 2), p. 400.

Shan States.

Our figure is unsatisfactory: the body is usually broader, and the mouth more oblique. The internal lamellæ cannot, of course, be represented on so small a scale: they average with the teeth and denticles about nine in number.

10. **P. lapidaria**, Hutton, J. Asi. Soc. Beng. 1849, vol. 18, pt. 2, p. 652.—Pfeif. Mon. Helic. vol. 4, p. 672.

Affghanistan.

PLATE CI.

PUPA.

1. *P. stenopylis*, Benson, An. Nat. Hist. 1860 (ser. 3, vol. 5), p. 460.—Pfeif. Mon. Helic. vol. 5, p. 455.—G. Aust. Proc. Zool. 1872, pl. 30, f. 5.

Darjiling.

2. *P. planguncula*, Benson, An. Nat. Hist. 1863 (ser. 3, vol. 11), p. 426.—Pfeif. Mon. Helic. vol. 6, p. 330.

Orissa.

Our sole type having been smashed while in the artist's possession, we cannot vouch for the correctness of this drawing. If another should be procurable, and this drawing prove incorrect, the figure will be repeated.

3. *P. Huttoniana*, Benson, An. Nat. Hist. 1849 (ser. 2, vol. 4), p. 126.—Pfeif. Mon. Helic. vol. 4, p. 676.

Simla.

4. *P. Himalayana*, Hutton, in Bens. An. Nat. Hist. 1863 (ser. 3, vol. 11), p. 428.—Pfeif. Mon. Helic. vol. 6, p. 299.

Simla and Mussoorie, W. Himalayah.

- 5, 6. *P. Evezardi*, Blanford, MSS.

Singhur Hill, Dekkan.

7. *P. eurina*, Benson, An. Nat. Hist. 1864 (ser. 3, vol. 13), p. 139.—Pfeif. Mon. Helic. vol. 6, p. 300.

At the river Gogra.

8. *P. seriola*, Benson, An. Nat. Hist. 1863 (ser. 3, vol. 11), p. 427.—Pfeif. Mon. Helic. vol. 6, p. 304.

Cuttack in Orissa.

Benson states that in one of the two types there is a rather distant tooth midway between the two lips, and that the pillar lip is broadly expanded at its commencement. The type having been smashed, and an imperfect photograph alone preserved, we cannot vouch for the correctness of our figure.

9. *P. gutta*, Benson, An. Nat. Hist. 1864 (ser. 3, vol. 13), p. 138.—Pfeif. Mon. Helic. vol. 6, p. 298.

Spiti Valley, Kunawar.

Both the known types have been crushed. Our drawing is taken from a photograph.

10. *P. diopsis*, Benson, An. Nat. Hist. 1863 (ser. 3, vol. 11), p. 427.—Pfeif. Mon. Helic. vol. 6, p. 306.

Valley of the Nerbudda.

We have figured the unique original, which does not well display the remote columellar tooth ascribed to it: the name, says Benson, was a misprint for diploos.

PLATE CII.

ACHATINA: Section Electra chiefly.

See previous plates xvii, xviii, xxxv, xxxvi, lxxviii.

1. *A. paupercula*, W. and H. Blanford, J. Asi. Soc. Beng. 1861, p. 382, pl. 1, f. 16: Cont. Mal. pt. 2.—Pfeif. Mon. Helic. vol. 6, p. 227.

Kolamullies, Shevroys, and Pachamullies.

2. *A. Deshayesiana*, Pfeiffer, Proc. Zool. Soc. 1852; Mon. Helic. vol. 3, p. 495: Kust. ed. Chemn. Bulimus, pl. 43, f. 13 to 16, Achat. No. 107.

Ceylon, and Koondah Hills.

3. *A. Bensoniana*, Pfeiffer, Zeits. Malak. 1851, p. 27; Mon. Helic. vol. 3, p. 494; Kust. ed. Chemn. Bulim. pl. 26, f. 12, 13.

Nilgherries.

4. *A. Punctogallana*, Pfeiffer, Mon. Helic. vol. 3, p. 493, for *A. Ceylanica*, Reeve (not Pf.) Conch. Icon. Achat. f. 59.

Ceylon.

5. *A. Mullorum*, Blanford, J. Asi. Soc. Beng. 1861, p. 362, pl. 1, f. 17.—Pfeif. Mon. Helic. vol. 6, p. 228.

Madras.

6. *A. Peguensis*, Blanford, J. Asi. Soc. Beng. vol. 34, 1865, p. 78.—Pfeif. Mon. Helic. vol. 6, p. 228.

Irawadi Valley, Pegu.

7. *A. rugata*, Blanford, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 20, pl. 3, f. 18 (as *Glessula*).

Singhur, near Poona: a var. from Poorundhur.

8. *A. Beddomei*, Blanford, J. Asi. Soc. Beng. 1866, p. 41: Cont. Mal. pt. 6.—Pfeif. Mon. Helic. vol. 6, p. 222.

Anamullay Hills.

Our figure is copied from an exquisite painting lent us by the author.

9. *A. illustris*, Godwin-Austen, MSS.

Cachar.

10. *A. balanus*, Benson, in Reeve, Conch. Icon. Achat. f. 109.—Pfeif. Mon. Helic. vol. 4, p. 627.

Near Agra: Kattiwar.

PLATE CIII.

A L Y C Æ U S.

See previous plates xci to xcvi.

1. *A. diagonus*, Godwin-Austen, J. Asi. Soc. Beng. 1871 (vol. 40, pt. 2), p. 88, pl. 3, f. 2.
Diyung Valley, N. of Asálú, N. Cachar.
- 2, 3. *A. crenatus*, Godwin-Austen, J. Asi. Soc. Beng. 1871 (vol. 40, pt. 2), p. 91, pl. 3, f. 5.
Burrail Range, N. Cachar.
4. *A. vestitus*, Blanford, J. Asi. Soc. Beng. 1862 (vol. 31), p. 138: Cont. Mal. pt. 3.
Meditoung, Aracan Hills.
- 5, 6. *A. Khasiacus*, Godwin-Austen, J. Asi. Soc. Beng. 1871 (vol. 40, pt. 2), p. 90, pl. 3, f. 4.
Khasi and Jaintia Hills.
- 7, 10. *A. pusillus*, Godwin-Austen, J. Asi. Soc. Beng. 1871 (vol. 40, pt. 2), p. 90, pl. 3, f. 3.
Banks of Kopili River, from Jawai to Asálú.
- 8, 9. *A. conicus*, Godwin-Austen, J. Asi. Soc. Beng. 1871 (vol. 40, pt. 2), p. 87, pl. 3, f. 1.
E. of Kopili River, N. Cachar.

PLATE CIV.

CYCLOPHORUS.

See previous plates i to iv, xxxiii, xxxiv, xlvii, xlviii.

1. *C. affinis*, var. *picta*, Theobald.
A most lovely shell, which has sometimes minute spiral striolæ, sometimes concentric wrinkles.
- 2, 3. *C. Layardi*, H. Adams, Proc. Zool. Soc. 1868, p. 294, pl. 4, f. 21.
Ceylon.
We have only seen two individuals of this well-marked shell, both formerly possessed by H. Adams.
4. *C. speciosus*, Philippi, Zeits. Malak. 1847, p. 123 (as Cyclost.).—Pfeif. Mon. Pneum. vol. 1, p. 56, and in Kust. ed. Chemn. Cyclos. pl. 25, f. 1, 2, 3 (as Cyclostoma).—Reeve, Conch. Icon. Cyclop. f. 4.
Birmah.
- 5, 6. *C. cornu-venatorium*, Sowerby, Thesaur. Conch. vol. 1, pl. 24, f. 41 (not 42), as Cyclost.—Benson, Ann. Nat. H. 1857 (ser. 2, vol. 19), March.—Pfeif. Mon. Pneum. vol. 2, p. 69 (as Cyclop.?) partly.
Ava, and Shan Hills.

In Sowerby's Monograph of Cyclostoma, this shell was confused with an Aulopoma (f. 42), and erroneously identified with the Pterocyclos, figured by Chemnitz as "Cornu-venatorium" (the Helix. c. v. of Gmelin's Systema).

7. *C. speciosus*, var. Philippi.

The lip of this well-marked form is peculiar for its colouring.

PLATE CV.

CYCLOPHORUS and LEPTOPOMA.

See previous plates i to iv, vi, xxxiii, xxxiv, xlvii, xlviii.

1. *L. conulus*, Pfeiffer, Proc. Zool. Soc., 1854, p. 127 (as Cyclostoma).—Reeve, Conch. Icon. Lept. f. 45.
Ceylon.
 - 2, 3. *C. scurra*, Benson, An. Nat. Hist. 1857 (ser. 2, vol. 19), p. 207.—Pfeif. Mon. Pneum. vol. 2, p. 47.
Pegu.
 4. *C. porphyriticus*, Benson, An. Nat. Hist. 1851 (ser. 2, vol. 8), p. 187 (as Cyclostoma).—Pfeif. in Kust. ed. Chemn. Cyclost. p. 383, pl. 50, f. 22 to 24 (as Cyclos.): Mon. Pneum. vol. 2, p. 49.—C. perdix, Reeve, Conch. Icon. Cycloph. f. 21.
Eastern side of the Bay of Bengal.
This is the shell which was at first referred by Benson (Zool. Journ.) to the *C. perdix* of Broderip and Sowerby (Zool. Journ.) a species from Tenasserim, with four whorls and a low spire, which does not well agree with the characters of *C. perdix* of Sowerby in his monograph (Thes. Conch. vol. 1), or of Pfeiffer in Kuster's edition of Chemnitz.
 - 5, 6. *C. ravidus*, Benson, An. Nat. Hist. 1851 (ser. 2, vol. 8), p. 190 (as Cyclostoma).—Pfeif. Mon. Pneum. vol. 2, p. 67: Kust. ed. Chemn. Cycl. pl. 50, f. 14, 15, 16 (as Cyclost.).—Reeve, Conch. Icon. Cyclop. f. 102.
Nilgherries.
- All these figures and descriptions appear taken from the unique type we have again delineated.
- 7, 8. *C. stenostoma*, Sowerby, Thesaur. Conch. i, p. 95, pl. 31, f. 261 (as Cyclost.).—Pfeif. Mon. Pneum. vol. i, p. 9 ditto).—Reeve, Conch. Icon. Cycloph. f. 82.

Figure 8 is taken from a paler variety which is less common than the other.

9. *C. stenostoma*, var. *anguis*, Sowerby.

Top of Nilgherries, with the preceding.

This shell (possibly a distinct species) is not merely larger than the preceding, but has the entire upper surface concentrically shagreened by wavy and somewhat broken raised wrinkles.

10. *C. cadiscus*, Benson, An. Nat. Hist. 1860, ser. 3, vol. 5, p. 385.—Pfeif. Mon. Pneum. vol. 3, p. 67. Matelle, Ceylon.

This is the same shell we had given another view of in Part I. (pl. 3, f. 8, not 9), as a form of *Thwaitesii*; at that time neither the collections of Benson nor Layard were adequately known to us, and even now the limits of *parapsis*, *cadiscus*, and *Thwaitesii* are not clear; Benson's ideal of the last, however, does not seem that of Pfeiffer.

PLATE CVI.

CATAULUS.

1. *C. Templemani*, Pfeiffer, Proc. Zool. Soc. 1852, p. 158 (as *Pupina*).—Mon. Pneum. vol. 2, p. 87.—Sow. Thes. Conch. vol. 3, pl. 264, f. 12. Ceylon.2. *C. duplicatus*, Pfeiffer, Proc. Zool. Soc. 1854, p. 203.—Mon. Pneum. vol. 2, p. 90.—Sow. Thes. Conch. vol. 3, pl. 264, f. 2. Ceylon.

Near the last, but has less convex whorls.

3. *C. Blanfordi*, Dohrn, Proc. Zool. Soc. 1862, p. 202.—Pfeif. Mon. Pneum. vol. 3, p. 88: Novit. Conch. vol. 1, pl. 58, f. 11, 12, 13. Bollegalle in Ceylon.4. *C. hæmastoma*, Pfeiffer, Proc. Zool. Soc. 1856, p. 391.—Mon. Pneum. vol. 2, p. 89.—Sow. Thes. Conch. vol. 3, pl. 264, f. 11. Ceylon.5. *C. decorus*, Benson, An. Nat. Hist. 1853 (ser. 2, vol. 12, p. 96).—Sow. Thes. Conch. vol. 3, pl. 264, f. 13. Ceylon.6. *C. Thwaitesii*, Proc. Zool. Soc. 1852, p. 147.—Mon. Pneum. vol. 1, p. 138.—Sow. Thes. Conch. vol. 3, pl. 264, f. 15. Ceylon.7. *C. Austenianus*, Benson, An. Nat. Hist. 1853 (ser. 2, vol. 12), p. 95.—Pfeif. Mon. Pneum. vol. 2, p. 88.—Sow. Thes. Conch. vol. 3, pl. 264, f. 9. Henerat Jodde, Ceylon.8. *C. Layardi*, Gray, MSS. in Pfeif. Proc. Zool. 1852, p. 160, pl. 13, f. 6.—Pfeif. Mon. Pneum. pt. 2, p. 87.—Sow. Thes. Conch. vol. 3, pl. 264, f. 7. Ceylon.9. *C. aureus*, Pfeif. Proc. Zool. Soc. 1855, p. 118: Mon. Pneum. vol. 2, p. 88. Ceylon.10. *C. Calcadensis*, Blanford, J. Asi. Soc. Beng. 1869 (vol. 38, pt. 2), p. 137, pl. 16, f. 8. Calcad Hills, beyond the limits of Travancore.

Our example (named by the author) somewhat differs from the figure in the journal, but the species is said by Blanford to be very variable.

PLATE CVII.

UNIO.

See previous plates ix to xii, xli to xlv.

1. *U. Indicus*, Sowerby, in Reeve's Conch. Icon. Unio, f. 222. Nerbudda River.

As yet so rare a shell, that we have seen only two adult specimens of the normal form.

2. *U. triembolus*, Benson, An. Nat. Hist. ser. 3, vol. 10 (Septem. 1862), p. 190. Nerbudda River.3. *U. favidens*, var. Benson. See Plate XI. f. 3. Near the "Seven Tanks," Calcutta.

This dwarf form ranges between *pinax* and *plagiosoma*. Our figured example is solid, and displays a strongly marked sculpture, but we possess others (which remind us of the unrecognised *Rajahensis*) that are almost smooth, and comparatively fragile.

4. *U. Indicus*, var. *aurea*, Sowerby. Nerbudda River.

Possibly the link between *Indicus* and *Triembolus*.

5. *U. exolescens*, Gould, Proc. Nat. H. Boston, vol. 1, p. 141: Otia Conch. p. 191. Tavoy, Birmah.

Of the two examples received from Gould, the larger (a more beaked form) was in too bad a condition to be delineated; the one we have figured is immature. The general aspect of the species reminds

us of the *U. mutabilis* of Lea (Obs. Unio, vol. 7), said to be Australian.

- 6, 7. *U. Sikkimensis*, Lea. See Plate XI. f. 4.
Assam.

This species, formerly so scarce, had been previously figured by us from an uncharacteristic example. The large variety (fig. 7) reminds one externally of *Wynegungaensis*.

PLATE CVIII.

PALUDOMUS.

1. *P. stomatodon*, Benson, An. Nat. Hist. 1862 (ser. 3, vol. 10), p. 415 (as ? *Tanalia*).
Near Cottyam, Travancore.
 2. *P. rotunda*, Blanford, J. Asi. Soc. Beng. 1870 (vol. 39, pt. 2), p. 9, pl. 3, f. 2.
Travancore.
 3. *P. lævis*, Layard, Proc. Zool. Soc. 1854, p. 89.
Ceylon.
 4. *P. reticulata*, Blanford, J. Asi. Soc. Beng. 1870 (vol. 39, pt. 2), p. 9, pl. 3, f. 1.
Cachar.
 5. *P. regulata*, Benson, An. Nat. Hist. 1856 (ser. 2, vol. 17), p. 496.
Thyet Mio, Birmah.
 6. *P. regulata*, var. Benson.
Upper Birmah.
 7. *P. parva*, Layard, Proc. Zool. Soc. 1854, p. 90.
Ceylon.
- By some error the longitudinal brown marks (in the type) were described as spiral.
8. *P. ornata*, Benson, An. Nat. Hist. 1856 (ser. 2, vol. 17), p. 496.
Birmah.
 9. *P. labiosa*, Benson, An. Nat. Hist. 1856 (ser. 2, vol. 17), p. 495.
Tongoop, Tenasserim, Birmah.
 10. *P. monile*, Thorpe, MSS. Southern India.

PLATE CIX.

MELANIA.

See previous plates lxxi to lxxv, cix.

1. *M. spinata*, Godwin-Austen, Proc. Zool. Soc. 1872, p. 514, pl. 30, f. 1 (as *Melanoides*).
Kopili River, N. Cachar.

2. *M. variabilis*, (var. *varicosa*) Benson, J. Asi. Soc. Beng. vol. 5 (1836), p. 746 (the A. of his Gleanings in Science, vol. 1, pl. 7).—Voy. Bonite, p. 543, pl. 31, f. 13.

M. Carolinæ? Gray, Griffith's ed. Cuvier, Moll. pl. 13, f. 3 (1833).—*M. varicosa*, Troschel, Wiegmann. Archiv. Nat. 1837, p. 174.—Philippi, Abbild. N. Conch. vol. 1, Mel. pl. 2, f. 2, 3.

River Gumti at Gonpur, and Tolly's Nullah near Calcutta : River Hoogly, Calcutta.

3. *M. variabilis* (var. *echinata*), Benson.
Assam.

4. *M. fuscata*, Born, Ind. Test. Vindob. pl. 16, f. 17 (as *Helix*).—Dillwyn, Des. Cat. Shells, vol. 2, p. 951 (as *Helix*).—? *Helix ater*, Chemnitz, Conch. Cab. vol. 9, pt. 2, p. 116, f. 1229 (copied in Wood's Ind. Test. pl. 34, f. 144 (as *H. fuscata*).—*Bulimus fuscus*, Brug. Ency. Méth. Vers, vol. 1, p. 332.

Puniar (or Pannaar) River, Cuddalore.

We have seen only two examples of this shell, which seems to have been delineated in Lister's Hist. Conch. pl. 116, f. 11: they resemble the *M. aspirans*, var. of Reeve (C. Icon. Mel. f. 53, b.) but are not like the types of Hind's species.

5. *M. variabilis*, (var. *cincta*), Benson.
"Assam" (fide Bacon).

6. *M. variabilis*, (var. *aspera*), Benson. 543, pl. 31, f. 12, 15.
Hindustan.

7. *M. Herculea*, var. *Sowerbii*, Gould.

M. variabilis, Reeve, Conch. Syst. pl. 194, f. 2 (for the unnamed *Melania* of Sow. Genera Shells).—*M. Herculea*, Reeve, Conch. Icon. Melan. f. 4.

Tenasserim.

A remarkable form which approaches almost equally *variabilis* and *Herculea*.

PLATE CX.

MELANIA.

1. *M. tigrina*, Hutton, J. Asi. Soc. Beng. vol. 18, pt. 2 (1849), p. 658.
Afghanistan.

Compare this with the *M. beryllina*, of Brot, from Pondicherry (Rev. and Mag. Zool. 1860, pl. 17, f. 8).

2. *M. tigrina*, var. Hutton.
W. Himalayah.

3. *M. pyramis*, Benson, J. Asi. Soc. Beng. vol. 5 (1836), name for the *Melania* species B, in the Glean. Science Calcutta, vol. 2 (1830), p. 22.
River Goomty.

The shell figured is from the collection of Benson. We presume not to assert that it is distinct from either *tuberculata* or *tigrina*, but it is important to indicate the exact type.

4. *M. pyramis*, var.—*M. adpersa*, Troschel, Wiegmann. Archiv. Naturg. 1837, p. 175, probably.
Shan States.

The *M. adpersa* of Philippi (Abbild. N. Conch. vol. 3, p. 58, Melan. pl. 5, f. 5, 6) said by Brot to be identical with the *M. flammigera* of the same work (Melan. pl. 3, f. 11) does not equally suit our variable species. Whether Philippi's specimens come from the Ganges, as stated, may well be doubted.

5. *M. Hanleyi*, Godwin-Austen, Proc. Zool. Soc. 1872, p. 514, pl. 30, f. 2 (as *Melanoides*).
Diyung River, Cachar Hills.

Allied to the next, but the prickles are much more numerous.

6. *M. Menkiana*, Lea, Obs. Unio, vol. 4, p. 24, for *M. plicata*, Lea, Trans. Amer. Phil. Soc. (and Obs. Unio, vol. 2, p. 20), pl. 23, f. 95 (not of Menke, Synops. 1830).
Khersasip, N. Cachar.

This rare shell may be easily distinguished from the spinous forms of *variabilis* by the absence of those coarse sulci which gird the base of the latter. It is not the *plicata* of Reeve's figure, although two of the three specimens in Cuming's collection are certainly Indian, and not as stated from New Granada. It should be noticed that Lea's figure was taken from a large specimen with a cut-down lip, but all doubt as to its identity is removed by the description. The *M. spinosa* of Benson in Hanley's Conchological Miscellany (Mel. pl. 1, f. 7) should rather have been referred to this than to *variabilis*.

- 7 *M. scabra*? var. *spinulosa*.
Ceylon.

The shells represented in our figures 7 and 10, are both called (but not described as) *M. spinulosa* by Indian conchologists; yet neither can be positively affiliated to the Lamarckian species from Timor delineated in Delessert's folio.

- 8, 9. *M. jugicostis*, Benson's MS.
Tenasserim River.

10. *M. acanthica* of Dohrn, Proc. Zool. Soc. 1858, as of Lea (Proc. Zool. Soc. 1850, p. 194).
Ceylon.

The identity of this *Melania* (named from Dohrn's type, now in the British Museum) with Lea's species from the Philippine Islands, may possibly be questioned.

PLATE CXI.

HELIX.

See previous plates xiii to xvi, xxv to xxxii, l to lxiv, lxxxiii to xc.

1. *H. Skinneri*, Reeve, Conch. Icon. Helix, f. 1387.—Pfeif. Mon. Helic. vol. 4, p. 219.
Ceylon.

- 2, 3. *H. undosa*, var. Blanford, J. Asi. Soc. Beng. 1865 (vol. 34), p. 68: Cont. Mal. pt. 5 (as *Nanina*).
Shan Hills E. of Ava.

The original types (which we had not seen) were much more shagreened, and less wrinkled than this specimen.

- 4, 7. *H. ganoma*, Pfeiffer, Proc. Zool. Soc. 1853, p. 124: Mon. Helic. vol. 4, p. 22.—Reeve, Conch. Icon. Helix, f. 1267.—H. Juliana, Pfeif. in Kust. ed. Chem. Helix, pl. 33, f. 15.
Ceylon.

Very near the common and variable *Juliana* of Gray (*rosacea* of Sowerby's description in Beechey) to which Pfeiffer preferentially refers the *Dufourei* of Grateloup (changed from *citrinoides*, Grat.) in the Act. Lin. Bordeaux, vol. 11, p. 407, pl. 1, f. 2.

5. *H. bajadera*, Pfeiffer, Mon. Helic. vol. 3, p. 52; vol. 4, p. 250.—Reeve, Conch. Icon. Helix, f. 388.
Bengal.

6. *H. intumescens*, Blanford, J. Asi. Soc. Beng. 1866 (vol. 36), p. 33: Cont. Mal. pt. 6 (as *Nanina*, section *Ariophanta*).—Pfeif. Mon. Helic. vol. 5, p. 321.

Mahableshtar, W. Ghats of Hindostan.

PLATE CXII.

HELIX.

- 1, 2, 3. *H. decussata*, Benson, J. Asi. Soc. Beng. 1836 (vol. 5) p. 350 (as *Nanina*).—Pfeif. Mon. Helic. vol. 1, p. 70.—Reeve, Conch. Icon. Helix, f. 743.

Bengal.

- 4, 5, 6. *H. Sisparica*, Blanford, J. Asi. Soc. Beng. 1866 (vol. 36), p. 34 (as *Nanina*).—Pfeif. Mon. Helic. vol. 5, p. 122.

Sispara Ghat, Nilgherries.

Our figure is taken from a type lent us by Mr. W. Blanford, to whose liberality and profound knowledge of Indian Malacology the authors have been frequently indebted.

- 7, 10. *H. anserina*, Theobald, J. Asi. Soc. Beng. 1865 (vol. 32, pt. 2), p. 4, name only.

Shan Provinces.

The conspicuously punctulate shagreen is an important character.

- 8, 9. *H. Andersoni*, Blanford, Proc. Zool. Soc. 1869, p. 446 (as *Plectop.*).

Bhamo, and Hoetone in Yunan.

PLATE CXIII.

AMPULLARIA.

1. *A. cinerea*, Reeve, Conch. Icon. Ampul. f. 94.

Ceylon.

The throat is usually chestnut, and there are obscure bands under the epidermis as indicated by the description.

2. *A. corrugata*, Swainson, Zool. Illust. ser. 1, pl. 120 (badly copied in Kuster's ed. Chemn. Ampul. pl. 1, f. 10).

Bengal; Pondicherry, teste Belanger.

The only individual known to us agrees fairly with the drawing of Swainson, who having cited, as a synonym, the *A. rugosa* of Sowerby's genera (which looks more like *globosa*) induced Deshayes to identify both with his *A. sphaerica* (Encycl. Méth. Vers). Can it be an abnormal form of the next species?

3. *A. globosa*, Swainson, Zool. Illust. ser. 1, pl. 119.—Philippi, Monog. Ampul. (Kust. ed. Chemn.) p. 8, pl. 1, f. 3.—Reeve, Conch. Icon. Amp. f. 46, 47.

Calcutta; Rohilkhund; Orissa, &c.

A common shell which attains much larger dimensions than here exhibited: occasionally its peritreme is tinted with orange red, so as to remind one strongly of Crouch's ideal of *A. Guyanensis* (Crouch, Lam. pl. 15, f. 18). The *A. rotundata* of Say (erroneously described as American, but with a testaceous operculum) is supposed to be a form of this species.

4. *A. globosa*, var. *sphaerica*, from Moradabad.

5. *A. globosa*, var. *fasciata*, from Moradabad.

PLATE CXIV.

AMPULLARIA.

1. *A. carinata*, Swainson, Zool. Ill. ser. 2, from which Philip. Mon. Ampul. (in Kust. ed. Chemn.) pl. 1, f. 2—? Reeve, Conch. Icon. Ampul. f. 58.

Ceylon.

This is not the species so named by Lamarck (as the *Cyclostoma carinatum* of Olivier) which belongs to the sinistral genus *Lanistes*. It is chiefly distinguishable from the next species by the greater breadth of the penult whorl, and the sharper sutural angulation.

2. *A. Malabarica*, Philippi (not Reeve), Mon. Ampul. (Kust. ed. Chemn.) p. 39, pl. 7, f. 8.

Cochin, Malabar; Bombay.

Very closely allied to the preceding, and not improbably a local variety. Yet the upper whorls of the spire (which is more exserted) are rounded. The young type of Reeve's *Malabarica* (f. 67) does not exhibit the flat infrasutural ledge referred to by Philippi. The *A. pallens* of Philippi (Kust. ed. Chemn. Ampul. p. 32) may possibly prove the variety we have received from Cashmire. Reeve's *A. canaliculata*, said to have been taken in Cashmire, seems the young of *A. speciosa*.

3. *A. Tischbeini*, Dohrn, Proc. Zool. Soc. 1858.

Ceylon.

Copied from the type in the British Museum.

4. *A. Layardi*, Reeve, Conch. Icon. Ampul. f. 27, 40.

Ceylon.

Our specimen bears more resemblance to the characteristic variety f. 40, than to the less strikingly distinctive figure 27 in Reeve's *Iconica*.

5. **A. Paludinoides**, Philippi, Kust. ed. Chemn. Ampul. p. 27, pl. 7, f. 4 (as of De Cristofori and Jan).—Reeve, *Conch. Icon. Ampul.* f. 9.

Mangalore; near Moulmein; Pegu.

Jan's species should be ignored, for it is so inadequately defined, that his description would suit half a score of *Ampullariæ*: it is not likely to be the shell here figured, as it is called umbilicated and South American.

- 6, 7. **A. Paludinoides**, var.

A peculiar banded form from Pegu. Figure 7 reminds us of the Reevean (*Conch. Icon. Ampul.* f. 10) ideal of *A. eonica*, a Singapore shell, which Mr. Hanley carefully identified with the young original type, and figured in his *Conchological Miscellany*. Von Martens states that Reeve's ideal is not that of Pfeiffer in his *Novitates*.

PLATE CXV.

AMPULLARIA, and PALUDINA.

For *Paludinæ* see previous plates lxxvi, lxxvii.

1. **A. nux**, Reeve, *Conch. Icon. Ampul.* f. 132.
Small streams from Bore Ghat; Bombay;
Dekkan.

2. **A. Theobaldi**, Hanley.
Birmah? or Pegu?

This magnificent shell was given to Mr. Hanley by his coadjutor, but the precise locality was mislaid.

3. **A. Saxeæ**, Reeve, *Conch. Icon. Ampul.* f. 108.
Bassein, Pegu.

4. **A. Saxeæ**, var. Reeve.
Pegu.

Our specimen is selected from its extreme dissimilarity to the preceding, yet the spire is occasionally even still more depressed.

5. **A. Woodwardi**, Dohrn, *Proc. Zool. Soc.* 1858.
Ceylon.

The only two individuals known to us are in the British Museum.

6. **A. mæsta**, Reeve, *Conch. Icon. Ampul.* f. 92.
Ceylon.

Our figure was taken from the Cumingian type, now in the British Museum.

7. **P. digona**, Blanford, *Proc. Zool. Soc.* 1869, p. 445.

River Irawaddy, Birmah.

The individual here figured exhibits the distinctive features in a remarkable degree. The author alludes to the possibility of his shell being a variety of *dissimilis*; its affinities seem rather zonata, filosa and lineolata.

8. **P. variata**, Frauenfeld, *Verhandl. Zool. Bot. Wien*, 1862, p. 1163 (as *Vivipara* v.).

The individual figured was the original Pondicherry specimen named by the author: Reeve's (*Conch. Icon. Palud.* f. 58) seems either a squat form of *dissimilis* or *Remossii*.

9. **P. Ceylanica**, Dohrn, var. *ecarinata*.
Common in Ceylon.

PLATE CXVI.

TANYSIPHON, SCAPHULA, NOVACULINA.

- 1, 4. **T. rivalis**, Benson, *An. Nat. Hist.* 1858 (ser. 3, vol. 1), p. 407, pl. 12, B. f. 1 to 3.

From mud at low-water in streams near Calcutta.

- 2, 3. **S. Deltæ**, Blanford, *J. Asi. Soc. Beng.* vol. 36, pt. 2, pl. 14, f. 7–10: *Cont. Mal.* pt. 8, p. 21, pl. 3, f. 7–10.

Banks of the Irawaddy, Pegu.

- 5, 6. **S. pinna**, Benson, *An. Nat. Hist.* 1856 (ser. 3, vol. 17), p. 128.—Blanf. *J. Asi. Soc. Beng.* vol. 36, pt. 2, pl. 14, f. 11–13.

Tenasserim River.

7. **N. Gangetica**, Benson, *Glean. Science Calcut.* vol. 2 (1830, Feb.), p. 63 (as genus *Novaculina*): *Ann. Nat. Hist.* 1858 (ser. 3, vol. 1), pl. 12, B. f. 4.

River Jumna at Humeerpore, Bundelkhund.

- 8, 9. **S. celox**, Benson, *J. Asi. Soc. Beng.* vol. 5 (1836), p. 759 (as figured in *Glean. Sc. Calcutta*), vol. 1, pl. 7, f. 2, 3: *An. Nat. Hist.* 1856, p. 129.—Blanf. *J. Asi. Soc. Beng.* vol. 36, pt. 2, pl. 14, f. 14, 15.

River Jumna, near Bundelkhund, &c.

The generic appellation of *Scaphula* was proposed by Benson for this shell, in the fifth volume of the *Zoological Journal* (1834) without any specific denomination.

10. *N. Gangetica*? var. *Theobaldi*, Benson.

Tenasserim River: Pegu.

This was regarded by Benson as a large variety of his Gangetic species: it looks distinct, but without more specimens its separation would, perchance, be unadvisable.

PLATE CXVII.

ACMELIA, HYDROCÆNA,
OPISTHOSTOMA.

1. *A. tersa*, Benson, An. Nat. Hist. 1853 (ser. 2, vol. 11), p. 285 (Cyclostoma).—Pfeif. Mon. Pneum. vol. 2, p. 158, (as *Hydrocæna*).—Acicula t. Blanf. An. Nat. Hist. 1869 (ser. 4, vol. 3), pl. 16, f. 2.
In moss from Khasi Hills.
2. *H. Blanfordiana*, Stoliczka, J. Asi. Soc. Beng. 1873 (vol. 41, pt. 2), p. 332, pl. 11, f. 5, 6.
Ataran Valley, near Moulmein.
3. *H. pyxis*, Benson, An. Nat. Hist. 1856 (ser. 2, vol. 17), p. 232.—Pfeif. Mon. Pneum. vol. 2, p. 161.
Thyet Myo, Birmah: near Henzada, Pegu.
4. *H. illex*, Benson, An. Nat. Hist. 1856 (ser. 2, vol. 17), p. 231.—Pfeif. Mon. Pneum. vol. 2, p. 161.
Thyet Myo: Phie Than, Tenasserim.
5. *H. frustillum*, Benson, An. Nat. Hist. 1860 (ser. 3, vol. 6), p. 193.—Pfeif. Mon. Pneum. vol. 3, p. 251 (as *Georissa*).
Ava.
6. *H. Rawesiana*, Benson, An. Nat. Hist. 1860 (ser. 3, vol. 6), p. 193.—Pfeif. Mon. Pneum. vol. 3, p. 252 (as *Georissa*).—Th. and Stol. J. Asi. Soc. Beng. 1872 (vol. 41, pt. 2), p. 332 (as *Georissa*).
Near Moulmein.
7. *H. saritta*, Benson, An. Nat. Hist. 1851 (ser. 2, vol. 8), p. 188 (as *Cyclostoma*).—Pfeif. Mon. Pneum. vol. 1, p. 314 (ditto).
Near Cherra Poongee, Garo Hills, beyond Eastern boundaries of Bengal.
8. *O. Fairbankii*, Blanford, Proc. Zool. Soc. 1866, p. 448, pl. 38, f. 14.
Near Khandalla, Western Ghats, between Bombay and Poonah.

9. *O. macrostoma*, Beddome's MS. in Blanf. J. Asi. Soc. Beng. 1869 (vol. 38), p. 139, pl. 16, f. 7.

Bramagiri Hills, Wynaad, not far from the Malabar Coast.

10. *O. Nilgirieum*, W. and H. Blanford, J. Asi. Soc. Beng. 1861 (vol. 29), p. 121; Cont. Mal. Ind. pt. 1, p. 5: Proc. Zool. Soc. 1866, pl. 18, f. 13.

Pykara, top of Nilgherries, in fallen leaves.

PLATE CXVIII.

CLAUSILIA.

See previous plate, xxiv.

1. *C. Ceylanica*, Benson, An. Nat. Hist. 1863 (ser. 3, vol. 11), p. 89.—Pfeif. Mon. Helic. vol. 6, p. 427.—Blanf. J. Asi. Soc. Beng. 1872 (vol. 41, pt. 2), pl. 9, f. 4.

Southern parts of Ceylon.

The whorls are densely set with longitudinal raised wrinkles, which are spirally decussated on the final volution.

2, 3. *C. Gouldiana*, Pfeiffer, Mal. Blät. vol. 3 (1856), p. 259: Mon. Helic. vol. 4, p. 724: Novit. Conch. vol. 1, pl. 34, f. 18 to 20.

Mergui: near Moulmein, British Birmah.

This may be the insignis of Gould (not of Pfeiffer).

4. *C. ovata*, Blanford, J. Asi. Soc. Beng. 1872 (vol. 41, pt. 2), p. 206, pl. 9, f. 17.

Tonghu, Birmah.

5, 6. *C. ferruginea*, Blanford, J. Asi. Soc. Beng. 1872 (vol. 41, pt. 2), p. 202, pl. 9, f. 7.

Naga Hills, and North Cachar.

7. *C. monticola*, Godwin-Austen, in Blanford's monograph in the J. Asi. Soc. Beng. 1872 (vol. 41, pt. 2), p. 205, pl. 9, f. 13.

North Cachar.

8, 9. *C. Arakana*, Theobald, in Stolic. J. Asi. Soc. Beng. 1872 (vol. 41, pt. 2), p. 210, pl. 9, f. 20.

Aracan Hills; Mai-i, Sandoway.

10. *C. Philippiana*, Pfeiffer, Zeits. Mal. 1847, p. 69: Mon. Helic. vol. 2, p. 43: Kuster's ed. Chemn. Claus. p. 100, pl. 11, f. 7, 8, 9.—Blanf. J. Asi. Soc. Beng. 1872 (vol. 41, pt. 2), pl. 9, f. 14.

Moulmein, and near Mergui.

PLATE CXIX.

DIPLOMMATINA.

- 1, 4. *D. Austeni*, Blanford, J. Asi. Soc. Beng. 1868, p. 81, pl. 3, f. 2 : Cont. Mal. pt. 9.
Cherra Poonji, and Maotherichan, in Khasi Hills.
- 2, 3. *D. oligopleuris*, Blanford, J. Asi. Soc. Beng. 1868, p. 82, pl. 3, f. 4.
Kumah Hill, Aracan: Teria Ghat, S. side of Khasi Hills.
- 5, 6. *D. Blanfordi*, Benson, An. Nat. Hist. 1860 (ser. 3, vol. 5), p. 460.—Pfeif. Mon. Pneum. vol. 3, p. 9.
Darjiling.
7. *D. pullula*, Benson, An. Nat. Hist. 1859 (ser. 3, vol. 3), p. 182.—Pfeif. Mon. Pneum. vol. 3, p. 9.
Rungung on the West of Darjiling.
8. *D. Sherfaiensis*, Godwin-Austen, J. Asi. Soc. Beng. 1870, p. 3, pl. 1, f. 3.
Khasi Hills.
9. *D. labiosa*, Blanford, J. Asi. Soc. Beng. 1868, p. 80, pl. 2, f. 3 : Cont. Mal. pt. 9.
Khasi and Garo Hills.
10. *D. exilis*, Blanford, J. Asi. Soc. Beng. 1862 (vol. 32), p. 325.—Pfeif. Mon. Pneum. vol. 3, p. 10.
Mya Leit Doung, Ava, Birmah.

PLATE CXX.

DIPLOMMATINA.

- 1, 4. *D. gibbosa*, Blanford, J. Asi. Soc. Beng. 1868, p. 80, pl. 2, f. 4 : Cont. pt. 9.
Habiang in Garo Hills.
- 2, 3. *D. Jaintiaca*, Godwin-Austen, J. Asi. Soc. Beng. 1870, p. 4 (as the nov. spec. of vol. 37, pt. 2, pl. 3, f. 3).
Khasi Hills.
- 5, 6. *D. depressa*, Godwin-Austen, J. Asi. Soc. Beng. 1870, p. 2, pl. 1, f. 2.
Khasi Hills.
7. *D. semisculpta*, Blanford, J. Asi. Soc. Beng. 1868, p. 78, pl. 1, f. 6 : Cont. Mal. pt. 9.
Darjiling.

- 8, 9. *D. costulata*, Hutton MSS. (as *Carychium*) in Benson, An. Nat. Hist. 1849 (ser. 2, vol. 4), p. 194.—Pfeif. Mon. Pneum. vol. 1, p. 122.
W. Subhimalayah; Landour.
10. *D. ungulata*, H. Blanford, J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 42, pl. 2, f. 7.
Darjiling.

PLATE CXXI.

PALUDOMUS.

See previous plate, cviii.

1. *P. erinaceus*, Reeve, Proc. Zool. Soc. 1852, p. 128.—*Tanalia* e. Layard, Proc. Zool. 1854, p. 91.
Ceylon.
2. *P. loricata*, Reeve, Conch. Icon. vol. 4, Palud. f. 1, b, c.—*Tanalia* e. Layard, Proc. Zool. Soc. 1854, p. 91.
In rapids flowing from Adam's Peak and Calloo ganga, above Ratnapoora, Ceylon.
3. *P. undata*, Reeve, Conch. Icon. Palud. f. 2.
In rapids flowing from Adam's Peak, Ceylon.
4. *P. Skinneri*, Dohrn, Proc. Zool. Soc. 1857, p. 124.
Ceylon.
5. *P. ærea*, Reeve, Proc. Zool. Soc. 1852, p. 128.—*Tanalia* ærea, Layard, Proc. Zool. Soc. 1854.
Mountain streams of Ceylon.
6. *P. Layardi*, Reeve, Proc. Zool. Soc. 1852, p. 128.
Mountain streams of Ceylon.
7. *P. Reevei*, Layard, Proc. Zool. Soc. 1854 (as *Tanalia*), p. 92.
The Calloo ganga, Ratnapoora, Ceylon.
- 8, 9. *P. melanostoma*, Thorpe MSS.
Ceylon.
10. *P. regalis*, Layard, Proc. Zool. Soc. 1854, p. 93 (as *Philopotamis*).
Stream in the Cnia Corle, Western province, Ceylon.

PLATE CXXII.

PALUDOMUS.

1. *P. similis*, Layard, Proc. Zool. Soc. 1854 (as *Tanalia*) p. 92.
A mountain torrent at Kandangamoa, near Ratnapoora, Ceylon.

2. *P. sulcata*, Reeve, Conch. Icon. Palud. f. 8.
In a mountain stream at Ratnapoora, Ceylon.
3. *P. distinguenda*, Dohrn, Proc. Zool. Soc. 1857, p. 124.
Ceylon.
4. *P. solida*, Dohrn, Proc. Zool. Soc. 1857, p. 124.
Ceylon.
5. *P. Tennentii*, Reeve, Conch. Icon. Palud. f. 12.
In a rocky stream flowing from Adam's Peak, Ceylon.
6. *P. Gardneri*, Reeve, Conch. Icon. Palud. f. 9.
In a stream at the foot of Adam's Peak, Ceylon.
7. *P. picta*, Reeve, Conch. Icon. Palud. f. 10.
In a mountain stream at Ratnapoora, Ceylon.
8. *P. Neritoides*, Reeve, Conch. Icon. Palud. f. 3.
In the bed of a river at Ambegamoa, Ceylon.
9. *P. dromedarius*, Dohrn, Proc. Zool. Soc. 1857, p. 124.
Ceylon.
10. *P. stephanus*, Benson, J. Asi. Soc. Beng. 1836, vol. 5, p. 747 (as *Melania*).—Reeve, Conch. Icon. Palud. f. 11.—*Mel. coronata*, Von den Busch, in Philip. N. Conch. vol. 1, Mel. pl. 1, f. 5, 6.
Bengal.

PLATE CXXIII.

PALUDOMUS.

1. *P. fulgurata*, Dohrn, Proc. Zool. Soc. 1857, p. 123.
Ceylon.
This species resembles the *P. phasianina* of the Seychelles.
2. *P. Chilinoides*, Reeve, Conch. Icon. Palud. f. 7.
Ceylon.
3. *P. decussata*, Reeve, Proc. Zool. Soc. 1852, p. 127.
Ceylon.
4. *P. clavata*, Reeve, Proc. Zool. Soc. 1852, p. 129.
Mountain streams of Ceylon.
5. *P. globulosa*, Gray, Grif. ed. Cuvier, Mol. pl. 14, f. 6 (as *Melania*).—Reeve, Conch. Icon. Palud. f. 4.
Ambegamoa, Ceylon.
6. *P. lutosa*, Souleyet, Voy. Bonite, Zool. p. 350, pl. 31, f. 28, 29, 30.
Ganges.

7. *P. acuta*, Reeve, Proc. Zool. Soc. 1852, p. 127.
Near Pondicherry.

This and the preceding may prove mere forms of the next species.

8. *P. Tanschaurica*, Gmelin, Syst. Nat. 3655, for the *Helix fluviatilis* Tanschaurensis of Chemn. Conch. Cab. vol. 9, p. 174, f. 1243.—*Helix fluviatilis*, Dillwyn, Des. Cat. Shells, p. 959.
Southern India (Coromandel, &c.).
9. *P. Paludinoides*, Reeve, Proc. Zool. Soc. 1852, p. 127.
Sikkim branch of the Sylhet.
10. *P. bicincta*, Reeve, Proc. Zool. Soc. 1852, p. 129.
Mountain streams of Ceylon.

PLATE CXXIV.

PALUDOMUS.

1. *P. nigricans*, Reeve, Conch. Icon. Palud. f. 6.
In mountain streams at Ceylon.
- 2, 3. *P. Maurus*, Reeve, Proc. Zool. Soc. 1852, p. 127.
Ganges.
4. *P. conica*, Gray, Grif. ed. Cuvier, Mol. pl. 14, f. 5 (as *Melania*).—Reeve, Conch. Icon. Palud. f. 14.—Benson, J. Asi. Soc. Beng. vol. 5, p. 747.—*Mel. crassa*, Busch, in Phil. N. Conch. vol. 1, Mel. pl. 1, f. 10, 11.—*P. rudis*, Reeve, Proc. Zool. 1852.
Sylhet, Bhootan, Assam, &c.
5. *P. Reevei*, Layard, Proc. Zool. Soc. 1854 (as *Tanalia*), p. 92.
The Calloo ganga, Ratnapoora, Ceylon.
6. *P. Swainsoni*, Dohrn, Proc. Zool. Soc. 1857, p. 125.
Ceylon.
7. *P. nasuta*, Dohrn, Proc. Zool. Soc. 1857, p. 123.
Ceylon.
Figured from the sole type in the British Museum.
8. *P. sphærica*, Dohrn, Proc. Zool. Soc. 1857, p. 124.
Ceylon.
Figured from the unique type described.
9. *P. torrenticola*, Dohrn, Proc. Zool. Soc. 1858.
Ceylon.
Figured from the type in the British Museum.
10. *P. baccula*, Reeve, Proc. Zool. Soc. 1852, p. 128.
—Hanley, Conch. Misc. Melan. f. 63.
Branch of the Ganges.

PLATE CXXV.

PALUDOMUS.

- 1, 4. *P. funiculata*, Reeve, Conch. Icon. Palud. f. 13.—Tanalia, f. Layard, Proc. Zool. Soc. 1854, p. 93 (amended description).

In a mountain stream, not far from Ratnapoor, Ceylon.

- 2, 3. *P. pyriformis*, Dohrn, Proc. Zool. Soc. 1858, p. 536.

Ceylon.

- 5, 6. *P. dilatata*, Reeve, Proc. Zool. Soc. 1852, p. 128.

Ceylon.

7. *P. abbreviata*, Reeve, Proc. Zool. Soc. 1852, p. 127.

Ceylon.

Forms too near an approach to *bicinctus*.

- 8, 9. *P. Thwaitesii*, Layard, Proc. Zool. Soc. 1854, p. 92 (as *Philopotamis*).

Ceylon.

10. *P. Hanleyi*, Dohrn, Proc. Zool. Soc. 1858, p. 535.

Ceylon.

The spiral lines are too minute to be adequately represented. All the *Paludomi* of this plate have been drawn from the specimens originally described from Cuming's collection (now in the British Museum).

PLATE CXXVI.

PALUDOMUS.

- 1, 4. *P. constricta*, Reeve, Proc. Zool. Soc. 1852, p. 129.

Ceylon.

A rather uncertain species, figured, as indeed are many (f. 5, 6, 8, 9,) in this plate, from the Cumingian types.

- 2, 3. *P. palustris*, Layard, Proc. Zool. Soc. 1854, p. 89.

Ceylon.

Remarkable for its granulated surface.

- 5, 6. *P. Cumingiana*, Dohrn, Proc. Zool. Soc. 1857, p. 124.

Ceylon.

Distinguishable from *Gardneri*, says the author, by its larger mouth, and the deep channel-like impression on the upper part of the whorl.

- 7, 10. *P. obesa*, Philippi, Abbild. Neue Conch. vol. 2, p. 170, Melania, pl. 4, f. 3 (as ?*Melania*).—*P. maculatus*, Lea, Proc. Nat. Philadel. vol. 8, p. 110.—*Rivulina m.* Lea, Journ. Acad. Philad. ser. 2, vol. 6, p. 118, pl. 22, f. 10.

Bombay: Ahmednuggur.

- 8, 9. *P. nodulosa*, Dohrn, Proc. Zool. Soc. 1857, p. 125.

Ceylon.

PLATE CXXVII.

HELIX.

See previous plates xiii to xvi, xxv to xxxii, l to lxiv, lxxxiii to xci, cxi, cxii.

1. *H. Waltoni*, Reeve, Proc. Zool. Soc. 1842, p. 49: Conch. Syst. vol. 2, pl. 166, f. 2, 3: Conch. Icon. Helix. f. 372.—Pfeif. Mon. Helic. vol. 1, p. 19.

Ceylon.

The ordinary form has a speckled epidermis.

2. *H. hæmastoma*, Linnaeus, Syst. Nat. ed. 12, p. 1247.—Chemn. Conch. Cab. vol. 9, f. 1150, 1.—Reeve, Conch. Icon. Helix, f. 366, b.—Pfeif. Mon. Helic. vol. 4, p. 195.

Ceylon.

There is a black-mouthed variety very different from the true *melanotragus*.

3. *H. melanotragus*, Born (not Reeve), Test. Mus. Vind. p. 388.—*H. hæmastoma*, var., Chemn. Conch. Cab. vol. 9, f. 1052, 3, and Reeve, Conch. Ic. Helix, f. 366, c.

Ceylon.

Born referred solely to Geve (f. 329) for an illustration (and it is a characteristic one) of his species, which, whether really distinct, or merely a varietal form of the last, may usually be recognised by its broad white upper band, and the shape of its earlier volutions.

4. *H. superba*, Pfeiffer, Zeits. Mal. 1850, p. 71: Mon. Helic. vol. 3, p. 185: Kust. ed. Chemn. Helix, pl. 133, f. 1, 2.—Reeve, Conch. Icon. Helix, f. 368.

Ceylon.

5. *H. fastosa*, Albers, Mal. Blät. 1854 (vol. 1), p. 213.—Pfeif. Mon. Helic. vol. 4, p. 197.

Ceylon.

6. *H. phoenix*, Pfeiffer, Mon. Helic. vol. 4, p. 194.
—*H. melanotragus*, var. Reeve, Conch. Ic. Helix, f. 367, b.
Ceylon.

7. *H. Grevillei*, Pfeiffer, Proc. Zool. Soc. 1856, p. 387, pl. 36, f. 8: Mon. Helic. vol. 4, p. 195.
Ceylon.

The oblique folds are not constant. The shell is a link between *phoenix* and *superba*.

PLATE CXXVIII.

HELIX.

All the figures are somewhat enlarged, and are drawn from the Cumingian types in the British Museum.

- 1, 4. *H. acalles*, Pfeiffer, Proc. Zool. Soc. 1856, p. 327: Mon. Helic. vol. 4, p. 34.
Nilgherries.
- 2, 3. *H. carncola*, Pfeiffer, Proc. Zool. Soc. 1854, p. 148: Mon. Helic. vol. 4, p. 47.—Reeve, Conch. Icon. Helix, f. 1374.
Ceylon.
- 5, 6. *H. convexiuscula*, Pfeiffer, Proc. Zool. Soc. 1855, p. 191: Mon. Helic. vol. 4, p. 35.
Ceylon.
- 7, 10. *H. Thwaitesi*, Pfeiffer, Proc. Zool. Soc. 1853, p. 125: Mon. Helic. vol. 4, p. 50.—Reeve, Conch. Icon. Helix, f. 1336.
Ceylon.
- 8, 9. *H. vallicola*, Pfeiffer, Proc. Zool. Soc. 1854, p. 289: Mon. Helic. vol. 4, p. 46.—Reeve, Conch. Icon. Helix, f. 1397.
Koondah Mountains, near Calicut.

PLATE CXXIX.

HELIX.

All the figures are greatly enlarged.

- 1, 2, 3. *H. euomphalos*, W. and H. Blanford, J. Asi. Soc. Beng. 1861 (vol. 30), p. 354: Cont. Mal. pt. 2, p. 8.—Pf. Mon. Helic. vol. 5, p. 138.
Near Pykara, Nilgherries.
4. *H. febrilis*, W. and H. Blanford, J. Asi. Soc. Beng. 1861 (vol. 30), p. 357, pl. 2, f. 4: Cont. Mal. pt. 2.—Pfeif. Mon. Helic. vol. 5, p. 76.
Kalryenmullies, Southern India.

- 5, 6. *H. conulus*, Blanford, J. Asi. Soc. Beng. 1865, pt. 2 (vol. 34), p. 73, and Cont. Mal. pt. 5, p. 9 (as *Nanina*).—Pf. Mon. Helic. vol. 5, p. 89.
Aracan.

- 7, 10. *H. tricarinata*, W. and H. Blanford, J. Asi. Soc. Beng. 1861 (vol. 30), p. 355, pl. 1, f. 10: Cont. Mal. pt. 2, p. 9.—Pfeif. Mon. Helic. vol. 5, p. 91.
Near Pykara, Nilgherries.

- 8, 9. *H. miccylla*, Benson, Ann. Nat. Hist. 1860 (ser. 3, vol. 5), p. 384.—Pfeif. Mon. Helic. vol. 5, p. 53.
Matelle, Ceylon.

PLATE CXXX.

HELIX.

- 1, 4. *H. Bactriana*, Hutton, Journ. Asi. Soc. Beng. 1849 (vol. 17, pt. 2), p. 65: Pfeif. Mon. Helic. vol. 4, p. 128.—Reeve, Conch. Icon. Helix, f. 1376.
Candahar.
- 2, 3. *H. vidua*, Blanford, MSS.
Khasi Hills.
- 5, 6, 7. *H. Patane*, Benson, Ann. Nat. Hist. 1859 (ser. 3, vol. 3), p. 270: Pfeif. Mon. Helic. vol. 5, p. 113: Mal. Blät. 1859, p. 22.
Darjiling.
- 8, 9. The only example known to Mr. Hanley in England having been utterly smashed, he does not dare to identify the species. Its sculpture was remarkable.
10. *H. vittata*, Müller, Hist. Verm. pt. 2, p. 75.—Reeve, Conch. Icon. Helix, f. 412.—Pfeif. Mon. Helic. vol. 1, p. 432 (with synonymy).
Ceylon, and Malabar.

A very variable shell, often without bands, too well known to require much illustration.

PLATE CXXXI.

HELIX.

- 1, 2, 3. *H. Feddeni*, Blanford, J. Asi. Soc. Beng. 1865, pt. 2 (vol. 30), p. 75; Cont. Mal. pt. 5, p. 11.—Pfeif. Mon. Helic. vol. 5, p. 398.
Near Prome, Pegu.
4. *H. trifasciata*, Chemnitz, Conch. Cab. vol. 11, f. 3018, 3019: ed. Kuster, Helix, p. 108, pl. 84, f. 20, 21, and pl. 136, f. 13. Pfeif. Mon. Helic. vol. 3, p. 76.—*H. lævipēs*, var. Férus., Hist. Moll. pl. 92, f. 4.
Malabar, Tranquebar.

- 5, 6. **H. Candaharica**, Hutton, J. Asi. Soc. Beng. 1849 (vol. 17, pt. 2), p. 630.—Pfeif. Mon. Helic. vol. 1, p. 165.—Reeve, Conch. Icon. Helix, f. 456.

Candahar.

- 7, 10. **H. Shiplayi**, Pfeiffer, Proc. Zool. Soc. 1856, p. 327 : Mon. Helic. vol. 4, p. 39.

Beypur, Anamullay Hills.

- 8, 9. **H. asperella**, Pfeiffer, Symb. pt. 3, p. 36 : Mon. Helic. vol. 1, p. 364 : Kust. ed. Chemn. pl. 82, f. 22 to 25.—Reeve, Conch. Icon. Helix, f. 752.

Bundelkhund.

PLATE CXXXII.

HELIX.

- 1, 4. **H. clathratula**, Pfeiffer, Zeitsch. Malak, 1850, p. 67 : Mon. Helic. vol. 3, p. 115.—Bens. Ann. Nat. Hist. 1860 (ser. 3, vol. 5), p. 247.—Reeve, Conch. Icon. Helix, f. 336.—**H. puteolus**, Bens. Ann. Nat. Hist. 1853 (ser. 2, vol. 12), p. 92.—Reeve, Conch. Icon. Helix, f. 1334.

Ceylon.

- 2, 3. **H. nepos**, Pfeiffer, Proc. Zool. Soc. 1855, p. 91 : Mon. Helic. vol. 4, p. 24.

Ceylon.

- 5, 6. **H. injussa**, W. and H. Blanford, J. Asi. Soc. Beng. 1861, vol. 30, p. 355, pl. 1, f. 13 : Cont. Mal. pt. 2.—Pfeif. Mon. Helic. vol. 5, p. 181.

Coonoor Ghat, Nilgherries.

7. **H. liricineta**, Theobald and Stol. J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 241, pl. 18, f. 10 (as *Conulema*).

Near Moulmein.

- 8, 9. **H. sericata**, Godwin-Austin, Proc. Zool. Soc. 1874.

N. Cachar.

The author, to whose courtesy we are much indebted, proposes to describe this remarkable shell in the Zoological Proceedings as a *Plectopylis*.

10. **H. Bensoni**, Von dem Busch in Philip. Abbild. N. Conch. vol. 1, p. 11, Helix, pl. 1, f. 7.—Pfeif. Mon. Helic. vol. 1, p. 216.

Bengal (teste Pfeiffer) : Khasia Hills.

Will possibly be considered a variety of *serrulata*.

PLATE CXXXIII.

MEGALOMASTOMA, RAPHAULUS, STREPTAULUS, HELICINA, CLOSTOPHIS.

See previous plate vii, for *Megalomastoma*, and vi, for *Helicina*.

1. **M. funiculatum**, var. Benson.

For typical form see pl. vii. f. 2.

- 2, 3. **M. pauperculum**, Benson, in Sow. Thesaur. Conch. vol. 3, pl. 262, f. 22.—Pfeif. Mon. Pneum. vol. 2, p. 85.

Himalayah.

Figured from the unique type ; very near to the last species.

4. **R. pachysiphon**, Theobald and Stolic. J. Asi. Soc. Beng. 1872, vol. xli. pt. 2, p. 329, pl. 11, f. 1.

Near Moulmein, Martaban.

- 5, 6. **S. Blanfordi**, Benson, Ann. Nat. Hist. ser. 2, vol. 19 (1857), p. 201.—Pfeif. Mon. Pneum. vol. 2, p. 92.—Sow. Thes. Conch. vol. 3, pl. 265, f. 8, 9.

Near Darjiling in Sikkim Himalayah.

7. **R. chrysalis**, Pfeiffer, Proc. Zool. Soc. 1852, p. 158 (as *Cyclostoma*) : Mon. Pneum. vol. 2, p. 92.—Bens. Ann. Nat. Hist. ser. 2, vol. 17 (1856), p. 342 (as *Anaulus*).—Sow. Thes. Conch. vol. 3, pl. 265, f. 6, 7.—*Pollicaria* c. Gould, Otia, p. 221.

Ava : near Moulmein.

- 8, 9. **H. scrupulum**, Benson, Ann. Nat. Hist. 1863, ser. 3, vol. 12, p. 425.—Pfeif. Mon. Pneum. vol. 3, p. 239.

Andaman Islands.

We have figured the unique type.

10. **Clostophis Sankeyi**, Benson, Ann. Nat. Hist. 1860, ser. 3, vol. 5, p. 95.—Pfeif. Mon. Pneum. vol. 3, p. 12.

The farm-caves near Moulmein.

Only a single and somewhat imperfect specimen (possibly a monstrosity) has been found : it reminds us somewhat of an imperfect *Opisthostoma*.

PLATE CXXXIV.

PTEROCYCLOS (including SPIRACULUM, &c.)

See previous plates x, xlix.

1. **P. Feddeni**, Benson. See previous plate v. f. 9.

- 2, 3, 4. *P. pullatus*, Benson, Ann. Nat. Hist. 1856, ser. 2, vol. 17, p. 227.—Pfeif. Mon. Pneum. vol. 2, p. 31.—Reeve, Conch. Icon. Pter. f. 16.

Akoutong near Irawadi.

- 5, 6. *P. (Sp.) Beddomei*, Blanford, J. Asi. Soc. Beng. vol. 38, 1866, pt. 2, p. 31: Cont. Mal. pt. 6 (as Spiraculum).

Near Vizagapatam, Presidency of North Madras.

- 7, 10. *P. cetra*, Benson, Ann. Nat. Hist. 1856, ser. 2, vol. 17, p. 228.—Reeve, Conch. Icon. Pter. f. 11. Moulmein.

- 8, 9. *P. (Sp.) Avanus*, Blanford, J. Asi. Soc. Beng. 1863, vol. 32, p. 319: Cont. Mal. pt. 4. (as Spiraculum).

Shan Hills, East of Ava: Kimety Hills.

PLATE CXXXV.

CRASPEDOTROPIS, JERDONIA, LAGOCHEILUS, CYATHOPOMA.

See previous plate lxxxii (for Cyathopoma), and vi (for Lagocheilus).

- 1, 4. *Cr. cuspidatus*, Benson, Ann. Nat. Hist. 1851, ser. 2, vol. 8, p. 189 (as Cyclostoma).—Pfeif. in Kust. ed. Chemn. Cyclos. pl. 49, f. 21, 22, 23, and Mon. Pneum. vol. 1, p. 313 (as Cycl.), vol. 2, p. 62 (as Cycloph.).—Reeve, Conch. Icon. Cycl. f. 39 (as Cycloph.).—Cras. c. Blanf. Ann. Nat. 1864, June.

Nilgherries.

2. *Lag. leporinus*, Blanford, J. Asi. Soc. Beng. 1865, pt. 2, vol. 34, p. 82, and Cont. Mal. pt. 5, (as Cycloph. section Lagoc.).

Akoutong, Pegu.

3. *J. ? Phayrei*, Theobald, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 396.

Shan: South Canara.

When in very fine condition the hairs are much elongated.

- 5, 6. *J. trochlea*, Benson, Ann. Nat. Hist. 1851, ser. 2, vol. 8, p. 189 (as Cyclos.).—Cyclostomus tr. Pfeif. Mon. Pneum. vol. 2, p. 116: Kust. ed. Chemn. Cyclos. pl. 49, f. 29, 30.

Nilgherries.

7. *Cy. procerum*, Blanford, Journ. Conch. 1868, p. 262, pl. 12, f. 8.

Beypoor, Malabar.

- 8, 9. *Cy. Kolamulliense*, W. and H. Blanford, J. Asi. Soc. Beng. 1861, vol. 30, p. 351, pl. 1, f. 4, and Cont. Mal. pt. 2 (as? Jerdonia K.): Ann. Nat. 1864, June.—Pfeif. Mon. Pneum. vol. 3, p. 28 (as Cyclotus).

Kolamullay Hills.

Mr. W. Blanford has kindly identified our specimen, which does not quite agree with the figure in the Journal de Conchyliologie (1868, pl. 12, f. 5).

10. *Cy. Coonoorensis*, Blanford, Journ. Conch. 1868, p. 261, pl. 12, f. 6.

Krore Mund, top of Nilgherries.

PLATE CXXXVI.

MYCHOPOMA and DITROPIS.

- 1, 4. *M. hirsutum*, Beddome, in Blanford's Cont. Mal. Ind. pt. 10, in Jour. Asi. Soc. Beng. 1869, vol. 38, pt. 2, p. 132, pl. 16, f. 5, as Cyclophorus (Myc.).

Calcad and Myhendra Hills.

- 2, 3. *M. limbiferum*, Blanford, Journ. Asi. Soc. Beng. 1869, vol. 38, pt. 2, p. 133, pl. 16, f. 4: Cont. Mal. pt. 10 as Cyclophorus (Myc.).

Tops of Pulney Hills.

- 5, 6. *D. planorbis*, Blanford, Journ. Asi. Soc. Beng. 1869, vol. 38, pt. 2, p. 126, pl. 16, f. 1, as Cyclophorus (Dit.).

Calcad Hills, limits of Travancore.

- 7, 10. *D. convexus*, Blanford, Journ. Asi. Soc. Beng. 1869, vol. 38, pt. 2, p. 128, pl. 16, f. 3: and Cont. Mal. pt. 10, and as Cyclophorus.

Calcad Hills, limits of Travancore.

- 8, 9. *D. Beddomei*, Blanford, Journ. Asi. Soc. Beng. 1869, vol. 38, pt. 2, p. 127, pl. 16, f. 2, and Cont. Mal. pt. 10, as Cyclophorus (Dit.).

Travancore.

PLATE CXXXVII.

NAVICELLA.

- 1, 4. *N. compressa*, Pearson's MSS. in Benson, J. Asi. Soc. Beng. 1836, vol. 5, p. 749.—*N. lineata*, var. Sow. Thes. Conch. vol. 2, pl. 118, f. 25.

River Hoogly.

The Patella Aponogetonis of Vahl (Skrift. Nat. Selskab. vol. 4, pt. 2, p. 153) is probably the young of this, or of the next species.

- 2, 3, 7. *N. cærulescens*, Récluz, in Sow. Thes. Conch. vol. 2, p. 550, pl. 118, f. 29.—Reeve, Conch. Icon. Navic. f. 29, 37.—*N. orientalis*, Reeve, do. f. 33 (young).—*N. tessellata*, Bens. (not well of Lam.) Journ. Asi. Beng. Soc. 1836 (vol. 5).
Ganges, Bengal.

This probably was the Gangetic form of the Lamarckian elliptica referred to by Troschel (Wiegman. Arch. Nat. 1837).

- 5, 6. *N. reticulata*, Reeve, Conch. Icon. Navic. f. 20; and *N. eximia*, f. 26.
Ceylon.

- 8, 9. *N. Livesayi*, Dohrn, Proc. Zool. Soc. 1858, p. 35.
Ceylon.

Drawn from the originals in the late Cumingian collection.

10. *N. cærulescens*, var., Récluz, in Sow. Th. Conch. vol. 2, pl. 118, f. 36, 38.
Hindustan.

PLATE CXXXVIII.

CORBICULA.

- 1, 4. *C. Bensoni*, Deshayes, Proc. Zool. Soc. 1854, p. 345: Cat. Brit. Mus. Vener. p. 225.
River Jumna.

Apparently rare, and notable for its general smoothness; it has occasionally indistinct, interrupted radiating lines.

- 2, 3. *C. Cashmirensis*, Deshayes, Proc. Zool. Soc. 1854, p. 344: Cat. Brit. Mus. Vener. p. 224.
Beloochistan, Avantipura, Cashmire, &c. &c.

- 5, 6. *C. regularis*, Prime, Proc. Zool. Soc. 1860, p. 321.
Madras, Deccan, in brackish water.

- 7, 10. *C. striatella*, Desh. Proc. Zool. Soc. 1854, p. 344: Cat. Brit. Mus. Vener. p. 224.—Hanley, Photog. Conch.—Prime, Ann. Lyc. 1864, vol. 8, p. 74, f. 22.—*C. violacea*, Prime, do. 1861, p. 28, teste Prime.
Pondicherry, &c.

- 8, 9. *C. occidentis*, "Benson" in Desh. Cat. Brit. Mus. Vener. p. 225.—Hanley, Photog. Conch.—Prime, Ann. Lyc. N.Y. 1866, vol. 8, p. 220, f. 51.
Sikkim: Bundelkhund, &c.

Has sometimes (yet rarely) linear rays of rufous brown on its yellowish ground colour.

PLATE CXXXIX.

DIPLOMMATINA.

See previous plates cxix, cxx.

1. *D. tumida*, Godwin-Austen, J. Asi. Soc. Beng. 1870, p. 6, pl. 2, f. 2.
Khasi Hills.

- 2, 3. *D. scalaris*, Blanford, J. Asi. Soc. Beng. 1868, p. 79, pl. 2, f. 2: Cont. Mal. pt. 9.
Garro Hills, W. of Khasi.

4. *D. parvula*, Godwin-Austen, J. Asi. Soc. Beng. 1870, p. 5, pt. 1, f. 5.
Khasi Hills.

- 5, 6. *D. Huttoni*, Pfeiffer, Proc. Zool. Soc. 1852, p. 157: Mon. Pneum. vol. 1, p. 123: Kust. ed. Chemn. Cyclos. pl. 48, f. 36, 37.
Mussoorie.

7. *D. Jatingana*, Godwin-Austen, J. Asi. Soc. Beng. 1870, p. 1, pl. 1, f. 1.
Khasi Hills.

- 8, 9. *D. Puppensis*, Blanford, J. Asi. Soc. Beng. 1862, vol. 32, p. 324; Ann. Nat. Hist. 1864, June.
Puppa Hill, Upper Birmah.

10. *D. insignis*, Godwin-Austen, J. Asi. Soc. Beng. 1870, p. 6, pt. 2, f. 1.
Shan States: Khasi Hills.

PLATE CXL.

DIPLOMMATINA.

1. *D. nana*, Blanford, J. Asi. Soc. Beng. 1865, pt. 2, vol. 34, p. 85.
Akoutong, Thondoung, Yenandoung, Henzada district, Pegu: near Moulmein.

- 2, 3. *D. diplocheilos*, Benson, Ann. Nat. Hist. ser. 2, vol. 19 (1857) p. 202.—Pfeif. Mon. Pneum. vol. 2, p. 10, Novit. Conch. vol. 1, pl. 37, f. 13, 14, 15.
Teria Ghat, Khasi Hills.

4. *D. carneola*, Stoliczka, J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 152, pl. 6, f. 3.
Damotha, near Moulmein.

- 5, 6. *D. pachycheila*, Benson, Ann. Nat. Hist. 1857, ser. 2, vol. 19, p. 203.—Pfeif. Mon. Pneum. vol. 2, p. 10: Novit. Conch. vol. 1, pl. 37, f. 16, 17, 18.
Darjiling.

7. *D. angulata*, Theobald and Stolic. J. Asi. Soc. Beng. 1872, vol. 41, pt. 2, p. 331, pl. 11, f. 3.
Near Moulmein, Martaban.

- 8, 9. *D. folliculus*, Pfeiffer, Mon. Pneum. vol. 1, p. 122 (previously in Symbol. Helic. pt. 3, p. 83, as *Bulimus*), vol. 2, p. 10: Kust. ed. Chemn. Cyclos. pl. 48, f. 32, 33.

Landour; Simla.

10. *D. polypleuris*, Benson, Ann. Nat. Hist. ser. 2, vol. 19, 1857, p. 203.—Pfeif. Mon. Pneum. vol. 2, p. 11.—G. Austen, J. Asi. Soc. Beng. 1870, p. 4, pl. 1, f. 4, var. *lævior*.

Nanclai; Ponji; Sandoway.

PLATE CXLI.

DIPLOMMATINA.

1. *D. Kingiana*, W. and H. Blanford, J. Asi. Soc. Beng. 1861, vol. 30, p. 348, pl. 1, f. 2.—*Arinia* Kin. Pf. Mon. Pneum. vol. 3, p. 91.—*D. (Nicida)* King. Blanf. J. Conc. 1868.

Kohamullay Hills, near Trichinopoly, Southern India.

2. *D. liricineta*, Blanford, Journ. Conch. 1868, pl. 14, f. 5, as *D. (Nicida)* *lir*.

Khandullah, between Bombay and Poona, in Syhadri Hills.

3. *D. Pulneyana*, Blanford, Journ. Conch. 1868, pl. 14, f. 2, as *D. (Nicida)* *Pul*.

Pulney Hills, Southern India.

4. *D. Nilgirica*, W. and H. Blanford, J. Asi. Soc. Beng. 1860, vol. 29, p. 124, and 1861, p. 348, pl. 1, f. 1.—*Arinia* Nil. Pf. Mon. Pneum. vol. 3, p. 91.—*D. (Nicida)* Nil. Bl. Journ. Conch. 1868, pl. 14, f. 1.

Near Pykara, Nilgherries.

5. *D. nitidula*, Blanford, Journ. Conch. 1868, pl. 14, f. 8, as *D. (Nicida)* *nit*.

Kulputty Hills, Wynaad, Nilgherries.

6. *D. crispata*, Stoliczka, J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 153, pl. 6, f. 4, as *D. (Palaina)* *C*. Damotha, near Moulmein.

- 7, 8. *D. Richthofeni*, Theobald & Stol. J. Asi. Soc. Beng. 1872, vol. 41, pt. 2, p. 331, pl. 11, f. 4. Near Moulmein, Martaban.

9. *D. Fairbanki*, Blanford, Journ. Conch. 1868, pl. 14, f. 4, as *D. (Nicida)* *F*.

The unique example being lost, we have copied our figure from the work referred to.

10. *D. scalaroides*, Theobald, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 399, pl. 18, f. 5.

Mandalay, Birmah.

PLATE CXLII.

LEPTOPOMA, PTEROCYCLOS.

See previous plates vi, cv (for *Leptopoma*), and v, xlix, cxxxiv (for *Pterocyclos*).

1. *L. apicatum*, Benson, Ann. Nat. Hist. 1856 (ser. 2, vol. 18), p. 95.—Pfeif. Mon. Pneum. vol. 2, p. 73 (copied from Bens.).—Reeve, Conch. Icon. Lept. f. 33.

Ceylon.

2. *L. elatum*, Pfeiffer, Proc. Zool. Soc. 1852, p. 159, and in Kust. ed. Chemn. Cyclost. pl. 32, f. 16, 17 (as Cyclost.): Mon. Pneum. vol. 1, p. 117 (as *L.*).—Reeve, Conch. Icon. Lept. f. 3.

Ceylon.

3. *L. flammeum*, Pfeiffer, Proc. Zool. Soc. 1854, p. 127 (as Cyclost.): Mon. Pneum. vol. 2, p. 76 (as Lept.).—Reeve, Conch. Icon. Lept. f. 47 a.

Ceylon.

Figure 47 b of Reeve is not satisfactory. We speak from the type. Our own figure is taken from a banded variety.

4. *L. orophilum*, Benson, Ann. Nat. Hist. 1853, ser. 2, vol. 11, p. 106 (as Cyclost.): Mon. Pneum. vol. 2, p. 77 (as *L.*).—Reeve, Conch. Icon. Lept. f. 51. *L. pæcilum*, Pfeiffer, Proc. Zool. Soc. 1854, p. 302 (as Cyclost.): Mon. Pneum. vol. 2, p. 76.—Reeve, Conch. Icon. Lept. f. 46.

Ceylon.

The name *orphilum* has priority; *pæcilum*, however, is the more clearly defined species.

- 5, 6. *P. ater*, Stoliczka, J. Asi. Soc. Beng. 1872, vol. 40, pt. 2, p. 149, pl. 6, f. 2.

Kuengan, near Moulmein.

- 8, 9. *P. bifrons*, Pfeiffer, Proc. Zool. Soc. 1855, p. 117: Mon. Pneum. vol. 2, p. 30.—Reeve, Conch. Icon. Pter. f. 1.

Ceylon.

- 7, 10. *P. parvus*, Pearson. See plate 5, f. 3 for var. *Assamensis*.

Our figure 7 represents the smaller and more typical form of *parvus*, 10 that of the variety which Benson mistook for the *P. Albersi*. The provisionally named but undescribed *P. Arakanensis* (Blanford in J. Asi. Soc. Beng. 1865, p. 98: Cont. Mal. Ind. pt. 5) differs little from the variety *Assamensis*.

PLATE CXLIII.

CYCLOPHORUS.

See other plates i to iv, xxxiii, xxxiv, xlvii, xlviii, civ, cv, cliv, clv.

- 1, 4. *C. annulatus*, Troschel, in Pfeif. Zeits. Malak. 1847, p. 150.—Pf. Mon. Pneum. vol. 1, p. 98: Kust. ed. Chemn. Cyclost. pl. 29, f. 14, 15.
Koondah Mountains: Ceylon.

In the earlier description, which differs considerably from that in Pfeiffer's Monographs, no interrupted peripheral band (as in Kust. pl. 22) is suggested; we prefer, then, to assign the name *annulatus* to that much more ringed form which we have figured.

- 2, 3. *C. parma*, Benson, Ann. Nat. Hist. ser. 2, vol. 18 (1856), p. 94.—Pfeif. Mon. Pneum. vol. 2, p. 55.

Ceylon.

Allied to *cratera* and *cytopoma*: the very closely coiled operculum of the former has (it is said) two more whorls; the peristome of the latter is not double.

- 5, 6. *C. tristis*, Blanford, J. Asi. Soc. Beng. vol. 38, p. 134, pl. 16, f. 9 (as *Pterocycl.*).
S. Canara.

The discovery of the operculum forces us to remove this abnormal species from that genus to which it was first assigned.

- 7, 10. *C. Shiplayi*, Proc. Zool. Soc. 1856, p. 337: Mon. Pneum. vol. 2, p. 68.—Reeve, Conch. Icon. Cyclop. f. 85.
Nilgherries.

Figured from the original types in the British Museum, which are very possibly immature.

- 8, 9. *C. Inglisianus*, Stoliczka, Journ. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 148, pl. 6, f. 1.
Damotha, near Moulmein.

PLATE CXLIV.

CYCLOPHORUS.

1. *C. fulguratus*, var. Pfeiffer. See previous figure on plate 1.—*C. fulguratus*, Reeve, Conch. Icon. Cyclop. f. 35, c. d.—Pfeif. Novit. pl. 98, f. 1, 2.

The original type of *fulguratus* was the young shell figured by Pfeiffer in his monograph in Kuster's edition of Martini and Chemnitz (Cycl. pl. 45, f. 9, 10), and by Reeve in his Iconica (Cyclop. f. 35, a, b).

2. *C. Theobaldianus*, var. Benson.
Birmah.

Almost a link between *Theobaldianus* and *speciosus*.

- 3, 4. *C. Phayrei*, Theobald, MSS.
Moulmein, Birmah.

Reminds one of *Ceylanicus*, and a little of *Haughtoni*, of which one writer considers it a variety.

5. *C. alabastrinus*, Pfeiffer, Proc. Zool. Soc. 1854, p. 126 (as *Cyclost.*); Mon. Pneum. vol. 3, p. 41; Novit. Conch. vol. 1, pl. 1, f. 4, 5.
"Ceylon"?

We doubt both the locality and the distinctiveness of this dead shell, but figure the better of the specimens in the British Museum.

6. *C. ophis*, Hanley, Pr. Zool. Soc. 1875.
Tenasserim.

Somewhat allied to *C. tuba*, but quite distinct.

7. *C. serratzona*, Thorp, MSS.
Upper Salwen (Theobald).

The jagged edge of the white band forms a conspicuous, yet perhaps not permanent feature. The shell, which has a white aperture, and a large umbilical area, comes between *Phayrei* and *polynema*: the faint close spiral rugæ seem confined to the upper disc. Except in shape it might be taken for *C. labiosus*.

PLATE CXLV.

CYCLOPHORUS, ALYCÆUS, OMPHALOTROPIS, CATAULUS, CYATHOPOMA.

See for *Alycæus* plates xci to xcvii, ciii; for *Cataulus* evi, cxlvi; for *Cyathopoma* lxxxii, cxxxv.

- 1, 4. *Al. expatriatus*, Blanford, J. Asi. Soc. Beng. 1860, vol. 29, p. 123.—Pfeif. Mon. Pneum. vol. 3, p. 52.

Neddowuttum Ghat, north of Nilgherries, and var. from Shevroys.

- 2, 3. *Al. Kurzianus*, Theobald and Stoliczka, J. Asi. Soc. Beng. 1872, vol. 41, pt. 2, p. 330, pl. 11, f. 3.
Nattoung, Prome.

- 5, 7. *Cyc. subplicatulus*, Beddome, Pr. Zool. Soc. 1875, p. 452, pl. 53, f. 26, 27.
Ceylon (teste Beddome).

6. *Cat. marginatus*, Pfeiffer, Proc. Zool. Soc. 1853,

p. 52; Mon. Pneum. vol. 2, p. 90.—Sow. Thes. Conch. vol. 3, pl. 264, f. 4, 5.

Ceylon.

8. *Cyat. Ceylanicum*, Beddome, Proc. Zool. Soc. 1875, p. 450, pl. 52, f. 20.

Near Rambadda Falls, Ceylon.

9. *Cyat. vitreum*, Beddome, Proc. Zool. Soc. 1875, p. 449, pl. 53, f. 21, 22.

Tinnevely district, S. India.

10. *O. disterrina*, Benson, An. Nat. H. 1863, Dec. —Pfeif. Mon. Pn. vol. 3, p. 178.

Andamans (one specimen, here figured).

PLATE CXLVI.

CATAULUS, CREMNOCONCHUS.

See previous plate (for Cataulus) cvi.

1. *Cat. leucocheilus*, Adams and Reeve, in Sow. Thes. C. vol. 3, pl. 264, f. 14.

Ceylon (coll. Beddome).

2. *Cat. recurvatus*, Pfeiffer, Proc. Zool. Soc. 1862, p. 116, pl. 12, f. 2: Mon. Pneum. vol. 3, p. 88.—Sow. Thes. Conch. vol. 3, pl. 264, f. 16.

Anamallay forest, foot of Nilgherries.

3. *Cat. eurytrema*, Pfeiffer, Proc. Zool. Soc. 1852, p. 145, pl. 13, f. 5 (badly).—Sow. Thes. Conch. vol. 3, pl. 264, f. 17.

Ceylon: Travancore (Beddome).

4. *Cat. Nietneri*, Nevill, J. Asi. Soc. Beng. vol. 39, pt. 2 (1871), pl. 1, f. 7, 7, a.

Ceylon.

The original was drawn from a depauperated variety.

5. *Cat. pyramidatus*, Pfeiffer, Proc. Zool. Soc. 1852, pl. 13, f. 4 (badly): Mon. Pneum. vol. 2, p. 88.—Sow. Thes. Conch. vol. 3, pl. 264, f. 10.

Ceylon.

The distinctness of this from *Austenianus* may be doubted.

6. *Cr. Syhadrensis*, Blanford, An. Nat. Hist. ser. 3, vol. 12, p. 184.

On hills opposite Bombay.

7. *Cr. Fairbanki*, Blanford.

An accident to our manuscript at the time of going

to press prevents our saying where (if at all) this species has been published.

- 8, 9. *Cr. conicus*, Blanford, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 10, pl. 3, f. 3, 4.

Torna, near Poona.

10. *Cr. carinatus*, Layard, Proc. Zool. Soc. 1854, p. 94 (as *Anculotus*).—Blanf. J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 10, pl. 3, f. 3, 4.

Mahableshwar Hills, Bombay Presidency.

Originally described from a young shell.

PLATE CXLVII.

SOPHINA, HYPSELOSTOMA.

See plate viii for Hypselostoma.

- 1, 4. *S. forabilis*, Benson, Ann. Nat. Hist. 1 (as *Helix*), amended 1860 (ser. 3, vol. 5), p. 27.—Pfeif. Mon. Helic. vol. 5, p. 112 (as *H.*).—Stolic. J. Asi. Soc. Beng. 1871 (vol. 40, pt. 2), p. 257, pl. 19, f. 10.—Pfeif. Mon. Hel. vol. 7, p. 117 (as *Hel.*).

Phai Than, Tenasserim Valley, and Damatha Cavern, near Moulmein.

- 2, 3. *S. Calias*, Benson, An. Nat. Hist. 1859 (as *Helix*), ser. 3, vol. 3, p. 473, amended 1860 (ser. 3, vol. 5), p. 26.—Pfeif. Mon. Helic. vol. 5, p. 112 (as *H.*).

Farm caves, near Moulmein.

- 5, 6. *S. schistostelis*, Benson, Ann. Nat. Hist. ser. 3, vol. 3, 1859, p. 473 (as *Helix*), amended An. Nat. 1860, ser. 3, vol. 5, p. 27 (as *S.*).—Pfeif. Mon. Helic. vol. 5, p. 111 (as *H.*).—S. Calias, Stolic. J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 255, pl. 19, f. 1, 4, 7, 9, text copied Pfeif. Mon. Hel. vol. 7, p. 116.

Near Moulmein.

7. *S. Calias*, Benson, var. *discoidalis*.—*S. discoidalis*, Stolic. J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 258, pl. 19, f. 15, 11, 12.—Pfeif. Mon. Hel. vol. 7, p. 117 (as *Helix*).

On limestone hills, S. of Moulmein.

Benson's type of the true *Calias* was quite different from that supposed to be it by Stoliczka: hence his erroneous introduction of *S. discoidalis* to nomenclature.

- 8, 9. **S. conjungens**, Stoliczka, J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 259, pl. 19, f. 6, 13, text copied Pfeif. Mon. Hel. vol. 7, p. 118.
South of Moulmein.

10. **H. Dayanum**, Stoliczka, J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 172, pl. 7, f. 2.
Damotha, near Moulmein.

Our figure is merely copied from the one here cited.

PLATE CXLVIII.

BULIMUS.

See previous plates xix to xxiii, lxxix, lxxx.

- 1, 4. **B. (Hapalus) Munipurensis**, Godwin-Austen, Proc. Zool. Soc. 1872, p. 516, pl. 30, f. 8.

Hengdan Peak in the Manipur boundary.

- 2, 3. **B. Calcadensis**, Beddome MSS. in Blanford, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 18.
Travancore.

5. **B. Mavortius**, Reeve, Conch. Icon. Bulim. f. 561.—Pfeif. Mon. Pneum. vol. 3, p. 423.
Ceylon.

6. **B. Bengalensis**, Lamarek. Anim. s. Vert. See pl. 80, f. 7.

We here figure the typical two-banded form delineated in Delessert's folio.

7. **B. (Hapalus) Khasianus**, Godwin-Austen, Proc. Zool. Soc. 1872, p. 516, pl. 30, f. 7.
Khasi, Jaintea and Naga Hills.

8. **B. adumbratus**, Pfeiffer, Proc. Zool. Soc. 1854, p. 291: Mon. Pneum. vol. 4, p. 472.
Ceylon.

Our *prætermisus*, var. (pl. 19, f. 4) runs into this: the type here delineated is in the British Museum.

9. **B. Ceylanicus**, var.

A very beautifully painted form, which will by some be considered a distinct species, by others referred to *physalis*.

10. **B. Andamanicus**, Thorp, MSS.
Andaman Islands.

This manuscript name has been tardily accepted, for although the shell has been regarded by some

as the contrarius of Müller, his description does not at all apply to our specimen. The aperture is white with a broad purple lake band above the pillar. For the sinistral *Bulimi* of Asia the student is referred to Von Martens in the zoology of "Die Preussische Expedition nach Ost-Asien."

PLATE CXLIX.

HELIX.

See previous plates xiii to xvi, xxv to xxxii, l to lxiv, lxxxiii to xc, exi, exii, cxxvii to cxxxi.

1. **H. hebesceus**, Blanford, J. Asi. Soc. Beng. 1866 (vol. 36), p. 34, and Cont. Mal. pt. 6, p. 4 (as *Nanina*).—Pfeif. Mon. Helic. vol. 5, p. 78.
Anamallay Hills, S. India.

- 2, 3. **H. subcornea**, Pfeif. Proc. Zool. Soc. 1861, p. 20: Mon. Helic. vol. 5, p. 103: Mal. Blät. 1860, p. 232.
Phie Than (Theobald).

Very near *H. resplendens* of Philippi, and probably more abundant in Siam than at Phie Than.

4. **H. Phidias**, Thorp, MSS.
Upper Onvah, Ceylon (F. Layard).

Pfeiffer had confused this and *hyphasma* in the Cumingian collection: its smooth marble-like surface does not agree with the expression "*sulcis remotioribus spiralibus quasi texta*."

- 5, 6. **H. lixa**, Blanford, J. Asi. Soc. Beng. 1866, vol. 36, p. 35 (as *Nanina*).—Pfeif. Mon. Helic. vol. 5, p. 79.
Anamallay Hills, Southern India.

7. **H. Travancorica**. See previous plate 50, f. 5, 6.

- 8, 9. **H. (Plectopylis) Shanensis**, Stoliczka, J. Asi. Soc. Beng. 1873, vol. 42, p. 170 (as *Plect.*).
Shan States.

Not unlike Kuster's figure of *refuga*. The three labial plicæ (the middle being remote), and the two labial notches are the salient external characters. We do not find it referred to by Godwin-Austen in his valuable paper in the Zoological Proceedings for 1874.

10. **H. Footei**, Stoliczka, J. Asi. Soc. Beng. 1873, vol. 42, p. 170 (as *Trachia*).
Poona and Belgaoim.

PLATE CL.

HELIX.

- 1, 2. *H. (Plect.) Beddomeæ*, Hanley.
Ceylon or Southern India.

The only specimen known was collected by Col. Beddome, in honour of whose amiable wife the species has been named.

3. *H. corylus*, Reeve, Conch. Icon. Hel. f. 1439.—
Pfeif. Mon. Hel. vol. 4, p. 55.
Ceylon.

Very close to *partita*, but darker and less sculptured. Our drawing is from the type now in the National Museum.

4. *H. prospera*, Albers, Mal. Blät. 1857 (vol. 4),
p. 13, pl. 1, f. 7, 8.—Pfeif. Mon. Helic. vol. 4,
p. 197, and vol. 5, p. 267.
Ceylon.

Our figure is a mere copy from the published engraving: we have never seen the species.

- 5, 6. *N. liratula*, Pfeiffer, Proc. Zool. 1860, p. 35:
Mal. Blät. vol. 7, p. 234: Mon. Hel. vol. 5, p. 182.
Ceylon, 6,000 feet above the sea-level.

The original types are here delineated.

7. *H. immerita*, Blanford, J. Asi. Soc. Beng.
1870 (vol. 39, pt. 2), p. 17 (as *Nanina*, section
Ariophanta).—Pfeif. Mon. Helic. vol. 7, p. 128.
South Canara.

The original type is here figured.

8. *H. novella*, Pfeiffer, Proc. Zool. Soc. 1854,
p. 50: Mon. Hel. p. 34.—Reeve, Conch. Icon.
Hel. f. 1294.
Ceylon.

The drawing is taken from the original specimens.

9. *H. verrucula*, Pfeiffer, Proc. Zool. Soc. 1854,
p. 50: Mon. Helic. vol. 4, p. 40.—Reeve, Conch.
Icon. Hel. f. 1327.
Ceylon.

Cuming's type, now in the British Museum, is here represented.

10. *H. daghoba*, W. and H. Blanford, J. Asi. Soc.
Beng. 1861 (vol. 30), p. 356, pl. 2, f. 2.—Pfeif.
Mon. Helic. vol. 5, p. 219.
Patchamullies and Kalryenmullies.

Our figure is taken from Blanford's lithograph, aided by a poor specimen of our own. The shell reminds one of a very broad bidenticulata.

PLATE CLI.

PLANORBIS, AMNICOLA, BITHINIA.

See previous plates xxxix, xl, xcix, for *Planorbis*, and
xxxvii, xxxviii, for *Bithinia*.

- 1, 2, 3. *P. elegantulus*, Dohrn, Proc. Zool. Soc.
1858.
Ceylon.

- 4, 7. *P. Stelzneri*, Dohrn, Proc. Zool. Soc. 1858.
Ceylon.

- 5, 6. *P. Merguiensis*, Philippi.
Mergui, Birmah.

Our specimens were received from Philippi thus named, but we cannot find where he has described them.

- 8, 9. *A. parvula*, Hutton, J. Asi. Soc. Beng. 1849,
(vol. 17, pt. 2) and vol. 18, pt. 2, p. 655 (as
Paludina).—*Bithinia globula*, Lea, Proc. Philad.
1856, vol. 8, p. 110, and Journ. Ac. Philad. new
ser. vol. 6, p. 119, pl. 22, f. 12 (=Obs. Un.
vol. 11) probably.

Chummun, Afghanistan; Ahmednuggur.

We are indebted to Major Hutton for our specimens, which are undistinguishable from some Sicilian shells which Mr. Hanley has received from Benoit, as his *vestita*, a name not to be found in Kobelt's catalogue of European fluviatiles.

10. *B. costigera*, Beck in Kuster's ed. Chemn.
Conch. Palud. p. 33, pl. 7, f. 18, 19.
Valvata sulcata, Eyd. and Soul. Voy. Bonite Zool.
p. 517, pl. 31, f. 19, 20, 21.
Bengal; Pondicherry; Ceylon.

We believe the *Cyclostoma gradatum* of Pfeiffer (Zool. Proc. 1854, p. 303) should be referred to this shell, but cannot find the types. The *Turbo marginatus* of Chemnitz may, also, be identical, but is too ill-defined to merit precedence.

PLATE CLII.

VITRINA.

See previous plates lxxv, lxxvi.

- 1, 4. **V. monticola**, Benson, MSS. in Pfeif. Mon. Helic. vol. 2, p. 497: Kust. ed. Chemn. Vit. pl. 2, f. 6, 7, 8.—Reeve, Conch. Icon. Vit. f. 11.
Landour, Himalayah.

The surface is highly polished.

- 2, 3. **V. cassida**, Hutton and Benson, J. Asi. Soc. Beng. vol. 7 (1838), p. 214.—Pfeif. Mon. Helic. vol. 3, p. 2.—Reeve, C. Icon. Vit. f. 10 (from Benson's specimen).
Himalayah.

The surface is dull, and shows in the type here figured, not merely concentric folds, but, also, some faint and distant spiral striæ.

5. **V. venusta**, Theobald, J. Asi. Soc. Beng. 1870, vol. 39, pt. 2, p. 400.
Aracan Hills, between Tongoop and Prome.

The aspect of the under side reminds us of a miniature gigas.

6. **V. solida**, Godwin-Austen, Proc. Zool. Soc. 1872, p. 518, pl. 30, f. 10 (as Helicarion).
Hengdan Peak, N. Cachar Hills

7. **V. Birmanica**, Philippi, Zeits. Malak. 1847, p. 65.—Pfeif. Mon. Hel. vol. 2, p. 498.—Reeve, Conch. Icon. Vit. f. 59.
Mergui, Birmah.

Our drawing is from the same shell figured by Reeve from the collection of Mr. Cuming, who, I think, had it from the author. Yet the term "depressa" is scarcely suitable for the specimen.

- 8, 9. **V. heteroconcha**, H. Blanford, J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 45, pl. 2, f. 8 (as Helicarion).—Pfeif. Mon. Hel. vol. 7, p. 9.
Darjiling.

10. **V. membranacea**, Benson, An. Nat. H. 1853, ser. 2, vol. 12, p. 93.—Pfeif. Mon. Helic. vol. 4, p. 792.—Reeve, Conch. Icon. Vit. f. 78.
Balcadara, Ceylon.

Our figure is taken from the shell delineated by Reeve, which has not arrived at the full size stated by Benson, but is the only specimen attainable.

PLATE CLIII.

MELANIA.

See previous plates lxxi to lxxv, cx.

1. **M. Reevei**, Brot, Cat. Mélan. 1862, p. 46, name for *M. balteata*, Reeve (not Phil.) Conch. Icon. Melan. f. 144, b (scarcely 144, a).
Birmah.

The type in the British Museum is an immature form of the shell we had intended to call *Golia* (pl. 72, f. 3), and the young may prove the too briefly described *M. humerosa* of Gould, from Manko, Tavoy (Proc. Bost. Nat. H. 1847, vol. 2, p. 219).

2. **M. præmordica**, Tryon, American J. Conch. vol. 2, pt. 2, 1866, p. 111, pl. 10, f. 3.
Birmah, Pegu.

Apparently very rare: our sole specimen was a broken one; so the outer lip has been corrected in accordance with Tryon's outline.

3. **M. pagodula**, Gould, Proc. Bost. J. Nat. H. 1847, vol. 2, p. 219; Otia Conch. p. 200.—Reeve, Conch. Icon. Io, f. 10 (as Io).
Thoungyin River (branch of Salwen),
Birmah.

Our figure is taken from the supposed type in the British Museum, purchased from H. Cuming.

4. **M. Reevei**, var. *imbricata*.
5, 6, 7. All from the Shan province. Figure 6 is the *M. variabilis*, var. *turrita* of Theobald in the J. Asi. Soc. Beng. 1865 (vol. 34, pt. 2, pl. 9, f. 6; f. 7 his *variabilis*, var. *vittata* (do. f. 4); f. 5 a form somewhat allied to the first, but with many more rows of granules. They may possibly all be forms of *baccata*, or possibly all distinct species, but pending the monograph of *Melania* by Dr. Brot we will not venture to pronounce an opinion.

PLATE CLIV.

UNIO.

See previous plates x, xi, xii, xli to xlv, cvii.

1. **U. parma**, Benson in Conch. Icon. Unio, f. 514.
Irawadi and Tenasserim River, Pegu.

2. *U. parma*? var. Benson.
Bhamao.

May possibly be a distinct species, but having seen but one specimen we do not venture to decide.

3. *U. rugosus*, Gmel. Syst. Natur. f. 3222, for Chemn. Conch. Cab. vol. 10, f. 1649 (=Kust. ed. Chemn. Un. pl. 97, f. 5).
Coromandel.

Between *macilentus* and *scobina*. A single valve has been lately obtained which more precisely resembles the figure of Chemnitz.

4. *U. Mandelayanus*, Theobald, J. Asi. Soc. Beng. 1873, p. 208, pl. 17, f. 2.
Mandelay, Birmah.

Specimens are occasionally of a rich grass-green.

5. *U. macilentus*, var.
Surat; near Chimoor; Pem Gunga.

6. *U. Tavoyensis*, Gould, Proc. Bost. N. H. vol. 1, p. 140: Otia Con. p. 191.—Reeve, Conch. Icon. Unio, f. 49.
Tavoy.

Our specimen was sent by Gould to Benson.

7. *U. Tavoyensis*? var.—*U. Tavoyensis*, Kust. ed. Chem. Unio, pl. 48, f. 2.
Birmah.

Very much larger and rounder than the typical form.

India is the reputed habitat of many *Uniones* which modern researches have failed to discover there. Amongst them may be specified Spengler's *crassus* (from Tangiers), his *conus* (= *tumidus*, from Europe), his *radiatus* (from North America), his *nodosus* (=the European *pictorum*), &c. Eydoux in Guérin's *Magasin de Zoologie* (1838, pl. 118) indicates *U. Keraudreni* (f. 1) and *U. Gaudichardi* (f. 3), as from Bengal (the first may, perchance, be *U. leioma*, but looks more like a Cape shell), and *U. Gerbidoni* (f. 2) from Coromandel: these two last remind us of *U. Niloticus* and *U. lithophagus*, both from the Nile. The supposed Indian *U. digitiformis* of Sowcrby comes from China; *U. Bengalensis* of Lea from the Philippines. *U. velaris* of Benson and *U. delphinus* of Spengler must, also, be expunged from our list.

PLATE CLV.

UNIO, CORBICULA, CYCLAS, PISIDIUM, TRICULA, ACHATINA.

See previous plates cxxxviii for *Corbicula*, and xvii, xviii, xxxv, xxxvi, lxxviii, cii, for *Achatina*.

1. *T. montana*, Benson, Calcutta J. Nat. H. 1842: An. Nat. H. 1862, Dec.

From a stream at the head of Bheemtál, on stems of a water iris.

2. *U. Bhamaoensis*, Theob. J. Asi. Soc. Beng. 1873, pt. 2, p. 207, pl. 17, f. 1.
Near Bhamao, and from Western Prome, Pegu.

3. *U. Vulcanus*, Hanley, Proc. Zool. Soc. 1875.
Birmah or Pegu.

The English editor has lost the precise locality of this lovely species.

4. *A. senator*, Hanley, Proc. Zool. Soc. 1875.
Cottiam Hills, S. India.

We have seen only four specimens (none perfect) of this peculiar *Glessula*.

5. *A. Isis*, Hanley, Proc. Zool. Soc. 1875.
Southern India.

The hair-like lines and narrow fillet (the latter not a constant feature) are found in no other *Glessula* of so elongated a shape.

6. *Cor. Bengalensis*, Desh. Proc. Zool. Soc. 1854, p. 344: Cat. Brit. Mus. Vener. p. 224.—Prime, Ann. Lyc. N. Y. 1866, vol. 8, p. 220, f. 52.
River Jumna.

7. *Cor. trigona*, Desh. Proc. Zool. Soc. 1854, p. 344: Cat. Brit. Mus. Vener. p. 224.—Prime, Ann. Lyc. N. Y. 1866, vol. 8, p. 221, f. 53.
Pondicherry.

This and the last are figured from the types in the British Museum.

8. *Cor. Iravadica*, Blanford, MSS.
River Irawaddy, Pegu and Ava.

This has been distributed by the author as *pisum* and *Iravadica*. It has probably been published, but the reference cannot be found at the moment of going to press.

9. *Cy. Indica*, Deshayes, Proc. Zool. 1854, p. 342,

and Cat. Brit. Mus. Vener. p. 265 (as *Sphærium*).

Moradabad.

The original type was a little rounder and without the coloured epidermis.

10. *P. Clarkeanum*, Nevill, J. Asi. Soc. Beng. 1871, vol. 39, pt. 2, pl. 1, f. 4, 4 a, 4 d.

River Goomty; Moiraka, Damuda, in tanks; Chittagong.

Judging from Hutton's types, this is the Afghan shell which he published, in English, as *paludosum*, in the Asiatic Journal for 1849 (p. 659); but although his description is prior, it is not only in English, but too meagre to ensure identification.

Prime has given the name *solidulum* to a supposed *P. parvulum* of Benson from "India." Can it be this species?

PLATE CLVI.

ACHATINA, COILOSTELE, PUPA, STREPTAXIS.

See previous plates xvii, xviii, xxxv, xxxvi, lxxviii, cii (for first); viii, xcviii (for last).

1. *A. Bottampotana*, Beddome, MSS.

Lent to us by Col. Beddome with this local name.

2. *A. hebes*, Blanford's MSS. in Pfeif. Mon. Hel. vol. 6, p. 230—*Glossula* p. Blanf. J. Asi. Soc. Beng. 1870, vol. 39, p. 21, pl. 3, f. 21.

Deo Ghat, south of Poona.

3. *A. capillacea*, Pfeiffer, Proc. Zool. Soc. 1854, p. 294: Mon. Helic. vol. 4, p. 614.

Ceylon.

The original type, now in the British Museum, is here delineated: it is, however, in poor condition.

4. *A. Beddomei*, Blanford (see plate cii, f. 8).

Our previous figure copied from an Indian painting represented certain accidental white specks as essential: our present is taken from the type, which differs little from *A. inornata*, except in its peaked apex.

5. *C. scalaris*, Benson, An. Nat. H. 1864, Feb.

Found dead in the sand of the river Betwa, and the left bank of the Jumna, and the exuviae of the Ganges.

6. *P. tutula*, Benson in Reeve, Conch. Icon. Bulim.

pl. 84, f. 625.—Pupa t. Pfeif. Mon. Helic. vol. 3, p. 535, and Kust. Chemn. Pup. pl. 17, f. 8, 9, 10.

Humeerpore, Bundelkhund.

Just intermediate between *Bulimus* and Pupa.

- 7, 8. *S. Canarica*, Beddome's name in Blanf. J. Asi. Soc. Beng. vol. 38, pt. 2, 1869, pl. 16, f. 11: Cont. Mal. pt. 10.

S. Canara, not far from west coast of India.

The type here delineated seems at present unique (at least in England).

9. *S. bombax*, Benson (as *Helix*). See previous plate 31, f. 1, 4.

This is the adult of the young shell we had previously figured as a *Helix*.

10. *S. Birmanica*, Blanford, J. Asi. Soc. Beng. 1865, pt. 2, p. 81: Cont. Mal. pt. 5.—Pfeif. Mon. Helic. vol. 5, p. 444.—Stol. J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, pl. 7, f. 5, 6, 7.

Tongoop, Aracan.

Either through transposition for symmetry's sake by the lithographer *after* the printing of the text, or misled by remarks in the Asiatic Journal, the names of *Birmanica* and *Blanfordi* were interchanged in part 1 of the Conchologia Indica.

PLATE CLVII.

NAVICELLA, NERITINA.

See, for *Navicella*, previous plate cxxxvii.

- 1, 4. *Nav. squamata*, Dohrn, Proc. Zool. Soc. 1858, p. 135.

Ceylon.

Drawn from the type in the British Museum.

- 2, 3. *Ner. Perotetiana*, Récluz, Rev. Zool. Cuv. 1841, p. 333.—Sow. Thes. Conch. vol. 2, pl. 115, f. 200, 201.—Reeve, Conch. Icon. Ner. f. 124.

Ceylon: Nilgherries.

We have not obtained the *Ceylonensis* of Récluz (J. Conc. 1851, p. 202) said to be very near this, but with its black opercle edged with orange.

- 5, 6. *Ner. reticularis*, Sowerby (for *reticulata* Bens. not Sow. in Z. P.), Conch. Illus. Ner. f. 44: Thes. Conch. vol. 2, p. 536, f. 264, 265.—N. humeralis, Th. (name only).

Bengal; Salwen.

The Salwen variety has been referred to as *N. humeralis* of Benson, but was never described.

7. *Ner. obtusa*, Benson, in Sow. Conch. Illust. Ner. f. 43: Thes. Conch. vol. 2, p. 517, pl. 111, f. 72, 73.—*N. spiralis*, Reeve, Conch. Icon. Ner. f. 99 (from type).

Tanks near Calcutta.

- 8, 9. *N. fuliginosa*, Theobald, Journ. Asi. Soc. Beng. 1859, vol. 27, p. 315.—*N. reticularis*, var. *capillula*, Sow. Thes. vol. 2, f. 265, 266.

Near Ava, Birmah.

The manuscript name, "*cryptospira* Benson," was applied to the young of this species by Mr. Theobald.

10. *N. coluber*, Thorp, MSS.
Ceylon.

Before adopting this manuscript name, the species has been vainly sought for in the respective monographs of Reeve and Sowerby.

PLATE CLVIII.

CAMPTOCERAS, LIMNÆA, SUCCINEA.

See previous plates lxxix, lxx, for *Limnæa*, and lxxvii, lxxviii, for *Succinea*.

- 1, 2. *C. terebra*, Benson, Calcut. J. of N. H. 1842, p. 465.—Adams, Genera Shells, pl. 74, f. 1.—Blanf. J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, pl. 2, f. 1.

Ramgunga, Moradabad, Rohilkhund.

- 3, 4. *C. Austeni*, H. Blanford, J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 40, pl. 2, f. 2.

Nazirpur, not far from Shusong, Mymensing, Bengal.

- 5, 6. *C. lineata*, H. Blanford, J. Asi. Soc. Beng. 1871, vol. 40, pt. 2, p. 40, pl. 2, f. 3 (as *Camp-toceras*).

With the last species.

7. *L. brevicauda*, Sowerby in Reeve's Conch. Icon. Limn. f. 105.

Cashmire (W. Blanford).

The locality assigned to this shell by Mr. Sowerby is Australia: the identity of his type with the unique specimen here figured was proved by careful comparison. It will by some—and perhaps rightly—be regarded as a form of *L. auricularia* which is found

in the same parts; yet its peculiar spire, its more globose shape, and the spirally tortuous columellar fold afford distinguishable characters.

9. *S. subgranosa*, Pfeiffer, Proc. Zool. Soc. 1849, p. 132: Mon. Helic. vol. 3, p. 9.

Kurnaal, and near Calcutta (a variety).

10. *S. Ceylanica*, Pfeiffer, Proc. Zool. Soc. 1854, p. 297: Mon. Helic. vol. 4, p. 810.

Ceylon.

PLATE CLIX.

HELIX, ACHATINA, CLAUSILIA.

See previous plates xiii to xvi, xxv to xxxii, l to lxiv, lxxxiii to xc, cxi, cxii, cxxvii to cxxxii, cxlix, cl, first; xvii, xviii, xxxv, xxxvi, lxxxviii, cii, clv, for second; xxiv, cxviii, for third.

- 1, 4. *H. biciliata*, Pfeiffer, Proc. Zool. Soc. 1855, p. 112: Mon. Helic. vol. 4, p. 68.

Ceylon.

- 2, 3. *H. infausta*, Blanford, J. Asi. Soc. Beng. 1866, vol. 34, p. 36, and Cont. pt. 6, as *Nanina*.—Pf. Mon. Helic. vol. 5, p. 124.

Anamallay Hills, S. India.

5. *C. Asaluensis*, Godwin-Austen, MS. in Blanf. J. Asi. Soc. Beng. 1871, vol. 41, pt. 2, p. 202, pl. 9, f. 8.

Asalu, North Cachar.

6. *A. orthoceras*, Godwin-Austen, J. Asi. Soc. Beng. 1875, vol. 44, pt. 2, p. 2, pl. 1, f. 4.

W. Khasi Hills.

Whorls more oblique and more rounded than in *Cassia*: no epidermis.

7. *H. Shiroiensis*, Godwin-Austen, Proc. Zool. Soc. 1874, p. 609, pl. 73, f. 3.

8. *H. confinis*, Blanford, J. Asi. Soc. Beng. 1865, pt. 2, p. 71: Cont. Mal. Ind. pt. 5.—Pf. Mon. Helic. vol. 5, p. 83.

Thayet Mio, confines of British Birmah.

9. *H. Humberti*, Brot, J. Conch. 1864 (vol. 12), p. 21, pl. 2, f. 5, 6.—Pf. Mon. Hel. vol. 5, p. 398.

Ceylon.

Only one palatal and one parietal tooth. The front might pass for *odontophora*, but the lower

disk is more smooth, and just like our figure of *erronea*. The last-named species very clearly represented in the same plate of the *Journal de Conchyliologie* has three parietal and three palatal lamellæ visible at the mouth, but a fourth palatal lamella may be traced by the opaque marks on the exterior. This does not quite suit Alber's original (*Zeit. Mal.* 1853, p. 305) description, and we possess a variety (?) with coarser sculpture and a lesser number of ridges which agrees better.

10. *H. Beddomei*, Blanford, *Ann. Nat. Hist.* 1874, ser. 4, vol. 14, p. 406 (as *Hemiplecta*).

Western side of Travancore Hills, S. India.

Equally allied to *basilessa* and *Chenui*.

PLATE CLX.

PUPA.

See previous plates c, ci, clvi.

1. *P. (Ennea) sculpta*, Blanford, *J. Asi. Soc. Beng.* 1869, vol. 38, p. 141, pl. 16, f. 10.

Palney Hills, Southern India.

2. *P. muscerda*, Benson, *Ann. Nat. Hist.* 1853, ser. 2, vol. 12, p. 94.—*Pfeif. Mon. Helic.* vol. 4, p. 680.

On old posts and Palmyra trees, Pedro Promontory, Ceylon.

3. *P. planguncula*, Benson. See previous plate 101, f. 2.

Having at last obtained a perfect specimen of this rare shell from the Kumah Hills in Southern India, we have again delineated it.

4. *P. mimula*, Benson, *Ann. Nat. Hist.* 1853, ser. 2, vol. 12, p. 95.—*Pfeif. Mon. Helic.* vol. 4, p. 676.

In vines on Pedro Promontory, Ceylon.

5. *P. filosa*, Theobald and Stoliczka, *J. Asi. Soc. Beng.* 1874, vol. 41, pt. 2, p. 333, pl. 11, f. 8.

Aracan Hills.

6. *P. lignicola*, Stoliczka, *J. Asi. Soc. Beng.* 1871, vol. 40, pt. 2, p. 171, pl. 7, f. 3.

Moulmein.

We have figured the toothed variety.

7. *P. Avanica*, Benson, *Ann. Nat. Hist.* 1863, p. 428.—*Pfeif. Mon. Helic.* vol. 6, p. 335.

Ava, Birmah.

8. *P. Indica*, Pfeiffer, *Proc. Zool. Soc.* 1854, p. 295: *Mon. Hel.* vol. 4, p. 679.

Barrakpore, near Calcutta.

This is not the *Indica* of Benson (name only for the *P. cylindrica* of Hutton) in the *J. Asi. Soc. Beng.* vol. 18, pt. 2, p. 653, quoted by Pfeiffer as equal to the *Bulimus pullus*. The types here represented are in the National Museum.

9. *P. Salemensis*, W. and H. Blanford, *J. Asi. Soc. Beng.* 1861, vol. 30, p. 359, pl. 2, f. 8: *Cont. Mal.* pt. 2.—*Pfeif. Mon. Hel.* vol. 6, p. 318.

Kalryen Hills, S. India.

We have merely copied the original figure.

10. *P. (Ennea) cylindroidea*, Stoliczka, *J. Asi. Soc. Beng.* 1871, vol. 40, pt. 2, p. 171, pl. 7, f. 4.

Damotha, near Moulmein.

Copied from the cited figure, for want of a specimen.

G.B. Sowerby, del. et lith.

Vincent Brooks, Day & Son, Imp.

L. Reeve & Co Publishers, 5, Henrietta St. Covent Garden.

G B Sowerby, del et lith

Vincent Brooks, Day & Son, Imp.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

G.B. Sowerby, del. et lith.

Vincent Brooks, Day & Son, Imp.

1

2

3

4

5

6

7

8

9

10

1.

3.

2.

4.

5.

6.

G. B. Sowerby, del. et lith.

Vincent Brooks, Day & Son, Imp.

1.

2.

3.

4.

5.

5, a

5 b.

6.

7.

6 a.

1.

3.

3. a

1. a

2.

4

5.

5. a

6. a.

6.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

1

2

3

4

5

6

7

1

2

3

4

5

6

7

8

9

10

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

1

2.

3.

4.

5.

6.

7.

8.

9.

10.

1

2

3

4

5

6

7

8

9

10

1.

2.

3.

4.

5.

7.

6.

8.

10.

9.

G.B. Sowerby, del et lith.

Vincent Brooks, Day & Son, Imp.

1.

2.

3.

4.

5.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

1.

3.

4.

2.

5.

6.

7.

8.

9.

10.

1.

2.

3.

4.

5.

6.

7.

1

3

4

2

5

6

9

7

8

10

1

3

4

2

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

1.

3.

4.

2.

5.

6.

7.

8.

9.

10.

1.

3.

4.

2.

5.

6.

7.

8.

9.

10.

1.

2.

3.

4.

6.

7.

5.

8.

9.

10.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

1.

3.

4.

2.

5.

6.

7.

8.

1.

2.

3.

5.

6.

4.

7.

8.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

2

1

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

3

2

4

6

5

7

9

10

8

1

2

3

4

5

6

7

8

9

10

2

1

3

4

5

6

7

8

10.

9

1

2

3

4

5

6

7

8

9

10

2

1

3

4

5

6

7

8

9

10.

1.

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1.

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

I

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

Carl von Bouell, del. et lith.

Photo. Litho. Inst. Imp.

Carl von Bouell, del. et lith.

Photo. Litho. Inst. Imp.

Carl von Bouell, del. et lith.

Photo Litho. Inst. Imp.

L. Reeve & Co. Publishers, 5 Henrietta St., Covent Garden.

1

2

3

4

5

6

7

Carl von Bouell. del. et lith.

Photo. Litho. Inst. Imp.

L. Reeve & Co. Publishers, 5 Henrietta St., Covent Garden.

1

5

2

4

6

5

7

9

8

10

1

2

3

4

5

6

7

1

2

3

4

5

6

7

8

9

10

2

1

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

1

2

3

4

5

1

4

3

2

5

6

7

8

9

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

All magnified greatly.

2

1

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

All magnified greatly

1

2

3

4

5

6

7

8

9

10

All magnified greatly.

1

3

2

4

6

5

7

9

8

10

1

2

3

4

5

6

7

8

9

10

2

1

3

4

5

6

7

8

10

9

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

2

2

3

4

5

6

7

8

9

10

1

3

2

4

5

6

7

9

8

10

1

2

3

4

5

6

7

8

9

10

Enlarged.

Plat. CXXXIII.

1

2

3

4

5

6

7

8

9

10

Enlarged.

Plate XLV.

2

7

1

3

4

5

6

7

8

9

10

Enlarged.

Plate XXXV.

1

2

3

4

5

6

7

8

9

10

Enlarged

Plate CXXXVI

1

2

3

4

5

6

7

8

9

10

2

1

3

4

5

7

6

8

9

10

1

3

4

6

7

2

5

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

• 7

8

9

10

1.

3.

2.

4.

6.

5.

7.

9.

8.

10.

2.

1

3.

4.

5.

6.

7.

8.

10.

9.

1

3

4

2

5

6

7

2.

1.

3.

4.

5.

6.

7.

8.

9.

10.

2.

1

3.

4

5.

6

7.

8.

9.

10

2

1

3

4

5

6

7

8

10

9

1.

2.

3.

4.

5.

6.

7.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

2.

1.

3.

4.

5.

6.

7.

8.

9.

10.

2.

1.

3.

4.

5.

6.

7.

8.

10.

9.

1.

2.

3.

4.

5.

7.

6.

8.

10.

9.

SMITHSONIAN INSTITUTION LIBRARIES

3 9088 00096 9790