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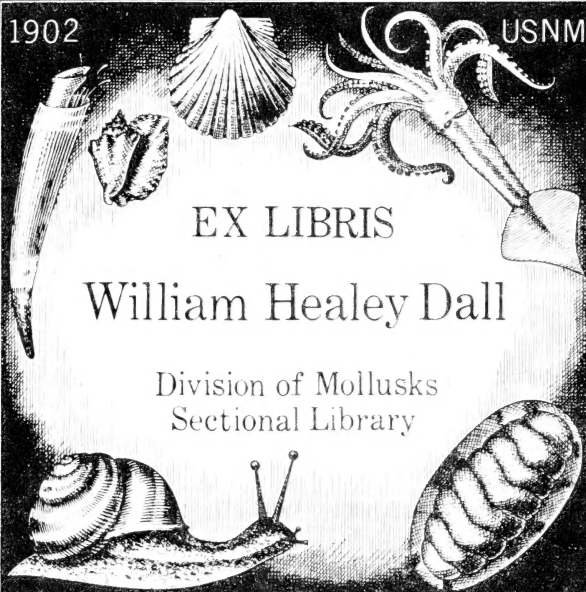
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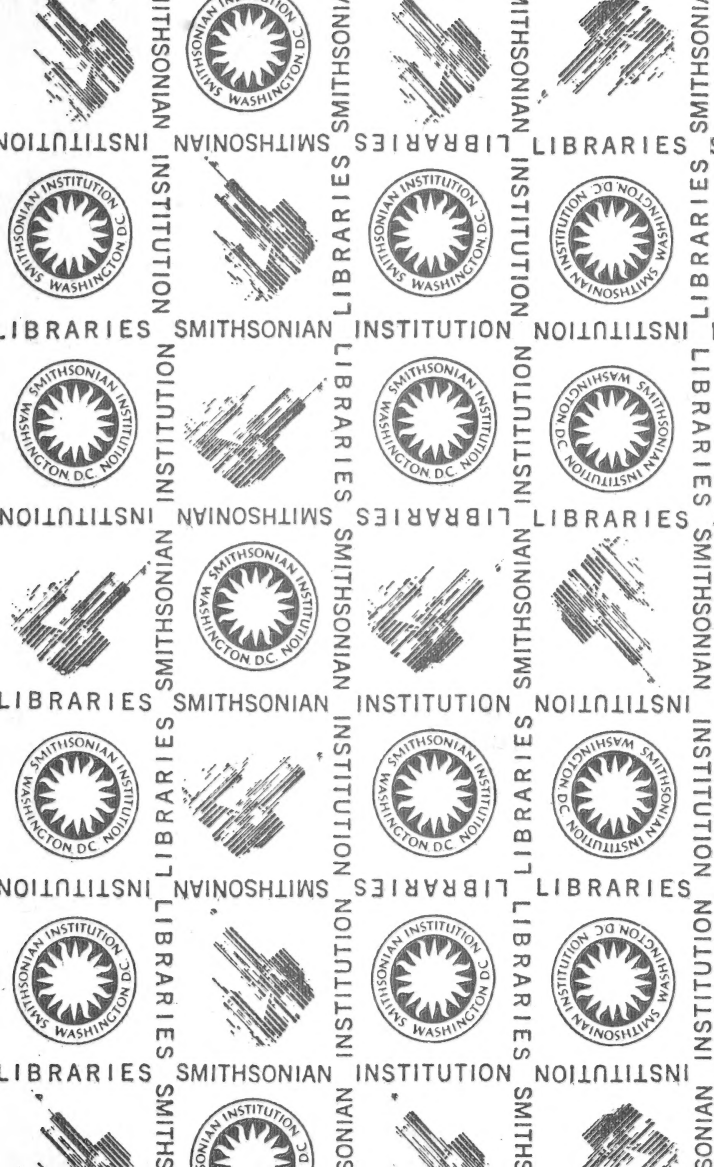
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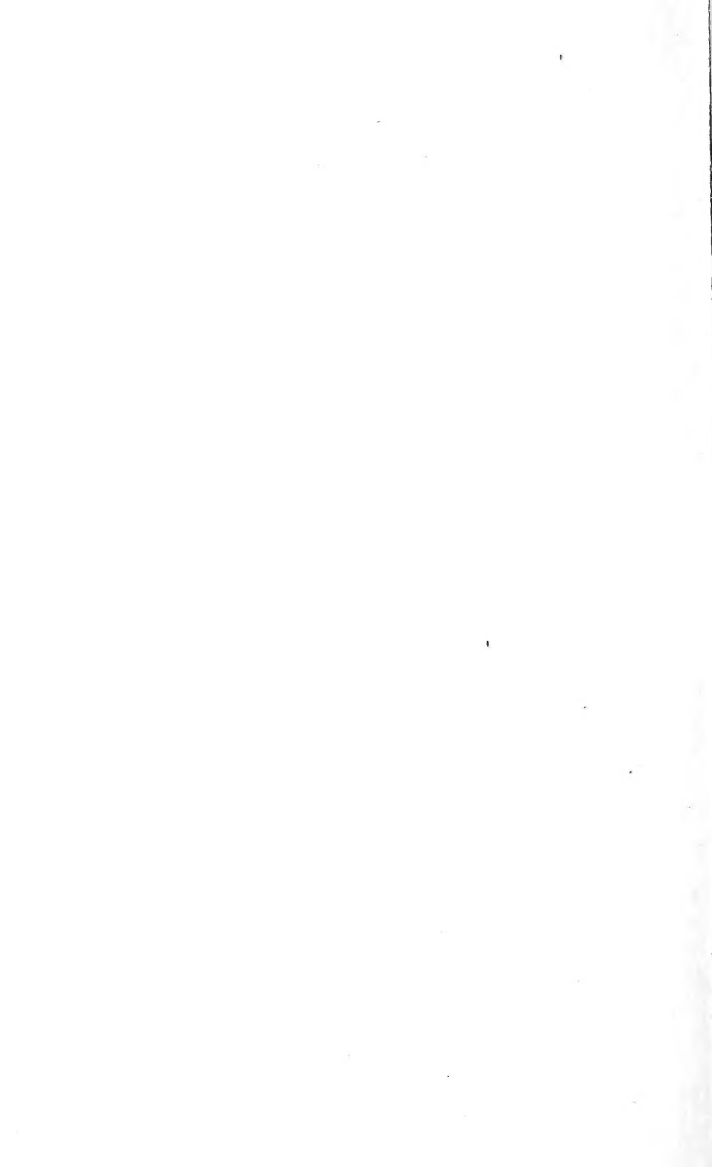
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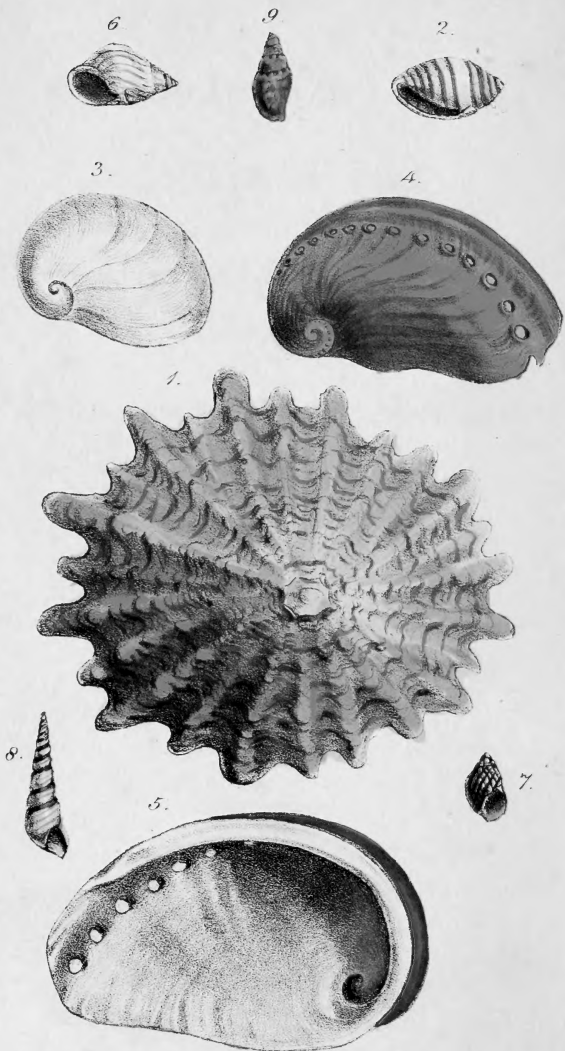




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THE

YOUNG CONCHOLOGIST'S

Book of Species.

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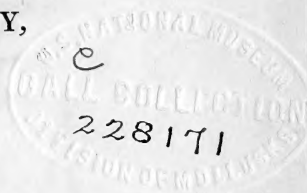
DESCRIPTIONS OF SIX HUNDRED SPECIES,

AND

Illustrated by many Figures.

Charles Thorp
By SYLVANUS HANLEY,

OF WADHAM COLLEGE.



LONDON:

JAMES FRASER, REGENT STREET.

1840.

LONDON :

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TO

JOHN KIDD, M.D., F.R.S.

REGIUS PROFESSOR OF MEDICINE IN THE UNIVERSITY OF OXFORD,

&c. &c.

TO WHOSE

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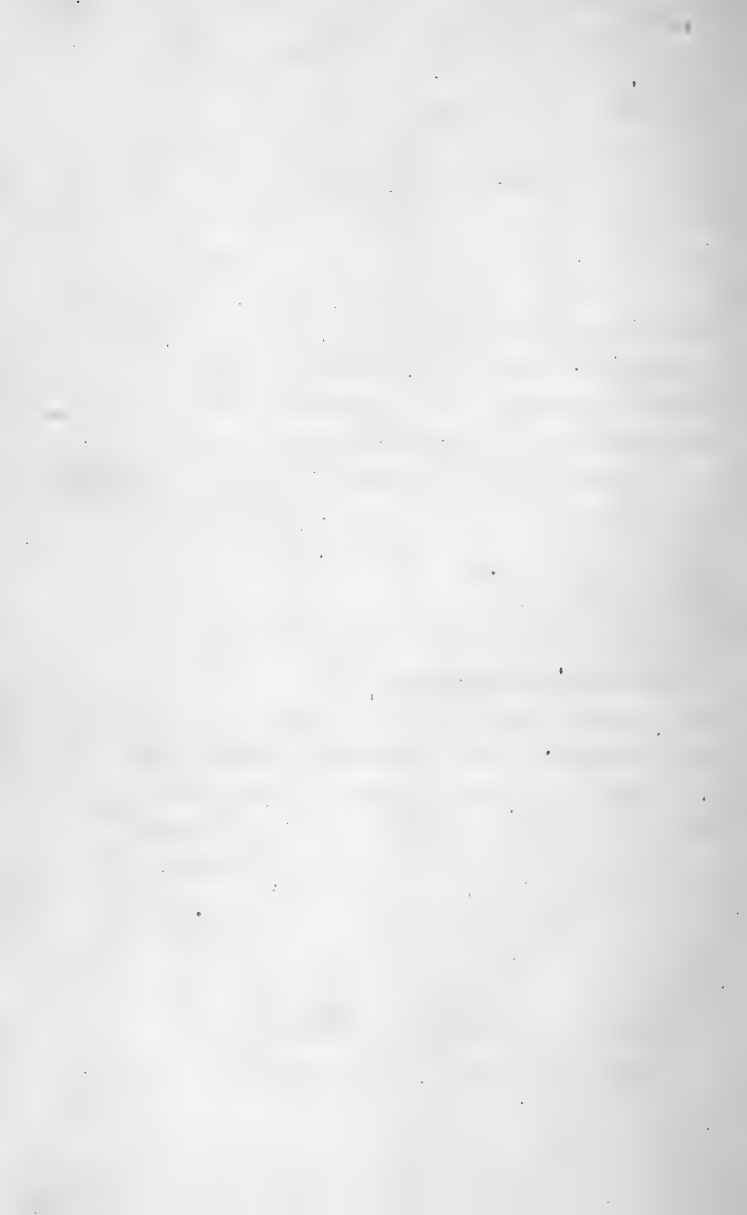
NATURAL HISTORY,

This Book,

PRINCIPALLY WRITTEN WITHIN ITS WALLS,

IS RESPECTFULLY DEDICATED BY

THE AUTHOR.



ADVERTISEMENT.

THE following pages, intended for a sequence to the Conchologist's Text-Book, will, I trust, be found serviceable to those beginners, who, after having mastered the difficulties of the genera, and so far arranged their collections, are now resolving to enrich their specimens by the specific titles also. The Author is not aware of any English work, on the Lamarkian system, that would aid them in their endeavours, and has therefore compiled a descriptive catalogue of those shells, which, from their moderate price and comparative commonness, will be most likely to reach the cabinet of the youthful amateur in this pleasing science. The references to figures are solely made to modern works,—as the more ancient, from their rarity and costliness, seldom, if ever, are possessed by that class of readers for whom this book is especially written. With similar views, four books only have been quoted for the iconography; but wherever no illustrative drawing was to be met with in them, the outline has been added in the accompanying Plates.

I need but further state (previous to committing

these pages to the mercy of the public), that continual comparisons have been made of the descriptions of different writers for the selection of the best; and that scarce in a single case have the characteristics of a shell been given without the shell itself being either in the Author's possession, or before his eyes.

ABBREVIATIONS.

B. British.

W. Wood's Catalogue of Shells.

S. Sowerby's Manual of Conchology.

T. Turton's Manual of Land and Freshwater Shells. 1st edit.

E. Encyclopédie Méthodique.

The size is expressed by inches.

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THE
YOUNG CONCHOLOGIST'S
Book of Species.

MOLLUSCA.

GASTEROPODES.

LES PHYLLIDIENS.

CHITONELLUS.

Body creeping, elongated, with the middle of the back adorned its whole length with detached testaceous plates, the alternate ones principally longitudinal; sides naked.

C. LÆVIS. W. 1. 39.

CHITON.

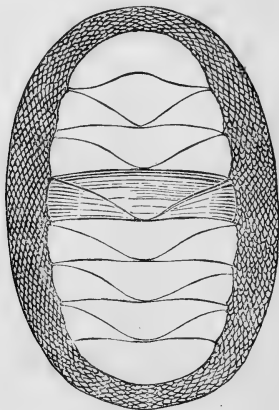
Body creeping, oval-oblong, convex, rounded at both ends, and margined with a coriaceous skin; the back covered with a longitudinal series of testaceous plates, which are transverse, imbricated, and mobile.

C. SQUAMOSUS. Olive; with eight semi-striated valves; margin shagreened, with light-green and dark-olive scales. $1\frac{1}{2}$. E. M. 162. 5, 6.

C. FASCICULARIS. Cinereous; when perfect, the whole surface of the valves appears covered with fish-like scales, except the beak, which is smooth, and of a yellower colour than the rest; margin with lateral tufts of hair. B. $\frac{3}{4}$. . . $\frac{1}{3}$. W. 1. 19.

C. MARGINATUS. Dingy brownish or reddish; with eight carinated, most minutely shagreened valves; margin serrated and reflected. B. $\frac{3}{4}$. . . $\frac{1}{3}$. W. 1. 30.

C. MAGNIFICUS. Large, ovate, flattish, subcarinated, dark olive; the extreme valves with radiating granular striæ; the middle ones transverse and straight, with their centres very finely and irregularly striated, and their lateral areas with transverse granular grooves; margin dark olive-green, sometimes zoned with black, granular. $3\frac{3}{4}$. This of late has become common.



C. ACULEATUS. Ovate, thick, blackish brown ; margin with short, subulate, various-coloured spines ; terminal plates elegantly waved with sub-concentric undulated lines ; the lateral areas of the nest scarcely marked, and prettily waved by undulated lines, with irregularly disposed elongated granulations, gradually disappearing towards the summit. $2\frac{1}{2} \dots 1\frac{1}{3}$. W. 1. 6.

PATELLA.

Univalve ; not spiral ; shield-shaped or obtusely conical, concave within, simple, entire ; summit anteriorly inclined ; imperforate.

P. GRANATINA. Flattish, angulated, with numerous muricated ribs and striæ ; muscular impression dark-reddish brown ; numerous zig-zag undulated transverse purplish-brown scales cover the shell, and are manifest in the interior through a pearly coating. $2\frac{1}{2} \dots 1\frac{7}{8}$. W. 37. 27.

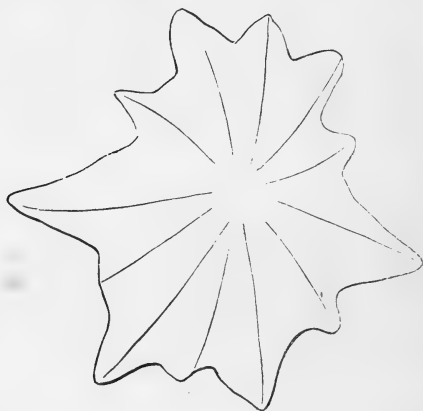
P. BARBARA. Toothed, with very numerous muricated vaulted ribs ; colour sallow, and sometimes ringed without ; the inside white. $1\frac{3}{4} \dots 1\frac{1}{4}$. W. 37. 22.

P. PLICATA. Angulated, with blunt undulated transversely - wrinkled ribs, brownish ; summit obtuse. $2 \dots 1\frac{1}{2}$. (Front. 1.)

P. SACCHARINA. Angulated, with seven blunt

carinated ribs; interstices longitudinally striated, and marbled with brown; inside white. $1 \dots \frac{3}{4}$. W. 37. 17.

P. LONGICOSTA. Convex-depressed, reddish brown, with from twelve to fifteen sub-carinated ribs greatly projecting beyond the margin; white beneath, and the borders acute; vertex obtuse and white. $2 \dots 1\frac{1}{4}$.



P. UMBELLA. Large, ovate-depressed, with irregular decussated striæ, and narrow longitudinal grooves; margin crenated, white or yellowish streaked, and sprinkled with dots of pale vermilion or rose-colour in various ways. Up to $3 \dots 2\frac{1}{3}$. W. 37. 34.

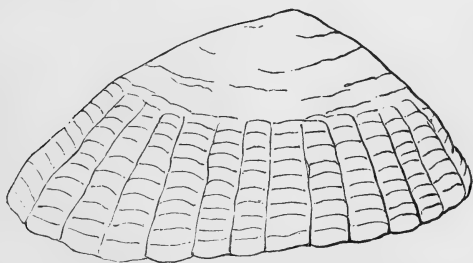
P. COCHLEAR. Ovate-oblong depressed, longitudinally ribbed and striated, one end con-

tracted like a scoop; summit acute; margin slightly angular; greyish or brownish white, and the inside white, with a dark horse-shoe-like mark environing the muscular impression. $1\frac{3}{4}$... $1\frac{1}{4}$. W. 37. 40.

P. COMPRESSA. Oblong, slenderly striated longitudinally, tawny yellow; sides compressed, and summit beaked. $1\frac{1}{2}$... $\frac{3}{4}$. W. 37. 53.

P. GRANULARIS. Ovate, brown, with narrow ribs provided with white granulations; inside whitish, slightly pearly; muscular impression yellowish; summit not central. $1\frac{1}{4}$... $\frac{7}{8}$. W. 37. 26.

P. DEAURATA. Oval, with numerous sub-nodulous obtuse ribs, and somewhat imbricated transverse wrinkles; margin plaited, brown without, silvery within, and the muscular impression bronzed. $1\frac{1}{2}$... 1.



P. VULGARIS. Sub-oval; many sub-angular ribs, and intermediate striæ, greenish or yellowish

ash; margin dilated and acute. B. 2... $1\frac{1}{2}$. W. 37. 38.

P. LEUCOPLEURA. Conical, ovate, smooth, light reddish ash rayed with irregular dark brown furcated lines; summit white, obtuse, and girded with red; small.



P. PUNCTURATA. Oval, convexly tumid, white spotted with crimson; ribs flattish, radiating, and separated; inside white; muscular impression citron; summit blunt and sub-central; small. W. 38. 76.

P. PECTINATA. Oval, thin, obliquely conic, yellowish brown, with longitudinal striæ, garnished with black imbricated rough scales; summit inclined nearly to the margin; smallish; not unlike genus *Pileopsis*. W. 37. 46.

P. PELLUCIDA. Smooth, thin, pellucid, ob-ovate, gibbous, olive, with blue interrupted rays; summit inclined to the margin. B. small. W. 37. 58.

P. MONOPIS. Ovate - flattish, with about eleven large ribs, and intermediate smaller ones; brown; when perfect, rayed with minute blue spots, but the outside is generally eroded; the

summit blunt, and inclined toward the front ; margin strongly digitated, and within of a tortoise-shell brown ; muscular impression tawny. 2 ... 1 $\frac{3}{4}$. W. 37. 16.

LES SEMI-PHYLLIDIENS.

PLEUROBRANCHUS.

Shell internal, fragile, dorsal, flattened, and obliquely oval.

P. MEMBRANACEUS. S. 232.

UMBRELLA.

Shell external, orbicular, slightly irregular, flatish, rather convex above, with a small sub-central apex ; margin sharp ; interior slightly concave, and offering a coloured callous disc ; lips smooth.

U. INDICA. S. 233.

LES CALYPTRACIENS.

PARMOPHORUS.

Oblong, somewhat in the form of a parallelopiped ; slightly convex above, with a small sinus above ; apex pointed and inclined backwards.

P. AUSTRALIS. Solid, smooth, but appears

somewhat furrowed from the striæ of growth; dirty yellow; inside brilliant white. W. 38. 84.

EMARGINULA.

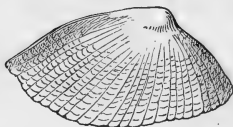
Conical, shield-shaped; vertex inclined to one side; internal cavity simple; dorsal margin fissured.

E. FISSURA. Oval, convexly conic, cancellated by small longitudinal ribs and transverse striæ, pellucid, whitish; summit curved; margin crenulated; small. B. W. 37. 86.

E. DEPRESSA (Blainville). White, limpet-shaped, ovate-oblong, laterally depressed; summit salient, pointed, and inclined, from which proceed nine principal ribs, and smaller ones intervening, which are met at right angles by transverse striæ, and at their junction appears a tubercle; greenish within; small.



E. EMARGINATA. Ovate, conic, patelliform, and ribbed, white or greenish white, channelled within anteriorly; margin sub-emarginated; eight of the ribs more prominent than the rest; summit pointed and sub-central. $\frac{3}{4} \dots \frac{1}{2}$.



FISSURELLA.

Shield-shaped, conically depressed, concave within ; vertex perforated ; destitute of a spire, and oblong-ovate shape.

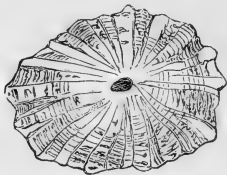
F. NIMBOSA. Ovate-oblong, convex, yellowish white, and adorned with purplish-brown rays, and many close-arranged longitudinal striæ ; margin crenulated ; perforation oblong, and contracted in the middle ; greenish within. $1\frac{1}{2} \dots 1$. W. 38. 99.

F. GRÆCA. Ovate-oblong, cancellated ; summit somewhat lateral ; margin arcuated, and internally strongly crenated, whitish, and sub-rayed with greenish ; a dark horse-shoe mark almost surrounds the perforation (English specimens of this species are devoid of this latter characteristic) ; inside white. $1\frac{1}{3} \dots \frac{2}{5}$. B. W. 38. 91.

F. NODOSA. Oval, convexly pyramidal, whitish, transversely annulated ; longitudinal ribs armed with great tubercles, which are cleft at the apex, and laterally compressed ; perforation oblong, contracted in the middle like a key-hole, and surrounded internally with a white callus. $1\frac{1}{4} \dots \frac{5}{6}$. W. 38. 93.

F. BARBADENSIS. Ovate-oblong, with unequal longitudinal nodulous ribs, yellowish white, either rayed or concentrically spotted with red ; perforation round and sub-central ; margin toothed

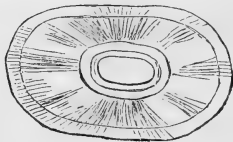
inside, whitish within, and greener towards the margin; the callus around the perforation oval; smallish. Excessively common.



F. VIRIDULA. Ovate-oblong, rather convex, greenish, radiated with small white ribs, and annulated by concentric striæ, which form longitudinally compressed tuberculations at their junction with the ribs; perforation oblong, inclined, girded with a dark line; inside white; margin crenulated; small.



F. HIAANTULA. Oblong-elliptic, convexly depressed, with the extremities elevated and arched; striæ slender; perforation large and lengthened; margin entire, above lilac-red, beneath whitish; small. There is a black variety, smallish.



F. PUSTULA. Roundish elliptic, flattish, and truncated in front, dirty white, with decussated striæ; longitudinal striæ rather prominent; perforation not central, lengthened, enlarged in the middle, and girded with a pink line; small. W. 38. 90.

F. FASCICULARIS. Small, oblong-elliptic, flattish, sallow, and rayed with pinkish-brown fasciculated lines; striæ crowded; perforation as last; internal border apparently entire; nests only on its sides. $\frac{3}{4}$.



F. MINUTA. Minute, oblong-elliptic, convex, white, decussated with slender striæ, of which the longitudinal are sub-granular, rayed with thin black lines; perforations small, not central.



PILEOPSIS.

Univalve; obliquely conic; anteriorly recurved; summit hooked, sub-spiral; aperture elliptically round; anterior margin shortest, the posterior one large and rounded; the muscular impres-

sions elongated, arcuated and transverse, situated under the posterior margin.

P. UNGARICA. Conical, finely striated longitudinally, and somewhat wrinkled transversely; summit recurved and spiral; base roundish, from one inch to two in diameter, often coated with a brown shaggy epidermis; inside white or pinkish. B. large. W. 37. 41.

P. MITRULA. Roundish ovate, obliquely conical, solid, whitish, with concentric imbricated wrinkles; summit slightly recurved; small. B. W. 37. 43.

P. INTORTA. Ovate-roundish, peculiarly obliquely conical, white, with obsolete longitudinal striæ; summit lateral, exserted, and spirally twisted; small.



CALYPTREA.

Conical; base orbicular, and summit vertical, imperforate, and acute; internal cavity with a spiral septum.

C. EXTINCTORIUM. Sub-orbicular, conical, whitish, and rather smooth, with unequal spiral circles; summit sub-acute. 1. W S. 8. 5.

C. LEVIGATA. Orbicular-depressed, nearly

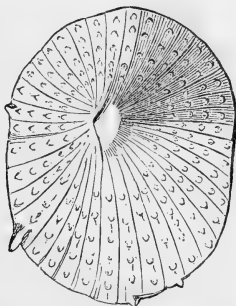
smooth ; summit sharp and erect, whitish ; internal appendage oblique. W. 37. 4.

C. EQUESTRIS. Sub-orbicular, wrinkled, and minutely striated longitudinally ; summit lateral and obtuse, white ; margin sinuated irregularly.

1. W. 37. 1.

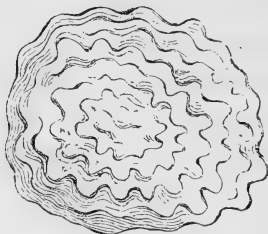
C. RADIANS. Orbicular-depressed, trochiform, whitish or yellowish, adorned with sub-nodulous, distant, rayed and elevated striæ ; beneath concave, whitish, or spotted with brown, with a spiral plate ; summit sub-central ; epidermis lamellar and brown. Size sometimes very large. W. 37. 7.

C. SPINOSA. Base ovate-roundish, conic, longitudinally wrinkled, with super-imposed tubular spines, dirty brown ; interior rich coffee-brown, except the borders of the cup ; diameter an inch.



C. IMBRICATA. Whitish, thick, sub-conic, and ovate, imbricated by longitudinal ribs and

transverse scales ; apex acute, sub-incurved ; margin crenated ; cup depressed : diameter 1.



CREPIDULA.

Ovate or oblong-ovate ; convex on the back, and concave within ; spire inclining to one side ; aperture with a horizontal partition next the spire, extending to nearly the middle of the shell.

C. FORNICATA. Oval ; margin entire, and the summit obliquely recurved, chestnut, with a white spot on each side the apex, or white variously mottled, or longitudinally rayed with brown ; internal partition concave, brown. $l \dots \frac{2}{5}$. W. 37. 10.

C. PORCELLANA. Oval-depressed ; margin entire, and summit recurved ; internal partition flat, whitish or brownish, variegated with dark-brown or red spots, or purplish undulated lines ; inside generally white and glossy. $l \dots \frac{1}{4}$. W. 37. 9.

C. ACULEATA. Oval-depressed, shallow, with longitudinal prickly ribs, and the summit recurved and lateral, brownish whitish or chestnut; the internal partition white. $\frac{3}{4} \dots \frac{7}{12}$. W. 37. 11.

C. GOREENSIS. Oval, shallow, much depressed, transversely wrinkled, with the spire obsolete, and the summit recurved and lateral; coarse and whitish; interior white and glossy; small. W. 37. 12.

ANCYLUS. FLUVIATILE.

Thin, obliquely conical; aperture oval, with a pointed apex, which is inclined backwards.

A. LACUSTRIS. Semi-ovate, membranaceous; vertex sub-central; aperture ovate, sub-oblong. B. very small. T. 126.

A. FLUVIATILIS. Conoid; point of the vertex excentral; aperture ovate; very small. B. T. 125.

LES BULLEENS.

BULLEA.

Thin; somewhat involute on one side, and destitute of a columella or spire; aperture large and wide.

B. APERTA. Roundish ovate, pellucid, white, faintly striated and slightly wrinkled; almost entirely open. $\frac{1}{2} \dots \frac{1}{3}$. B. W. 18. 14.

BULLA.

Involute, without a columella ; spire but slightly, if at all, exserted ; outer margin acute ; aperture extending the whole length of the shell.

B. LIGNARIA. Oblong, loosely convoluted, attenuated towards the spire, transversely striated, pale tawny, thin, semi-transparent ; spire truncated and umbilicated. B. $2\frac{1}{2}$. W. 18. 20.

B. AMPULLA. Roundish opaque, cinereous, dotted in waves, and marked with various shades and spots of reddish brown ; apex umbilicated. 2... $1\frac{1}{3}$. W. 18. 18.

B. STRIATA. Oval-oblong, opaque, dotted in brown waves, cinereous, striated at the base ; outer lip contracted in the middle ; apex umbilicated ; in colour resembles the last, but is smaller and longer in shape. W. 18. 19.

B. PHYSIS. Rounded, very smooth, pellucid, with waved brown transverse stripes, more or less crowded ; aperture large ; spire depressed. $1\frac{1}{2}$... 1. W. 18. 24.

B. FASCIATA. Sub-globose, thin, pellucid, whitish ash-colour, with four transverse brown bands, of which two on the middle of the back enclose between them a white one, and the others are placed at the extremities of the shell ; longitudinal striæ most slender. $1\frac{1}{7}$. W. 18. 27.

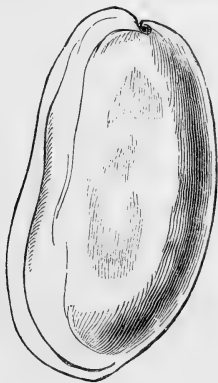
B. APLUSTRE. Roundish ovate, white, with two flesh-coloured, bordered zones; pillar somewhat twisted; spire elevated and retuse. $\frac{5}{6}$. W. 18. 26.

B. HYDATIS. Ovate-rounded, thin, pellucid, and slightly striated longitudinally, yellowish horn-colour. $\frac{3}{4}$; in shape resembling somewhat *B. naucum*. B. W. 18. 17.

B. NAUCUM. White, rounded, pellucid, finely striated transversely, and umbilicated at both ends. $1\frac{1}{4} \dots \frac{5}{6}$. W. 18. 12.

B. SOLIDA. Cylindrical, white, umbilicated at the apex, and striated at the two extremities; aperture extending the whole length of the shell. $\frac{3}{4}$. W. 18. 56.

B. AUSTRALIS. Elongated, nearly cylindrical, mottled; spire very slightly perforated; in colour greatly resembling *B. ampulla*. $1\frac{1}{4}$.



B. CYLINDRACEA (Pennant). Oblong, elongated, cylindric, transversely striated, white; vertex umbilicated; aperture suddenly dilated at its base; columella flattened; small. B. W. 18. 57.

B. UMBILICATA (Montagu). Oblong, oval, white, involute, minute, rounded, and umbilicated at the apex. B. W. 18. 58.

B. RETUSA (Montagu). Sub-cylindrical, involuted, minute, striated longitudinally on the upper part; apex truncated and umbilicated; the aperture is most contracted in the middle. B. minute. W. 18. 59.

B. OBTUSA. Minute, cylindrical, involuted, white, opaque, wrinkled longitudinally, and becoming rather narrow towards the apex; spire somewhat prominent. B. W. 18. 60.

LAPLYSIENS.

LAPLYSIA.

The animal with a dorsal, subcartilaginous, semi-circular shield.

A. PETERSONI. S. 254.

DOLABELLA.

Oblong, subarcuated, somewhat shaped like an axe; on one side narrowed, thicker, callous, and sub-

spiral; on the other broader, thinner, and flattened.

D. RUMPHII. S. 255.

LES LIMACIENS.

PARMACELLA. TERRESTRIAL.

A rare genus of slugs, bearing a testaceous plate enveloped in a fleshy shield.

P. CALYCVLATA. S. 256.

LIMAX. TERRESTRIAL.

Shell small, extremely thin, enclosed in a coriaceous shield, oblong-ovate, not convolute, but with a cavity at top.

L. CINEREUS. Small, very thick and hard, variously formed, rarely concave, and easily distinguished by its short obliquely placed keel.
B. T. 17.

TESTACELLA. TERRESTRIAL.

Shell very small, external, somewhat ear-shaped; apex obsoletely spiral; aperture very large, oval, with outer lip inflected.

T. HALIOTOIDEA. B. E. 464. 3.

VITRINA. TERRESTRIAL.

Small, extremely thin, depressed ; spire very short ; body very large ; aperture ample, rounded, and oval ; left margin slightly inflected.

V. PELLUCIDA. Extremely thin, pellucid and glossy, depressed, with the spire very short, of a pale yellowish green ; aperture large and oval. B. very small. T. 21.

V. ELONGATA. Whitish, nearly globular, hyaline ; aperture oval-oblong ; volutions two, outer one extremely large in proportion, minute. B. T. 22.

TRACHELIPODES.

LES COLIMACES.

HELIX. TERRESTRIAL.

Orbicular, convex or conoid above, sometimes globular, with the spire somewhat elevated ; aperture entire, transverse, very oblique, contiguous to the axis of the shell ; margin disunited by the projection of the body.

H. PULLA. Sub-globular, with the body-whorl ventricose, and the spire short, obtuse, and convex ; aperture large, with the outer lip

white and margined and notched at the pillar; brown, with two or three white bands on the body-whorl; inner lip minutely striated. 2... $2\frac{1}{4}$. W. 31. 117.

H. POMATIA. Sub-umbilicated, ovate-ventricose, with five longitudinally-wrinkled whorls; aperture roundish-lunated, and the outer lip slightly margined, pale dull yellowish brown, with generally three darker obsolete bands on the body-whorl; inner lip much reflected over the umbilicus. 2...2. T. 34. B.

H. ASPERSA. Imperforate, sub-ovate, and obtuse, with four irregularly creased and wrinkled whorls, and a semi-lunar rather elongated aperture, with white reflected margin. It varies much in its markings; but is commonly of a pale dull yellowish brown or ash-colour, with darker bands, which are usually more or less broken, and mottled all over. $1\frac{1}{2}$... $1\frac{1}{2}$. T. 35. The common garden-snail. B.

H. NATICOIDES. Imperforate, fragile, subglobular, brownish olive; whorls transversely striated; aperture very large; outer lip simple and acute; diam. $\frac{5}{6}$. W. 34. 131.

H. HEMASTOMA. Globosely conoid, ventricose, thick, imperforate, chestnut, with a white band on the lower part of its last whorl; apex rose-colour; columella and lip purplish red.

There are five whorls, of which the body-whorl is almost twice as large as the spire; aperture white; diam. $1\frac{1}{2}$. W. 34. 127.

H. MELANOTRAGUS. Differs from the last only in its apex being yellowish, and columella and lip black. E. 462. 4.

H. PELLIS-SERPENTIS. Umbilicated, sub-carinated, convex, orbicular, yellowish white, with zones of reddish-brown and white flames; beneath, several series of spots of a like colour; spire extremely obtuse; margin of outer lip white and reflected; diam. $1\frac{1}{2}$; the surface shagreened. W. 33. 39.

H. LACTEA. Orbicular convex, imperforate, greyish, banded with brown or red, and marked all over with minute milky dots; spire retuse; mouth black; outer lip expanded, and its margin reflected; diam. $1\frac{1}{2}$. W. 34. 128.

H. ZONARIA. Umbilicated, orbicular - depressed, smooth, whitish, banded with brown, and sprinkled with red spots; spire flattened; outer lip expanded; its margin white and reflected; diam. $1\frac{1}{2}$. W. 34. 94.

H. CITRINA. Orbicular-convex, sub-umbilicated, smooth, diaphanous and shining, generally pale yellowish or chestnut; last whorl girded with white or black; outer lip sharp; spire obtuse; diam. $1\frac{1}{2}$. W. 33. 81.

H. BARBADENSIS. Orbicular-convex, imperforated, depressed, smooth, pale reddish; spire obtuse; aperture narrowed, with the margins red and connected; outer lip marginated; sometimes there is a white band on the last whorl; diam. $\frac{3}{4}$.



H. SINUATA. Imperforate, sub-globular, and slightly keeled; lip reflected, with four teeth inside, and three plaits without; the shell is reddish brown, and covered with most minute raised dots; diam. $\frac{3}{4}$. W. 33. 29.

H. HIPPOCASTANUM. Imperforate, sub-globose, slenderly striated, chestnut; the last whorl girded with a white band; columella armed with a great tooth; inner margin of the outer lip many-toothed; diam. $\frac{3}{4}$. W. 33. 38.

H. ARBUSTORUM. Rather globose, perforated, yellowish or brownish, marbled, and girded with a brown band, slightly striated; spire short, conoid; outer lip marginated and reflected; diam. $\frac{3}{4}$. B. T. 25.

H. NEMORALIS. Sub-globose, imperforated, slightly striated, variously coloured, and banded; outer lip marginated, and dark chocolate; diam. $\frac{3}{4}$. B. T. 23.

H. HORTENSIS. Differs from the last by the whiteness of its margination. B. Diam. $\frac{3}{4}$. T. 24.

H. PISANA. Globose and depressed, perforated, thin, whitish, and painted with interrupted yellowish and brown bands; lip simple; inner margin pink. B. $\frac{2}{5} \dots \frac{1}{2}$. T. 31.

H. ERICETORUM. Orbicular-depressed, umbilication shewing the whole of the whorls, slightly striated, whitish, with brown bands; lip simple. $\frac{1}{5} \dots \frac{3}{4}$. T. 37.

H. CARTHUSIANELLA. Orbicular - convex, depressed, perforated, smooth, pellucid, whitish horn-colour, obscurely banded; lip with its inner margin brown, its outer white and sub-reflected; diam. $\frac{5}{4}$. B. T. 26.

H. CARTHUSIANA. Orbicular-convex, depressed, perforated, smooth, pellucid, white or grey; spire short; margin of lip sub-reflected; diam. $\frac{1}{2}$. B. T. 27.

H. CELLARIA. Umbilicated, slightly striated, pellucid, glossy, with five depressed yellowish whorls; base white; lip simple, acute; diam. $\frac{5}{12}$. B. T. 40.

H. NITIDA. Flattened, orbicular, umbilicated, thin, pellucid, minutely striated, brownish horn-colour; lip simple, acute; diam. $\frac{1}{2}$. B. T. 38.

H. HISPIDA. Convexly orbicular, sub-de-

pressed, umbilicated, pellucid, brownish horn-colour, covered with minute bristles; lip thin, sub-reflected. B. small. T. 41.

H. ROTUNDATA. Flattish orbicular, rather convex, widely umbilicated, deeply striated, grey or reddish; spire peculiarly obtuse; lip simple. This shell is generally rayed with a darker colour. B. very small. T. 44.

H. PULCHELLA. Minute, umbilicated, white or ash-colour, depressed, equally convex on both sides; aperture nearly circular, with the margin flat and reflected. B. T. 49.

H. ACULEATA. Minute, conic, brown horn-colour, with the suture deep; the epidermis rising into thin spinous foliations; aperture semi-elliptic. B. T. 33.

H. GLABELLA. Sub-depressed, perforated, smooth, horn-colour; aperture semi-lunate, round; lip sub-margined; last whorl sub-carinated, convex, and marked with an obsolete white band upon the keel. Small. B. T. 28.

H. SERICEA. Sub-depressed, horny, and brownish, thin, fragile, pellucid, perforated, hairy, and last whorl carinated; aperture extremely small, semi-lunar, simple. B. small. T. 29.

H. PYGMEA. Depressed, umbilicated, most finely striated, above rather convex, immaculate, brownish horn-colour, with four rounded whorls;

umbilicus peculiarly open ; aperture simple, most minute. B. T. 46.

H. CRYSTALLINA. Minute, thin, perforated, depressed, white, shining, and diaphanous. T. 42. B.

CAROCOLLA.

Orbicular, more or less convex or conoid above ; circumference angular and sharp ; aperture transverse, contiguous to the axis of the shell ; outer lip sub-angular, frequently dentated below.

C. ALBILABRIS. Imperforate, convex on both sides, chestnut-brown, with a paler obsolete band on the keel ; six obliquely and slenderly striated whorls ; aperture transverse and ear-shaped, with a white reflected lip. W. 33. 34.

C. LUCERNA. Orbicular, umbilicated, and somewhat depressed, smooth and whitish ; lip reflected, with two teeth in the inside, and corresponding impressions without ; diameter $1\frac{1}{2}$. W. 33. 30.

C. GUALTERIANA. Imperforate, flat above, convexly turgid, beneath rough, decussated, dirty ash-colour ; spire extremely flat ; lip thin and reflected ; diameter $1\frac{2}{3}$. W. 33. 44.

C. MARGINATA. Umbilicated, obliquely striated, and the spire depressed ; base convex, and the aperture ear-shaped, with a white margin ;

white, with a broad brownish-red band in the middle of each whorl. Diameter $1\frac{1}{3}$. W. 32. 4.

C. LYCHNUCHUS. Imperforate, orbicular, conoid, slightly convex beneath; the apex of the spire depressed; lip with two teeth; margin white and reflected; diameter 1. W. 33. 30.

C. LAPICIDA. Orbicular, depressed above, more convex beneath, widely umbilicated, transversely striated, greyish red, with reddish-brown spots; lips united, reflected, white. B. diameter $\frac{7}{12}$. T. 51.

ANASTOMA. TERRESTRIAL.

Sub-orbicular; spire convex and obtuse; aperture rounded, dentated within, turned upwards, and grinning; margin of outer lip reflected.

A. DEPRESSA. W. 33. 26.

HELICINA. TERRESTRIAL.

Sub-globose, imperforate; aperture entire and semi-oval; columella callous, transverse, flat, with its margin acute, forming an angle at the base of the outer lip; a horny operculum.

H. PULCHELLA. Sub-globulous; spire conic and pointed; the surface adorned with tolerably large transverse granular striæ, of which the one which occupies the circumference of the last whorl is thicker, and sub-dentated by oblong and

largish tubercles ; margin whitish, adorned with three reddish or tawny spots, thin, and reflected ; the shell is yellow, triply banded with red, and sprinkled over with dull white spots ; the opening is very oblique, and the columellar callosity is straight and thickish ; small.



H. AURANTIA. Sub-depressed, ovate, sub-globose, smooth ; reddish white, with sometimes a white or brown band ; peristome thickened, reflected, and orange ; columella callous ; columellar angle of the aperture sub-tuberculated, small. W. Sup. 8. 65.

H. MAJOR. Depressed, ovate, sub-globose, brownish, smooth ; spire convex ; rather convex and palish-coloured beneath ; peristome thickened and white, reflected ; columellar angle obtusely emarginated ; lips thickened and pale ; diam. $\frac{5}{6}$. S. 307.

H. BROWNII. Depressed, ovate, palely brown, smooth, pellucid, convex above, rather so beneath ; peristome thickened, reflected, white ; lips and columella thickish and whitish ; columellar angle of the aperture cleft ; operculum reddish, horny, with a small appendage at its anterior extremity ; small. W. Sup. 8. 64.

PUPA. TERRESTRIAL.

Cylindrical, generally thick; aperture irregular, semi-ovate, rounded and sub-angulated beneath; margins of outer lip nearly equal, and reflected outwardly, unconnected at their upper parts; the plait of the columella interposed between them.

P. MUMIA. Sub-cylindrical, obliquely ribbed, white; aperture semi-ovate, two-toothed, and the inside tawny; lip marginated. $1\frac{1}{2} \dots \frac{1}{2}$. W. 32. 111.

P. UVA. Cylindrical, obtuse, with straight longitudinal ribs, and about nine whorls; aperture semi-ovate, with one tooth: greyish or reddish white, and the inside white. $\frac{5}{6} \dots \frac{2}{7}$. W. 31. 110.

P. SULCATA. Ovate-obtuse, umbilicated, obliquely striated, and white; aperture semi-ovate, and outer lip reflected and yellow. $1 \dots \frac{1}{2}$. W. 32. 115.

P. FUSUS. Cylindrical, obtuse, thinnish at both ends, and obliquely striated; aperture semi-ovate, with one tooth, inside white; lip sub-reflected. $1\frac{1}{3} \dots \frac{1}{3}$. W. 32. 112.

P. SECALE. Cylindraceous, rather obtusely attenuated, striated, palish brown; aperture with seven or eight teeth; margin reflected. B. $\frac{1}{3}$. T. 81.

P. UMBILICATA. Minute, cylindrical, obtuse, sub-pellucid; aperture with one tooth; lip with a white reflected margin; umbilicus open. B. T. 78.

P. MUSCORUM. Principally differs from the last by its tooth not adjoining the margin, but being placed further in the interior of the shell; it also has a prominent white rib at the back of the outer lip. B. T. 79.

P. FRAGILIS. Turreted, pellucid, with the whorls reversed, and the aperture toothless; yellowish brown. $\frac{1}{3}$. B. T. 70.

P. PYGMEA. Minute, fulvous horn-colour, cylindraceous, obtuse; whorls five; aperture four-toothed; peristome reflected; umbilicus very open. T. 83. B.

P. VERTIGO. Minute, reversed, horn-coloured; five whorls; aperture with six plaits; peristome sub-reflected, sinuated; umbilicus nearly closed. B. T. 86.

P. ANTVERTIGO. Oval, ventricose; aperture with eight unequal teeth, three of which are superior, and between the lips of the peristome; deep chestnut, and margin of aperture whitish; minute. B. T. 85.

P. GOODALLI. Oblong or conical, cylindrical, brown horn-colour, semi-transparent, quite smooth and glossy, except close to the sutures;

whorls seven, flattish; aperture pear-shaped, curved, and narrower at the upper and outer angle; the peristome thickened and obtuse; umbilicus imperfect; aperture with three teeth, one above, and one on each side. A variety of this shell has two additional denticles alternating with the larger one. $\frac{1}{5}$. B. *Azeca Matoni* of Turton, 52.

CLAUSILIA. TERRESTRIAL.

Sinistral, generally fusiform, slender; summit somewhat obtuse; aperture irregular, rounded, oval; margins united, free, and externally reflected.

C. PAPILLARIS. Reversed, fusiform, pellucid, most minutely striated, brownish horn-colour; sutures margined with a brown line, crenulated with white spots; aperture two-plaited. $\frac{7}{12}$. T. 56.

C. PLICATULA. Reversed, fusiform, striated, reddish brown; columella with four or five plaits, two of which are more conspicuous. $\frac{7}{12}$. B. T. 54.

C. RUGOSA. Reversed, slender, elongated, acute, striated; chocolate-brown; aperture two-toothed; margin of lip white, and reflected. $\frac{5}{12}$. B. T. 58.

C. BIDENS. Elongate, fusiform, sub-ventricose, solid, sub-striated reddish horn-colour;

aperture ovate, pyriform, with two laminar folds, one of them straight, placed near the top of the aperture, and nearly central, the other curved, and in the middle of the pillar-lip; operculum emarginate. $\frac{1}{2}$. B. T. 53.

C. VENTRICOSA. Ventricose, opaque, grey brown, with regular raised striæ; aperture with two plaits; margin white, and detached all round; lateral margin narrowing the mouth. $\frac{3}{4}$. B. T. 55. Differs from *C. rugosa* by the flatness of its eleven whorls.

BULIMUS. TERRESTRIAL.

Ovate, oblong or turreted; aperture entire, longitudinal; margins unequal, and disunited above; columella straight, smooth, entire at the base, and not effuse.

B. OVATUS. Sub-umbilicated, ovate, ventricose, longitudinally wrinkled, with the summit and outer lip rose-colour; pillar white; the shell tawny white, covered with a yellow epidermis; outer lip reflected, and thick. $4\frac{1}{2}$. W. 34. 101.

B. HÆMASTOMUS. Ovate-oblong, ventricose, sub-umbilicated, longitudinally striated, tawny white; lip and columella rose-colour. Smaller than the preceding. W. 34. 102.

B. UNDATUS. Ovate, subconic, thin, smooth,

whitish, with longitudinal waved brown streaks, and other transverse ones encircling it; pillar tawny yellow; lip acute; margin brown. $1\frac{2}{3}$. W. 18. 52.

B. INVERSUS. Reversed, ovate-oblong, smooth, bluish white, with oblique longitudinal streaks, some reddish yellow, others brown, last whorl girded by a white line; lip white, and reflected. 2. W. 34. 113.

B. CITRINUS. Reversed, ovate-oblong, smooth, shining, citron-colour, either unspotted or transversely tessellated by red spots; lip white within, and reflected. $1\frac{5}{6}$. W. 34. 112.

B. DECOLLATUS. Cylindrically turreted, longitudinally striated, white, and (excepting when very young) truncated at the summit, reddish horn-colour; aperture oval. 1. T. 60.

B. LYONETIANUS. Conical, obtuse, white, longitudinally wrinkled, distorted, and the side opposite the aperture gibbous; mouth compressed. $1\frac{5}{6}$. W. 35. 161.

B. RADIATUS. Perforated, smooth, most minutely striated, white, with longitudinal ash-coloured or brown streaks; whorls rather convex; lip simple or sub-reflected. $\frac{11}{12} \dots \frac{2}{5}$. W. 35. 156.

B. GUADALOUPENSIS. Oblong, perforated, whitish, with three transverse brown bands; outer

lip (of the adult shell) thickened within; summit rather blunted. $\frac{5}{6}$. W. 35. 157.

B. OCTONUS. Turreted, sub-cylindrical, whitish, diaphanous, with eight rounded whorls, and the summit obtuse; aperture roundish; lip thin, and acute. $\frac{5}{6}$. W. 35. 150.

B. ACUTUS. Turreted, oblong, slightly wrinkled, generally whitish, with brown streaks or bands; whorls from nine to twelve; apex and lip acute. $\frac{3}{4}$. B. T. 67.

B. MONTANUS. Ovate-oblong, perforated, striated, brownish horn-colour; whorls seven, convex; aperture semi-oval; lip with a white and reflected margin. $\frac{5}{8} \dots \frac{1}{4}$. B. T. 62.

B. HORDEACEUS. Small, ovate-oblong, smooth, brownish horn-colour; aperture ovate; lip with a white reflected margin. $\frac{1}{3}$. B. T. 63.

B. LUBRICUS. Small, ovate-oblong, smooth, brilliant fulvous horn-colour; aperture ovate; lip simple. B. $\frac{1}{5}$. T. 65.

B. MELANOSTOMUS. Ovate-oblong, ventricose, crowdedly granulated, marbled with whitish orange, brown or cinereous; base perforated; umbilicus obtuse, black; whorls rather convex, the first longitudinally plaited above; aperture ovate, black; lip thickened within, and without reflected; emarginated at the base. $1\frac{3}{4}$. W. Sup. 7. 23.

B. BILINEATUS. Oblong-conic, thin, smooth,

pale, fulvous, with two brown bands, with the interstice white; whorls convex, narrow; base perforated; aperture sub-rotund; lip thin, and acute.

$\frac{3}{4} \dots \frac{1}{3}$.

B. OTAHEITANUS. Reversed, ovate-oblong, smooth, chestnut; apex obtuse; base perforated; whorls six, convex; aperture white, ovate; lip reflected. $\frac{1}{2}$. W. 34. 110.

B. LABIOSUS. Sub-cylindrical, polished, diaphanous, and white; aperture semi-ovate, marginated, and one-toothed; the last whorl is as large as the rest united. 1. W. 34. 108.

B. GIBBUS. Ovate-conic, perforated, most minutely striated transversely; pinkish towards the apex; whorls flattish, the last yellow or whitish and gibbous; suture with a white margin; aperture ovate; lip expanded, marginated, and white. $\frac{3}{4}$.



B. FABA. Ovate-oblong, perforated, smooth, brownish, with a broad brown band at the base, and a narrower one at the suture; apex obtuse; whorls convex; aperture ovate; lips thickened, reflected; columella with a kind of tooth upon it. 1. W. 33. 47.

ACHATINA. TERRESTRIAL.

Ovate or oblong; aperture entire, elongated; lip acute, never reflected; columella smooth; the base truncated.

* *Last whorl ventricose, and not depressed.*

A. PERDIX. Very large, ovate-oblong, ventricose, decussated, white; apex rose-colour, marked with longitudinal dark-chestnut flames; columella of a violet purple; lip white within; sutures slightly crenulated. 5. W. 18. 53.

A. ZEBRA. Very large, ovate-oblong, ventricose, obsoletely decussated, and marked with crowded, longitudinal, undulated, red and brown lines or streaks; lip white within; sutures and size as preceding. W. 18. 52.

A. PURPUREA. Ovate, ventricose, cinerous, covered with a yellow epidermis; apex pinkish; mouth purple, both lips margined with brown; spire obtuse; sutures crenulated. 4. W. 18. 54.

A. VEXILLUM. Ovate-conic, smoothish, most minutely striated, variously coloured, banded, and spotted; whorls eight, rather convex; columella pink, by age black. 3. W. 18. 46.

A. VIRGINEA. Ovate-conic, smooth, white, elegantly girded by black and red lines; whorls convex; columella rose-colour; lip purplish ash-

colour within, and one-plaited ; apex obtuse. $1\frac{1}{2}$.
W. 18. 45.

A. PRIAMUS. Ovate, ventricose, thin, smooth, diaphanous, brownish rosé-colour, reddish chestnut square spots disposed in transverse lines ; spire short ; lip acute. W. 18. 51.

** *Last whorl depressed and attenuated towards the base.*

A. FOLLICULUS. Small, sub-turreted, smooth, diaphanous, white or yellowish horn-colour ; whorls convex ; apex bluntish. $\frac{1}{3}$. B. T. 102.

A. ACICULA. Slender, smooth, polished, white, with six flat volutions ; the last equal in size to the rest together ; minute. B. T. 71.

SUCCINEA. FLUVIATILE.

Ovate, or ovate-conical ; aperture very wide, entire, and longitudinal ; outer lip acute, not reflected, united to the columella, which is protracted ; columella smooth, attenuated, and acute ; no operculum.

S. AMPHIBIA. Ovate-oblong, most thin, pellucid, yellowish ; spire short ; aperture dilated beneath, sub-vertical. $\frac{3}{4}$. B. T. 73.

S. OBLONGA. Ovate-oblong, fragile, longitudinally striated, lighter horn-colour than the last ; whorls four, convex ; aperture scarcely larger than the spire. $\frac{1}{2}$. B. T. 74.

AURICULA.

Sub-oval, or ovate-oblong; mouth longitudinal, very entire at the base; above narrowed, and the margins disunited; pillar with one or more plaits; lip either reflected, or simple and acute.

** Lip reflected.*

A. MIDÆ. Ovate-oblong, very thick, decussated, granular above, white, covered with a chestnut-brown epidermis; spire short, conoid; aperture narrowed in the centre; pillar with two plaits. 3. W. 19. 1.

A. JUDÆ. Oblong, cylindraceous, conic, thick, most minutely decussated and granulated, fulvous, white; aperture narrowed in the centre; pillar with three plaits; smaller than the last. W. 19. 2.

A. GLABRA. Ovate-oblong, smooth, perforated, ventricose in the middle, the apex obtuse, yellowish white, mottled and streaked with brown; whorls broad, rounded; mouth narrowish, ovate; pillar with a large plait; lips thickened, reflected, and white. $1\frac{1}{2}$. W. 19. 5.

A. LEPORIS. Ovate-conic, depressed at the base, perforated, white, with clouded tawny flammules and decussated striæ, impressed at the sutures; mouth with both lips widely reflected; pillar with one plait. $1\frac{3}{4}$. W. Sup. 8. 75.

A. FELIS. Oval, rather thick, transversely striated, reddish brown; whorls flattish; spire very short; aperture narrowed centrally; columella with three plaits. 1. W. 19. 15.

A. SCARABEUS. Ovate, flattish convex, longitudinally angulated on both sides; aperture grinning and seven-toothed, smooth, either maroon-colour, or spotted with brown on a whitish ground. 1. W. 32. 1.

A. MINIMA. Minute, ovate-oblong; apex obtuse, smooth, diaphanous; mouth with three teeth, lip reflected. B. T. 77.

*** Right border simple and cutting.*

A. CONIFORMIS. Obversely conic, attenuated at the base, rather wrinkled longitudinally, whitish, banded with brown; spire extremely short; pillar with three teeth; lip dentated and furrowed within. $\frac{3}{4}$. W. 19. 15.

A. NITENS. Small, ovate-oblong, smooth, shining, chestnut-brown; spire rather exserted, acute; pillar with three plaits; lip with an internal transverse rib, and sub-striated. $\frac{1}{2}$. W. 19. 20.

A. MONILE. Small, ovate, turbinated, smooth, shining, fulvous, with three white bands; spire short; columella with two plaits; lip striated within. $\frac{1}{2}$. W. 19. 17.

A. FASCIATA. Ovate-conic, turbinated, smooth,

attenuated at the base, bluish white, with many fulvous bands; spire very short; pillar with four plaits; lip toothed. $\frac{1}{2}$. (Front. 2.)

CYCLOSTOMA. TERRESTRIAL.

Variable in shape; volutions cylindrical; aperture circular, entire, and reflected, in the adult state; operculum horny.

C. VOLVULUM. Trochiform, deeply umbilicated, transversely striated, variegated with red and yellow; spire acuminate; aperture white or yellow; lip with its margin reflected. $1\frac{1}{2}$. W. 32. 7.

C. LABEO. Oblong-obtuse, umbilicated, pellucid, decussated, white or reddish, with minute yellow forked spots in transverse series; lip reflected, white, dilated, and open. $1\frac{1}{3}$. W. 32. 120.

C. FLAVULUM. Cylindraceous, chrysalis-like, solid, smooth, reddish yellow; whorls eight, rather convex; aperture surrounded by a yellow ring; lip margined without. $1\frac{1}{4}$. W. 32. 114.

C. ELEGANS. Ovate-conic, with five ventricose whorls, strongly striated transversely, and crossed by very fine longitudinal lines, greyish or purplish white, elegantly spotted with chocolate brown. $\frac{7}{12}$. B. The lip of adult specimens has its margin slightly reflected. T. 75.

C. SULCATUM of Draparnaud. Ovate-conoid, yellowish or reddish flesh-colour, spirally furrowed, and decussated by most minute longitudinal striæ; mouth circular, and perpendicular to the axis of the shell; lip simple, and thickish. $\frac{3}{4}$. B. T. 76.

C. TRUNCATULUM. Cylindraceous; apex truncated, sub-pellucid, rather solid, more or less longitudinally striated, reddish horn-colour; mouth ovate; lip reflected. $\frac{1}{4}$.



LES LYMNÉENS.

PLANORBIS. FLUVIATILE.

Discoid, spire depressed; volutions apparent on both sides; aperture oblong, and lunate; axis of shell remote; margin not reflected; no operculum.

P. CORNUARIETIS. Reversed, solid, flattish concave and white above, beneath widely umbilicated and reddish brown; whorls cylindraceous, smooth; the last banded with chestnut brown; diam. $1\frac{1}{2}$. W. 33. 55.

P. CORNEUS. Deeply umbilicated above and rusty brown, beneath flattish and whitish; whorls

five, obliquely striated; aperture semi-circular; diam. 1. B. T. 95.

P. CARINATUS. Horn-colour, transparent, striated, nearly flat on both sides, with a prominent obtuse keel in the middle; diam. $\frac{2}{3}$. B. T. 87.

P. SPIORBIS. Whitish, striolate, a little concave on both sides; outer whorl with a sharp keel in the middle, pale horn-colour; four or five whorls; aperture heart-shaped, acute at the top; diam. $\frac{1}{3}$. B. T. 92.

P. CONTORTUS. Nearly flat above, deeply umbilicate beneath, horn-colour, but generally incrustated; whorls five, remarkably compact and equal; aperture very narrow, lunate; diam. $\frac{1}{5}$. B. T. 96.

P. HISPIDUS. Concave on both sides, with finely raised, hispid, spiral striæ; whorls five; the first large and rounded, pale horn-colour; aperture roundish oval, dilated, higher than wide, with the upper angle much produced. $\frac{1}{6}$. B. T. 97.

P. NITIDUS. Orbicular, flattened, keeled at the circumference, umbilicated beneath, diaphanous, shining, pale horn-colour; whorls four; aperture oval, inclining to triangular; diam. $\frac{1}{5}$. B. T. 99.

P. IMBRICATUS. Flat above, umbilicate be-

neath, with a spinous ridge round the outer whorl; aperture oval, united all round, thin, pellucid, blackish or greenish horn-colour; diam. $\frac{1}{5}$. B. T. 94.

P. COMPLANATUS of Turton. Glossy, transparent, striolate, concave above, with the outer volution very convex, and abruptly larger, and a strong, prominent, obtuse keel near the base, flat beneath; diam. $\frac{1}{2}$. B. T. 89.

PHYSA. FLUVIATILE.

Generally sinistral, convolute, oval or oblong; spire prominent; aperture longitudinal, contracted above; columella twisted; outer lip very thin, acute, partly obtruding above the plane of the opening, destitute of an operculum.

P. FONTINALIS. Reversed, oval, diaphanous, smooth, yellowish horn-colour; spire very short, somewhat acute. B. $\frac{2}{5}$. T. 110.

P. HYPNORUM. Reversed, ovate-oblong, smooth, diaphanous, shining, yellowish; spire exserted, very acute; aperture narrow, oval, covering about half the shell; whorls scarcely raised. B. $\frac{1}{2}$. T. 113.

LYMNÆA.

Oblong, sometimes turreted; spire exserted; aperture entire, oblong; outer lip acute; lower part

of inner lip rising on the columella, and forming an oblique plait; no operculum.

** With the spire as long, or longer than the aperture.*

L. STAGNALIS. Oval-oblong, with the lower volution much inflated, and somewhat angular; suture deep; thin, greyish white; whorls six or seven; apex acute; lip spread. $\frac{1}{2}$. B. T. 104.

L. PALUSTRIS. Conic-oval, with six rather tumid volutions; the lower one somewhat angular by raised transverse and longitudinal striæ; brown horn-colour, somewhat opaque; whorls scarcely raised. $\frac{3}{4}$. B. T. 107.

L. MINUTA. Oblong-oval, with five, six, or seven rounded and deeply divided volutions, striolate longitudinally and across; pale brown or greyish. $\frac{1}{3}$. B. T. 108.

L. LEUCOSTOMA. Elongated, taper, with seven or eight convex volutions; and the aperture very short; the last volution is not larger in proportion than the rest. 1. B. T. 106.

*** Spire not so long as the aperture.*

L. AURICULARIA. Extremely inflated, striolate, with a very short acute spire; aperture oblique, vastly expanded, and roundish oval; pillar with a strong fold, light yellow horn-colour. 1. B. T. 100.

L. PEREGRINA. Ventricose, more or less striate,

with a moderately short acute spire; greyish or yellowish; the lesser volutions not so abruptly disproportionate to the body as the last. B. $\frac{3}{4}$. T. 101.

L. GLUTINOSA. Semi-globular, extremely thin, and inflated, amber-colour; spire with three scarcely produced volutions; the larger one regularly striate. B. $\frac{1}{2}$. T. 103.

LES MELANIENS.

MELANIA. FLUVIATILE.

Turreted; aperture entire, ovate or oblong, effuse at the base; columella smooth, and incurvated; operculum horny.

M. TRUNCATA. Turreted; apex truncated, solid, dark brownish, with small longitudinal ribs, the upper ones more prominent; numerous transverse striæ decussate the ribs; whorls plano-convex. $1\frac{3}{4}$. E. 458. 3 ab.

M. AMARULA. Ovate-oblong, with the whorls transversely keeled above, and the keel spinous; pale chestnut; seven whorls; somewhat ribbed. $1\frac{1}{2}$. W. 35. 164.

M. FASCIOLATA. Oblong-subulate, ventricose at the base, thin, diaphanous, finely decussated, greenish white, with brown longitudinal

flammules; whorls convex, about ten; sutures somewhat hollowed; spire acute. $\frac{3}{4}$. W. Sup. 8. 72.

MELANOPSIS. FLUVIATILE.

Turreted; aperture ovate-oblong, entire; columella with a callosity above, truncated at the base, and incurvated, the outer separated from the inner lip by a sinus; operculum horny.

M. LEVIGATA. Ovate-conic, smooth, chestnut, with seven very slightly convex whorls; the last longer than the spire. $\frac{3}{4}$. W. S. 4. 28.

PIRENA. FLUVIATILE.

Turreted; aperture longitudinal; outer lip acute, with a distinct sinus at the base, and another at its junction with the body; base of the columella turned towards the right; operculum horny.

P. TEREBRALIS. Turreted, subulate, smooth, and black; whorls flattened; aperture white; apex generally eroded. 3. W. 25. 40.

P. AURITA. Turreted, muricated, reddish; whorls armed in the middle with obtuse compressed tubercles; aperture white; apex eroded. There is sometimes a white band near each suture. $1\frac{3}{4}$. W. 25. 41.

LES PERISTOMIENS.

VALVATA. FLUVIATILE.

Discoid or conoid; whorls cylindrical, umbilicated; margins united and acute; operculum orbicular.

V. PISCINALIS. Globular-conoid, somewhat trochus-shaped, deeply umbilicated; apex obtuse, longitudinally wrinkled, covered with a greenish yellow epidermis. B. $\frac{1}{4}$. T. 114.

V. SPIRORBIS. Slightly concave above, and umbilicated, so as to expose the interior volutions beneath; horn-colour, striate transversely, three volutions. $\frac{1}{10}$. B. T. 115.

PALUDINA. FLUVIATILE.

Conoid; volutions rounded or convex; aperture sub-rotund, ovate or oblong, angulated above; margins of inner and outer lips united, with edges acute, but not reflected; operculum horny, orbicular.

P. VIVIPARA. Thin, oval, acute; whorls five, much inflated, olive, with three brown bands; sutures deeply impressed, finely striate longitudinally; aperture pear-shaped, a little produced at the upper angle; inner lip a little reflected, so as to close the umbilicus. $1\frac{1}{4}$. B. T. 118.

P. ACHATINA. Thin, conic-oval, acute;

whorls six, tumid, olive, with three reddish-brown bands; sutures well defined. $1\frac{1}{4}$. B. T. 119.

P. IMPURA. Oval-oblong, yellowish horn-colour, smooth, pellucid; whorls five; no umbilicus. $\frac{1}{2}$. B. T. 120.

P. VIRIDIS. Somewhat conic and obtuse, pellucid, inflated, smooth, with four tumid volutions, and no umbilicus; light greenish. $\frac{1}{6}$. B. T. 122.

AMPULLARIA. FLUVIATILE.

Globular, ventricose; base umbilicated; left lip without a callosity; aperture oblong, entire; margins united; outer lip acute, but not reflected; an operculum.

A. EFFUSA. Orbicular-ventricose, widely umbilicate, smooth, white, with yellow and brown bands; spire exceedingly short; mouth orange; margins effuse; diam. $2\frac{1}{4}$. W. 33. 73.

A. AVELLANA. Sub-orbicular, flattened above, perforated, thickish, longitudinally wrinkled, yellowish brown; the last whorl angular above, sub-carinated; spire acute, extremely short; diam. $\frac{5}{8}$. W. 33. 46.

A. FASCIATA. Ventricose, smooth, whitish, with bluish bands; spire short, and obtuse; mouth reddish; diam. $1\frac{3}{4}$. W. 20. 71.

LES NERITACES.

NAVICELLA. FLUVIATILE.

Elliptical or oblong, concave beneath; spire erect; margin always inflected; outer lip flattened, acute, angulated, and destitute of teeth; aperture provided with a solid flat operculum, having a lateral point.

N. ELLIPTICA. Smooth, shining, spotted and streaked with blue, purple, or brown, covered with an olivaceous epidermis; spire curved, prominent, extending beyond the margin; diam. $\frac{3}{4}$. W. 37. 9.

NERITINA. FLUVIATILE.

Thin, semi-globose or ovate, flattened below; without an umbilicus; aperture semi-circular; inner lip flattened, and reflected on the columella, sometimes slightly crenated; outer lip destitute of teeth, or crenulations on its internal face; aperture provided with an operculum, having a lateral point.

N. ZEBRA. Oblong-globose, glabrous, fulvous red, with longitudinal flexuous very oblique black lines; aperture white; lip denticulated; diam. $\frac{5}{6}$. W. 35. 18.

N. CORONA. Oblong-globose, striolate, black;

the last whorl crowned in the upper part with long erect spines; apex eroded; lip denticulated; diam. $\frac{1}{2}$. W. 35. 22.

N. STRIGILATA. Oblong-ventricose, smooth, shining, with alternate yellow and black longitudinal streaks; spire exserted, acute; aperture white; lip denticulated; whorls three, without the point; diam. $\frac{3}{4}$. W. 36. 38.

N. VIRGINEA. Ovate-globose, smooth, shining, spotted, and frequently banded; colours various; spire shortish; lip denticulated; the general shape approximates somewhat to *N. strigilata*; diam. $\frac{3}{5}$. W. 36. 37.

N. FLUVIATILIS. Small, oval, back convex, glabrous, tessellated with various-coloured spots; whorls three; spire inclined lateral; lip entire; diam. $\frac{1}{3}$. B. T. 124.

N. VIRIDIS. Minute, oval, back convex, smooth, pellucid; green, often spotted with white; spire lateral; lip denticulated. W. 36. 36.

N. PUPA. Ovate-globose, smooth, white, with deep black undulated or reticulated lines; yellow within; aperture semi-lunate; lip scarcely inflected, obsoletely denticulated. $\frac{1}{2}$. W. 36. 33.

NERITA.

Solid, semi-globose, flattened below, without an umbilicus; aperture semi-circular and entire; inner

lip flattened, septiform, acute, and frequently dentated or crenated on the inner edge of the lip; outer lip obtuse, and often provided internally with teeth.

N. EXUVIA. Thick, white, spotted with black, with transverse acute squamulated ribs, and longitudinal striæ decussating them; outer lip crenate within; inner lip verrucose above, and the margin toothed; columella spotted with yellow in its upper part; diam. $1\frac{1}{2}$. W. 36. 49.

N. PELERONTA. Thickish, transversely furrowed, ash or reddish yellow, with longitudinal black or rose-colour flexuous streaks; mouth white; inner lip with two teeth, and a saffron or blood-coloured spot in the middle; outer lip smooth within in the centre, but with a tooth or two on the sides; diam. $1\frac{1}{4}$. W. 36. 46.

N. POLITA. Thick, glabrous, shining, slightly striolate longitudinally; colours various; spire extremely blunt; inner lip smooth, polished, and dentated; outer lip slightly crenulated, yellowish within; diam. $1\frac{1}{3}$. W. 36. 39.

N. ALBICELLA. Solid, compressed at the sides, and girded with broad flattish furrows; whitish, with irregular black or dark brown spots, bands, or clouds, or sometimes blackish, with white spots; spire lateral, obsolete, and flat; lips

slightly denticulated ; inner one tuberculated ; diam. $\frac{3}{4}$. W. 36. 47.

N. VERSICOLOR. Thick, with transverse close furrows, variegated with white, red, and black ; spire rather prominent ; aperture narrowed, almost grinning ; both lips strongly toothed ; diam. $\frac{5}{6}$. W. 36. 54.

N. MALACCENSIS. Thickish, with transverse elevated black distant ribs, dirty white, alternating with black markings between the ribs ; spire retuse, but sometimes slightly prominent ; inner lip concave centrally, and denticulated, covered with raised dots ; outer lip with a tooth or two at its top, and deeply furrowed ; its margin crenulated ; diam. 1.



N. TESSELLATA. Solid, transversely furrowed, ash-colour ; furrows crowded, convex, and tessellated with black and white ; spire rather prominent ; and the lips usually denticulated with a few raised dots on the inner one ; diam. $\frac{3}{4}$. W. 36. 68.

N. NIGERRIMA. Ovate-globose, deep black, slightly striated transversely ; aperture white ;

inner lip simple, with two teeth above ; columella concave in the centre, where are two teeth, canaliculated above. $1\frac{1}{2} \dots 1\frac{1}{10}$. W. 36. 44.

N. UNDATA. Ovate, semi-globose, with thirty furrows ; spire acute, rather exserted ; aperture white ; outer lip crenate within, two-toothed above ; columella convex, wrinkled, sprinkled over with raised dots ; its margin with three unequal teeth. This shell is coloured by large oblique alternate tawny white and blackish-brown flammules. $1\frac{1}{2} \dots 1\frac{1}{10}$. W. 36. 62.

N. ANTILLARUM. Ovate, semi-globose ; apex very blunt ; transversely ribbed ; ribs deep black, nearly equal ; interstices white ; aperture narrow, semi-lunar ; outer lip slightly denticulated, with rather a produced tooth above ; columella smooth, convex, yellowish, with two obsolete teeth on the margin. $1\frac{1}{7} \dots \frac{4}{5}$. W. 36. 45.

NATICA.

Sub-globose, umbilicated ; aperture entire, and half rounded ; outer lip oblique, without teeth ; a callosity partly covers the umbilicus, and in some species entirely ; outer lip sharp, smooth within ; aperture provided with an operculum.

N. GLAUCINA. Sub-orbicular, inflated, thick, smooth, fulvous and bluish white ; spire short,

oblique; the callus red, sub-divided, partly covering the umbilicus; diam. 2.



N. ALBUMEN. Sub-orbicular, convex, depressed, thickish, smooth, reddish fulvous, flat beneath, milky; spire very blunt, and oblique; the somewhat heart-shaped callus on the inner lip partly concealing the umbilicus; diam. $1\frac{3}{4}$. W. 35. 17.

N. MAMMILLA. Oval-ventricose, flattish convex, thickish, brilliant white; spire rather prominent; the callus of the inner lip of the adult entirely covering the umbilicus; diam. $1\frac{1}{2}$. W. 35. 19.

N. MELANOSTOMA. Oval-convex, depressed, ventricose, thin, fulvous, whitish, with a broad

brown band near the top of the body-whorl, and another at its base; spire slightly prominent; inner lip blackish brown; umbilicus half closed; diam. $1\frac{1}{2}$. W. 34. 98.

N. CANRENA. Sub-globose, smooth, fulvous, zoned with brown longitudinal angularly flexuous flammules, on a white ground; spire slightly prominent; operculum solid and furrowed curvedly without; diam. 20. W. 35. 1.

N. MILLEPUNCTATA. Sub-globose, smooth, yellowish white, covered with scattered, purplish-red spots; spire slightly prominent; the umbilical callus cylindrical; diam. $1\frac{1}{2}$. W. 36. 69.

N. VITELLUS. Sub-globose, smooth, yellowish, with transverse series of white spots; spire short, sub-acute; umbilicus naked; diam. $1\frac{1}{4}$. W. 35. 6.

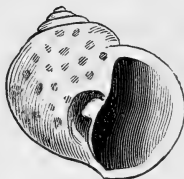
N. MONILIFERA. Roundish ventricose, smoothish, greyish fulvous, with one circle of chestnut spots on the upper part of the whorls; spire slightly prominent; umbilicus naked. B. diam. 1. W. 35. 5.

N. LINEATA. Ventricose sub-globose, thinish, smooth, whitish, with crowded longitudinal undulated reddish-yellow lines; spire rather prominent; umbilicus half closed by the callus; diam. 1. S. 328.

N. FULMINEA. Roundish ventricose, glabrous, yellowish white, with longitudinal angularly flexuous chestnut lines; the body-whorl

obtusely angular above; spire short; umbilicus pervious and naked; diam. 1. W. 35. 10.

N. MACULOSA. Sub-globose, glabrous, whitish, covered with innumerable reddish-violet spots; whorls obsoletely angulated above; spire slightly prominent, and rather acute; umbilicus partly closed; diam. $\frac{3}{4}$.



N. ARACHNOIDES. Roundish ventricose, glabrous, zoned with white and yellow, with thin chestnut lines variously disposed; spire very short; umbilicus naked; diam. $\frac{3}{4}$. W. 35. 15.

N. CANCELLATA. Sub-globose, decussated, marked by impressed spots, white spotted with orange; spire short, oblique; umbilicus broad, gibbous, and bifid; diam. $\frac{3}{4}$. W. 35. 3, 4.

N. MACULATA. Globose, turgid, transversely striated obsoletely, whitish, spotted with blood-colour, with three bands of larger spots; aperture semi-lunar, violet within; operculum calcareous, and furrowed all over; umbilicus large, containing a straight semi-cylindrical reddish callus, nearer its lower than upper border; diam. 2. W. 35. 9.

LES IANTHINES.

IANTHINA.

Ventricose, conical, thin, and pellucid; aperture triangular; columella straight, produced beyond the edge of the outer lip; the lip or middle sinus emarginate; no operculum.

I. COMMUNIS. Extremely fragile, of a beautiful violet hue; aperture triangular, with a small notch on the margin of the outer lip; diam. 1. B. W. 34. 116.

LES MACROSTOMES.

SICARETUS.

Sub-auriform, sub-orbicular; outer lip short, and spirally intorted; aperture entire, very expanding, ovate-oblong; the margins disunited.

S. HALIOTOIDEUS. Auriform, back convex depressed, white, with crowded transverse undulated striæ; spire flat; aperture greatly dilated; umbilicus covered; diam. $1\frac{1}{2}$. W. 34. 187.

S. CONCAVUS. Ovate, back convex, with transverse undulated striæ, reddish fulvous; spire whitish, slightly prominent; aperture very concave; umbilicus half covered; diam. $1\frac{1}{3}$. S. 334.

S. AUSTRALIS. Auriform, back slightly convex, longitudinally striolate and transversely un-

dulated with obsolete striæ; white; spire rather prominent; aperture slightly concave, and dilated; umbilicus covered; diam. $1\frac{1}{6}$. Front. 3.

STOMATIA.

Ear-shaped, imperforate; spire prominent; aperture entire, oblong, and large; right lip elevated as much as the pillar; back with a transverse sub-carinated tuberculated rib.

S. PHYMOTIS. W. 36. 18.

STOMATELLA.

Orbicular or oblong, ear-shaped, imperforate; aperture entire, large, elongated; outer lip effuse, dilated, open, and iridescent.

S. IMBRICATA. Sub-orbicular, convex depressed, roughish, grey, with crowded transverse scaly imbricated furrows; spire slightly prominent; $1\frac{1}{4}$ diam. W. Sup. 8. 4.

S. AURICULA. Haliotis-shaped, ovate-oblong, convex on the back, smooth, yellowish rose-colour, with brown lines; spire lateral, slightly prominent; lip arcuated by a sinus; diam. $\frac{3}{4}$. W. 37. 54.

HALIOTIS.

Ear-shaped, usually depressed; spire short, sometimes depressed, and nearly lateral; aperture extremely large, oblong-ovate, and entire in

the adult state; disc perforated with holes disposed in a line parallel to the left margin, which commences by a notch.

H. IRIS. Roundish oblong, very large, thin, with wrinkled plaits, variegated with red, bluish, and green; spire very slightly prominent, obtuse; left margin elevated; very large. W. 36. 13.

H. AUSTRALIS. Oval-oblong, with oblique plaits and wrinkles; the spire prominent and gibbous, mottled with reddish and greyish; from seven to nine of the tubercles are perforated. 3...2 $\frac{1}{4}$. W. 36. 11.

H. TUBERCULATA. Ovate-oblong, with the outside longitudinally striated; striæ raised, and where the distant transverse irregular folds cut them tuberculated; spire slightly prominent, pearly within, mottled with green and red without. B. 3. W. 36. 4.

H. STRIATA. Ovate-oblong, back flattish, convex, longitudinally striated, transversely wrinkled, rust-colour; spire very slightly prominent; interior very iridescent, and the outside striæ visible within. 2...1 $\frac{1}{3}$. W. 36. 5.

H. ASINARIA. Elongate, narrowish; margin somewhat sickle-shaped, smooth, with longitudinal raised striæ near the summit, marbled with green, white, and brown; spire very short. 2 $\frac{1}{2}$... 1 $\frac{1}{2}$; pearly within. W. 36. 10.

H. GLABRA. Oval, flattish, convex, glabrous, slightly striated; colour as last; spire retuse; inside pearly. $1\frac{1}{2}$. W. 36. 9.

H. LAMELLOSA. Oval-oblong, flattish, convex, lamellated, and decussated by transverse striæ, orange or marbled with brownish rose-colour and green; spire rather prominent; pearly within. $1\frac{1}{2}$. Front. 4.

H. CANALICULATA. Roundish ovate, depressed, with decussated striæ, dull reddish; a deep internal channel projecting without; inside pearly. $1\frac{1}{6}$... $1\frac{1}{3}$. W. 36. 16.

H. PULCHERRIMA. Small, roundish, with granular striæ and radiating lamellæ, marbled with white and orange; spire exserted; inside silvery. $\frac{3}{4}$... $\frac{5}{8}$. W. 36. 2.

H. CRACHERODII. Roundish ovate, nearly smooth, bluish black; inside iridescent. $3\frac{3}{4}$...3; sometimes much larger.

H. SANGUINEA. Oblong-oval, smoothish, brownish red, marbled slightly with white and green; within silvery, stained with a brilliant blood-colour towards the spire. 2. Front. 5.

LES PLICACES.

TORNATELLA.

Convolute, ovate-cylindrical, usually transversely striated, and destitute of epidermis; aperture oblong, entire, with margin of outer lip acute; one or several folds at the base of the columella.

T. FLAMMEA. Oval ventricose, white, with waved longitudinal reddish streaks, and transversely striated; spire conoid; pillar with one plait. 1. W. 19. 12.

T. SOLIDULA. Ovate oblong, sub-cylindric, transversely striated, yellowish white, tessellated with black; pillar with two plaits; the larger one grooved; $\frac{3}{4}$. W. 19. 13.

T. FASCIATA. Ovate conic, transversely striated, pink, with two white bands on the body-whorl; spire exserted, acute; pillar with one plait. $\frac{5}{6}$. B. W. 19. 11.

T. NITIDULA. Oval ventricose, transversely striated at the base, pinkish and shining; spire short, acute; pillar with two plaits. $\frac{2}{3}$. E. 452. 2.

PYRAMIDELLA.

Turreted, destitute of epidermis; aperture entire, semi-ovate; the outer lip with a sharp edge; columella produced at its base, sub-perforated, and provided with three transverse plaits.

P. DOLABRATA. Conical, turreted; suture strongly marked; whorls smooth, white, convex, and girded by yellow spiral lines; pillar twisted; outer lip of adult specimens toothed; the teeth prolonged. $1\frac{1}{3}$. E. 452. 2.

P. PLICATA. Ovate-oblong, solid, with smooth longitudinal plaits, white, with transverse series of reddish-brown spots; the interstices of the plaits transversely striated; the last whorl shorter than the slightly turgid spire; mouth small; no umbilicus. $\frac{3}{4} \dots \frac{5}{5}$. W. 20. 119.

P. MACULOSA. Turreted, subulate, longitudinally striated, white, with reddish scattered spots and dots; whorls numerous; body-whorl much shorter than the spire; when young smooth. $\frac{3}{4} \dots \frac{1}{5}$. E. 452. 1 ab.

LES SCALARIENS.

VERMETUS.

Thin, tubulose, loosely spiral in the lower part; three or four upper volutions regularly spiral; attached to other substances by the apex of the spire; aperture round; margins united and operculated.

V. LUMBRICALIS. Variously twisted, reddish brown, sometimes clouded with a darker brown. 2 to 3. W. 38. 21.

SCALARIA.

Sub-turreted, with longitudinal elevated sub-acute interrupted ribs; mouth rounded, entire, with a reflected margin.

S. PRETIOSA. Conic, umbilicated, loosely twisted into a spiral shape, cream-colour, with the ribs white; whorls disunited, smooth; the last ventricose; up to 6. W. 31. 88.

S. LAMELLOSA. Whitish, imperforated, sub-turreted, with thin white denticulated lamelli-form ribs; whorls contiguous and smooth, the last with a keel environing the base. 1. W. Sup. 6. 17.

S. COMMUNIS. Imperforate, turreted with rounded sub-contiguous whorls, and thick longitudinal oblique ribs; white, with the interstices of the ribs more or less striated transversely with brown. $1\frac{1}{4}$. B. W. 31. 90.

S. FRAGILIS. Much resembles *S. lamellosus*; but its ribs are more numerous, its texture thinner, pure white; destitute of the keel; much smaller.



S. RARICOSTA. Turreted, perforated, white, with transverse most slender striæ, and obsolete

longitudinal ribs, with a few interrupted rib-like varices, crowded in particular parts. W. Sup. 6. 16.

DELPHINULA.

Sub-discoid or conic, umbilicated, solid, with the whorls of the spire rough or angular; mouth entire, round, sometimes triangular; the margins united, and generally provided with a fringe, or thickened.

D. LACINIATA. Sub-discoid, thick, with transverse raised scaly striæ, and two or three keels on the body-whorl, and one on the spire; the former being the basis of great claw-like ramose curved appendages; colour varying from light pink to pinkish black; the spire is depressed; the umbilicus large, deep, and armed with darker spiral rows of vaulted scales; diam. $2\frac{1}{4}$. W. 31. 83.

D. DISTORTA. Sub-discoid, thick, reddish purple, with transverse sharpish-tuberculated furrows; whorls flattish, angulated above, and longitudinally plaited; the last disunited, and separated. W. 31. 85.

LES TURBINACES.

SOLARIUM.

Orbicular, in the form of a depressed cone, largely umbilicated; internal margins of volutions, which are visible in the umbilicus, crenated; mouth almost quadrangular; no columella.

S. PERSPECTIVUM. Orbicular-conoid, longitudinally striated, fulvous white, with articulated belts of white and brown, or chestnut, near the sutures; the crenulations of the umbilicus are smallish; diam. $2\frac{1}{2}$. W. 29. 62.

S. GRANULATUM. Orbicular-conoid, fulvous white, spotted with red near the sutures; with many granulated belts; umbilicus narrowed, and muricated with coarse teeth; diam. $1\frac{1}{2}$. E. 446. 5.

S. LEVIGATUM. Conoid, rather smooth, whitish, with several belts, spotted with red or yellow; umbilicus narrowed, its teeth rather coarse; diam. $1\frac{1}{2}$; near the spire are some extremely fine longitudinal striæ. E. 446. 3 ab.

S. VARIEGATUM. Convex-orbicular, transversely furrowed, longitudinally striated, variegated with white and chestnut; umbilicus open and crenulated; diam. $\frac{2}{3}$. W. 29. 59.

S. AREOLA. Much resembles the last, but is more conic; tessellated with brown and white,

and girded with a white line at its sutures. W. 29. 56.

ROTELLA.

Orbicular, shining, devoid of epidermis ; spire extremely short, sub-conoid ; lower face of the shell convex, and callous ; mouth half-rounded.

R. LINEOLATA. Conical - convex, smooth, with a gibbous callosity on the base, and the aperture somewhat heart-shaped ; varying in colour, and markings often obliquely rayed. Sow. 357.

TROCHUS.

Conical, spire elevated, sometimes abbreviated ; aperture transversely depressed ; margin of outer lip disunited from the body at the upper part ; columella arcuated, more or less oblique at the base ; operculum horny.

S. AGGLUTINANS. Conical, sub-umbilicated, coarse, obtusely plaited, semi-pellucid, dirty white, and the whorls tiled ; base concave, and the pillar-lip sickle-shaped. Attaches to itself stones, &c. Diam. $1\frac{1}{2}$. W. 29. 69.

T. CÆLATUS. Sub-conical, with oblique somewhat scaly plaits on the upper part, and transverse spinous ribs at the base of the whorls, green or greenish white ; base covered with concentric rows of small umbricated scales ; pillar

and inside pearly; diam. from 1 to 3; imperforate. W. 29. 105.

T. TUBER. Imperforate, conoid, thick, with the whorls strongly plaited above, and their lower margin nodulous; greenish, shaded with brown and white; beneath rather convex; inside pearly; diam. $1\frac{1}{2}$. W. 29. 88.

T. MAGUS. Somewhat turban-shaped, with transverse rather undulated striæ; whorls plaited on their upper margins; umbilicus oblique; surface deep; colour pale ash or flesh-colour, elegantly marked with broad undulated purplish-pink stripes; beneath rather convex; diam. $\frac{3}{4}$. B. W. 28. 34.

T. ARGYROSTOMUS. Conoid, black, with longitudinal oblique undulated furrows, somewhat roughened by minute oblique striæ; whorls convex; beneath imperforate, stained with green and red, and plano-convex; mouth silvery. $1\frac{1}{3} \dots 1\frac{3}{4}$. W. 29. 85.

T. NILOTICUS. Conic-pyramidal, dilated at the base, thick and ponderous, smooth, white, with longitudinal reddish-brown streaks; spotted with crimson beneath; columella arcuated, truncated beneath, and dentiferous above; a false umbilicus; diam. $3\frac{1}{2}$. W. 28. 1.

T. PYRAMIDALIS. Conic-pyramidal, tuberculiferous, varied with ash-colour and red; with

large obtuse distant tubercles on the lower margin of the whorls ; beneath flat, concentrically lineated with green ; imperforate. $2\frac{5}{6} \dots 2\frac{1}{3}$. W. 30. 110.

T. OBELISCUS. Conic-pyramidal, nodulous and granulated, coloured with green and white ; whorls with many circles of granulations, and their lower margin nodulous with tubercles ; base white, flat, and concentrically striated ; pillar grooved and twisted ; inside pearly. $2\frac{3}{4} \dots 2\frac{3}{4}$. W. 30. 109.

T. VIRGATUS. Conical-pyramidal, sub-inflated in the middle, granulous, with alternate red and white longitudinal streaks, and transverse granulous striæ ; beneath flattish concave, transversely furrowed, and painted with red lines ; pillar short, arcuated, not prominent ; no umbilicus. $2 \dots 2\frac{1}{4}$. W. 30. 111.

T. MACULATUS. Conic-pyramidal, noduliferous, mottled with green rose-colour and white, with transverse thickish noduliferous furrows ; beneath flattened ; a false umbilicus, and concentrical lines of granulations spotted with rose-colour ; lip furrowed ; pillar strongly crenulated. $1\frac{1}{2} \dots 1\frac{3}{4}$. W. 28. 5.

T. ZICZAC. Sub-conical, transversely striated, and the body-whorl flattened in the middle ; aperture roundish, whitish, with longitudinal brown zigzac streaks, $\frac{3}{4}$, or bluish black, with the white zigzacs interrupted in the middle. $\frac{1}{2}$. Front. 6.

T. IMBRICATUS. Conical-pyramidal, longitudinally ribbed obliquely, whitish; ribs rather prominent at the margin of the whorls, which project in the lower part and are sub-imbricated; beneath plano-convex, concentrically wrinkled. $2 \dots 1\frac{5}{6}$. W. 29. 104.

T. ZIZYPHINUS. Conic, whorls flat, and distantly striated transversely, with a thick pink and white articulated belt margining each; livid or fulvous white, clouded longitudinally with a darker colour; base flattish, imperforate; pillar smooth; mouth pearly. B. 1. W. 29. 94.

T. CONULUS. Conic, smooth, shining, golden, or yellowish red, painted with chestnut; whorls flattish, margined; upper ones granulated; beneath, size, and aperture as the last. W. 29. 93.

T. GRANATUS. Ventricose conic, with transverse granulated striæ, whitish, with longitudinal irregular scarlet streaks; summit acuminate; base convex and oblique; diam. $1\frac{3}{4}$. W. 29. 97.

T. IRIS. Obliquely conic, glabrous, greyish violet, with chestnut longitudinally flexuous lines, iridescent beneath the outer coating; whorls rather convex, the last sub-angular; aperture very dilated; no umbilicus. $1\frac{1}{12} \dots 1$. W. 30. 113.

T. UMBILICATUS. Orbicular depressed, transversely striated, olive ash-colour, umbilicated, marked with rather broad, somewhat oblique, red-

dish violet undulated rays ; the whorls contiguous. $\frac{5}{8} \dots \frac{3}{4}$. B. W. 29. 48.

T. CINERARIUS. Sub-conical, summit produced ; whorls slightly convex ; umbilicus small, pale ash-colour, with crowded oblique purplish-brown lines. B. $\frac{1}{2} \dots \frac{1}{2}$. W. 29. 49.

T. PHARAONIS. Orbicular - conoid, entirely covered by granular belts of crimson, alternating with articulated ones of black and white, umbilicated ; aperture furrowed within ; mouth and pillar toothed ; umbilicus crenated. $\frac{5}{6} \dots \frac{5}{6}$. W. 28. 30.

T. ERYTHROLEUCUS. Conical, with obsolete transverse crenulated striæ, and a broader rib at the margin of the whorls ; summit crimson ; inside pearly ; colour yellowish or pinkish grey, sometimes clouded with brown ; very small. B. W. 29. 91.

T. TUMIDUS. Sub-conical, transversely striated, and the whorls produced and flattish ; body-whorl sub-carinated ; cinereous brown, more or less obscurely streaked longitudinally with brown ; suture deep ; umbilicus small ; B. very small. W. 28. 207.

MONODONTA.

Ovate or conoid ; aperture entire, rounded ; margins disunited above ; columella arcuated, truncated at the base ; an operculum.

M. MODULUS. Sub-orbicular, obliquely depressed, transversely striated, and obsoletely plaited longitudinally, whitish, with scattered purple spots; the lower face concentrically furrowed, umbilicated; both rather prominent; diam. $\frac{7}{12}$. W. 29. 71.

M. LABEO. Ovate-conic, thick, ventricose, imperforate, with transverse rows of beads, and spotted with red and black; wrinkles nodulous; lip double, white, furrowed within. $1\frac{1}{2} \dots 1\frac{1}{3}$. W. 29. 80.

TURBO.

Conoid, or sub-turreted, circumference never compressed; aperture entire, round; margin of outer lip disunited; columella arcuated, depressed, but not truncated at its base; a testaceous operculum.

T. ARGYROSTOMUS. Obsoletely perforate, sub-ovate, with transverse ribs, which are somewhat alternately larger and longitudinally wrinkled; yellowish ash-colour, with reddish-brown or greenish stains; mouth silvery; diam. $2\frac{1}{2}$. W. 31. 76.

T. CHRYSOSTOMUS. Sub-ovate ventricose, imperforate, transversely furrowed, and wrinkled longitudinally; yellowish ash-colour, sub-radiated with longitudinal reddish-brown flammules; certain of the furrows armed with vaulted and ele-

vated scales; mouth golden; diam. $1\frac{2}{3}$. W. 30. 23.

T. PETHOLATUS. Ovate, imperforate, smooth, shining, greenish or reddish chestnut, variously mottled, with transverse bands of dark brown and white, and longitudinal stripes; whorls rounded, obtusely angulated above; pillar orange; mouth silvery. $1\frac{5}{6} \dots 1\frac{2}{3}$. W. 30. 18.

T. PICA. Conical, smooth, thick, white, with black longitudinal spots or streaks; whorls five, rounded, with an obsolete groove beneath the suture; mouth silvery; umbilicus toothed at its margin. $2 \dots 2\frac{1}{2}$. W. 31. 65.

T. MURICATUS. Ovate-conic, perforated, ashy lead-colour, with crowded transverse rows of raised beads; spire acute; mouth smooth, and chestnut. $\frac{5}{6}$. W. 30. 8.

T. PUNCTATUS. Ovate-acute, with six depressed whorls, the last double the length of the rest united; smooth, shining, greyish lead-colour, covered all over with white dots; chestnut within; the spire mucronate. $\frac{1}{12}$. Front. 7.

T. LITTOREUS. Ovate, apex acute, imperforate, transversely striated, dull dark-brown, but when young often variegated and banded; margin of pillar flat and white; mouth dark. $\frac{3}{4}$. B. W. 30. 5.

T. NERITOIDES. Semi-globose, imperforate,

thickish, glabrous, yellowish or reddish yellow, sometimes banded or spotted; pillar flat; spire very obtuse; diam. $\frac{7}{12}$. B. W. 35. 27.

T. RUDIS. Sub-ovate, rather obtuse, with the whorls five, ventricose, pale brown or dirty yellowish white; striæ obliterated; pillar very wide and white; lips yellowish within. $\frac{3}{4}$. B. W. 30. 7.

T. PULLUS. Small, ovate-conoid, imperforate, smooth, shining; apex rather obtuse; mouth sub-orbicular, and somewhat produced at the base; white prettily variegated with red or with longitudinal broad waved stripes of a fine deep purple, and sometimes girdled with pink. $\frac{1}{4}$. B. W. 30. 17.

PLANAXIS.

Oval-conical, solid; aperture oval, sub-longitudinal; columella flattened, truncated at the base, separated from the right lip by a narrow sinus; interior face of the right lip furrowed or striped, with a callus running under its summit.

P. SULCATA. Ovate-conic, imperforate, transversely furrowed; white, with black somewhat square-shaped spots; lip striated within, its margin crenulated. 1. S. 365.

P. UNDULATA. Ovate-conoid, imperforate, thickish, transversely furrowed; white, with reddish-brown undulated longitudinal flammules; lip

entire, striated within; the apex of the spire obtuse. $\frac{3}{4}$.



PHASIANELLA.

Oval or conical, solid, the last whorl much larger than any of the others; aperture oval, longitudinal; inclined obliquely towards the base of the columella, round at the lower part, and contracted at the upper; lips disunited at the upper part; right margin acute, not reflected; columella smooth, compressed, attenuated at the base; operculum calcareous or horny.

P. BULIMOIDES. Oblong-conic, thin, whitish, smooth, pale tawny, with numerous narrow variegated and spotted zones; apex acute; it differs much in colour; operculum calcareous. $2\frac{3}{4}$. W. 23. 96.

P. LINEOLATA. Shape of last, but apex blunted, smooth, shining, fulvous brown, with whitish clouds and transverse series of white spots, here and there interrupted by angular brown marks. $\frac{3}{4} \dots \frac{2}{5}$. W. S. 6. 26.

P. ANGULIFERA. Oblong-conic, ventricose at the base, last whorl angulated; thinnish, trans-

versely striated, with longitudinal unequal reddish-brown spots on a lighter and varying ground; apex acute. $1\frac{1}{3} \dots \frac{2}{3}$.



TURRITELLA.

Turreted, not pearly; aperture rounded, entire; margins disunited at the upper part, not reflected outwards; a sinus in the right lip; operculum orbicular, horny.

T. DUPLICATA. Turreted, thick, ponderous; whorls tawny white, darker above, with a reddish apex, carinated and furrowed; two of the keels more elevated and larger than the rest. $4\frac{1}{2}$. W. 32. 132.

T. TEREBRA. Elongated, turreted, fulvous red or reddish, with equal transverse furrows; whorls convex, twelve to fifteen; spire acute. B. $4\frac{1}{2}$. W. 32. 137.

T. IMBRICATA. Turreted, and transversely furrowed; white, marbled with red and brown; whorls twelve or thirteen, slightly gibbous at their lower, and contracted at their upper extremities, which gives them some slight appearance of being imbricated downwards; apex very acute. $3\frac{1}{4}$. W. 32. 139.

T. CINGULIFERA. Elongate, turreted, tapering, transversely striated, whitish, with the suture brown and deeply impressed. $\frac{4}{5} \dots \frac{1}{5}$. Front. 8.

LES CANALIFERES.

CERITHIUM.

Turreted; aperture short, oblong, oblique, terminated at the base by a short truncated or curved canal; never notched, a slight channel at the upper extremity of the right lip; operculum small, horny, orbicular.

C. PALUSTRE. Turreted, thick; whorls with longitudinal plaits, and three transverse striæ, olive-brown; the base of the body-whorl deeply furrowed; lip sub-crenulated; canal very short. $4\frac{2}{3}$. W. 25. 39.

C. SULCATUM. Turreted, solid, with strongly marked longitudinal plaits and transverse furrows, brownish red; lip large, semi-circular, and united to the pillar, so as to render the very short canal tubular. $2\frac{1}{3}$. W. 28. 161.

C. TELESCOPIUM. Conical, turreted, with the whorls continuous and transversely grooved, deep brown; pillar twisted and protuberant; base nearly flat; canal extremely short. 3 or 4. W. 30. 120.

C. VULGATUM. Turreted; whorls flattish,

with numerous transverse striæ; fulvous ash-colour, marbled by red or brown; a rather spinous series of tubercles girds the middle of the whorls; canal short, slightly turned backwards; sutures crenulated. $2\frac{1}{2}$. W. 27. 152.

C. OBELISCUS. Turreted, ventricose, with three rows of granulated striæ, and the sutures tuberculated; greyish tawny, spotted with red and brown; pillar with one tooth; beak ascending. 2. W. 27. 142.

C. RETICULATUM. Elongate, turreted, with longitudinal ribs, and four transverse grooves on each whorl, forming uniform flattened tubercles all over; pale brownish, beak very small, almost obsolete. $\frac{3}{5}$. B. W. 28. 165.

C. ALUCO. Whorls smooth beneath, above with a series of ascending spinous tuberculations; whitish, spotted and streaked with red and black; canal recurved. 2. W. 27. 146.

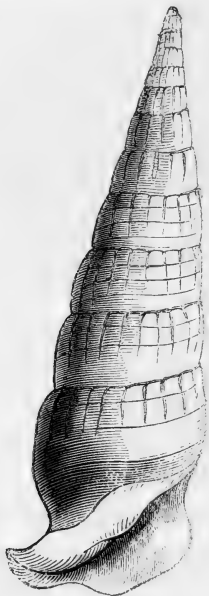
C. RADULA. Turreted, brown; whorls with four or five rows of granulated striæ, of which, when adult, the middle changes into sharpish tuberculations; sutures indistinct; beak short and straight. 2. S. 377.

C. ASPERUM. Turreted, with plaited longitudinal muricated ribs, and transverse striæ; white, beak long and ascending; pillar with one plait. $1\frac{3}{4}$. W. 28. 159.

C. LINEATUM is scarce more than a variety of the last, with a shorter beak, and three fulvous encircling lines. E. 443. 3.

C. VERTAGUS. Elongate, turreted, with an acute apex, smoothish, light fulvous; upper part of the whorls longitudinally plaited; pillar with one plait; beak rather long, and bent sideways. $1\frac{3}{4}$. W. 27. 143.

C. FASCIATUM. More elongate and cylindrical than the last, with the plaits less conspicuous, and more manifest transverse striæ; three yellow lines encircle the whorls. 2.



C. LITERATUM. Turreted, ventricose; whorls with numerous dotted muricated striæ, and a row of tubercles above; white, prettily dotted with red or black; outer lip forming an angle with the body-whorl; canal truncated. $\frac{5}{6}$. W. 28. 163.

C. TUBERCULATUM. Ovate-conic, ventricose at the base; whorls finely striated transversely, brownish white, coronated with one row of small black tubercles, the body-whorl with several; apex white; beak short and truncated. 1. W. 25. 38.

C. PERVERSUM. Reversed, cylindrically subulate, slender, pale rufous, with three transverse granular striæ on each whorl; whorls flattened; base plano-concave; canal straight, slightly prominent. B. $\frac{2}{3}$. W. 28. 167.

C. COSTATUM. Turreted, deep brown, with the ten or eleven whorls longitudinally ribbed; aperture sub-orbicular; beak sub-truncated; lip expanded. $\frac{2}{3}$. B. W. 25. 43.

PLEUROTOMA.

Shell either turreted or fusiform; terminated inferiorly by a straight canal more or less elongated; lip at its upper part having a fissure or emargination.

P. BABYLONIA. Fusiform, turreted, transversely carinated and banded, white; bands

spotted with black; spots quadrangular; whorls convex; base rather long. 4. W. 28. 87.

P. NODIFERA. Fusiform, turreted, reddish tawny; the whorl angulated in the middle by the projection of a series of oblong-oblique nodules, above which they are finely striated, and beneath which deeply furrowed; tail shorter than the spire. $1\frac{2}{3}$. W. 26. 68.

P. GRACILIS. Fusiform, turreted, with longitudinal ribs, interrupted by a flat space at the sutures, and finely striated transversely; beak rather long, and slightly ascending; fulvous, with a white band round the middle of the body-whorl. $\frac{7}{8} \dots \frac{2}{8}$. W. 27. 127. B.

TURBINELLA.

Shell turbinated or sub-fusiform, 'channelled at base; columella with three to five compressed transverse plaits.

T. PYRUM. Ventricose and club-shaped above, pyriform, with rather a long beak; pale fulvous, with a few rows of chestnut spots; spire short, finely striated, and mucronated; beak slightly grooved; lip smooth; pillar with four plaits. $3\frac{3}{4}$. W. 21. 160.

T. CORNIGERA. Ovate, turbinate, somewhat triangular, transversely furrowed, muricated all over with transverse rows of thick white spinous

tubercles, of which those on the top of the body-whorl are the longest — these, however, in the centre of this whorl are almost obsolete; whitish (usually with brown zones), and the upper part of the spires blackish; spire very short and acuminate; pillar with four and a half plaits. $2\frac{2}{3}$. W. 21. 155.

T. CRATICULATA. Sub-turreted, thick, with rounded longitudinally-ribbed and transversely-grooved whorls, of a whitish or reddish fulvous colour; ribs oblique, obtuse, and reddish chestnut; beak shortish; pillar with three or four rather oblique plaits. 2. W. 27. 121.

T. LINEATA. Sub-turreted, with longitudinal obsolete plaits and transverse furrows, which cause the shell to appear girded by raised reddish-chestnut smooth lines, on a light reddish-orange ground; plaits small; tail short. $1\frac{2}{3}$. W. 20. 118.

CANCELLARIA.

Shell oval or turreted; aperture sub-channelled at base; canal very short or wanting; columella plaited, the folds few or numerous, for the most part transverse; lip furrowed within.

C. RETICULATA. Ovate, ventricose, sub-umbilicated, transversely grooved, and longitudinally plaited obliquely; white, with interrupted bands of rufous or yellow; whorls convex, with their

sutures narrow; pillar smooth above, but with three large plaits on its lower part. 2. W. 20. 71.

C. SENTICOSA. Sub-turreted, cancellated by longitudinal plaits and raised transverse striæ, whitish or very pale tawny, with frequently a chestnut band in the lower part of the whorls; plaits apparently toothed, from the projection of the striæ on them; pillar with three obsolete plaits. $1\frac{2}{5}$. W. 26. 58.

FASCIOLARIA.

Sub-fusiform, channelled at the base; no varices; two or three very oblique folds on the columella, near the canal.

F. TULIPA. Sub-fusiform, smooth, ventricose in the middle, usually dirty white, mottled with purplish brown or chestnut, and circled with deep brown lines; whorls rounded; with somewhat decussated striæ just beneath the sutures; beak grooved; lip white, and striated within. $6\frac{1}{4}$. W. 27. 98.

F. TRAPEZIUM. Sub-fusiform, obtusely angulated, with a row of obtuse nodulous longitudinal plaits, smoothish; brown, brownish white, or yellowish brown, girded by dark lines in pairs; lip white, and striated with red. 5. W. 27. 112.

F. FILAMENTOSA. Lengthened, fusiform-

turreted, transversely furrowed; whitish, with longitudinal orange or brown clouds; whorls sub-angulated in the middle, and there girded by a series of small compressed tubercles; tail rather long; lip striated within. 4. E. 424. 5.

FUSUS.

Shell sub-fusiform, channelled at base; without varices; columella having two or three very oblique folds near the canal.

F. COLUS. Fusiform, narrow, transversely furrowed, white; summit and base reddish; body-whorl small; whorls convex, keeled in the middle by nodulous white plaits, the interstices of which are brown; tail long, slender; lip furrowed within; margin denticulated. 6. W. 26. 71.

F. ANTIQUUS. Ovate-fusiform, ventricose, with rounded whorls, and somewhat decussated but fine striæ; whitish, when young reddish; aperture dilated; with a short beak, smooth and yellowish. 4 or 5. B. W. 26. 49.

F. ISLANDICUS. Fusiform-turreted, towards the lower part ventricose, striated transversely; white; whorls convex; lip thin and smooth within; beak shortish, sub-recurved; apex of spire obtuse. B. 2. W. 27. 107.

F. MORIO. Ventricose, but when aged fusiform, transversely striated, blackish, with one or

two white bands; upper whorls slightly keeled and somewhat nodulous; the lower whorl (except of the young) rounded; lip furrowed within. 6. W. 26. 108.

F. ARTICULATUS. Fusiform-turreted, finely striated transversely, shining, light chestnut, with articulated whitish and brown lines girding it; lip furrowed within; a tooth at the upper angle of the columella; beak short and emarginate. $1\frac{1}{2}$. W. 23. 88.

F. TURRICULA. Fusiform-turreted, with longitudinal plaits of transverse striæ, white or brownish white; the whorls rising almost perpendicularly from each other, and forming an abrupt slope at their summit; mouth oblong and narrow, ending in a short and broad beak. $\frac{3}{4}$. B. W. 27. 133.

F. MURICATUS. Oblong, fusiform, and very rough; whorls ventricose, with longitudinal ribs and elevated transverse striæ; pale flesh-colour, generally covered with an orange-red epidermis; aperture oval, ending in a long and narrow canal, together with it equal to half the length of the shell; lip sharp, crenulated within. B. $\frac{2}{3}$. W. 27. 138.

PYRULA.

Sub-pyriform, channelled at the base, ventricose at the upper part; no external varices; spire

short, sometimes flattened ; columella smooth ; no fissure on the right lip.

P. PERVERSA. Reversed, pyriform, ventricose, glabrous when adult (but when young transversely striated, and its lip furrowed within), lightish fulvous, with broad longitudinal reddish-brown lines, the last whorl with a nodulous angle ; apex mammillary ; tail striated and longish. $6\frac{3}{4}$. W. 26. 88.

P. VESPERTILIO. Sub-pyriform, thick, ponderous, muricated above, reddish chestnut ; the last whorl crowned with compressed tubercles ; spire rather exserted ; sutures simple ; sub-umbilicated ; tail and spire (and when young altogether) furrowed. 4. W. 27. 114.

P. MELONGENA. Pyriform, ventricose, turgid, glaucous, or reddish brown, with white transverse bands ; sutures canaliculated ; last whorl sometimes smooth, but generally with three or four rows of thick spines ; spire short, longitudinally plaited, and acute ; mouth oblong and smooth. 3 to 5. W. 26. 59.

P. RETICULATA. Fig-shaped, cancellated, white, sprinkled when young with many yellow spots ; the transverse striæ larger and more distant than the others ; spire very short, convex-obtuse, and mucronated at the centre ; mouth white. 4. E. 432. 2.

P. FICUS. Fig-shaped, more ventricose and short than the last, with very crowded flattened transverse striæ, which are minutely decussated; bluish grey, mottled with brown, with scattered darker spots; spire short, convex, mucronate at the centre; mouth smooth, and somewhat purple. $3\frac{1}{3}$. W. 18. 29.

P. SPIRILLUS. Ventricose above; tail long, slightly furrowed transversely; whitish, spotted with fulvous; body-whorl shortened, keeled in the middle; flattened above, and tuberculated beneath the middle; spire depressed; apex mammillary. 3. W. 28. 61.

STRUTHIOLARIA.

Shell ovate or oblong, channelled at base, with rough tubercular or spiny varices without; aperture rounded; varices three or more on each whorl, the inferior obliquely joined to the others by a longitudinal series; operculum horny.

S. NODULOSA. Ovate-conic, thick, transversely striated; whitish, with longitudinal yellow flammules; whorls angular above, nodular at the angle, and above it flattened; sutures simple; lip reddish within. 2. W. 26. 62.

RANELLA.

Oval or oblong, sub-depressed, channelled at the base; two rows of external varices; aperture rounded or sub-oval; varices straight or oblique, situated at the distance of half a whorl from each other, and forming a longitudinal row on each side of the shell; they are sometimes smooth, sometimes tubercular or spinous.

R. CRUMENA. Ovate-acute, with remote transverse spinous belts, and granulated striæ; spines short; whitish, greyish, or pale brown, mottled with a darker colour; mouth white; lip with a channel above. $2\frac{1}{4}$. W. 25. 21.

R. SPINOSA. Strongly resembles the last, but is of a yellower tinge, with longer spines, and the granular striæ becoming obliterated towards the centre of the body-whorl. W. 25. 22.

R. GRANULIFERA. Oblong, ovate-conic, roughish, with numerous rows of granulated striæ, yellowish white or rufous, banded with white; granules sub-acute; columella furrowed; margin of the lip dentated. $1\frac{3}{4}$. E. 414. 4.

R. RANINA. Ovate-acute, with numerous tuberculated belts and minute longitudinal striæ; whitish, with chestnut zones; tail short; mouth

rounded; the inner margin of the lip dentated.
 $1\frac{1}{4}$. W. 25. 24.

MUREX.

Oval or oblong, channelled at the base; rough, spinous, or tubercular varices on the exterior surface; mouth rounded, or sub-oval; three or more varices on each whorl of the spire; the lower ones uniting obliquely with the upper in uninterrupted longitudinal rows; operculum horny.

* *Beak longer than the aperture.*

M. CORNUTUS. Somewhat club-shaped, ventricose above, with a long beak, transversely striated; whitish, zoned with yellow or rufous; body-whorl large, and armed with two rows of long curved thickish cleft spines; spire very short; beak with a few scattered spines, perforate. 6. W. 25. 5.

M. BRANDARIS. Club-shaped, furrowed, with seven varices, ventricose above; beak short, ashy white, with two rows of spines, which are thick, straight, short, and cleft; spire rather prominent, muricated; an oblique row of spines on the tail; mouth orange. $3\frac{1}{2}$. W. 25. 6.

M. CRASSISPINA. Ventricose above, with a long beak; three rows of long stout spines, thickened towards their base, extend the whole length

of the shell ; pale fulvous ; the body-whorl rather large, transversely furrowed, and striated ; spire prominent. $4\frac{3}{4}$. W. 26. 3.

M. TENUISPINA. Ventricose above, with a long beak, and its varices covered with long subulate curved spines ; body-whorl of a moderate size, transversely striated and furrowed, longitudinally wrinkled ; spire prominent. $4\frac{3}{4}$. This species has its whorls slightly cancellated. W. 25. 4.

M. HAUSTELLUM. Ventricose above, with three thick varices, and intermediate smaller ribs, which are nodulous, flesh-colour, and transversely marked with deep brown ; spire short ; tail long, straight, and slender ; mouth roundish ovate, rose-colour and furrowed within. 4. W. 25. 1.

*** Tail short ; three varices.*

M. INFLATUS. Ovate-oblong, ventricose, transversely grooved and striated ; the varices covered with very large curved, canaliculated, serrated, and sub-laciniated foliations ; white, clouded or tinged with pale rufous ; between the varices is a longitudinal range of tuberculations ; beak recurved ; columella pink. $4\frac{3}{4}$. S. 395.

M. ADUSTUS. Abbreviated-fusiform, sub-oval, ventricose, thick ; three ramose varices, transversely furrowed ; black, except on the left side of the varices, between each of which arises

a great tubercle ; mouth small, sub-rotund, white ; columella yellow. $3\frac{1}{4}$.



M. TRIQUETER. Oblong, sub-fusiform, sub-triangular in its transverse outline, somewhat plaited longitudinally, and transversely furrowed ; white, sometimes with rufous splotches ; varices membranaceous ; lip crenated ; aperture elliptical. W. 25. 16.

*** *Tail short ; more than three varices.*

M. SAXATILIS. Sub-fusiform, very ventricose, with six foliated varices, which are usually

straightish, canaliculated, not laciniated, and pointed at their summit; transversely wrinkled and striated; white, varying much in colouring and markings; beak umbilicated and compressed; throat tinted with reddish purple. $7\frac{1}{3}$. W. 25. 18.

M. RADIX. Ovate-globose, roundish, white, with many varices, composed of black ramose laciniated separate spines, which are more wide than long; spire very short, usually eroded; tail umbilicated, and short. 5.



M. TRUNCULUS. Ovate, rough, with six or seven spinous varices, transversely semi-granularly furrowed and striated; whorls angulated, with compressed tubercles crowning the shoulder,

brownish white, with commonly brown transverse bands; spire exerted; beak sub-umbilicated, wide and ascending. $2\frac{3}{4}$. W. 25. 7.

M. ERINACEUS. Ovate, sub-fusiform, thick, with several strong varices and scaly transverse ribs; pale fulvous; whorls angulated; aperture oval; and the beak closed and slightly recurved. B. $1\frac{1}{2}$. W. 25. 19.

TRITON.

Oval or oblong, channelled at the base; varices alternate or rare, or nearly solitary on the separate whorls; and never arranged in longitudinal rows, or spinous; an operculum.

T. VARIEGATUM. Elongated-conic, ventricose beneath, with smooth very obtuse transverse ribs, and intermediate striæ; white, with red and chestnut markings; the upper margin of the whorls fimbriated; aperture red; pillar wrinkled with white, and plaited above; margin of the lip spotted with black; the spots bidentated with white; beak short and ascending. $15\frac{3}{4}$. W. 27. 95.

T. LOTORIUM. Fusiform-turreted, distorted, transversely grooved, and wrinkled; whorls angular, and somewhat concave above, beneath which project some large compressed tubercles; reddish fulvous, with the varices striped with a

darker colour; beak twisted, and recurved at its tip; mouth white, elongated, triangular, with the lip dentated. 5. W. 28. 34.

T. FEMORALE. Triangularly fusiform, with transverse nodulous ribs, and the interstices grooved, fulvous red, alternating with white at the varices; whorls angular above; body-whorl triangular; aperture oblong, lengthened; beak rather long, and slightly ascending. $3\frac{1}{4}$. W. 26. 32.

T. PILEARE. Fusiform-turreted, with transverse grooves, decussated by longitudinal wrinkles; whorls rounded, distorted, noduliferous above, bluish grey, variegated with white and rufous; beak bent upwards; aperture elongated, blood-colour, wrinkled with white; lip toothed, and furrowed. 4. W. 26. 35.

T. ANUS. Ovate, ventricose, gibbous, distorted, flattened beneath, nodulous above, sub-cancellated, whitish, with indistinct bands of reddish fulvous; aperture narrow, sinuous, irregular, grinning, surrounded by a thin dilated membrane; lip strongly toothed; beak short, and recurved. 3. W. 26. 45.

T. CLATHRATUM. Fusiform - turreted, distorted, with the back gibbous, cancellated by transverse and longitudinal rather distant ribs, obsoletely nodulous, pale fulvous, with rather a

long beak slightly bent upwards; aperture nearly as the last; but the membrane somewhat purplish. $2\frac{1}{3}$. W. 26. 46.

T. RUBECULA. Oblong, thick, with granulated transverse ribs, and their interstices decussated and darker than the reddish orange which is the ground of the shell; varices frequently marked with white; spire obtuse; pillar bright orange, striated with white; lip white within and dentated; beak shortish. $1\frac{1}{2}$. W. 46. 42.

T. UNDOSUM. Ovate-acute, thickish, white, with many glabrous brown spiral belts; the body-whorls plaited longitudinally; mouth white, with the lips furrowed within, and thickened; beak short. $1\frac{1}{2}$. W. 23. 97.

LES AILEES.

ROSTELLARIA.

Shell fusiform or sub-turreted, terminated inferiorly in a canal, with a pointed beak; lip entire or dentated, more or less dilated by age, with a sinus contiguous to the canal.

R. PESPELICANI. Turreted, greyish red, with the whorls angularly nodulous at the centre; lip glabrous, and expanded into three more or less channelled claws; channel of the base oblique,

sub-foliaceous, with the sinus adjoining it. $1\frac{1}{2}$.

B. W. 24. 4.

PTEROCERA.

Shell ovate-oblong, ventricose, terminated inferiorly by an elongated canal; lip dilating by age into a digitate wing, and having a sinus towards the base; spire short.

P. LAMBIS. Oblong-oval, tubercular, gibbous, with seven claws, variegated with rufous and brown; terminal digitations straight; aperture very smooth, rosy. 6. W. 24. 7.

P. AURANTIA. Ovate, tubercular, gibbous, transversely wrinkled, with seven claws, clouded with white and yellow; the claws slender, very acute, and obsoletely nodulous; tail very long and slender, smooth, and curved; throat orange, and quite smooth. $4\frac{1}{2}$. S. 405.

P. CHIRAGRA. Ovate-oblong, with the back tubercular and sub-gibbous, armed with six longish claws, which project on either side, and curve upwards; colour white, variegated with brown; throat rosy, striated with white. 6. W. 24. 5.

STROMBUS.

Shell ventricose, terminating in a short emarginate or truncate canal; lip dilating by age into a simple wing, lobed or crenate superiorly, and

having a sinus distinct from the canal or emargination of the base inferiorly.

S. LENTIGINOSUS. Turbinate, thick, with the back of the body-whorl studded with several rows of knobs, surmounted by one of large longitudinally compressed tubercles, and marked with longitudinal furrows, which also traverse the spire; whorls coronated, and striated transversely; white, marbled with pale brown; lip extending up most of the whorls, three-lobed above, with its margin thickened and spotted; throat orange. $2\frac{1}{2}$. W. 24. 10.

S. AURIS DIANÆ. Ovate-oblong, transversely ribbed, with from one to three rows of tuberculation, pale fawn-colour, mottled with white; spire exserted and acute; beak recurved; throat dark orange; lip thickened and smooth within, ending above in an elongated lobe. $3\frac{1}{3}$. W. 25. 16.

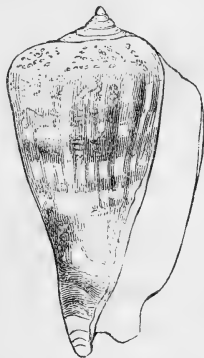
S. PUGILIS. Turbinated, ventricose, ponderous, yellowish red; body-whorl smooth, furrowed at the base, and coronated above with pale spinous tubercles, which become larger and sharper in the next whorl, but gradually disappear as the upper whorls are more strongly striate; mouth brilliant, and deeper coloured; base tipped with purple; lip rounded, with a short lobe above, and furrowed toward the base. $3\frac{1}{3}$. W. 25. 17.

S. GIBBERULUS. Oblong-oval, smooth, slightly

striated at the base ; spire acute, distorted, and the whorls gibbous, fulvous red, banded with white ; pillar and lip within violet, the latter grooved. $2\frac{1}{3}$. W. 25. 20.

S. LUHUANUS. Oblong-oval, smoothish, body-whorl slightly gibbous, the upper whorls ribbed longitudinally ; whitish, with fulvous interrupted bands and spots, and the mouth reddish, with a deep purple columella ; spire short and mucronate ; lip striated within. $2\frac{1}{4}$. W. 25. 19.

S. MAURITIANUS. Principally differs from the last by the columellas being white, and the shell more glossy.



S. CANARIUM. Obovate, smooth, but striated at the base, white, covered with most crowded rufous longitudinally flexuous lines ; spire short and mucronate, with its base flattened ; mouth

white, polished ; lip with a sinus above, thickened ; margin obtuse, slightly orange, and, as well as the pillar, often coated with a vitreous mass. $1\frac{3}{4}$. W. 25. 27.

S. VITTATUS. Fusiform - turreted, reddish fulvous, with white bands ; the body-whorl covered with a most delicate network of a like colour, with several rows of small irregular white spots, obtusely angulated above, and grooved below ; spire longitudinally plaited, and striated transversely ; sutures margined ; lip white, moderate sized, rounded, and wrinkled within. $3\frac{1}{4}$. W. 25. 28.

S. SUCCINCTUS. Smooth, slightly grooved at the base ; body-whorl with four white bands, lineolated with brown angular markings, on a fulvous minute network ground ; whorls angular above, and sometimes armed with a few tubercles ; the upper ones are plaited and furrowed ; the lip is narrow, incurved, extending over two whorls, and striated within. $1\frac{5}{6}$. W. 25. 30.

S. URCEUS. Yellowish chestnut or reddish ash-colour, with nodulous plaits on the body-whorl and spire ; varies much in markings ; outer lip double, bi-lobed, thickened above, but slightly expanded, and wrinkled within ; columella thickened, furrowed at both extremities ; mouth black. $1\frac{1}{2}$. W. 25. 32.

LES PURPURIFERES.

CASSIDARIA.

Shell obovate, or ovate-oblong; aperture longitudinal, narrow, terminating at base in a curved sub-ascending canal; lip varicose or reflected; pillar-lip covering the columella, often rough, granular, tuberculous, or wrinkled.

C. ECHINOPHORA. Ovate-globose, ventricose, pale fulvous, with four or five tuberculated belts, striated above and below; whorls of the spire angulated; the angle crenated by tubercles. $3\frac{3}{4}$. W. 22. 9.

C. TYRRHENA. Ovate, with transverse furrows, of which two of the upper are tuberculated and broader than the others; reddish fulvous; aperture white; pillar rugose-tuberculated. $3\frac{3}{4}$. W. 22. 11.

CASSIS.

Inflated; aperture longitudinal, narrow, terminated at its base by a short canal, which is curved abruptly towards the back of the shell; columella plaited or wrinkled transversely; right lip almost always toothed.

* *Spire with varices.*

C. CORNUTA. Ovate-ventricose, dirty white, indistinctly reticulated, slightly grooved, and form-

ing obsolete nodules, with three belts, which in the young are smooth and spotted, in the adult tuberculiferous; the upper tubercles very large and horn-shaped; the lower face dilated, flesh-coloured, flat, and callous, with a projecting upper border; pillar purplish black, wrinkled with white; lip toothed; throat yellowish orange. $9\frac{1}{3}$. W. 22. 14.

C. TUBEROSA. Ovate-ventricose, triangular, decussated, greyish white or brown, with longitudinal interrupted zigzag streaks of purplish brown, three tuberculated belts, and an obtuse triangular mucronate spire; pillar tuberculiferous, purplish black, with white wrinkles; lip within toothed, without generally with six black spots. $8\frac{2}{3}$. W. 22. 16.

C. FLAMMEA. Ovate, inflated, somewhat triangular, with the body-whorl of the young longitudinally plaited, of the adult with from two to five transverse rows of tubercles; greyish, slightly tinted with violet, and flamed with reddish brown; spire convex, mucronated; pillar rufous, with white wrinkles. $5\frac{1}{2}$. W. 22. 17.

C. GLAUCA. Ovate, turgid, smooth, glaucous; body-whorl sub-angulated above; the upper whorls of the spire cancellated and crowned with papillæ; throat and outer margin of the lip brownish violet; pillar and lip pale saffron, the former wrinkled,

the latter toothed within, and denticulated at the base; spire mucronated. $3\frac{3}{4}$. W. 22. 35.

C. ZEBRA. Ovate, in the young grooved all over, in the adult below, but smooth above; whitish, with longitudinal yellow streaks; pillar wrinkled below; lip strongly furrowed; spire short, conic, decussated. $2\frac{3}{4}$. W. 22. 21.

C. AREOLA. Ovate, smooth, shining, whitish, with transverse rows of large yellowish or fulvous-brown spots; spire short, conic, and decussated; pillar wrinkled; lip strongly toothed; throat brownish. $2\frac{1}{2}$. W. 22. 20.

*** Spire without varices.*

C. RUFA. Ovate-ventricose, very thick and ponderous; red, with many rows of connected tubercles and several noduliferous belts, and the base with two rows of white longitudinal furrows; spire short and mucronated; pillar and lip thick, bright red, with white wrinkles. $5\frac{1}{6}$. W. 22. 15.

C. TESTICULUS. Ovate, with close elevated longitudinal and rather distant indented transverse striæ; pale reddish, with darker rufous spots either irregularly or in rows; frontal callosity large, sallow, partly tinted with orange; pillar wrinkled; lip toothed; mouth elongated, straight, and narrow; spire short, rounded, and mucronate. 3. W. 22. 18.

C. SABURON. Ovate-globose, closely fur-

rowed transversely; pale flesh-colour, often marked with rows of square fulvous spots; spire short, acute; pillar wrinkled beneath; margin of the lip crenated. $1\frac{5}{6}$. W. 22. 23.

C. VIBEX. Ovate-oblong, smooth, but slightly grooved at the base, pale fulvous, with darker longitudinal waved streaks; whorls of the spire somewhat rounded; aperture smooth and brown within; lip spotted with dark chestnut, denticulated beneath. $2\frac{1}{2}$. W. 22. 36.

C. ERINACEUS. Ovate-oblong, pale fulvous, slightly plaited longitudinally; body-whorl angulated, with a transverse row of nodules on the shoulder; mouth smooth; throat brownish; lip thickened, with a large margin edged with deep chestnut spots, and muricated beneath. $1\frac{5}{6}$. W. 22. 32.

RICINULA.

Oval, generally tubercular or spinous externally; aperture oblong, with a semi-canal at the lower part, curved towards the back, and terminated by an oblique notch; unequal plaits on the pillar and teeth on the lip within, contracting the aperture.

R. HORRIDA. Obovate, sub-globose, with short thick acute black tubercles, and the interstices white and transversely striated; spire

very short; mouth violet, toothed on both sides.
 $1\frac{1}{2}$. W. 26. 47.

R. ARACHNOIDES. Obovate, yellowish white, muricated by black subulate unequal spines, which are longer as they near the lip; mouth white, grinning; spire very short. 1. E. 395. 3.

R. MORUS. Ovate, girded by several rows of bluntish black nodules, with the interstices white; spire rather obtuse; mouth violet, narrowed by stout teeth. $\frac{5}{6}$. E. 395. 6.

PURPURA.

Shell oval, sometimes smooth, sometimes tuberculous or angular; aperture dilated, terminating inferiorly in an oblique sub-channelled emargination; columella flattened, terminating at base in a point.

P. PATULA. Ovate, transversely furrowed, with six or seven rows of sharp tuberculations on the body-whorl; reddish black, with sometimes two broad paler bands towards the base; spire rather short; aperture dilated; pillar oblique, reddish fulvous, and falcated; lip bluish white.
 $2\frac{2}{3}$. W. 22. 53.

P. HEMASTOMA. Ovate-conic, thickish, transversely striated, cinereous, varying to greyish brown, noduliferous, obtusely angular above;

body-whorl with four rows of nodules; mouth orange; lip furrowed within. 2. W. 22. 57.

P. MANCINELLA. Ovate-ventricose, thick, fulvous or flesh-colour, with transverse grooves, and four rows of blunt spines; spire conic, acute; mouth yellowish orange; lip with elevated red striæ within. $2\frac{1}{3}$. W. 25. 52.

P. NERITOIDES. Ovate-abbreviated, ventricose, thick, transversely striated, dirty white; body-whorl with four rows of nodose tubercles; spire very short and obtuse; pillar flattened, with two unequal black spots in the middle; mouth white and smooth. $1\frac{3}{4}$. W. 26. 49.

P. SERTUM. Ovate-oblong, with transverse crenulated striæ, crossed by longitudinal impressed lines, reddish, fawn, or chestnut, with a paler band apparently composed of longitudinal broad spots on the body-whorl; whorls rounded, depressed above; pillar fulvous, with a plait opposite the tooth at the summit of the inner margin of the lip, which latter is smooth and white, with another tooth at its base. $2\frac{1}{6}$. W. 23. 65.

P. LAPILLUS. Ovate-acute, transversely striated, dirty white or yellowish, sometimes zoned with brown or yellow, when perfect with membranaceous longitudinal wrinkled striæ, but is generally worn smooth; spire conic; lip slightly toothed within. B. $1\frac{1}{4}$. W. 23. 62.

P. NUCLEUS. Small, ovate, shining, smooth, but transversely striated near the lip and at the base; brownish chestnut; aperture rounded; lip striated within. $\frac{1}{2}$. W. 23. 91.

MONOCEROS.

Shell oval; aperture longitudinal, terminating inferiorly by an oblique sinus; a conic tooth at the base of the lip internally.

M. CINGULATUM. Ovate-oblong, contabulated, whitish, covered with a reddish epidermis, and adorned with smooth black belts and fine transverse striæ; whorls angulated above; aperture very white. $1\frac{3}{4}$. W. 24. 168.

M. IMBRICATUM. Ovate-ventricose, roughish, ash-colour or reddish grey, with very crowded transverse imbricated scaly ribs; whorls rounded; spire short; lip crenulated. 2. W. 22. 54.

M. CRASSILABRUM. Ovate, thick, smooth, reddish ash-colour; whorls convex; spire rather exerted; lip exceedingly thick, almost double, toothed within; horn short, obtuse. $1\frac{1}{4}$. E. 396. 2.

CONCHOLEPAS.

Oval, inflated, semi-spiral; summit inclined obliquely towards the left margin; aperture ample, longitudinal, oblique, with a slight notch at the

lower part; two teeth at the base of the right lip; operculum oblong, thin, horny.

C. PERUVIANUS. Deep brown, somewhat tinted with olive, transversely ribbed, and longitudinally wrinkled; lip crenated; aperture white. 4. W. 22. 56.

HARPA.

Oval, more or less inflated, with parallel inclined and sharp longitudinal ribs; spire short; aperture notched at the lower part; no canal; columella smooth, flattened, and pointed at the base.

H. VENTRICOSA. Ovate-ventricose, with broad compressed ribs, which are stained with purplish red, mucronated at their summit, with one denticle just beneath; interstices white, and marked with chestnut arcuated or angular spots or lines; pillar spotted with dark black and purple. $5\frac{2}{3}$. W. 22. 49.

H. ROSEA. Ovate-sub-ventricose, thin; interstices as last, but also adorned with three series of rose-coloured spots; ribs narrow and distant; pillar pinkish. W. S. 4. 23.

H. ARTICULATA. Differs principally from *Rosea* by being without the crimson spots, and having its ribs articulated with white and black alternately. E. 404. 3.

H. MINOR. Ovate-oblong, colouring much

resembling *H. ventricosa*; but the ribs are narrow, distant, and marked with brown transverse stripes in pairs; spire rather exserted. $1\frac{2}{3}$. W. S. 4. 24.

DOLIUM.

Thin, ventricose, inflated, generally sub-globular, rarely oblong, transversely banded; right lip toothed or crenate through its whole length; aperture oblong, notched below.

D. GALEA. Ovate-globose, very ventricose and large, umbilicated, thin, whitish fulvous; ribs rounded, with smaller alternate ones above; whorls channelled near the sutures. $8\frac{3}{4}$. W. 22. 2.

D. OLEARIUM. Ovate-globose, ventricose, thin, pale fawn-colour, usually spotted with white and brown; ribs transverse, broad, and flattened, separated by an impressed furrow; sutures channelled. $4\frac{1}{2}$. W. 22. 1.

D. MACULATUM. Ovate-globose, inflated, thin, white, with convex distant ribs, spotted with red or tawny; the interstices divided by an elevated stria. $4\frac{2}{3}$. W. 22. 6.

D. POMUM. Ovate, turgid, thickish, white, mottled with tawny yellow; the ribs rather rounded, broad, and crowded; spire short; mouth narrowed, toothed on both sides; lip thickened and margined. $2\frac{1}{2}$. W. 22. 4.

D. PERDIX. Ovate-oblong, inflated, thin, reddish fulvous, with several rows of lunated

white spots; ribs roundish and crowded; spire conic and somewhat exserted. $4\frac{1}{4}$. W. 22. 3.

BUCCINUM.

Oval or ovate-conical; aperture longitudinal, with a notch at the base, but no canal; columella not flattened, turgid at the upper part.

B. UNDATUM. Ovate-conic, ventricose, transversely furrowed and striated, and most minutely decussated longitudinally; whitish, with thick oblique waved plaits; whorls rounded; mouth white or yellow. $3\frac{1}{4}$. W. 23. 107.

B. GLANS. Ovate-conic, thin, smooth, shining, clouded with pale brown, and girded by distant dark chestnut lines; summit of the spire longitudinally plaited; base of the lip spreading, and muricated with denticles. $1\frac{3}{4}$. W. 22. 38.

B. PAPILLOSUM. Ovate-conic, thickish, with several rows of white tubercles on a pale yellowish-red ground; summit rose-coloured; aperture white; lip muricated at its base. $1\frac{1}{2}$. W. 22. 37.

B. RETICULATUM. Ovate-oblong, conic, longitudinally ribbed and transversely striated; pale brown; whorls somewhat rounded; aperture wrinkled and toothed. B. $1\frac{1}{6}$. W. 23. 117.

B. AMBIGUUM. Sub-pyramidal, with distant longitudinal ribs, and fine transverse striæ, white; aperture rounded; lip slightly denticulated. $\frac{1}{2}$. B. W. 23. 118.

B. GEMMULATUM. Oval, ventricose, white, or white clouded with red, decussated by oblique longitudinal plaits and transverse furrows, which causes the shell to appear covered with rows of pearls; sutures excavated; spire very short; lip furrowed within; base of columella granular. $\frac{5}{6}$. W. 23. 114.

B. CRIBRARIUM. Smooth, oblong, cylindraceous, smooth; chestnut, spotted with white; striæ apparent near the base; upper margin of whorls with an articulated band of brown and white; sutures scarce apparent; apex truncated; aperture narrow; lip striated within. $\frac{2}{3}$. Front. 9.

B. LEVIGATUM. Ovate-oblong, smooth, reddish yellow, shining, often adorned with longitudinal flexuous lineoles; the last whorl longer than the spire, and girded with an articulated band of black and white; aperture white, subdilated, and usually smooth. $\frac{3}{5}$. W. 21. 134.

B. COCCINELLA. Ovate-oblong, conic, with waved longitudinal ribs and transverse striæ; pale brown; pillar wrinkled; lip thick and toothed within; end of canal dark purple. $\frac{1}{2}$. B. W. 23. 119.

B. PEDICULARE. Minute, ovate-conic, smooth, girded alternately with white and chestnut-brown lines, or by the latter on a white ground; spire acute; mouth rounded. B. $\frac{1}{3}$. W. 23. 92.

** *Columella callous.*

B. ARCULARIA. Ovate - conic, ventricose, thick, ash-colour (sometimes zoned with pale fulvous); body-whorl turgid, crowned with sharpish tubercles, and grooved below; whorls flattened above, strongly plaited longitudinally, and grooved transversely; lip crenated below, striated within, and the throat zoned with reddish brown, $1\frac{1}{6}$; the middle of the body-whorl is smooth. W. 22. 40.

B. CORONATUM. Ovate-acute, thickish, smooth, but striated at the base, somewhat olive-coloured, with obscure bands, or sometimes entirely of a sallow white, with pure white longitudinal streaks; upper margin of whorls tuberculated; lip towards the bottom armed with spinous denticles; striated within. 1. W. 22. 41.

B. GIBBOSULUM. Ovate, backgibbous, smooth, whitish or olive; spire short, acute; callus extremely large, edged with orange, and extending to the apex; lip smooth. $\frac{2}{5}$. W. 22. 46.

B. NERITEUM. Orbicular, flattened, smooth, tawny white, somewhat mottled; pillar-lip obsoletely dilated, and thickened; last whorl sub-angular; spire extremely obtuse; diam. $\frac{2}{3}$. W. 22. 48.

EBURNA.

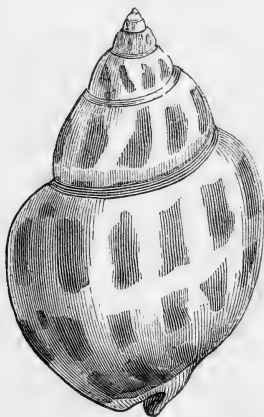
Shell oval or elongated; lip perfectly simple; aperture longitudinal, emarginate at base; columella

umbilicated at its upper part, and channelled below the umbilicus.

E. GLABRATA. Ovate-elongated, with two furrows at the base, very smooth and shining, pale orange; whorls rather convex, and scarcely separated; sutures obsolete, three. This species is really an *Ancillaria*. W. 23. 79.

E. ZEYLANICA. Ovate-conic, smooth, white, with fulvous spots; whorls rounded; sutures distinct; apex bluish and acute; umbilicus with purplish scales. $2\frac{1}{5}$. W. 23. 78.

E. AREOLATA. Ovate-ventricose, smooth, white; body-whorl with three, and the others with one series of large red squarish spots; whorls obtusely angular above, at the suture plano-concave; umbilicus naked. 2.



E. SPIRATA. Ovate-acute, ventricose, smooth, white, with yellowish fulvous spots ; whorls channelled above ; outer margin of the channel acute ; apex bluish ; callus of the columella nearly concealing the umbilicus. $2\frac{1}{4}$. W. 23. 77.

TEREBRA.

Elongated, turreted, very pointed at the summit; aperture longitudinal, many times longer than the spire, and notched at the posterior part of the base; base of the columella twisted or oblique.

T. MACULATA. Conical, subulate, thick, ponderous, smooth, white, with a row of larger and another of smaller dark spots encircling the whorls, which are flattened, and the upper ones divided by an impressed line, and slightly plaited. $4\frac{3}{4}$. W. 24. 129.

T. DIMIDIATA. Subulate, turreted, pinkish or orange flesh-colour, with white longitudinal flexuous streaks ; whorls flattened, and divided by a transverse furrow, smooth, but the upper ones striated. $4\frac{1}{2}$. W. 24. 127.

T. CRENULATA. Subulate, turreted, smooth, whitish ; the upper whorls transversely divided by a furrow ; upper margins with tubercular plaits between, which are small waved ferruginous streaks, under which is a band of small spots,

and on the body-whorl two, of a like colour. 4.
W. 24. 133.

T. SUBULATA. Turreted, subulate, narrow; whorls rather convex, and the upper ones divided by a furrow; the upper parts of each whorl smooth, the lower with numerous obsolete series of impressed dots; colour whitish, with two (and on the body-whorl three) rows of deep chestnut brown spots, of which the lower ones are square. $4\frac{1}{2}$. W. 24. 131.

T. CERULESCENS. Turreted, bluish or ashy black, smooth, with waved thin longitudinal plaits on the upper part of the whorls, which latter are flattened and undivided, with their sutures obsolete. 3.



T. VITTATA. Conic-acute, sub-turreted, pale horn or bluish ash-colour; whorls rounded, and girded by thin distant impressed striæ, with a double crenulated suture above; throat brownish fulvous. 2. W. 24. 138.

LES COLUMELLAIRES.

COLUMBELLA.

Shell oval; spire short; base of aperture more or less emarginate; no canal; columella plaited; outer lip dilated internally, narrowing the aperture.

C. RUSTICA. Sub-ovate, smooth, with a prominent spire; pillar retuse and toothed; outer lip gibbous and dentated; colour varying, but is generally chestnut, with longitudinal interrupted streaks and waved stripes of white. $\frac{3}{4}$.



C. MERCATORIA. Ovate-turbinated, grooved transversely, white, variously clouded, spotted, or banded with yellowish black or brown; mouth white; lip denticulated within. $\frac{3}{4}$. W. 26. 73.

C. NITIDA. Ovate-oblong, smooth, shining, irregularly mottled all over with fulvous and white, or red and white; columella with indistinct plaits; lip almost smooth; spire short. $\frac{5}{3}$. W. 24. 127.

C. FULGURANS. Ovate, smooth, but striated near the base, nearly black, with white longitudinal angularly flexuous streaks; spire short, ob-

tuse, frequently eroded or truncated; mouth somewhat purplish; lip thick, gibbous, and toothed. $\frac{2}{3}$. W. S. 4. 19.

C. MENDICARIA. Ovate-ventricose, nodulous, transversely striated, and girded with alternate bands of white and black; mouth somewhat of a cinnamon-colour; lip thick, and toothed. $\frac{3}{5}$. W. 20. 79.

C. PUNCTATA. Ovate-turbinated, smooth, but striated at the base; white spots on a deep chestnut ground; lip thick, much swollen at the centre, somewhat violet, and toothed. $\frac{5}{3}$. E. 374. 4.

MITRA.

Shell turreted or sub-fusiform; spire pointed at summit; base emarginated, without a canal; columella with parallel transverse plaits, the inferior of which are the smallest; pillar-lip thin, adnate.

M. EPISCOPALIS. Turreted, smooth, white, with rows of scarlet spots; the lower spots square, the upper irregular; upper margin of the whorls entire; pillar with four plaits; lip denticulated posteriorly. 4. W. 21. 143.

M. PAPALIS. Turreted, thick, ponderous, girded with rows of impressed dots, white, with several rows of deep-red spots; the upper margin of the whorls crowned with dentiform plaits; pil-

lar with four and a half plaits; lip denticulated below. $4\frac{2}{3}$. W. 21. 144.

M. PONTIFICALIS. Ovate, turreted, girded with impressed striæ, and grooved at the base, white, painted with orange-red markings; the upper margin of the whorls elevated, and crowned by sharp thick tubercles; pillar with three and a half plaits. 2. W. 21. 145.

M. ADUSTA. Fusiform-turreted, yellowish white, with wide reddish-brown longitudinal streaks and transverse punctured striæ; sutures and lip crenulated; pillar with five plaits. $1\frac{3}{4}$. E. 369. 5.

M. GRANULOSA. Sub-turreted, decussated, granulated, brownish-red granules, crowded, thickish, arranged transversely and longitudinally; pillar with four plaits. $1\frac{3}{4}$. E. 370. 6.

M. PLICARIA. Ovate-fusiform, longitudinally plaited, whitish, girded with brownish-black interrupted bands; plaits elevated and rather distant, somewhat spurious above; upper margin of the whorls sub-angular, the last with a livid zone; columella with four plaits; lip striated within. $1\frac{4}{5}$. W. 20. 115.

M. FILOSA. Fusiform, most minutely cancellated, whitish, with numerous elevated narrow deep-red belts; pillar with four plaits. $1\frac{1}{3}$. W. 20. 91.

M. STRIATULA. Sub-turreted, acute, fulvous, finely striated transversely; sutures rather obsolete; pillar with five or six plaits, $1\frac{1}{6}$, but generally much less. E. 372. 6.

VOLUTA.

Shell oval, more or less ventricose; summit obtuse or mammillary, emarginate at base, and without a canal; columella plaited, the inferior folds largest and most oblique; no pillar-lip.

V. ETHIOPICA. Obovate, ventricose, chestnut-brown, sometimes with one or two brown bands; spire with numerous short depressed nearly straight spines, which are continued on the body-whorl; pillar with four plaits. 4. W. 21. 175.

V. MELO. Very ventricose; the apex narrowed, yellowish white, with about three rows of thinly scattered brown spots; spire unarmed, almost concealed; pillar with four plaits. 6. W. 21. 185.

V. CYMBIUM. Ovate, clouded and waved with chestnut; suture deeply channelled; spire of two very short obtuse volutions; inner lip chestnut; plaits of the columella variable. $5\frac{3}{4}$. W. 21. 178.

V. NEPTUNI. Obovate, ventricose, tumid, brownish red, covered with a brown epidermis; in the adult the spire is concealed, and encircled

by the carinated edge of the body-whorl; pillar four-plaited; when young brownish red mottled with white, and the rude apex uncovered. 7. W. 21. 181.

V. OLLA. Ovate-ventricose, pale yellowish fulvous, unspotted; spire channelled and obtuse, with a prominent acorn-like mammella; pillar of the adult with two plaits, of the young with three. 4. W. 21. 180.

V. PORCINA. Sub-cylindraceous, tawnywhite; apex truncated and whitish; spire plano-concave; margin keeled; the mammella partly concealed; pillar with three or four plaits. W. 21. 179.

V. SCAPHA. Ovate, sub-ventricose, thick, ponderous; upper portion of the last and penult whorls concave; somewhat of a flesh-colour, with red or chestnut angularly flexuous lines, expanded in three places so as to form the cloudy bands; summit papillary; aperture large; pillar with four plaits. 5. W. 21. 172.

V. VESPERTILIO. Turbinate, crowned with strong distant sharp tubercles, whitish or pale fulvous, with reddish-brown angularly-flexuous lines, and angular spots; spire muricated; lip with a sinus above; pillar with four plaits. $3\frac{3}{4}$. W. 21. 151.

V. MUSICA. Ovate-turbinate, whitish, with two bands, composed of brown transverse parallel

lines, between which, and above the upper, are numerous rows of dark spots, which are divided from the lines by a row of larger distant black spots; body-whorl above and the whorls of the spire noduliferous; pillar with the plaits, except the lower ones, very small. $2\frac{3}{4}$. W. 21. 147.

MARGINELLA.

Shell ovate-oblong, smooth; spire short; outer lip with a thickened margin; aperture sub-emarginate at base; columella plaited; folds sub-equal.

* *Spire salient.*

M. GLABELLA. Ovate-oblong, fulvous grey, with redder zones and minute white scattered dots; spire short and conic, with its apex obtuse; pillar with four plaits. $1\frac{1}{3}$. W. 26. 64.

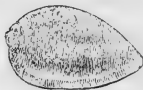
M. CERULESCENS. Oblong, bluish or greenish grey, with a small conical spire; mouth purplish brown; lip smooth; pillar with four plaits. W. 20. 68.

M. NUBECULATA. Ovate-oblong, sub-turbinated, whitish, with pale fulvous longitudinal waved flammules, edged with black on one side; body-whorl obtusely angular above; spire short, conic, rather obtuse; sutures indistinct; pillar with four plaits; lip smooth within. $1\frac{1}{5}$. W. 20. 65.

M. FABIA. Sub-ovate, smooth, slightly plaited

longitudinally; the upper part of the whorls whitish, palish olive, or flesh-colour, with rows of black dots; spire rather prominent; lip crenated within; pillar with four plaits. W. 20. 63.

M. LONGIVARICOSA. Ovate-oblong, shining, very pale fulvous, with minute irregular scattered white spots; varix of the lip long, extending even to the apex of the spire, spotted with yellow; spire very short; pillar with four plaits; lip absolutely crenated within. $\frac{3}{4}$.



M. BIVARICOSA. Ovate, entire, smooth, white, broadly margined with tumid sides; spire nearly hidden; pillar four-plaited. l. W. 19. 62.

**** *Spire not salient.***

M. BULLATA. Ovate-oblong, cylindraceous, whitish, with numerous cloudy livid bands; apex obtuse; lip smooth; pillar with four plaits. $\frac{3}{4}$. W. 20. 70.

M. PERSICULA. Obovate, smooth, shining, whitish, covered with dull yellow or red spots; apex obtuse and concave; pillar with seven plaits; lip crenulated within. $\frac{3}{4}$. W. 19. 55.

M. LINEATA. Obovate, with the apex concave and obtuse; white, girded with rather dis-

tant chestnut lines, sometimes forked as they near the lip; pillar with seven plaits; lip striated within. $\frac{5}{6}$. E. 377. 4.

VOLVARIA.

Shell cylindrical, convolute; spire scarcely exerted; aperture narrow, as long as the shell; columella with one or more folds at its inferior part.

V. TRITICEA. Ovate-oblong, sub-cylindrical, whitish, generally with fulvous zones; spire rather prominent; lip depressed towards the middle; columella straight, with about four plaits. W. 19. 54.

LES ENROULEES.

OVULA.

Inflated, attenuated, or acuminate at each end; lips curved inwards; aperture longitudinal, narrow, effuse at the extremities; left lip not indented.

O. OVIFORMIS. Ovate, inflated, ventricose in the middle, smooth, milk-white; the extremities rather prominent; sub-truncated; throat orange; lip toothed. $3\frac{1}{5}$. W. 18. 1.

O. VERRUCOSA. Ovate, gibbous, transversely

angulated, white, with the extremities tinted with pink, and marked with a round wart encircled by a hollow; lip toothed. 1. W. 18. 10.

O. GIBBOSA. Ovate-oblong, obtuse on both sides, girded with an elevated obtuse angle; white, with rather an orange tint; lip smooth, but obsoletely toothed. 1. W. 18. 11.

CYPREA.

Shell oval or oval-oblong, convex, margins turned inwards; aperture longitudinal, narrow; both lips toothed; effuse at both extremities; spire very small, scarcely apparent.

C. EXANTHEMA. Oblong, ferruginous, with large whitish round spots, which as they near the base become ocellated; dorsal line pale; violet within; teeth brown, from two to five; spire evident. W. 16. 1.

C. ARCUS. Oblong, sub-cylindrical, fawn-colour, with brown rings above, and four large dark spots at the base; teeth brown; three; spire as last. W. 16. 5.

C. TESTUDINARIA. Oblong, sub-cylindrical, depressed at the extremities, and marked like tortoise-shell, the dark parts of which, when perfect, are freckled with white; aperture white; four; spire as last. W. 16. 6.

C. MAURITIANA. Ovate, gibbous, intense

brown, with large paler spots on the back ; base brownish black, dilated. $3\frac{1}{2}$. Spire obtuse. W. 17. 20.

C. ARABICA. Ovate-oblong, inscribed with brown marking on a bluish or brownish-white ground, somewhat resembling Arabic letters ; dorsal streak simple ; sides towards the base thickened, and marked with purplish-black spots ; base flesh-coloured, with chestnut teeth ; throat violet ; spire evident. 2. W. 16. 3.

C. HISTRIO. Oblong, or ovate-oblong, with a kind of brown network, enclosing pale polygonal markings ; sides thickened, and somewhat tumid at the base, generally tinged with bloom-colour and spotted with black ; spire evident. 2. W. 16. 4.

C. SCURRA. Oblong, cylindraceous, with light-coloured polygonal spots on a fulvous ground ; border yellowish, spotted with brown ; base flat ; teeth brown. 2 . . . 1. W. 17. 30.

) C. MUS. Ovate, gibbous, whitish, mottled with cinereous ; dorsal line white, edged with black spots, and generally with a large blotch of black adjoining the spire ; teeth maroon brown ; spire concealed. $1\frac{1}{2}$. . . 1. W. 17. 22.

C. TIGRIS. Ovate-ventricose, turgid, bluish white, softening off to reddish toward the back, with numerous large black splotches and a yellow

dorsal line; white beneath; spire concealed; lips not projecting above. 4. W. 17. 23.

C. TIGRINA. Ovate-oblong, reddish, with very many small dark spots; dorsal line undulated; lips projecting above; spire as last; base white. $2\frac{2}{3}$. W. 17. 24.

C. TALPA. Oblong, sub-cylindrical, tawny, with three white bands; base rich blackish brown; inside white. 2...1. W. 16. 10.

C. CARNEOLA. Oblong, pale livid, with flesh-coloured bands; sides ashy, with lighter sand-like markings; base yellowish; teeth violet. 1 to 2. W. 16. 9.

C. LURIDA. Ovate-oblong, lurid, with two obsolete paler bands; extremities orange, with two black spots; base whitish. 1 to 2. W. 16. 11.

C. VITELLUS. Ovate, sub-ventricose, fulvous, with white guttules and spots; sides faintly substriated and arenaceous; base white; inside blue. $1\frac{1}{2}$ to $2\frac{1}{2}$. W. 17. 21.

C. CAPUT-SERPENTIS. Ovate, base much spread and flat, the transverse section triangular; brown, with white spots on the back, darker on the sides, with rather a saffron splotch at the extremities; aperture whitish; within purple; spire quite concealed. $1\frac{1}{4}$... $\frac{5}{6}$. W. 17. 19.

C. LYNX. Oblong-ovate, pale cinereous, with

more or less manifest different-sized brown spots ; dorsal line yellowish ; base reddish ; intervals of teeth saffron-colour ; the side whitish, with large brown spots. W. 17. 25.

C. ADUSTA. Ovate-ventricose, sub-umbilicated above ; back reddish brown, with two obscure bands ; sides and base blackish brown. $1\frac{1}{2}$. W. 17. 31.

C. EROSA. Oblong-ovate, yellowish, with white spots, and a few eyes ; margin white, tumid and toothed, with a purplish-brown spot on each side. $1\frac{1}{2}$. W. 17. 48.

C. CAURICA. Oblong-ovate, cinereous, speckled and obsoletely zoned with brown ; margin tumid, nodulous, reddish, and spotted with dark brown ; base reddish, with whiter teeth. $1\frac{1}{2}$. W. 17. 45.

C. ISABELLA. Sub-cylindrical, light fawn-colour, with irregular longitudinal dotted brown lines ; extremities orange ; base white ; aperture narrow ; teeth small. $1\frac{1}{2}$. W. 17. 28.

C. OCELLATA. Ovate, gibbous, fawn-colour, with white spots, many of which have a dark eye within them ; margin slightly toothed, thickened, and, as well as the base, reddish white, speckled with chestnut. $\frac{3}{4}$. W. 17. 54.

C. CRIBRARIA. Ovate-oblong, sub-umbilicated, yellowish or cinnamon colour, with round

white confluent spots; base and margin white.

1. W. 17. 42.

C. OLIVACEA. Ovate-oblong, greenish, speckled with brown; margin slightly thickened, palish flesh-colour and unspotted, as also is the base; purple within. 1. W. 17. 39.

C. HIRUNDO. Oblong, with three undulated irregular livid bands, appearing under a yellowish or cinereous coating, frequently minutely speckled with rust-colour; extremities with two brown spots; sides whitish, and slightly speckled; base white; and the teeth elongated. $\frac{3}{4}$. W. 17. 35.

C. UNDATA. Ovate-ventricose, umbilicated; whitish, with three transverse bands of waved longitudinal chocolate-brown markings; base and sides white. W. 17. 33.

C. ZIGZAG. Ovate, whitish cinereous, with thin longitudinal yellow waves; extremities with numerous brown spots; base and sides deep saffron, with rich brown spots. $\frac{3}{5}$. W. 17. 16.

C. FLAVEOLA. Ovate, yellowish, with longitudinal flexuous tawny clouds; margin slightly toothed; sides whitish, spotted with brown; beneath white. $\frac{3}{4}$. W. 17. 49.

C. PORARIA. Ovate, violet fawn-colour, with white spots, mostly circled by brown; base and sides purplish white, unspotted; spire concealed. $\frac{2}{3}$. W. 17. 55.

C. ASELLUS. Ovate-oblong, white, with three deep-brown zones; sides and extremities unspotted; teeth unequal. $\frac{3}{4}$. W. 17. 38.

C. MONILIARIS. Ovate, umbilicated, whitish cinereous, with very fine obsolete transverse concurrent yellow lines, and three rather livid zones; base and sides white and unspotted; teeth nearly equal. $\frac{3}{4}$. W. 17. 57.

C. CICERULA. Ovate-globose, turgid, beaked at both ends, white or pale fulvous, with raised dots and a dorsal groove; mouth narrow; and the lower surface of the shell striated transversely. $\frac{3}{4}$. W. 17. 65.

C. GLOBULUS. Ovate, smoothish, ventricose, sub-globose, beaked at each end, deep saffron, with scattered brown spots; no dorsal line. $\frac{2}{3}$. W. 17. 67.

C. HELVOLA. Ovate, turgid; back somewhat livid, with white and stellated brown spots; sides chestnut; margin jagged, and, as well as the base, of a rich orange brown. $\frac{5}{6}$. W. 17. 53.

C. STAPHYLEA. Ovate, livid, with raised white dots, brown and slightly beaked at the extremities; base furrowed; a dorsal line. $\frac{2}{3}$. As the shell becomes more aged, the surface becomes level and darker. W. 17. 64.

C. NUCLEUS. Ovate, whitish, with raised wrinkles and tubercles, whereof the lateral ones unite to the furrows of the margin; dorsal line

distinct; extremities slightly beaked; base sulcated. 1. W. 17. 62.

C. MONETA. Ovate, margined, yellowish white; margins tumid, white, and nodulous; base flattened and white. $1\frac{1}{6}$. W. 17. 43.

C. ANNULUS. Ovate, gibbous, greyish yellow, with the back surrounded by a yellow line; the margin whitish, depressed, and smooth. $\frac{1}{2}$. W. 17. 44.

C. RADIANS. Roundish, deep flesh-colour; the dorsal line wide, on either side of which the thick radiating ribs, which cover the flattened base, and ascend to the back, end in tubercles. $\frac{3}{4}$. W. 17. 58.

C. PEDICULUS. Ovate, flesh-colour, often with a greyish tint, with several chocolate-brown spots, transversely ribbed; a narrow dorsal groove; base sulcated. $\frac{2}{3}$. W. 17. 59.

C. COCCINELLA. Much resembles the last, but has no dorsal groove, not more than three spots; and the ribs much finer. B. $\frac{2}{3}$. W. 17. 60.

TEREBELLUM.

Convolute, sub-cylindrical, pointed at the summit; margin simple and acute; aperture longitudinal, contracted at the upper part, notched at the base; pillar smooth, truncated at the bottom.

T. SUBULATUM. Cylindraceous, subulate, thin, smooth, glossy, with a distinct spire; whitish,

with scattered or clouded with chestnut spots and dots, or with dotted or angular oblique lines.

$1\frac{3}{4}$. W. 18. 41.

ANCILLARIA.

Shell oblong, sub-cylindrical; spire short, not channelled at sutures; aperture longitudinal, scarcely emarginated at base, effuse; a callous oblique varix at base of columella.

A. CINNAMONEA. Oblong-ventricose, cylindraceous, yellowish chestnut, with a white band above; last whorl with two basal belts; aperture acuminate above, effuse beneath; columellar varix rufous and substriated. $\frac{5}{6}$. S. 456.

A. VENTRICOSA. Ovate-ventricose, fulvous orange; apex bluntish; columellar varix thick, white, and rather smooth. $\frac{5}{6}$.



A. CANDIDA. Elongated, semi-cylindrical, white; apex acute; sutures obsolete; columellar varix sub-striated. $1\frac{1}{8}$. E. 393. 6.

OLIVA.

Sub-cylindrical, convolute, smooth; spire short; sutures channelled; aperture narrow, longitudinal, and notched at the base; columella obliquely striated; no operculum.

O. PORPHYREA. Large, sub-cylindrical, numerous rich reddish-brown angular lines, closely fasciculated at the top of each whorl, unite at intervals into large masses upon a brilliant flesh-coloured ground; base and spire tinted with violet; the latter small and cuspidate; from three to five. W. 19. 29.

O. TEXTILINEA. Cylindraceous, ashy white, sub-reticulated by flexuous spots of a cloudy purplish brown, edged with fulvous, which unite into two or more bands of letter-like markings; spire short; apex obtuse; callus of the canal and lip yellowish; the former projecting; $2\frac{3}{4}$; when worn, the markings are brown. E. 362. 5 a. b.

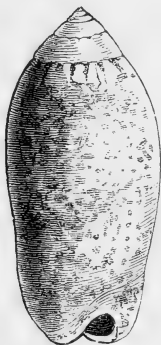
O. ERYTHROSTOMA. Cylindraceous, white or whitish, with rather thick longitudinal flexuous lines of a purplish-brown and yellow tint, and generally with two sub-interrupted brown bands; lip and columella orange or saffron. $2\frac{1}{2}$. W. 19. 30.

O. TREMULINA. Differs from the last by the lines being more distant, and the mouth paler.

O. MAURA. Cylindrical, black or yellowish

olive with a few brown transverse lines, or yellowish chestnut with two bands, or greenish fulvous with undulating brown spots, or rich yellowish chestnut; apex blunt; spire very short; lip rather thickened and marginated; base of columella discoloured. $2\frac{1}{4}$. W. 19. 31.

O. EPISCOPALIS. Cyldrinceous, thickish, with crowded spots of purplish hue, edged with yellow, on a pale ground; spire convex and pointed; throat deep violet. $1\frac{3}{4}$.



O. GUTTATA. Cyldrinceous, with large fulvous spots, which are purple by reflection, scattered on a pale ground; the purple is peculiarly brilliant on the basal belt, and the spots beneath the sutures cause them to appear crenulated; spire elevated, acute, and very deeply channelled; throat pale orange. $1\frac{3}{4}$. W. 19. 32.

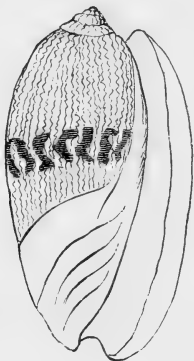
O. RETICULARIS. Cyldrinceous, white, reticulated by crowded sub-punctated flexuously-

angular brown lines ; spire elongated and acute ; mouth white ; upper border of whorls with numerous fasciculated lines. $1\frac{1}{2}$. E. 361. 1.

O. LITTERATA. Cyldrinceous, elongated, pale fulvous or ash-colour, slightly tinted with violet, and covered with numerous clouded fulvous angularly flexuous longitudinal lines, and zoned with two bands of letter-like markings ; mouth bluish ; spire exserted, acute. $2\frac{2}{3}$. E. 362. 1.

O. TRICOLOR. Cyldrinceous, crowded with yellow and green undulated markings on a whitish ground ; spire short, variegated ; lip white ; columella flesh-colour. $1\frac{3}{4}$. E. 365. 4.

O. SANGUINOLENTA. Cyldrinceous, finely reticulated by deep-brown lineoles on a pale olive ground, uniting at intervals so as to form two interrupted bands ; columella bright orange ; spire very short. $1\frac{1}{2}$.



O. SENEGALENSIS. Ovate, turgid above, with its spire short, rounded off, and conical; whitish, waved with wide red longitudinally flexuous lines; mouth very slightly tinted with violet. $1\frac{3}{4}$. E. 364. 3.

O. UNDATA. Ovate-ventricose, pale ash-colour, waved with brown flexuous lines; spire very short; columella tuberculated by compressed calluses. $1\frac{3}{4}$. W. 19. 34.

O. BICINCTA. Ovate-ventricose, white, sprinkled with bluish-grey dots, and marked with two yellowish-brown zones; spire short and mucronated; columella tuberculated. $1\frac{1}{6}$. E. 364. 1.

O. TESSELLATA. Cylindraceous, yellow, sprinkled with violet-brown guttules; spire short, callous; lip and pillar violet. $\frac{5}{6}$. W. 19. 42.

O. CARNEOLA. Cylindraceous, yellowish orange, sub-fasciated with white; spire as last; mouth white. $\frac{3}{4}$. W. 19. 43.

O. ISPIDULA. Cylindraceous, narrow, varying in colour; spire rather prominent and acute; mouth chocolate-colour. $1\frac{1}{4}$. E. 366. 6.

O. SCRIPTA. Cylindraceous, greyish fulvous, covered with a fine fulvous network, and two obsolete bands of letter-like markings, whose depth of colour varies in specimens; spire very short; mouth bluish. $1\frac{3}{4}$. E. 362. 4.

O. UTRICULUS. Ovate - ventricose above, bluish ash-colour, with faint traces of the dark brown marbling of the under coating of the shell; an oblique yellow zone with brown flames at the base of the body-whorl; spire conoid, acute; lip and columella white; the latter callous. $2\frac{1}{6}$. W. 19. 37.

O. ACUMINATA. Elongate, cylindrical, whitish, marbled with ash-colour, usually with two distant fulvous bands; spire exserted, acuminate; mouth white; columella callous above. $2\frac{2}{3}$. W. 19. 38.

O. HIATULA. Ventricose, conic, whitish or bluish ash-colour, with flexuous brown veins; spire prominent, acute; mouth dilated beneath. $1\frac{3}{4}$. There is a smaller variety marked with small pale-brown spots, and the plaits of a maroon brown. W. 19. 39.

O. CONOIDALIS. Ovate - conic, whitish or greenish cinereous, veined with brown; the upper margins with numerous fasciculi; spire elongated, with its canal scarce evident; belt at the base divided; $\frac{2}{3}$; mouth white. W. 19. 41.

O. EBURNEA. Somewhat in shape resembling the last, but more elongated and cylindrical; the aperture widening downwards, and filling but half the length of the shell; channel of the spire distinct; white, or white with two zones of large

purplish zigzags, and some similar marking at the upper border. $\frac{4}{5} \dots \frac{2}{3}$. W. 19. 40.

O. NANA. Small, ovate, livid ash-colour, with brown or purple flexuous lines; spire rather gibbous and prominent; columella with a callus. $\frac{1}{3}$. W. 19. 44.

O. ORYZA. Minute, ovate-conic, white, unspotted; spire conoid. $\frac{1}{4}$. W. 19. 46.

CONUS.

Turbinated, or inversely conical, convolute; aperture longitudinal, narrow; not toothed; effuse at the base.

** Spire coronated.*

C. MARMOREUS. Oblong-turbinate, the surface covered with numerous sub-triangular large white spots set in a dark ground; spire crowned with tubercles, obtuse; whorls concavely channelled; lip pinkish in the adult. $3\frac{1}{3}$. W. 14. 1.

C. ARANEOSUS. Turbinate, whitish, reticulated by fine brown web-like meshes, and usually with two brown interrupted bands; spire convex, obtuse, mucronated, crowned with tubercles. $2\frac{1}{2}$. W. 14. 3.

C. NEBULOSUS. Turbinate, coronated, thick, at times granulated, yellowish chestnut, marbled with white spots, and lineated with brown trans-

versely, and sometimes with brown lines interrupted by small white spots. $2\frac{1}{2}$. W. 14. 37.

C. HEBRÆUS. Turbinate, coronated, white, with transverse rows of somewhat four-sided black spots, transversely striated towards the base; spire convex, obtuse. $1\frac{1}{13}$. W. 15. 77.

C. VERMICULATUS. Differs from the last in its surface being covered with longitudinal narrow black flammules instead of spots. E. 321. 1, 7, 8.

C. PULICARIUS. Turbinated, coronated, white, with two interrupted orange bands, and numerous large spots of deep red brown; spire sub-depressed and mucronate; mouth whitish. $1\frac{3}{4}$. E. 320. 2.

C. VARIUS. Oblong-turbinate, coronated, muricated by granulations; white, spotted with chestnut; spire acute. $1\frac{1}{3}$. W. 15. 84.

C. TULIPA. Oblong-ventricose, bluish white, with irregular waved longitudinal reddish bands, and transverse dotted lines; spire depressed, and the whorls concave, very indistinctly if at all coronated; aperture effuse; $2\frac{1}{3}$; mouth bluish. W. 16. 154.

C. GEOGRAPHUS. Oblong-ventricose, coronated, white, clouded, and semi-reticulated by fulvous, maroon, or flesh-colour; spire concave, obtuse; mouth white and effuse. $4\frac{1}{2}$. W. 16. 155.

C. LIVIDUS. Turbinate, coronated, livid, with a white band above, and another beneath the middle of the whorl; near the base are usually transverse granulated striæ; base and throat purplish; spire white and obtuse. $1\frac{2}{5}$. W. 15. 58.

*** Spire not coronated.*

C. MILLEPUNCTATUS. Turbinate, ponderous, white, with several rows of brown or black spots; spire flattish, obtuse; whorls sub-canalculated, the upper border of the last angular. $4\frac{1}{4}$. E. 323. 2, 3, 5.

C. LITTERATUS. Turbinate, white, with transverse rows of dark spots, and often with two or three somewhat yellow bands; spire flat and truncated; whorls channelled, and generally marked with dark-brown transverse stripes; $3\frac{1}{6}$; base darkish. W. 14. 7.

C. EBURNEUS. Turbinate, furrowed at the base, white, with several rows of squarish fulvous deep-brown or black spots, and two yellowish zones; spire obtuse, variegated, striated, and acuminate. $1\frac{1}{5}$. W. 14. 8.

C. TESSELLATUS. Turbinate, white, with several rows of scarlet quadrangular spots; grooved and somewhat violet at the base; spire plano-obtuse, acuminate. $2\frac{1}{5}$. W. 14. 9.

C. GENERALIS. Oblong, turbinate, brown or citron-colour, with interrupted white bands and

the base black ; spire flat, margined ; apex acuminate. $2\frac{1}{3}$. W. 14. 10.

C. MONILE. Oblong-turbinate, pale reddish or fulvous, with a white band, and several rows of rufous lines and spots ; spire flat and canaliculated ; apex acuminate. $2\frac{3}{4}$. E. 325. 7.

C. VULPINUS. Turbinate, red, with a paler band, and obsolete fulvous threadlike transverse lines, furrowed and semi-granulated at the base ; spire obtuse, striated, and spotted with brown. 2. E. 326. 4, 6, 8.

C. VIRGO. Turbinate, most minutely striated transversely, and wrinkled at the base ; yellowish, or pale flesh-colour, under which coating it is pure white ; base violet ; spire slightly convex and obtuse. From $1\frac{1}{2}$ to 4. W. 14. 13.

C. CAPITANEUS. Turbinate, yellowish olive or brownish fulvous, zoned with a white band above and another in the middle of the body-whorl, both spotted with brown and transverse punctated lines ; spire short, rounded, with radiating white spots. $2\frac{2}{5}$. W. 14. 15.

C. MILES. Turbinate, pale yellowish, girded with a ferruginous band above the middle of the body-whorl, and adorned with longitudinally flexuous fulvous threads ; base blackish ; spire plano-obtuse. $3\frac{1}{6}$. W. 14. 19.

C. MERCATOR. Turbinate, oval, white, with

zones of, or entirely covered with, a yellow network ; grooved at the base ; spire striated and convex. $1\frac{1}{6}$. W. 15. 65.

C. FIGULINUS. Turbinate - ventricose, and rounded above ; dull reddish brown or cinnamon-colour, zoned with red lines ; spire convex and mucronate. $3\frac{1}{3}$. W. 15. 67.

C. QUERCINUS. Turbinate, pale yellowish, girded with very fine darker threads ; spire plano-obtuse, striated, and angular at its base. $2\frac{3}{4}$. W. 15. 68.

C. PAPILIONACEUS. Turbinate, thick, ponderous, with fulvous somewhat square or oblong-vertical spots and dots in transverse rows ; spire convex, sub-canalculated, mucronated. $3\frac{3}{4}$. 330. 1, 2, 5, 8.

C. VERRUCOSUS. Turbinate, grooved, granulated, whitish or yellowish, usually variegated with fulvous ; spire acuminate and pointed. $\frac{4}{5}$. E. 333. 4.

C. FUMIGATUS. Turbinate, reddish chestnut, with a white band a little below the middle ; spire obtuse, canalculated, and angular at its base. E. 336. 7.

C. GUBERNATOR. Oblong - turbinate, ventricose above, somewhat depressed in the middle, pinkish, with sub-lineated brown oblong spots ;

spire obtuse, channelled, mucronate. $3\frac{1}{6}$. W. 16. 133.

C. STRIATUS. Cyldrinceous, turbrinate, wrinkle at the base; white, or pinkish white, spotted with fulvous or dark brown, and most finely striated transversely; spire obtuse and channelled. $3\frac{2}{5}$. W. 16. 132.

C. STERCUS MUSCARUM. Cyldrinceous, turbrinate, pale flesh-colour, with numerous crowded rows and masses of dark dots; spire convex, obtuse, channelled; throat and apex pink. $1\frac{1}{5}$. W. 15. 78.

C. NUSSATELLA. Sub-cylindrical, elongated, transversely striated, sometimes granulated; white, clouded with fulvous or orange; numerous rows of brown or dark-coloured dots; spire convex, exserted. $2\frac{2}{5}$. W. 16. 123.

C. AULICUS. Sub-cylindrical, elongated, brown, chestnut or maroon, with somewhat triangular or heart-shaped white spots, grouped mostly longitudinally, but some transversely; very finely striated transversely; the spire acute. $4\frac{1}{3}$. W. 16. 145.

C. TEXTILE. Ovate-cylindrinceous, yellowish orange, with close longitudinal flexuous brown lines, and numerous small triangular white spots edged with brown, and grouped either transverse-

ly, longitudinally, or in bands. At times the shell is white, and the spots clouded with orange or violet blue; towards the base it is slightly grooved; and the spire is acuminated, with its lower whorls slightly concave. $3\frac{3}{4}$. W. 16. 136.

CEPHALOPODES.

ORTHOCERA.

Elongated, straight, or slightly curved, sub-conical, striated externally by numerous longitudinal ribs; chambers formed by transverse septa, perforated by a central or marginal tube.

O. COSTATUS. Sub-cylindric, straight, with four strong longitudinal ridges, but little tapering; sub-globose; twelve chambers. $\frac{1}{4}$. B. W. 13. 25.

O. JUGOSUS. Sub-cylindrical, slightly curved, with numerous longitudinal ribs, and nine globose chambers, the first the longest, the last produced into a conical neck, with a round aperture; brown. $\frac{1}{8}$. B. W. 13. 22.

NODOSARIA.

Elongated, straight or slightly arched, sub-conical, nodular; nodules globular, very smooth; chambers formed by transverse septa, perforated in the centre or near the margin.

N. RADICULA. Nearly straight, a little tapering; joints transverse; chambers sub-cylindric, eight or nine. $\frac{1}{10}$. B. W. 13. 27.

SPIRULA.

Cylindrical, thin, almost transparent, white or pearl-colour, multilocular, partly twisted into a discoidal spiral; whorls distant from one another, the last produced in a straight line; septa transverse, placed at equal distances from each other, externally concave; siphon lateral, interrupted; aperture orbicular.

S. PERONII. W. Nautilus. 13. 16.

CRISTELLARIA.

Shell semi-discoid, multilocular; whorls contiguous, simple, progressively enlarging; spire eccentric, sub-lateral; septa imperforate.

C. SQUAMULA. W. 14. 47.

ORBICULINA.

Shell sub-discoidal, multilocular; whorls contiguous and compound; spire eccentric; chambers short, very numerous; septa imperforate.

O. UNCINATA. W. 14. 58.

MILLIOLA.

Shell transverse, oval-globular or elongated, multilocular; chambers transverse, surrounding the axis, and successively covering one another; aperture very small, situated at the base of the last whorl, orbicular, or oblong.

M. INTORTUM. Mouth compressed, with a simple tooth attached to the proximal side, a little compressed; the external margin sub-acute; three chambers are usually visible on one side, and four on the other; slightly striated across, and the suture distinct. $\frac{1}{10}$. B. W. 38. 2.

PLACENTULA.

Shell orbicular, convex above and below, multilocular; aperture oblong, narrow, disposed as a ray in the inferior disc, or on both discs.

P. ASTERISANS. W. 13. 39.

POLYSTOMELLA.

Shell discoid, multilocular; whorls contiguous, not apparent externally, radiated exteriorly by striæ or costæ running in the direction of the whorls; aperture of many holes variously disposed.

P. CRISPUS. W. 18. 8.

VORTICIALIS.

Shell discoidal, spiral, multilocular; whorls contiguous, not apparent externally; septa transverse, imperforate, not extending from the centre to the periphery; aperture marginal.

V. STRIGILATA. W. 13. 41.

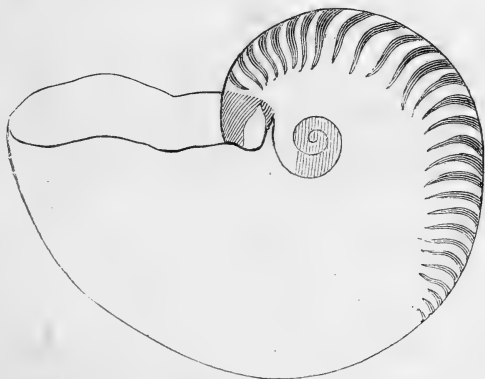
NAUTILUS.

Discoidal, spiral, multilocular; parietes simple, without any suture; whorls contiguous, the last enveloping the sutures; chambers numerous, narrow, transverse, formed by transverse septa, last chamber very large; septa concave on the side next the aperture, their discs perforated by a tube, and their margins very simple.

N. POMPILIUS. Sub-orbicular, with the whorls smooth both on the back and sides; aperture oblong, heart-shaped; umbilicus concealed; white,

with transverse rufous flames gradually ceasing towards the lip; diam. $7\frac{2}{3}$. W. Nautilus. 13. 1.

N. UMBILICATULUS. Sub-orbicular, umbilicated on both sides; all the whorls manifested within the umbilicus; sides of the whorls obtusely wrinkled; aperture rounded, heart-shaped; colour much resembling the preceding. 6.



ARGONAUTA.

Shell univalve, unilocular, involute, very thin; spire bicarinate, tuberculous, re-entering the aperture.

A. ARGO. Large, involute, very thin, white, sides transversely ribbed; ribs frequent, forked near the keel; carinae approximate, tubercular, partly blackish red; tubercles small, very numerous. S. 485.

A. TUBERCULOSA. Large, involute, thin, white; the sides with tuberculiferous transverse wrinkles; the tubercles of the keels very prominent and conic; aperture wider in proportion than the last. W. 13. 2.

CARINARIA.

Univalve, conical, compressed at the sides, unilocular, very thin, hyaline; apex spiral; back sometimes with a dentated carina; aperture oblong, entire.

C. VITREA. W. Argonauta. 13. 6.

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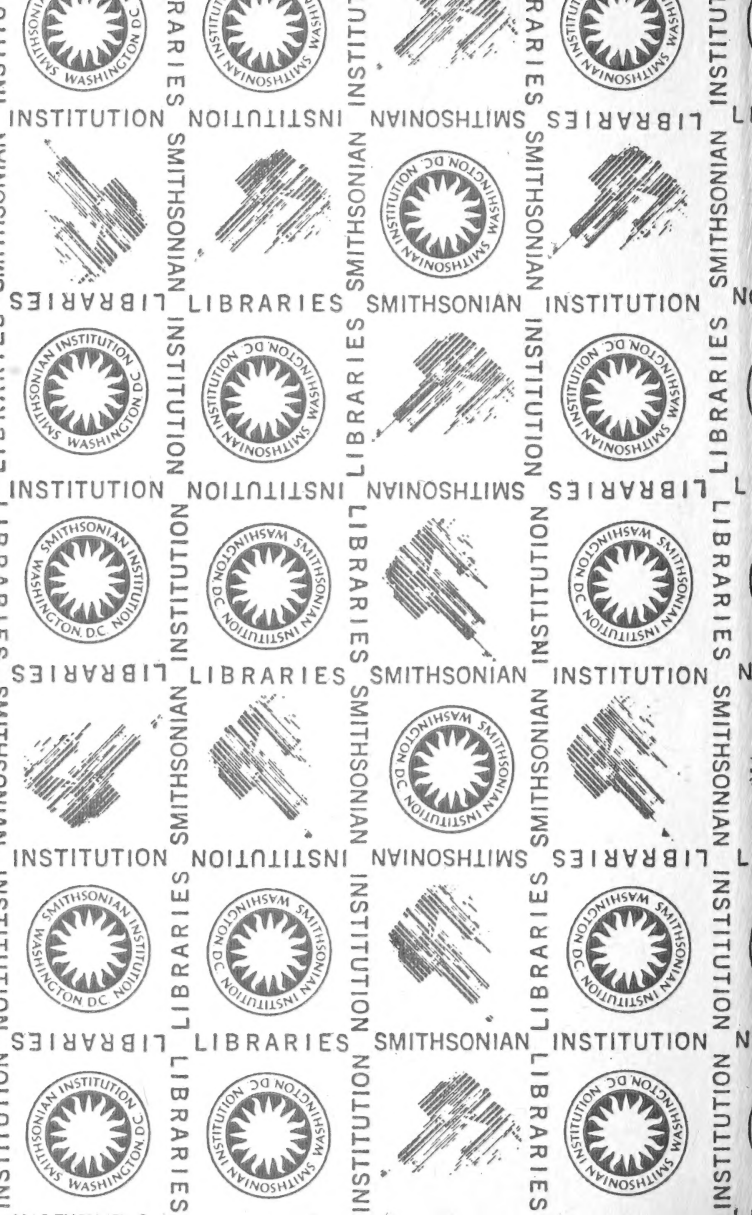
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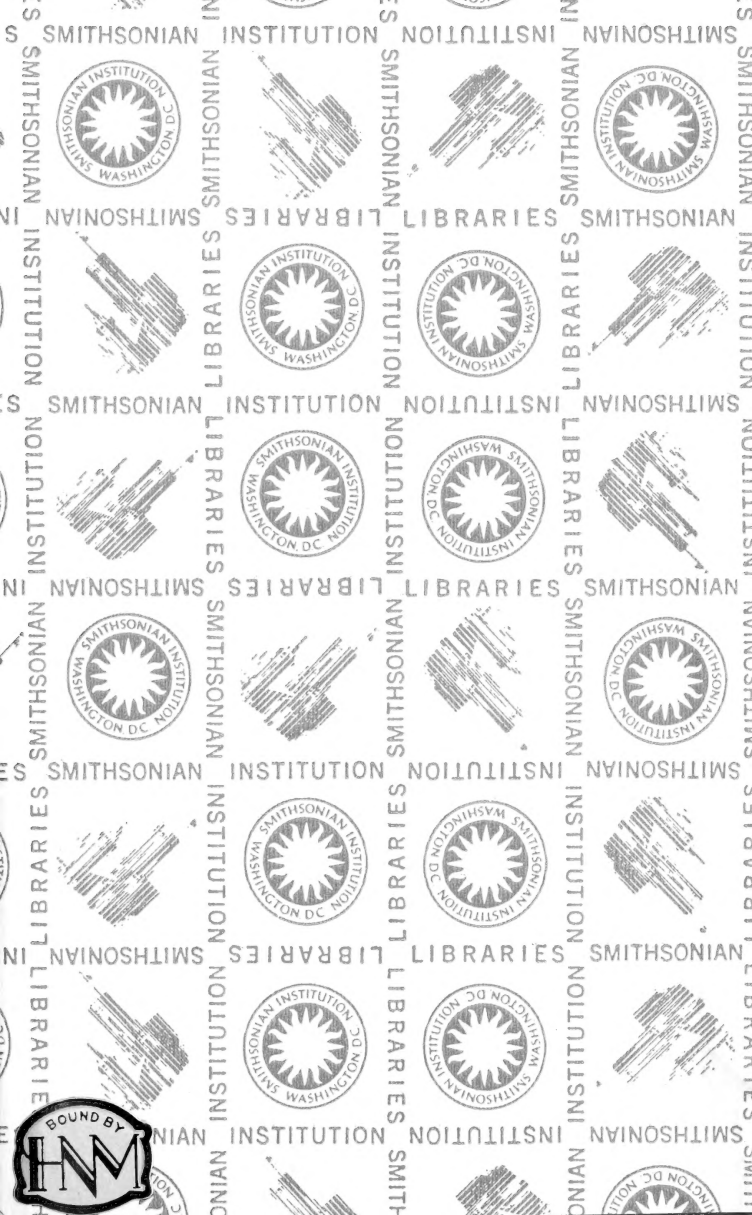
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