

SOWERBY'S
ILLUSTRATED INDEX
OF
BRITISH SHELLS



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ILLUSTRATED INDEX
OF
BRITISH SHELLS.

CONTAINING
FIGURES OF ALL THE RECENT SPECIES,

With Names and other Information.

BY
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LONDON:
SIMPKIN, MARSHALL, AND CO., PATERNOSTER ROW;
AND
THE AUTHOR, 9, PEMBROKE SQUARE, KENSINGTON.
1859.

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PREFACE.

THE first idea of this Work arose from the occasional use of Mr. Damon's 'Catalogue of the Shells of Great Britain and Ireland,' named after the 'History of British Mollusca,' etc. Here was, on one side, a very useful list of names, without figures or references to guide an inquirer to the species; and on the other, a very large and splendid Work, placed by its heavy price beyond the reach of Naturalists in general. There was nothing between the two; nothing within reach that would assist collectors of British Shells to name their acquisitions from ocean, beach, river, pond, or hedgerow. A public want seemed here to be discovered. It was thought that a list like the above, with a coloured drawing of every species, if produced at an available price, would supply that want. At first no more than this was thought of, but afterwards, as the preparations advanced, various suggestions were made tending to some extension of the plan. The results are here presented.

About 700 Figures in the Plates represent all the recognized species. They amount to 600, being 60 more than are admitted in the latest monograph. The greater part of these are either new or newly introduced as British. The rest are raised from varieties to species.

As the nomenclature used by Messrs. Forbes and Hanley in their great Work will be most generally adopted in this country, it is followed here with very few alterations; and the synonyms given (in italics) are selected from those which are most familiar and likely to be met with.

Some information is added respecting habits and localities, range of depth of marine species, and comparative abundance. The letters C., Cc., Mc., R., Rr., and Mr., signifying 'common,' 'extremely common,'

‘moderately common,’ ‘rare,’ etc., must be taken with great caution, especially the latter, as subject to continual change.

A list is given of British Fossil Shells identical with now living species.

A familiar description of British Mollusca and some peculiarities in their families and genera will, it is hoped, form a useful and suitable introduction to the names and figures. The Author’s best thanks are due to his friends, Madame De Burgh, who has collected many beautiful shells; R. M‘Andrew, Esq., F.L.S., whose dredging experiences are so extensive; J. G. Jeffreys, Esq., F.R.S., etc., whose researches have resulted in so many additions to our Fauna; Mr. Brice Wright, the Naturalist, of Great Russell Street, and others, who have in the most liberal manner supplied him with specimens from which his drawings are taken. The loan of delicate and minute shells to authors and artists has so often proved disastrous, that nothing but a generous friendship, and a zealous love of Natural History, could have induced proprietors so freely to incur the risk.

INTRODUCTION

TO

SHELL-BEARING BRITISH MOLLUSCA.

A common garden Snail, observed crawling and feeding, is easily seen to possess a distinct head, upon which are four feelers or horns, with eyes at the end, and underneath which is a mouth; a broad disc, extending the whole length of the body, is the organ of locomotion; a spiral or coiled shell surmounts the whole.

If, on the other hand, an Oyster be opened, no distinct head, or place for eyes or mouth, can be seen, but only a seeming mass of pulp, with a round gristle in the centre (the muscle of attachment), the former enclosed in a soft skin with a double fringe round the edge (mantle), placed within a shell composed of two pieces.

All Mollusca are more or less completely represented by these two. The Snail and its class are named *Gasteropoda* (abdomen-crawling), and their shells *Univalves*; the Oyster and its class, *Acephala* (headless), and their shells *Bivalves*. We begin with the latter class at—

PLATE I.

Pholadidæ, or “Borers,” 1–13, have the power of piercing and inhabiting holes in submarine wood, rocks, and stones. The hinder part of the body is lengthened out in the form of a double tube, with openings for the ingress and egress of fluids. *Teredo*, 1–6, has short valves, two pallets fixed at the sides of the siphons, and lines its hole with a shelly tube. *Pholas* and *Pholadidea*, 8–13, have long valves and some-

times accessory plates. The shell of *Xylophaga*, 7, is like that of *Teredo*, but the animal has neither pallets nor tube.

Gastrochæna, 14, has a gaping shell, and encloses itself in a bottle-shaped covering of cemented stones and sand. *Saxicava*, 15, 16, *Venerupis*, 18, and *Petricola*, 17, burrow in sand, or live in holes of rocks.

Myadæ, or "Gapers," *Mya*, 19, 20, and *Panopæa*, 21, 21*, burrow downwards in sand and mud, their siphons protected by a coriaceous covering. Their shells are not closed all round, and those of *Mya* have a spoon-shaped process in the hinge of one valve.

Corbulidæ, 22-28, have short siphons with fringed edges, and the foot protrudes through a hole in the otherwise closed mantle.

PLATE II.

Poromya, 1, 1*, and the beautiful pearly *Pandora*, 2, 3, might be included in the family of *Corbulidæ*. *Lyonsia*, 4, and *Thracia*, 5-10, represent the *Anatinidæ*. 11-18 are *Solenidæ*, or "Razor-shells." Solens burrow in deep holes in the sand, where they remain in a perpendicular position at a great depth below the surface, where yet their presence may be traced by the opening left. Their large muscular foot enables them to take great leaps when out of the holes.

PLATE III.

Psammobia, 1-4, and *Tellina*, 5-16, include some of our most beautiful shells. The animals have a large, fleshy, curved foot, and the mantle open and fringed. Their shells are provided with an external ligament, and teeth on the hinge. *Donax*, or "Wedge," 19, 20, has long, separated, fringed siphons. Besides the small external ligament, properly so called, the *Mactridæ* have a triangular pit in the hinge of their shell, containing an elastic substance or spring, designed to resist the action of the adductor muscles. *Mactra*, 21-26, ends the Plate.

PLATE IV.

Lutraria, 1-3, is another genus of *Mactridæ*. The *Veneridæ*, 4-16 and 23, or "Venus" tribe, differ from it in not having the spring-holding pit. *Artemis*, 10, 11, is known by a large angular bend in the pallial impression; and *Cytherea*, 23, is distinguished from Venus

by one tooth on the hinge standing out a little way from the central ones. *Astarte*, 17-22, belongs to the *Cyprinidæ*.

PLATE V.

Fig. 1-3 also represent genera of *Cyprinidæ*. They have no bend in the pallial impression. *Cardium*, or "Cockle," 4-13, presents a peculiarity in the foot, which is large and bent, and enables the animal to leap in a very lively manner. The family of *Lucinidæ* occupy the remaining figures. *Lucina* has a curious tongue-shaped doubling of the pallial impression.

PLATE VI.

The *Kelliadæ*, 1-15, are marine, while the *Cycladidæ*, completing the Plate, are fresh-water bivalves, and may be found in many ponds and rivers.

PLATE VII.

Of the *Unionidæ*, or "Fresh-water Mussels," *Unio*, 1-3, has teeth on the hinge, and *Anodon*, 4, has not: it is a thin shell. The foot of these molluscs is very large, and is used in cutting the animal's way through the mud in which it burrows. Of the marine, or true Mussels, *Modiola*, 6-9, and *Crenella*, 12-17, have a portion of the shell reaching beyond the point or apex, which in *Mytilus* is terminal, 18-21. *Dreissina*, 5, is shaped like *Mytilus*, but lives in fresh-water docks. The *Mytilidæ* attach themselves by means of horny threads spun from the foot, and called a "byssus."

PLATE VIII.

Shells of *Arcadæ*, 1-14, have the hinge characterized by a series of teeth on each side of the apex. *Nucula*, *Arca*, and *Pectunculus* are easily distinguished. *Limopsis*, 14, has a spring pit between the two rows. Our figure of *Pinna*, 16, is from a young specimen: it grows to great size, and spins a very silky byssus. The shell of *Anomia*, 18, is fixed to rocks, etc., by means of a bony button passing through a hole or sinus in the lower valve. *Lima*, 22-24, has a light, thin shell, and its mantle is adorned with beautiful fringes. It swims rapidly through the water by the opening and shutting of its valves, and also has the

habit, in seasons of rest, of protecting itself by a network or vest of marine fragments strung together by its byssal threads.

PLATE IX.

Contains the shells of our Pectens, or Scallops, 1-16. The animals swim like *Lima*, as above, and also spin a byssus.

The class *Brachiopoda*, 17-24, so named because what seem to be organs of locomotion consist of a pair of coiled, ciliated arms, ends the list of Headless Molluscs and their bivalve shells.

PLATE X.

Class *Pteropoda*, 1-4, contains minute Mollusca, with glassy shells variously formed, and wing-like expansions for swimming.

Chiton, 5-17, or "Coat of Mail," which may often be seen incrusting rocks, commences the *Gasteropoda*; although seemingly fixed, they are capable of locomotion, using the whole of the oval disc, which may be seen on turning them over, for the purpose. The same may be said of the "Limpet" tribe, *Patella*, 1-22.

PLATE XI.

This Plate commences with other forms of the Limpet tribe, *Fissurella*, 1, 2, with a hole at the top; *Puncturella*, 3, with a fissure near the top; and *Emarginula*, 4-6, with a slit at the margin. *Haliotis*, 7, or pearly "Ear-shell," leads to the *Trochidae*, or "Tops," 8-27.

PLATE XII.

Ianthina, 1-4, is genus of oceanic molluscs, which are provided with a beautiful floating apparatus, on which the female carries her egg-bags.

Neritina, 5, and the *Paludinidae*, 8-11, live in fresh-water. The animal of *Paludina* is sprinkled all over with bright, golden specks. The *Littorinae*, or "Winkles," 12-24, are marine, and frequent the shore among seaweeds. *Lacuna*, 25-32, belongs to the same family.

PLATES XIII., XIV.,

Are small genera, various in their characters and habits, but reasonably included in the last family, *Littorinidae*.

PLATE XV.

The animals of *Turritella*, 1-3, and *Cocum*, 6, 7, are not unlike, although the shells are so different; eyes at the base of the tentacles, a short foot, and horny operculum. The somewhat similar animal of *Aporrhais*, 4, 5, is brilliantly coloured with gold and red. *Cerithium*, 8-10, differs from *Cerithiopsis*, 11-15, more in regard to the animal than the shell; the latter animal has a retractile proboscis, and its operculum is not spiral.

PLATE XVI.

Chemnitzia, 1-11, and *Truncatella*, 12, together with *Stylifer*, *Eulima*, and *Odostomia*, form the family of *Pyramidellidae*. Notwithstanding the difference in the shells, the animals are very similar, having a retractile proboscis, and eyes immersed at the base of their tentacles.

The animal of *Natiosa*, 13-19, has a lobe on the upper part of the foot, reflected over the shell in front, and another lobe behind. The shells of *Laminaria*, 23, 24, are completely enveloped in similar lobes.

PLATE XVII.

The shells of *Odostomia* are known by a fold in the inner lip of the aperture.

PLATE XVIII.

Two *Tritons*, 1, 2, are admitted for the first time as British, on what we consider fair evidence, although only two or three specimens have been taken off Guernsey. One of *T. nodiferus* was incrustated by a truly British *Lepralia*. *Murex*, 3, is now familiar as an aquarian, as well as *Purpura*, 5. A milky secretion found in the head turns purple when exposed, and gives the celebrated purple dye. *Buccinum*, 7-13, includes the common "Whelk," 8. *Fusus Berniciensis*, 14, is among the rarest and most beautiful of our British shells.

PLATE XIX.

Nassa reticulata, 3, is a favourite inhabitant of the tank; it burrows in search of food among the pebbles, elevating its siphon above the

surface. *Mangelia*, 4-26, has a similar long siphon. The shell of *Erato*, 27, is wrapped in the lobes of the animal's mantle, as is also that of *Cyprea*, 28, the latter presenting a beautiful object.

PLATE XX.

After *Tornatella*, 1, and *Ovula*, 2, 3, come *Bullidæ*, 4-27, including several genera differing remarkably in the shape and disposition of the lobes of their mantles, which in some instances, as in *Philine*, 20-25, cover the shell. The stomach of *Scapander*, 26, 27, is a remarkable kind of mill, composed of two bones, between which the food is ground. The shells of *Aplysia*, 28, and *Pleurotranchus*, 29, 30, are quite internal. *Spirula*, 31, belonging to the Cephalopodous or Cuttlefish tribe, is only introduced doubtfully, as there is no proof of the species living in our seas.

PLATES XXI., XXII., XXIII., XXIV.

These are occupied by shells of *Gasteropoda pulmonifera*, so named because they breathe air by a pulmonary cavity, instead of water by gills. The *Limnæadæ*, or fresh-water Snails, contained in Plate I., live in water, but breathe by exposing the pulmonary cavity to air at the surface. *Succinea*, Plate XXII., 1-3, lives by the sides of streams, sometimes immersed. *Conovulus*, 4-7, affects brackish marshes. Our common Slugs yield, on dissection, thin shells, which are concealed beneath the mantle, *Limax*, 9-12. The shells of *Testacellus*, 13, 14, are fixed near the end of the foot, outside. The glassy shells of *Vitrina*, 15, 16, do not enclose the whole Slug-like animal. The other genera of Land Snails have shells large enough to receive the animal when retracted and withdrawn for repose.

BRITISH FOSSIL SHELLS.

THE following living species are also found in a fossil state in drift and strata of the British Isles. They are all enumerated in Mr. Searles Wood's monograph of the CRAG Mollusca.

The numbers refer to the species as figured in our Plates, Mr. Wood's nomenclature being inserted in italics when differing from ours.

PL. I. *Teredo* 2. *Pholas* 11. *Pholadidea* 12. *Gastrochæna* 14, as *dubia*. *Saxicava* 15, 16. *Venerupis* 18. *Mya* 19, 20. *Panopea* 21, 21*, as *Faujasii*. *Corbula* 22, 23? *Sphænia* 25. *Næra* 27.

PL. II. *Poromya* 1. *Pandora* 2, as *inæquivalvis*, 3, as *pinna*. *Thracia* 7, 8. *Solen*, 13, 15. *Solecurtus* 18, as *Mactra strigilata*. *Syndosmya*, as *Abra*, 19, 22.

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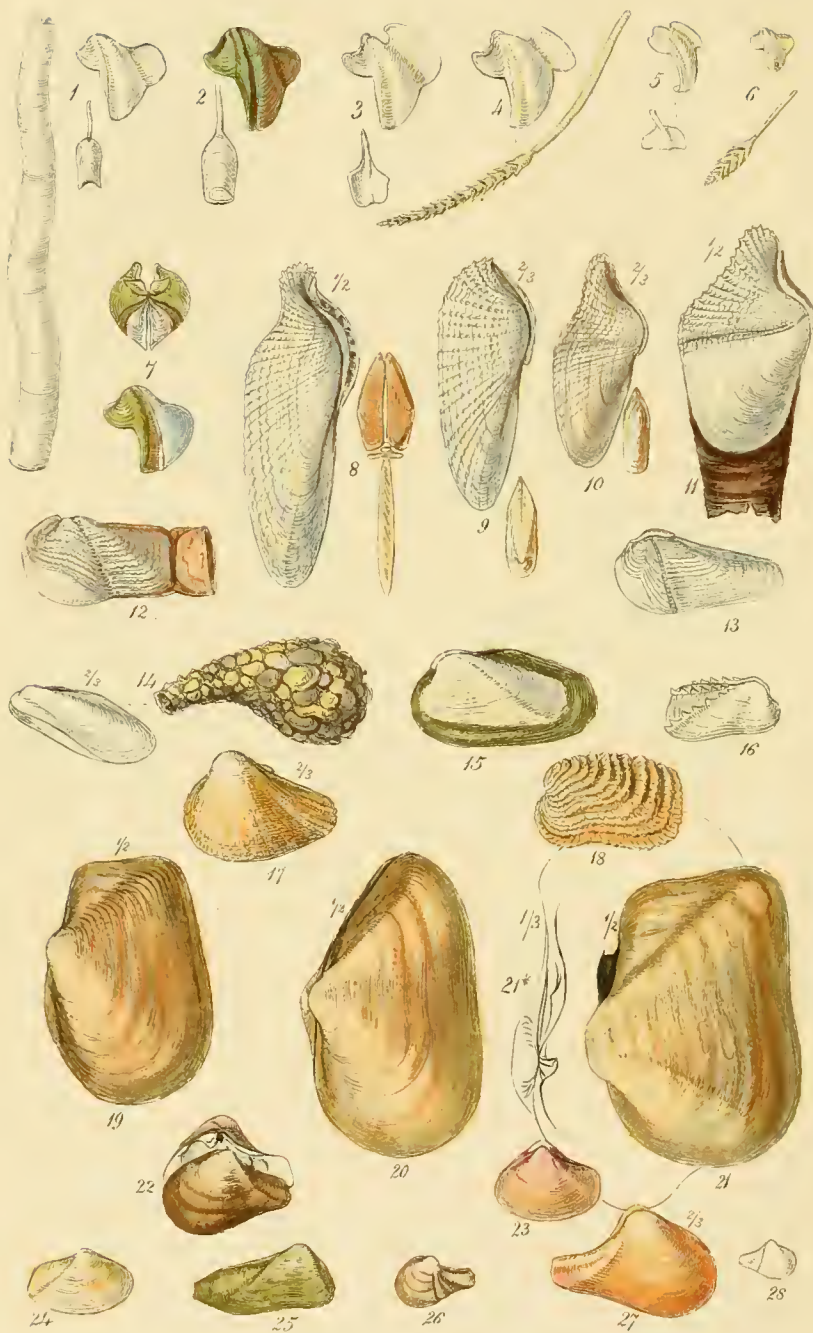
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BRITISH SHELLS PL. I.



G. B. Sowerby

PLATE I.

TEREDO. Pierces and inhabits wood.

Fig.

1. *T. NAVALIS*, *Linn.*—*T. Batavæ*.—Herne Bay, R. Pallets shelly, crescented; valves with auricles extended sidewise; tube long.
2. *T. NORVEGICA*, *Spengl.*—*T. Bruguieri*.—Port Patrick, Teignmouth, etc., Mc. Pallets shelly, not crescented; auricles not extended.
3. *T. MEGOTARA*, *Habl.*—*T. nana* (young).—Herne Bay, Devon, Swansea, etc., R. Pallets shelly, spade-shaped; auricles raised and expanded.
4. *T. BIPENNATA*, *Turt.*—Ireland, Scarborough, etc., R. Pallets horny, long; auricles lobed.
5. *T. MALLEOLUS*, *Turt.*—Torquay, Rr. Pallets shelly, mallet-shaped; valves narrow.
6. *T. PALMULATA*, *Lamk.*—*T. bipalmulata*.—Floating wood, Ire., S. Eng. Pallets horny, short; valves small, shaped like *T. navalis*.

XYLOPHAGA. In fixed and floating timber.

7. *X. DORSALIS*, *Turt.*—Ayr., Dubl., Exm., Scarb., etc., C. Two dorsal plates, no tube, no pallets.

PHOLAS. Pierces and inhabits stone.

8. *P. DACTYLUS*, *Linn.*—*P. hians*, *P. callosa*.—Eng., Scot., Ire., C. Dorsal plates four; hinge pitted.
9. *P. CANDIDA*, *Linn.*—Eng., Scot., Ire., C. One dorsal plate; valves not beaked.
10. *P. PARVA*, *Penn.*—*P. callosa*, *P. tuberculata*.—Salcombe, Belfast, Cornwall, etc., M. C. One dorsal plate; valves beaked.
11. *P. CRISPATA*, *Linn.*—*P. bifrons*.—Hastings, Liverp., Scarb., Dubl., Forth, etc., C. No dorsal plate; valves broad, beaked, with oblique division.
13. *P. STRIATA*. Rare and doubtful as British. Valves closed.

PHOLADIDEA. Pierces and inhabits stone.

12. *P. PAPYRACEA*, *P. Loscombiana*, *P. Goodalli*.—S. Devon, N. Ire., R. Valves closed, with a cup. *P. lamellata*, *Turt.*, when young, not closed; no cup.

GASTROCHÆNA. Bores and inhabits stone, thick shells, etc.

14. *G. MODIOLINA*, *Lamk.*—*G. Pholadia*, *G. hians*, *Mya dubia*, *Mytilus ambiguus*, *Pholas faba*.—Torbay, Birterbuy, Galway, Weymouth, etc. Valves thin, gaping, enclosed in bottle-shaped tube.

SAXICAVA. Bores and inhabits stone.

Fig.

15. S. RUGOSA, *Linn.*—*Mytilus r.*, *Hiatella r.*, *S. gallicana*, *S. pholadis*, *Byssomya pholadis*, *Mya byssifera*.—Eng., Scot., Ire., C. Valves oval.
16. S. ARCTICA, *Linn.*—(*Mya*) *Hiatella a.*, *Anatina a.*, *Hiatella minuta*, *Solen minutus*, *S. rhomboides*, *Agina purpurea*, *Solen p.*—Eng., Scot., Ire., C. Valves rhomboidal; angle serrated.
- Omitted.—*S. fragilis*, *Nyst.* Not the young of *S. rugosa*. Vigo Bay.

PETRICOLA. Inhabits stone.

17. P. LITHOPHAGA, *Retz.*—*P. striata*, *costellata*, *rocellaria*, *rupeella*, *Lamk.*, *Mya* and *Sphænia decussata*.—Cork, Bristol, R. as British.

VENERUPIS. Bores and inhabits stone.

18. V. IRUS, *Linn.* (*Donax*).—*Tellina cornubiensis*, *Cuneus foliaceus*, *Petric.*, and *Pullastra*, *L.*—In limestone at Plymouth and other southern coasts. Wedge-shaped.

MYA. Burrows in mud and sand.

19. M. TRUNCATA, *Linn.*—*M. ovalis* and *Sphænia Swainsoni* (young).—Various localities and depths, C. Truncated at end.
20. M. ARENARIA, *Linn.*—Herne Bay, Portsmouth, etc., C. Tapering at end.

PANOPÆA. Burrows in mud.

21. P. NORVEGICA, *Spengl.*—*P. glycimeris*, *P. arctica*.—Scarborough, Zetland (90 fath.), Rr. Quadrate.
- 21*. P. ALDROVANDI, *Lamk.*—Cornwall, one specimen, *Jeffreys*. Oblique.

CORBULA. Dredged in mud and sand.

22. C. NUCLEUS, *Lamk.*—*C. striata*, *Mya*, and *C. inæquivalvis*.—Dublin, Torquay, Forth, 4 to 80 fath., C. Valves unequal, beaked.
23. C. ROSEA, *Brown.*—Weymouth, Rr. as Brit. Valves not beaked.
24. C. OVATA, *Forbes.*—Isle of Man, Rr. Oval, truncated at end.

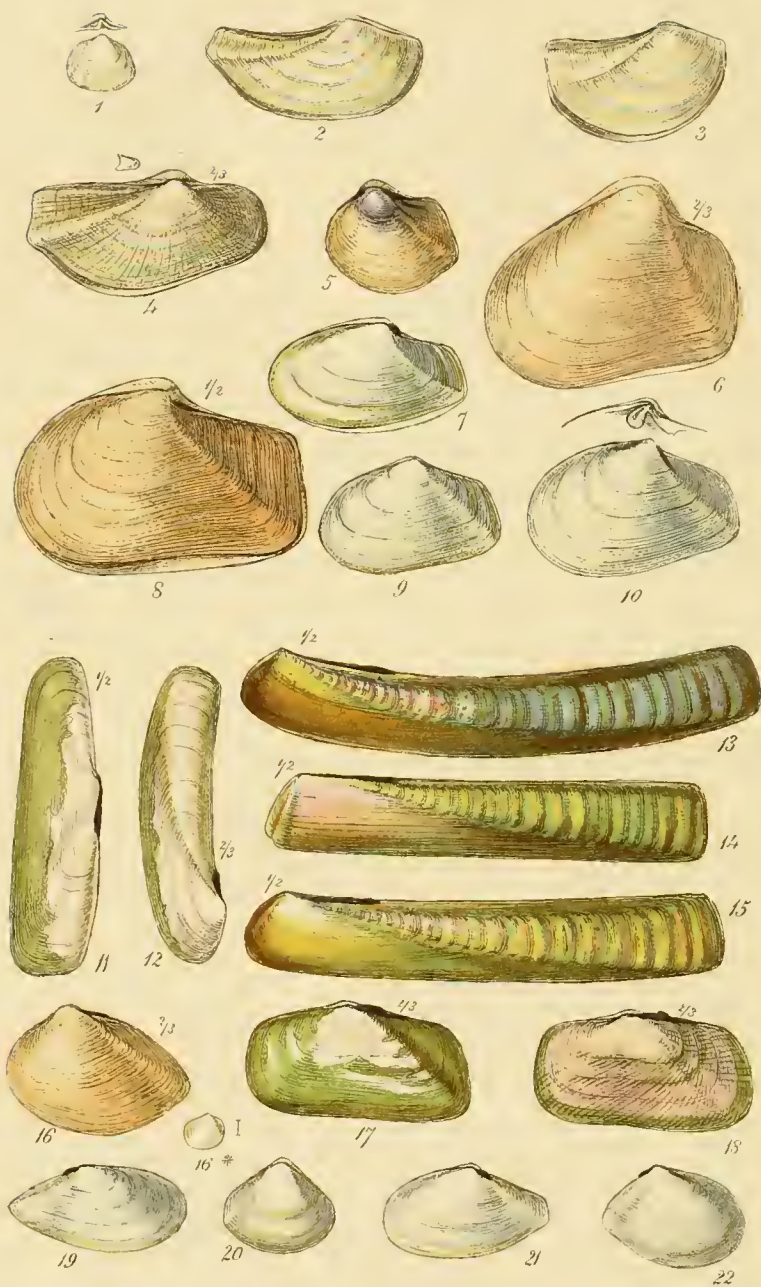
SPHÆNIA. Burrows in foliaceous shells.

25. S. BINGHAMI, *Turt.*—*Corbula B.*—Torquay, Guernsey, Swansea, Forth, etc., R.

NEERA. Lives incrusting in sand.

26. N. COSTELLATA, *Desh.*—*Corbula c.* *N. sulcata*.—Loch Fyne, Rr. Radiately 3-ribbed.
27. N. CUSPIDATA, *Olivi.*—Forth, Northumberland, Cape Clear, etc., Mr. Pear-shaped.
28. N. ABBREVIATA, *Forbes.*—Loch Fyne, Mc. Radiately 1-ribbed.

BRITISH SHELLS. PL. II.



G. B. Sowerby.

PLATE II.

POROMYA. On mud, in deep water.

Fig.

1. P. GRANULATA, *Nyst.*—*P. anatinoides*, Forbes.—Skye, R.
- 1*. P. SUBTRIGONA, *Jeffreys.*—Shetland, Mr. Minute, posteriorly expanded. See Pl. IX.

PANDORA.

2. P. ROSTRATA, *Lamk.*—*Tellina inaequalis*, Linn.; *P. margaritacea* and *inaequalis*.—S. Devon?, Guernsey, R. as Brit. Valves long.
3. P. OBTUSA, *Leach.*—*Solen Pinna*, Mont.—S. Devon, Dorset, Mc. Ire., R. Valves short and broad.

LYONSIA. With byssal attachment.

4. L. NORVEGICA, *Chemn.*—*Mya* and *Anatina* n., *Mya* and *Anatina striata*, *M. nitida*, *Lyonsia elongata*, *Myatella*, and *Osteodesma*.—Tenby, Bantry, Oban, etc., 5 to 80 fath. With movable ossicle on hinge.

THRACIA. Laminarian and Coralline.

5. T. DISTORTA, *Mont.*—(*Mya*) *Anatina* and *Amphidesma d.*, *Th. truncata*.—Distribution general, but not common. Short, truncated, irregular.
6. T. CONVEXA, *Wood.*—(*Mya*) *Anatina* and *Amphidesma c.*, *T. declivis*.—S. Devon, Bantry Bay, Arran, etc., Mc. Inflated.
7. T. PHASEOLINA, *Lamk.*—*Amphidesma p.*, *T. declivis*.—Various localities and depths, C. Oval, obliquely truncated.
8. T. PUBESCENS, *Pult.*—(*Mya*) *Anatina* and *Amphidesma p.*, *T. declivis*.—S. Devon, Cornwall, Belfast, etc., C. Oblong, straightly truncated.
9. T. VILLIOSULCA, *Macgillivray.*—*T. ovata*, Brown.—Exmouth, Swansea, Bantry Bay, etc. Various depths, Mc.

COCHLODESMA. Laminarian and Coralline.

10. C. PRÆTENUA, *Pult.*—(*Mya*) *Anatina*, *Ligula*, and *Amphidesma pr.*—Dorset, Devon, Man, Bantry B., Oban, etc., (25 to 60 fath.), R. Spoon-shaped process on hinge.

CERATISOLEN. Burrows in sand.

11. C. LEGUMEN, *Linn.*—(*Solen*) *Psammobia* and *Solenicurtus l.*—Exmouth, Swansea, Bantry, etc., C. Hinge nearly central.

SOLENS. Burrows perpendicularly in sand.

Fig.

12. *S. PELLUCIDUS*, Penn.—Various British localities, 6 to 100 fath. Curved; hinge not terminal.
13. *S. ENSIS*, Linn.—Eng., Scot., Ire., generally 5 to 15 fath., C. Arched and slender.
14. *S. MARGINATUS*, Pull.—*S. vagina*, Penn., not Linn.—Exmouth, Clyde, Cork, etc., littoral to 10 fath., Mc. Straight, with terminal constriction.
15. *S. SILIQUA*, Linn.—*S. novacula*, *S. ligula*.—Eng., Scot., Ire., many places; littoral and laminarian, C. Straight, end not constricted.

DIODONTA.

16. *D. FRAGILIS*, Linn.—(*Tellina*) *Psammobia f.*, *Tellina jugosa* and *ochroleuca*.—Dublin, Tenby, Weymouth, R. Oval or wedge-shaped.
- 16*. *D. BARLEEI*, Jeffr.—Arran, Rt. Minute, subquadrate.

SOLECURTUS.

17. *S. COARCTATUS*, Gmel.—*S. cultellus*, *S. emarginatus*, *S. antiquatus*, etc.—Torbay, Anglesea, Man, Skye, etc., R. Oblong, smooth.
18. *S. CANDIDUS*, Renieri.—(*Solen*) *S. strigilatus*, Turt., not Linn., *Psammobia scopula*.—S. Devon, Dublin, etc., R. Striated.

SYNDOSMYA.

19. *S. PRISMATICA*, Mont.—(*Ligula*) *Mya* and *Amphidesma p.*—Weymouth, Forth, Dublin, Antrim, etc., littoral, Mc. More pointed and narrow than *S. intermedia*.
20. *S. TENUIS*, Mont.—(*Mactra*) *Amphidesma t.*—Dorset, Scarborough, Antrim, etc., 5 to 100 fath., Mc. Short, subtrigonal.
21. *S. INTERMEDIA*, Thompson.—*Mya* and *Syndosmya nitida*, *Abra profundissima*.—In mud, 6 to 100 fath., Zetland, Skye, Cape Clear, etc., R. Broader and more pointed than *S. prismatica*.
22. *S. ALBA*, Wood.—(*Mactra*) *M.* and *Amphidesma Boysii* and *A. album*.—Brit. co. generally, C. Short, rounded, oval.

BRITISH SHELLS, PL. III.



E. B. Lowery

PLATE III.

PSAMMOBIA. Inhabits sand and mud.

Fig.

1. *P. FERROENSIS*, Chemn.—(*Tellina*) *T. incarnata*, *T. radiata*, *T. trifasciata*, *T. truncata*.—Brit. co. generally; coralline, C. Oblong, keeled and angulated behind.
2. *P. COSTULATA*, Turt.—*P. discors*.—Torbay, Cornwall, Skye, etc., R. Ribbed behind.
3. *P. TELLINELLA*, Lamk.—*P. florida*.—Exmouth, Guernsey, Tenby, Bantry B., Oban, Zetland, etc., 5 to 50 fath., C. Oval, smooth.
4. *P. VESPERTINA*, Chemn.—(*Lux V.*) *Solen*, *Sanguinolaria V.*, *Tellina depressa*, *variabilis*.—Weymouth, Scarborough, Tenby, Bantry, etc., Guernsey, C. Not angular nor keeled behind.

TELLINA.

5. *T. CRASSA*, Penn.—*T. maculata*, *T. rigida*.—S. Devon, Guernsey, Man, Tenby, Bantry, Forth, etc., low-water to 15 fath., C. Thick, orbicular.
6. *T. BALAUSTINA*, Linn.—Birterbuy, Skye, Exmouth, Rr. as British.
7. *T. DONACINA*, Linn.—*T. trifasciata*, *T. variegata*, *T. Llantivryi*.—Various British loc., and S. Europe, 5 to 50 fath., C. Wedge-shaped.
- 8, 9. *T. PROXIMA*, Brown.—Var. *T. calcarea* (9), *T. ovalis*, *T. sordida*, *Sanguinolaria sordida*, *Macroma tenera*.—Skye, etc., R.
- 10, 11. *T. PYGMÆA*, Phil.—Devon, Cork, Shetland, etc., 8 to 50 fath., C. Smaller, more convex, and more truncate than *T. donacina*.
- 12, 13. *T. TENUIS*, Da Costa.—*T. planata*, *T. polita*, *T. exigua*.—On sandy shores, in various localities, C. Flat, thin.
14. *T. INCARNATA*, Linn.—*T. squalida*, *T. depressa*.—Devon, Bantry, Tenby, R. Flat, beaked.
15. *T. SOLIDULA*, Pult.—*T. rubra*, Da Costa, *T. carnaria*, *T. zonata*, *Psammobia solidula*, *T. Balthica*.—All British coasts; littoral, C. Thick, inflated.
16. *T. FABULA*, Gronovius.—*T. discors*.—On sandy shores generally, C. Valve with oblique striæ (omitted by error).

ERVILLIA.

17. *E. CASTANEA*, Mont.—(*Donax*) *Mesodesma c.*, *Capsa c.*—Cornwall and Scilly Isles, R. Ligament within.

SCROBICULARIA.

18. *S. PIPERITA*, Gmel.—Generic syn.: *Mya*, *Venus*, *Trigonella*, *Mactra*, *Lutraria*, *Listera*.—Specific syn.: *hispanica*, *borcalis*, *plana*,

Fig.

gaditana, *Listeri*, *compressa*.—Scarborough, Southend, Swansea, Cork, Clyde, C. Broad, compressed.

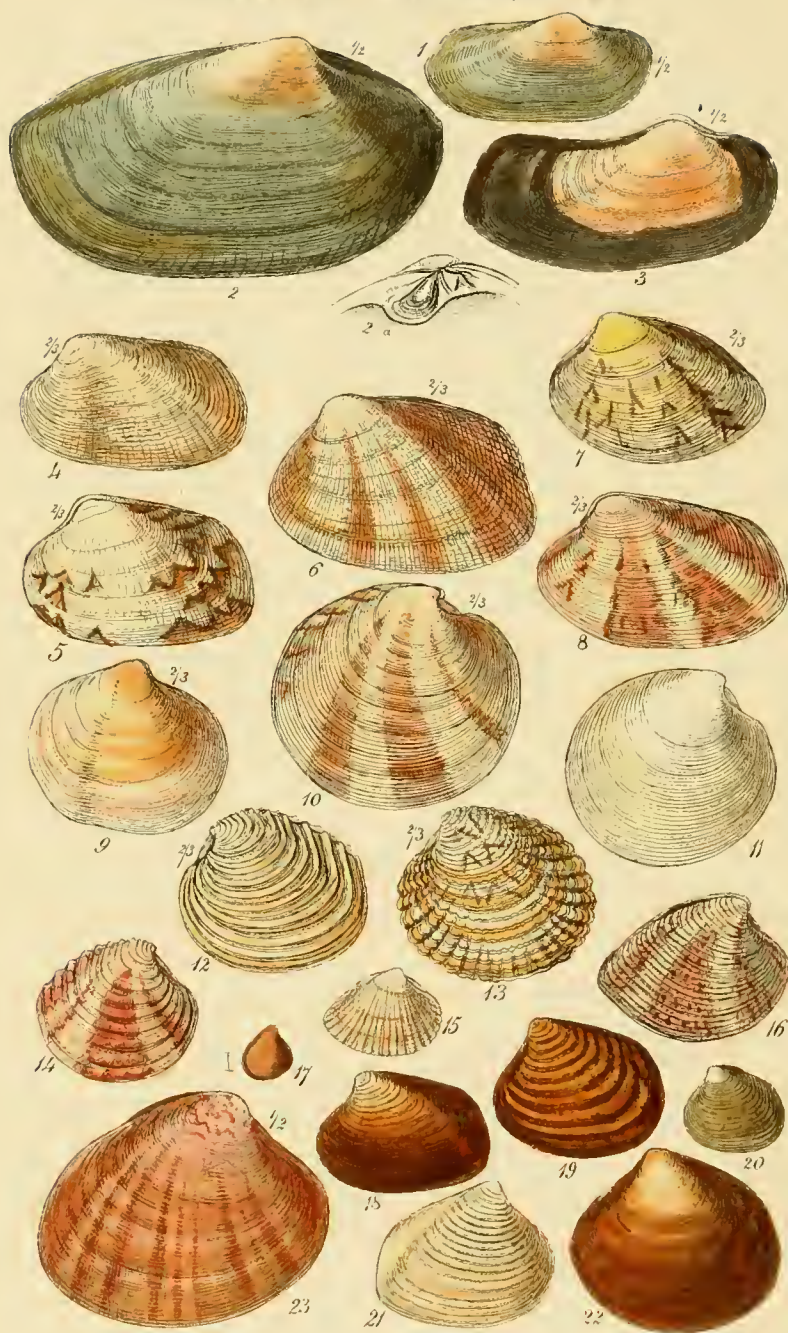
DONAX.

19. *D. ANATINUS*, *Lamk.*—*D. trunculus*, Linn.?, *Cuneus vittatus*, *D. ruber* (young).—Brit. co. generally, sandy shores, C. Broad; margin crenulated.
20. *D. POLITUS*, *Poci.*—(*Tellina*) *D.* and *Capsa complanata*.—S. Devon, Bantry Bay, etc., Mr. Smooth; inner edge not crenated.

MACTRA. Lives on sandy beaches.

21. *M. STULTORUM*, *Linn.*—(*Cardium*) *Tellina radiata*, *Trigonella r.*, *M. cinerea*, *M. magna*.—British co. generally, C.
22. *M. ELLIPTICA*, *Brown.*—British co. generally, C. Oval.
23. *M. SUBTRUNCATA*, *Costa.*—*M. lactea*, *M. triangula*, *M. crassatella*.—Brit. co. generally, C. Obliquely cuneiform.
24. *M. HELVACEA*, *Chemn.*—*M. glauca*, *M. neapolitana*.—Odd valves found dead in Cornwall, R. Large, obliquely oval.
25. *M. SOLIDA*, *Linn.*—*Trigonella zonaria* and *gallina*.—Brit. co. generally, C. Trigonal, thick.
26. *M. TRUNCATA*, *Mont.*—Forth, Cork, Cornwall, etc., C. Trigonal, deep, thick.

BRITISH SHELLS, PL. IV.



G. B. Sowerby

PLATE IV.

LUTRARIA. Inhabits mud.

Fig.

1. *L. INTERMEDIA*?, Sowb.—Perhaps only the young of *L. elliptica*.
2. *L. ELLIPTICA*, Lamk.—*Mactra lutraria*, Linn.—Scarborough, Torbay, Dublin, Forth, Lerwick, etc., C. Broad, oval.
3. *L. OBLONGA*, Chemn.—(*Mya*) *L. solenoides*, *L. hians*, *Mactra hians*, *Chama magna*.—Cornwall, Devon, etc., Mc. Arched, narrow.

TAPES. Burrows in mud and stone.

- 4, 5. *T. PULLASTRA*.—Wood.—*Venus pullastra*, *V. perforans* (var. *f.* 4), *Venerupis nucleus*, *Pullastra vulgaris*, etc.—Plymouth, Scarborough, Swansea, Forth, etc., C.
6. *T. DECUSSATA*, Linn.—(*Venus*) *V. litterata*, *V. florida*, *Venerupis* and *pullastra d.*—S. Devon, Weymouth, Tenby, etc., Mc. Oblong, coarsely decussated.
7. *T. AUREA*, Gmel.—(*Venus*) *V. nebulosa*, *V. ænea*, *V. nitens*, *V. sinuata*, *Pullastra a.*—Cornwall, Sussex, Bantry Bay, Loch Ryan, Mc. Yellow within.
8. *T. VIRGINEA*, Linn.—(*Venus*) *V. rhomboides*, *V. sarniensis*, *V. virago*, *Cuneus fasciatus*.—Various British loc., C. Pink within.

LUCINOPSIS, Forbes and Hanley. Sandy ground.

9. *L. UNDATA*, Pennant.—(*Venus*) *V. sinuosa*, *V. incorrupta*, *Lucina undata*.—Exm., Scarborough, Man, etc., 5 to 80 fathoms, M.R. Orbicular, flexuous at side.

ARTEMIS.

10. *A. EXOLETA*, Linn.—(*Venus*) *Cytherea e. Pectunculus capillaceus*.—Sandy ground, on Brit. co. generally, low-water to 80 fath., C. Compressed; striæ coarse.
11. *A. LINCTA*, Pult.—(*Venus*) *V. sinuata*, *Cytherea sinuata*.—Various Brit. loc., C. Dorsal edge sloping; striæ fine.

VENUS.

12. *V. CASINA*, Linn.—*V. reflexa*, *V. lactea*, *V. discina*.—Northumberland, S. Devon, Man, Bantry, Skye, etc., Mc. Concentrically laminated.
13. *V. VERRUCOSA*, Linn.—*V. erycina*, *V. cancellata*, etc.—Devon, Cornwall, Channel Is., etc., C. Ventricose, warted.
14. *V. FASCIATA*, Donovan.—Various southern Brit. loc., C. Round, with thick ribs.

Fig.

15. *V. OVATA*, *Pennant*. — Brit. co. generally, C. Oval, radiately ribbed.
16. *V. STRIATA*, *Donov.*—*V. gallina*, *V. Pennantii*, *V. rugosa*.—Brit. co. generally. Shores and deep water, C.

ASTARTE.

17. *A. TRIANGULARIS*, *Mont.*—*Macra* and *Goodallia*, *minutissima* and *triangularis*.—Northern parts of Britain, 15 to 20 fathoms, C. Minute, triangular.
18. *A. ELLIPTICA*, *Brown.*—*Crassina e.*, *Crassina ovata*, and *C. sulcata*. Scotland, 5 to 10 fath., mud, M. C. Oblong, smooth near the margin.
19. *A. SULCATA*, *Costa.*—(*Pectunculus*) *V. scotica* and *Damnoniensis*, *Crassina sulcata*, etc. — Devon, Cornwall, Bantry, etc., C. Thickly ribbed.
20. *A. COMPRESSA*, *Mont.*—(*Venus*) *Venus* and *Crassina Montagu*, *Cyprina comp.*—Scarborough, Northumbria, Bantry Bay, Firth of Forth, 7 to 40 fath., M. C.
21. *A. CREBRICOSTATA*, *Forbes.*—Zetland and Skye (dead), R. Ribs more numerous than in *A. sulcata*.
22. *A. ARCTICA*, *Gray.*—(*Crassina*) *Venus borealis*, *Astarte compressa*.—Aberdeen, Zetland, St. Andrew's bay, etc., Rr. Lenticular, not ribbed.

CYTHEREA.

23. *C. CHIONE*, *Linn.*—(*Venus*.) — Plymouth, S. Devon, Falmouth, Carnarvon, 12 to 20 fath., Mr.

BRITISH SHELLS, PL. V.

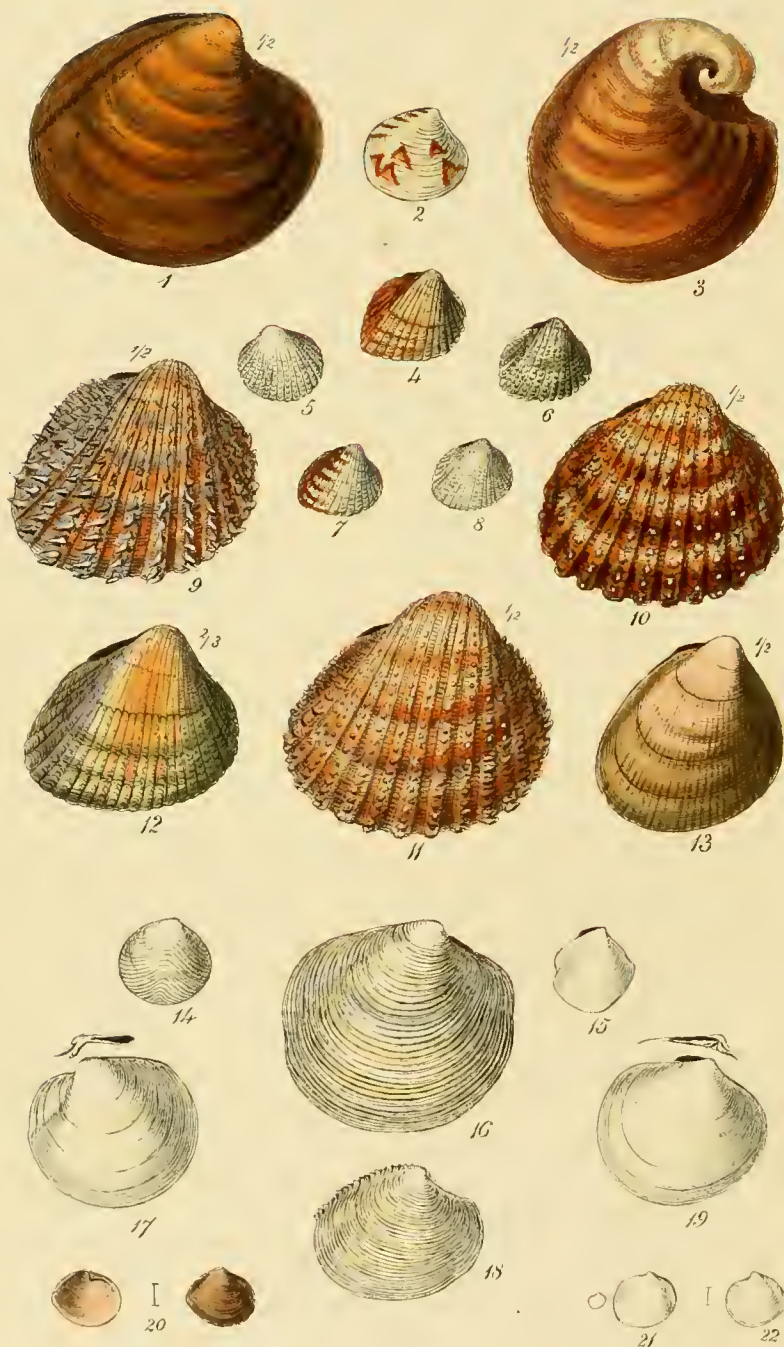


PLATE V.

CYPRINA.

Fig.

1. *C. ISLANDICA*, Linn. (*Venus*).—*C. vulgaris*, *V. mercenaria*.—Brit. co. generally, most abundant north, 5 to 80 fath. Oval, with thick epidermis.

CIRCE.

2. *C. MINIMA*, Mont. (*Venus*).—Gen. *Cyprina* and *Cytherea triangularis*, *apicalis*, *Cyrellii*, *minuta*.—Guernsey, Cornwall, Milford Haven, Clyde, Bantry Bay, etc., 10 to 50 fath., C.

ISOCARDIA.

3. *I. COR*, Linn. (*Chama*).—*I. hibernica*, *Cardita cor*.—Dublin, Skye, etc., Mc. Heart-shaped, beaks coiled.

CARDIUM, or Cockle.

4. *C. PYGMÆUM*, Donovan.—*C. exiguum*.—Herne, Sark, Weymouth, Zetland, Bantry Bay, 5 to 50 fath., Mc. Hinder side large, angular.
5. *C. PAPILLOSUM*, Poli.—Guernsey, St. Martin's Port, Jeffreys, R. Rather rounded, equally ribbed and grained.
6. *C. PUNCTATUM*, Broc., *C. NODOSUM*, Turt.—*C. scabrum*, Ph.—Exmouth, Falmouth, Galloway, etc., Mc. Angular behind.
7. *C. FASCIATUM*, Mont.—*C. elongatum*, *C. ovale*, *C. parvum*, *C. rubrum* (young).—Various Brit. loc., Mr.
8. *C. SUECICUM*, Loven.—*C. Suediense*, Reeve, *C. Loveni*, Thompson.—Down, Oban, Zetland, 30 to 70 fath., Rr. Oval, equally ribbed.
9. *C. ACULEATUM*, Linn.—*C. ciliare* and *parvum* (young).—S. Devon, Mc. Thin, oblique, with thorn-like tubercles; interstices of ribs smooth.
10. *C. RUSTICUM*, Linn.—*C. tuberculatum*, Linn.?—Paignton, Torbay, Velvet Strand, Dublin co., Mc. Thick, not oblique, coarsely wrinkled.
10. *C. ECHINATUM*, Linn.—*C. mucronatum*, *C. spinosum*.—Brit. co. generally, mud and sand, 7 to 80 fath. Oblique, wrinkled; hinder tubercles sharp.
12. *C. EDULE*, Linn.—*C. vulgare*, *C. zonatum*, *C. obliquum*, *C. crenulatum*, *C. rusticum*.—Brit. co. generally. Common eatable, Cockle.
13. *C. NORVEGICUM*, Spengler.—*C. lævigatum*, *C. serratum*, *C. oblongum*, *C. Pennantii*.—Brit. co. generally. Sand and gravel, 15 to 80 fath. Smooth, variegated when young.

LUCINA.

Fig.

14. L. DIVARICATA, Linn. (*Tellina*).—*Cardium arcuatum*, *L. arcuata*, *commutata*.—Near Falmouth, 20 fath., Rr. Rounded, with diverging ribs.
15. L. FLEXUOSA, Mont. (*Tellina*).—*Venus sinuosa*, *Amphidesma flexuosa*, *L. sinuata*; gen. *Cryptodon*, *Axinus*, and *Ptychina*.—Clyde, Bantry, Anglesea, etc., 7 to 80 fath., Mc. Thin, with a fold behind.
16. L. BOREALIS, Linn. (*Venus*).—*Tellina radula*, *Lucina r.*, *L. alba*.—Many Brit. loc., 1 to 90 fath., C. Lenticular, concentrically laminated.
17. L. LEUCOMA, Turt.—*L. lactea*, not Linn., *Loripes lactea*.—Torbay, Scarborough, Bantry Bay, etc., low-water to 80 fath., C. Round, smooth.
18. L. SPINIFERA, Mont. (*Venus*).—*Myrtea s.*, *L. hiatelloides*.—Dartmouth, Plymouth, Hebrides, etc., 8 to 100 fath., M. R. Oval; dorsal margin spinose.

DIPLODONTA, Mont.

19. T. ROTUNDATA, Mont. (*Tellina*).—*T. undata*, *Lucina r.*, *D. dilatata*.—Dorset, Devon, Tenby, Bantry Bay, etc., 7 to 25 fath., R.

CLAUSINA, Jeffreys.

20. C. FERRUGINOSA, Forbes, (*Kellia*).—Skye, Loch Fyno, etc., 30 to 100 fath., C. Concentrically ribbed, minute, oval.
21. C. CROULINENSIS, Jeffreys.—Croulin Island, Shellands, R. Sub-orbicular.
22. C. ABYSSICOLA, Jeffreys.—Not ribbed, R.

BRITISH SHELLS PL. VI.



G. B. Sowerby

PLATE VI.

MONTACUTA.

Fig.

1. *M. FERRUGINOSA*, Mont. (*Mya*).—*M. oblonga*, *M. glabra*, *Tellimya elliptica*, *Erycina f.*—S. Devon, Scarborough, Tenby, Cape Clear, etc., Mr. Wedge-shaped, long.
2. *M. BIDENTATA*, Mont. (*Mya*).—*Erycina*, *Petricola*, and *Tellimya b.*—Newcastle, Weymouth, Dublin, etc. Burrows in dead shells, Mr. Short, subquadrate.
3. *M. SUBSTRIATA*, Mont. (*Mya*).—*Erycina* and *Tellimya s.*—Devon, Tenby, Durham, Zetland, Bantry Bay, etc., on spines of *Spatangus*, deep water, C. Minute, with diverging striæ.

TURTONIA.

4. *T. MINUTA*, O. Fabr. (*Venus*).—*Mya purpurea*, etc.—Scarborough, Tenby, Cork, Oban, etc., C.

KELLIA.

5. *K. SUBORBICULARIS*, Mont. (*Mya*).—*Bornia inflata*, *Tellina* and *Tellimya s.*—Anglesea, Portland, Zetland, etc., low-water to 60 fath., Mr.
6. *K. LACTEA*, Brown, (*Tellimya*).—Brit. co. generally. More oblong than *K. sub.*
- 7, 8. *K. RUBRA*, Mont. (*Cardium*).—*Poronia r.*, etc.—Numerous localities; littoral, C.

LEPTON.

9. *L. SQUAMOSUM*, Mont.—*Solen* and *Lutraria s.*—Salcombe Bay, Tenby, Cork, etc., R. Flat, subquadrate.
10. *L. NITIDUM*, Turt. (*Kellia*).—Torbay, Skye, R. Less square and flat than *L. squamosum*.
11. *L. CONVEXUM*, Alder.—Bantry Bay, Rr. Convex, granulated.
12. *L. CLARKIÆ*, Clark.—Exmouth, Plymouth, Zetland, Rr. Minute, oval, smooth.
13. *L. SULCATULUM*, Jeffr.—Annals, Feb. 1859. Guernsey, Mc. Concentrically wrinkled.

GALEOMMA. Adheres to rocks by byssus.

- 14, 15. *G. TURTONI*, Sowb.—Channel Islands, and Exmouth. Oblong, gaping.

CYCLAS. Inhabits fresh-water.

16. *C. CORNEA*, Linn. (*Tellina*).—*Sphærium c.*, Scopoli, *C. rivalis*, etc.—Ponds and ditches everywhere. Equilateral, subquadrate.

Fig.

17. *C. PISIDIoidES*, Gray.—*C. cornea*, var., Brit. Moll.—Ditches and ponds, C. Oblique, and light coloured.
18. *C. RIVICOLA*, Leach.—*Cardium nux*, etc.—Thames, etc. Large, oval, wrinkled.
19. *C. CALICULATA*, Drap.—*C. lacustris*, etc.—Newcastle, Bristol, etc., Mr. With a ridge at the apex.
20. *C. LACUSTRIS*, Drap.—*pallida*, Gray. — Regent's Park, etc., Mr. Oval, light.

PISIDIUM. Inhabits fresh-water.

21. *P. OBTUSALE*, Pfeiffer.—*P. pusillum*, var. ?
22. *P. PUSILLUM*, Turton, (*Tellina*.)—*Cyclas fontinalis* and *gibba*.—In marshes and ponds at various places, C. Includes *P. obtustale* ?
23. *P. AMNICUM*, Müller, (*Tellina*.)—*T. rivalis*, *Cyclas palustris*, *C. obliqua*.—British rivers, etc., generally. *C. obliqua* ribbed.
24. *P. NITIDUM*, Jennyns.—Battersea, Swansea, etc., C. Thick, dark, blunt.
25. *P. HENSLOWIANUM*, Sheppard, (*Tellina*.)—*Cyclas appendiculata*, *P. acutum*.—Cambridge, Swansea, etc., R. With a projection on the umbones.
26. *P. PULCHELLUM*, Jennyns.—*Cyclas fontinalis*, etc.—Various localities, C. Ridged.
27. *P. CINEREUM*, Alder.—*Cyclas c.*—Various localities, Mc. Smooth.
28. *P. ROSEUM*, Scholtz.—Various loc., with *P. pulchellum* and *P. nitidum*, M. C. Subquadrate; animal pink.

BRITISH SHELLS PL. VII.



G. B. Sowerby

PLATE VII.

UNIO. Fresh-water Mussel with hinge-teeth.

Fig.

1. *U. MARGARITIFERUS*, Linn. (*Mya*).—*Alasmodon m.*, *A. arcuata*, *U. elongata*, *U. sinuata*.—R. Conway; rivers in Cumberland, Wales, Ireland, etc., Mc. Long, thick, arched.
2. *U. PICTORUM*, Linn. (*Mya*).—*U. ovalis*, *U. rostrata*, *U. limosus*, *U. Deshayesii*, etc.—Various British rivers, C. Long, oval, not wedge-shaped behind.
3. *U. TUMIDUS*, Retz.—*Mya* and *Unio ovalis*, *M. depressa*, *M. ovata*, *Myscei o.*, *M. solida*.—Thames, and various British rivers, C. More solid, deep, and wedge-shaped than *U. pictorum*.

ANODONTA. Fresh-water Mussel, without teeth.

4. *A. CYGNEA*, Linn. (*Mytilus*).—*M. anatinus*, *M. stagnalis*, *M. paludosa*, *Symphonota cy.*—Britain and Europe generally, in rivers and canals, C.

DREISSINA, Beneden.

5. *D. POLYMORPHA*, Pallas, (*Mytilus*). — London Docks, Edinburgh Canal, C.

MODIOLA, Lamarck.

6. *M. MODIOLUS*, Linn. (*Mytilus*).—*M. umbilicatus*, *M. curtus*, *M. vulgaris*.—British coasts generally, C. Large, brown, not rayed.
7. *M. OVALIS*?, Sowb.—*M. tulipa (radiata)*, var., Brit. Moll., now named provisionally. Less tumid, and with longer and more gradually sloped dorsal line than *M. radiata*, Rr.
8. *M. RADIATA*, Hanley, Brit. Marine Conch. — *M. tulipa*, Brit. Moll., Mc. Tumid, radiated.
9. *M. BARBATA*, Linn. (*Mytilus*).—*M. Gibbsii*.—Jersey, Torbay, Milford Haven, Youghal, R. as Brit. Barbs of epidermis serrated.
10. *M. PHASEOLINA*, Philippi. — Guernsey, Falmouth, Scotland, Mc. Small barbs of epidermis not serrated.
11. *M. CUPREA*, Jeffreys, Ann. Nat. Hist. Jan. 1859.—In the stomach of a bird shot at Scarborough, Rr. Minute, rhomboidal, smooth.

CRENELLA, Brown.

12. *C. NIGRA*, Gray, (*Modiola*).—*Mytilus* and *Modiola discrepans*, *depressa*, *compressa*, *discors*.—Scotland, R. Broad and compressed behind.

Fig.

13. *C. DISCORS*, *Linn.* (*Mytilus*.)—*Modiola d.* and *discrepans*.—Brit. co. generally, among seaweeds, C. Wedge-shaped and lobed.
14. *C. MARMORATA*, *Forbes*.—*Mytilus* and *Modiola discors, discrepans*, and *tumida*.—Brit. co. generally, Cc. Rhomboidal, marbled.
15. *C. COSTULATA*, *Risso*. — Exmouth, Cornwall, Swansea, Herm. Wedge-shaped, marbled, strongly-ribbed.
16. *C. RHOMBEA*, *Berkley*, (*Modiola*.)—*M. Prideauxiana*.—Guernsey, Torbay, Penzance, etc.; coralline, R.
17. *C. DECUSSATA*, *Montagu*, (*Mytilus*.)—*C.* and *Modiola elliptica, cicerula*, and *faba*.—Scarborough, and a few northern localities, 5 to 50 fath., Mc.; Norway, etc. Subquadrate, decussated, minute.

MYTILUS, *Linn.*

18. *M. EDULIS*, *Linn.*—*M. vulgaris*.—Brit. co. generally, Cc. Byssal margin swelled.
19. *M. UNGULATUS*, *Linn. Syst. Nat.*—*M. edulis*, var. *M. incurvatus* (Hoof-Mussel).—Cornwall, Guernsey, etc., Mr. Byssal margin bent inwards, lower margin broad and straight.
- 20, 21. *M. GALLOPROVINCIALIS*, *Lamk.*—*M. edulis*, var. *M. dilatatus?*, *M. pellucidus?* (young, f. 21), *M. subsaxatilis?*—British Channel, etc., C. Dorsal margin dilated, beak advancing.

BRITISH SHELLS PL. VIII.



PLATE VIII.

NUCULA, Linn.

Fig.

1. N. NUCLEUS, Linn. (*Arca*).—*N. margaritacca*, *Glycimeris argentea*.—Brit. co. generally, 7 to 90 fath., C. Thick, obtuse; beaks terminal.
2. N. DECUSSATA, Sowerby.—*N. sulcata*, *N. Polii*.—Hebrides, Loch Fyne, Dublin Bay, 30 to 50 fath., Mr. Large, striated; beak not terminal.
3. N. RADIATA, Hanley.—*N.* and *Arca nucleus* and *radiata*.—Torbay, Milford Haven, Arran, etc., 10 to 70 fath., Mc. Prolonged anteriorly, rayed.
4. N. NITIDA, Sowerby.—*N. nucleus*, var.—Numerous British loc., 1 to 35 fath., C. Shining, ends rather pointed.
5. N. TENUIS, Montagu, (*Arca*).—North British co., 40 to 100 fath., sand, C. Thin, inner edge not crenated; beak terminal.

LEDA, Schum. Beaked behind.

6. L. CAUDATA, Donovan, (*Arca*).—*Arca* and *Nucula minuta* and *rostrata*.—North co., C.; south co., R. 10 fath. to deep water. Ridged.
7. L. PYGMÆA, Munster, (*Nucula*).—*N.* and *L. tenuis*, *gibbosa*, and *lenticula*.—Skye, Hebrides, Croulin Isl., 25 to 50 fath. Minute, smooth. Size (omitted) one-fifth of an inch.

ARCA, Linnaeus.

- 8, 9. A. LACTEA, Linn.—*A. barbata*, *A. Modiolus*, *A. crinita*, *A. perforans*, *A. Gaimardii*, var. f. 8; *A. Quoyi*, var. f. 9.—Penzance, Ilfracombe, Bantry Bay, Guernsey, etc. Adhering to shells and stones, 15 to 20 fath., C. Beaks approaching, radiately striated.
10. A. TETRAGONA, Poli.—*A. Noë* and *imbricata*.—Many Brit. loc., C. (12 to 50 fath.). Broad area between beaks.
11. A. RARIDENTATA, S. Wood.—*A. pectunculoides*.—Skye, Hebrides, etc., Scot. Cape Clear, 40 to 60 fath., Mr. Minute, teeth few.
12. A. NODULOSA, Ph.—E. Zetland, Shetland Isls., Rr.

PECTUNCULUS.

13. P. GLYCIMERIS, Linn. (*Arca*).—*A.* and *P.* and *Glycimeris pilosa*, *orbicularis*, *undata*, and *marmorata*.—Brit. co. generally, 15 to 60 fath., C.

LIMOPSIS.

14. L. PELLUCIDA, Jeffreys, *Ann. Nat. Hist. Jan.* 59.—Dredged in sand at Guernsey, Rr.

AVICULA.

Fig.

15. A. TARENTINA, Lamk.—*Mytilus* and *Avicula hirundo*, etc.—Bantry Bay, Devon, etc., R.

PINNA.

16. P. PECTINATA, Linn.—*P. fragilis*, *muricata*, *ingens*, *lævis*, *papyracea*, *rotundata*, *elegans*.—Dorset, Milford Haven, Hebrides, Cape Clear; deep water, Mc.

OSTREA.

17. O. EDULIS, Linn.—*O. vulgare*, etc.—Various natural and artificial beds, in England, Scotland, and Ireland. The common Oyster.

ANOMIA.

18. A. EPHIPPIMUM, Linn.—*A. electrica*, *A. squamula*, *cepa*, etc.—Brit. co. generally, 1 to 30 fath., C. Pearly and irregular; beak marginal, curved.
19. A. ACULEATA, Müller.—*A. striolata*.—Brit. co. generally, Mc. Small, with spinous sculpture.
20. A. STRIATA, Lovén.—Hebrides, R. Rayed, striated, with apex not marginal.
21. A. PATELIFORMIS, Linn.—*A. undulata*.—Cape Clear, etc., 1 to 50 fath., Mr. Flat, ribbed.

LIMA.

22. L. SUBAURICULATA, Montagu, (*Pecten*).—*L. nivea*, *sulcata*, etc.—Plymouth, Man, Zetland, Belfast, etc., Mr. Nearly straight.
23. L. HIANS, Gmel. (*Vitræa*).—*L. tenera*, *fragilis*, *aperta*, etc.—Channel Isls., Penzance, Oban, Belfast, etc., Mc. Oblique, gaping at sides.
24. L. LOSCOMBII, Sowerby.—*Pecten* and *Ostrea* and *Lima fragilis* and *bullata*.—Many Brit. loc., 10 to 50 fath., Mc. Oblique, closed at sides.

BRITISH SHELLS PL. IX.



PLATE IX.

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PECTEN. Free, except 1.

- Fig.
1. *P. PUSIO*, Pennant, (*Ostrea*).—*P.*, *O.*, and *Hinnites distortus* and *sinuosus*.—Brit. co. generally, 15 to 90 fath., C. Irregular, attached to stones, etc.
 - 2, 3. *P. VARIUS*, Linn. (*Ostrea*).—*P. monotis*.—Brit. co. generally, 3 to 35 fath.; C. Vertically elongate; auricles very unequal.
 4. *P. NIVEUS*, Macgillivray.—Scotland, R. (15 fath.) Ribs more numerous than *P. varius*; white.
 - 5, 6, 7. *P. OPERCULARIS*, Linn. (*Ostrea*).—*O.*, and *P. subrufus*, *pictus*, *lineatus* (var. f. 6), and *sanguinea*.—Brit. co. generally, 5 to 100 fath., C. As broad as long; ribs rounded.
 8. *P. AUDOUINII*, Payraudcau.—*P. opercularis*, var., B. Moll.—Ribs angular and squamose.
 - 9, 10. *P. DANICUS*, Chemn.—*P.* and *O. pes-felis*, *glaber*, *triradiata*, *adspersus*, *septemradiata*, etc.—Several Scotch localities, 25 to 90 fath., Mc. Very variable, extreme vars. f. 9, 10. Auricles more equal than *P. tigrinus*.
 - 11, 12. *P. TIGRINUS*, Müller.—*P. obsoletus*, *domesticus*, *lævis*, *parvus*, etc.—Brit. co. generally, 12 to 60 fath., C. Variable; one auricle minute, the other large and ribbed.
 13. *P. MAXIMUS*, Linn. (*Ostrea*).—*P. vulgaris*.—Brit. co. generally, 3 to 40 fath. The common eatable Scallop. Valves unequal.
 14. *P. SMILLIS*, Laskey.—*O.* and *P. tumidus*.—Fr. Forth, Isl. Man, Lerwick, Cape Clear, etc., Mc. Minute, smooth, with undulating marks.
 15. *P. STRIATUS*, Müller.—*P. aculeatus*, *fuci*, etc.—Scotland, C.; England, R.
 16. *P. FURTIVUS*, Lovén.—Zetland, Guernsey, etc., 40 to 50 fath., Mr. More rounded, and with auricles less broadly based than *P. striatus*.

HIPPOTHYRIS. Fixed by byssus.

17. *H. PSITTACEA*, Gmel. (*Anomia*).—*A. rostrum-psittaci*, Chem.; *Terebratula psittacea*.—Northumberland, Fr. Forth; deep water, Rr. as Brit. "The Parrot's-beak *Anomia*."

TEREBRATULA. Fixed by byssus.

18. *T. CRANIUM*, Müller.—*Anomia c.*, and *T. vitrea*.—Zetland; deep water, unique as Brit. Smooth, oval.
19. *T. CAPSULA*, Jeffreys, Ann. Nat. Hist., Jan. 1859.—Belfast Bay, R. Minute, punctured.

ARGIOPE, or MEGATHYRIS.

Fig.

20. T. CAPUT-SERPENTIS, *Linn.* (*Anomia*.)—*A.* and *T. retusa, pubescens, costata*, and *aurita*.—Oban, Skye, etc., 20 to 50 fath., Mr.
21. A. CISTELLULA, *S. Wood.* (*Terebratula*.)—*A. seminulum?*, T.
22. A. DECOLLATA, *Chemn.*—*A. detruncata*.—Guernsey, R.
23. A. SEMINULUM, *Philippi*.—Croulin, near Skye, *Jeffreys*.

CRANIA.

24. C. ANOMALA, *Müller.* (*Patella*.)—*Pat. Anomia, Discina*, and *Criopus distorta, ostreoides, personata*, and *rostrata*.—Zetland, Arran, Lerwick, Cork, Mr.

BRITISH SHELLS. PL. X.

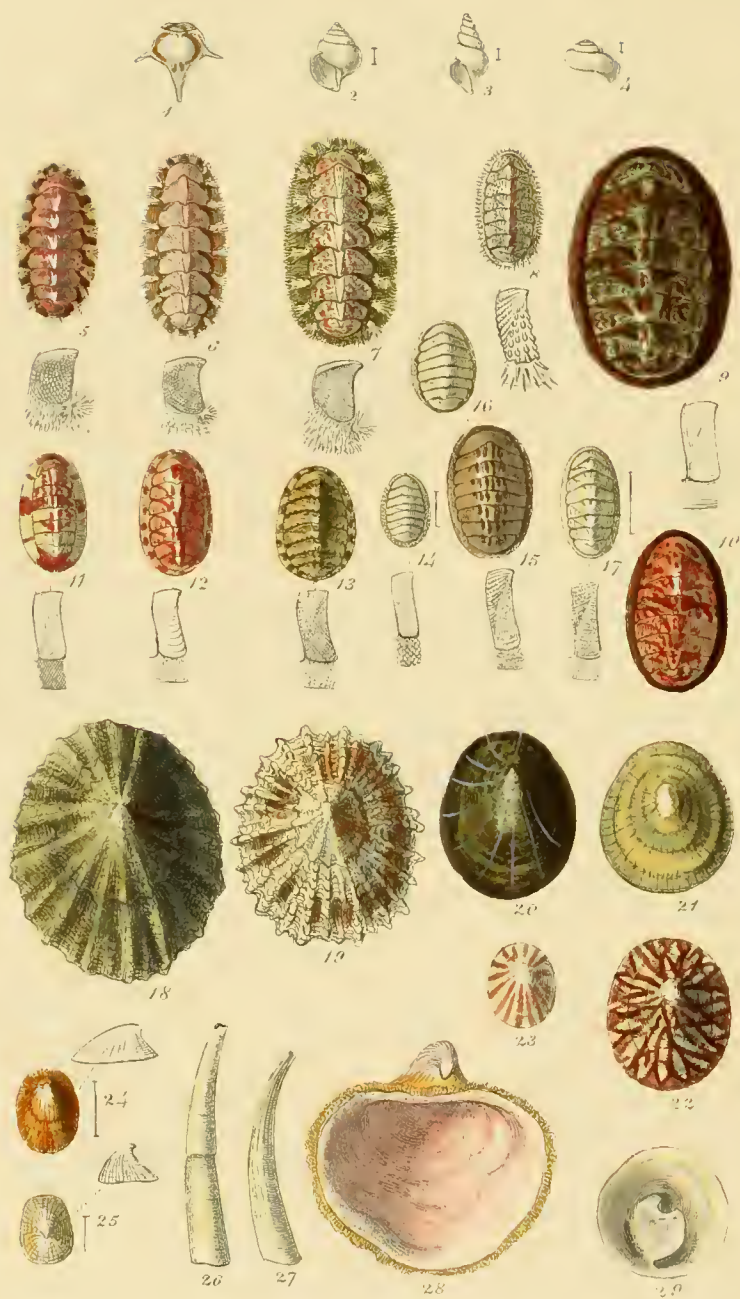


PLATE X.

HYALÆA. Fam. Pteropoda.

Fig.

1. *H. TRISPINOSA*, *Lesueur*.—Once taken on floating timber, Dublin. Doubtful as British.

SPIRALIS, or PERACLE. Fam. Pteropoda.

2. *S. FLEMINGII*, *Forbes*.—*Fusus retroversus*, Fl.—Zetland, Skye, Arran, Donegal, M. C. Snail-shaped.
3. *S. MACANDREI*, *F. and H.*—Near Mizen Head, S. Ire., Rr. Turreted.
4. *S. JEFFREYSII*, *F. and H.*—Brit. Channel, Rr. Discoid.

CHITON. Sedentary on rocks.

5. *C. FASCICULARIS*, *Linn.*—Brit. co. generally, Mc. Tufted margin, small, granules large.
6. *C. GRACILIS*, *Jeffr. Ann. Nat. Hist., Jan. 1859.*—Weymouth. Narrow; granules very small; two postero-terminal tufts.
7. *C. DISCREPANS*, *Brown*.—*erinitus*, Pennant?—Tenby, Guernsey, C. Tufted margin, large: granules very small.
8. *C. HANLEYI*, *Bean*.—Scarborough, Skye, W. Ireland, R. Spinose margin.
- 9, 10. *C. MARMOREUS*, *O. Fabr.*—*C. latus*, Lowe, *C. lævigatus*, *ruber*, and *pictus*.—Scarborough, Forth, Skye, Zetland, W. Ire., R. Margin smooth.
11. *C. LÆVIS*, *Pennant*.—*C. marginatus*, Pult., *C. Achatina*, Brown.—Dorset, Devon; Brit. co. generally, but rare. Dorsally elevated; margin reticulated.
12. *C. RUBER*, *Linn.*—Brit. seas generally, Mr. Valves smooth; margin coriaceous.
13. *C. CINEREUS*, *Linn.*—*C. marginatus*, Penn.?—Brit. co. generally, C. Valves carinated; margin and valves granulated.
14. *C. ALBUS*, *Linn.*—*C. asselloides*, Lowe.—Northern coasts, R. Marginal granules scaly and large; dorsal gr. smaller than *C. cinereus*.
- 15, 16. *C. ASSELLUS*, *Chemn.*—*C. minimus*, *Cinereus albus*.—Brit. co. generally, C. Broad, granules on valves beaded.
17. *C. CANCELLATUS*, *Sowerby*.—*C. albus*, Pult.—Devon, Guernsey, Isl. Man, Oban, Zetland, Loch Carron, R. Narrow, back elevated, else like *C. assellus*.

PATELLA. (Limpet.) Sedentary.

18. *P. VULGATA*, *Linn.*—Brit. generally, Cc. Ribs not toothed.

Fig.

19. *P. ATHLETICA*, *Bean*.—Devon, Northumberland, etc., Cc. Ribs toothed.
20. *P. PELLUCIDA*, *Linn*.—*P. lævis, cærulea, Acmaea pel.*—British co. generally, C. smooth.
21. ————— var. *lævis*, Penn.

ACMÆA, or LOTTIA.

22. *A. TESTUDINALIS*, *Müller*.—*P. Clealandi*.—North Ire., C. Oval, with tortoise-shell markings.
23. *A. VIRGINEA*, *Müller*.—*P. parva, pulchella*.—Brit. co. generally, Mc. Pale, pink-rayed, shallow.

PILIDIUM, or TECTURA.

24. *P. FULVUM*, *Müller*.—*P. Forbesii*.—Clyde, Cork, Zetland, etc., R.

PROPILIDIUM.

25. *P. ANCYLOIDE*, *Forbes*.—Lamlash, Ayrshire, etc., R.

DENTALIUM, *Linn*.

26. *D. ENTALIS*, *Linn*.—Brit. co. generally, C. Smooth, small end notched.
27. *D. TARENTINUM*, *Lamk*.—*D. vulgare, striatum, labiatum, politum, læve*.—South coasts, C. Striated and entire at small end.

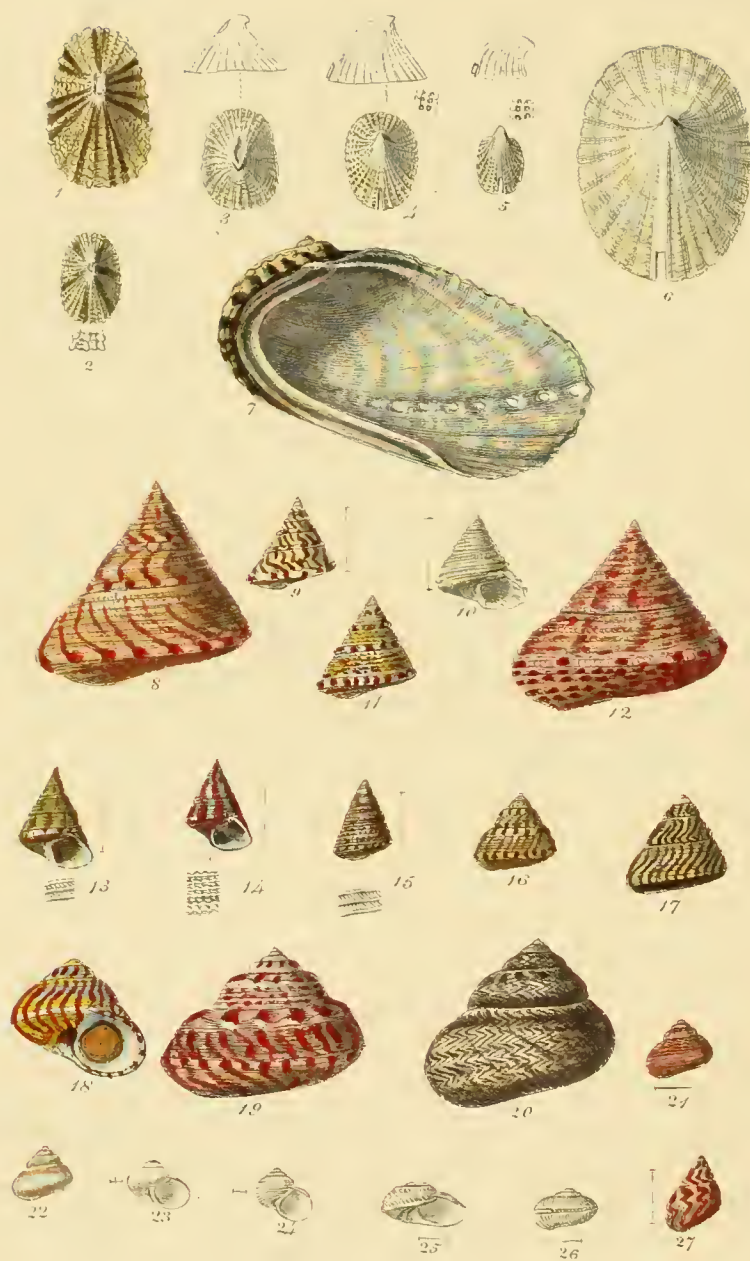
PILEOPSIS, or CAPULUS.

28. *P. HUNGARICUS*, *Linn*.—Fool's-cap Limpet.—S. Devon, and Br. co. generally, C.

CALYPTRÆA, *Linn*.

29. *C. SINENSIS*, *Linn*. (*Patella*).—*C. chinensis, albida, lævigata*.—S. Brit., and Chan. Isls., R. With oblique septum.

BRITISH SHELLS, PL. XI.



G. B. S.

PLATE XI.

FISSURELLA.

Fig.

1. *F. RETICULATA*, *Donov.* (*Patella*).—*P.* and *F. Græca*, *apertura* (young), *cancellata*, *europæa*.—Hebrides, Thanet, Devon, Ireland. On shells, etc., 1 to 15 fath., C.
2. *F. COSTARIA*, *Deshayes*.—Guernsey, R. More fine and numerous ribs than *F. reticulata*.

PUNCTURELLA.

3. *P. NOACHINA*, *Linn.* (*Patella*).—*Cemoria Flemingii*, *Fissurella N.*, *Rimula Flemingii*, etc.—Scotland and Northumberland, 20 to 100 fath., R. With slit under apex.

EMARGINULA.

4. *E. RETICULATA*, *Sowerby*.—*Patella fissura*, etc.—Brit. co. generally, C. Conical, with slit in margin.
5. *E. ROSEA*, *Bell.*—*E. pileolus*, *conica*, *capuliformis*, etc.—Channel Isls., Exmouth, Cornwall, etc., 7 to 25 fath., Mc. Curved, coarsely cancellated. Red within.
6. *E. CRASSA*, *Sowerby*.—Loch Fyne, Oban and Belfast, 20 to 25 fath., Rr. Large, not cancellated.

HALIOTIS, or "Ear-shell."

7. *H. TUBERCULATA*, *Leim.*—*H. vulgaris*, Channel Isls., Cc.

TROCHUS.

8. *T. ZIZYPHINUS*, *Linn.*—*C. conulus*, *C. discrepans*, *C. Lyonsii* (white, ribbed var.), etc. Brit. co. generally, low-water to 50 fath., C.
9. *T. CONULUS*, *Linn.*—Lincolnshire, Rr. More simply conical than the most extreme forms of *T. zizyphinus*.
10. *T. ALABASTRUM*, *Beck.*—*T. formosus*.—Zetland, Lerwick, etc., 45 to 80 fath., R. White, with deep, plain, and beaded ridges.
11. *T. MILLEGRANUS*, *Philippi*.—*T. Clealandi*, *T. Martini*.—Brit. co. generally, 15 to 90 fath., Mr. Granulated, whorls with prominent margin.
12. *T. GRANULATUS*, *Born.*—*T. papillosus*, *T. fragilis*.—Channel Isls., Weymouth, Dublin, etc., R. Like 8, but grained.
13. *T. STRIATUS*, *Linn.*—*T. parvus*, etc.—S. Brit., C. More finely ribbed than *T. exiguus*.
14. *T. EXIGUUS*, *Pult.*—*T. exasperatus*, *minutus*, etc. S. co., C.

Fig.

15. *T. MONTAGUI*, Gray.—*T. striatus*, Forbes.—Scarborough, Exmouth, Cape Clear, etc., C. Elevated, whorls tumid.
16. *T. TUMIDUS*, Mont.—*T. patholatus*, *Rackettii*, etc. Brit. co. generally, C. Short, whorls tumid, umbilicated.
17. *T. CINEREUS*, Linn.—*T. lineatus*, *T. perforatus*, etc. — Brit. co. generally, C. Littoral, small umbilicus.
18. *T. UMBILICATUS*, Mont.—*T. cinerarius*, etc.—Guernsey, S. and W. Brit. co., C. Littoral, umbilicus large.
19. *T. MAJUS*, Linn.—*T. tuberculatus*.—Brit. co. generally; littoral, C. Broad, tuberculated. Large umbilicus.
20. *T. LINEATUS*, Costa.—*T. crassus*, etc.—Channel Isls., Devon. W. Ire., Mc. Smooth, imperforate.

MARGARITA, or TROCHUS.

21. *M. UNDULATUS*, Sowerby.—*Turbo carneus*, *M. striata*, etc.—Scotland, 5 to 50 fath., Mc. Striated and undulated.
22. *M. HELICINUS*, Fabricius.—*Turbo* and *Trochus neritoideus*, *margarita*, *M. vulgaris*, etc.—Many Brit. loc.; littoral, C.
23. *M. PUSILLUS*, Jeffreys.—Lerwick, R. 10 to 40 fath. Minute, white, depressed.
24. *M. EXILIS*, Phil.—*Skenea Cutleriana*.—Guernsey, Skye, etc., R. Globose, striated.

ADEORBIS.

25. *A. SUBCARINATA*, Mont.—(*Helix*) *Trochus rugosus*, *Cingula subc.*, etc.—S. Brit. co., Mr. Depressed, keeled.

SCISSURELLA.

26. *S. CRISPATA*, Flem.—Zetland, etc., in sand, Mc.

PHASIANELLA.

27. *P. PULLUS*, Linn. (*Turbo*.)—*T. pictus*, *Cingula p.*, etc.—Brit. co. generally, C.

BRITISH SHELLS, PL. XII.



G. B. Sowerby

PLATE XII.

LANTHINA. Floats on ocean.

Fig.

1. I. COMMUNIS, *Lamk.*—*Helix lantolina*, *I. fragilis*, etc.—Cornwall, Bristol, etc.; oceanic, C. Sides depressed.
2. I. BRITANNICA, *Leech. Reeve.*—Ireland, Cornwall, etc., Mr. Darkly coloured, not compressed.
3. I. PALLIDA, *Harvey.*—*I. patula*.—Clare, Rr. as Brit.
4. I. EXIGUA, *Lamk.*—Cornwall, Clare, etc., Mr.

NERITINA. In rivers.

5. N. FLUVIATILIS, *Linn.*—*N. fontinalis*.—Thames, Trent, Humber, etc., Scotch lakes, Cc.

BITHINIA. In ponds.

6. B. LEACHII, *Shepp. (Turbo.)*—*B. ventricosus*, *Paludina acuta*, *similis*, etc.—Rivers S. Brit., Mr. Narrow, with rounded whorls.
7. B. TENTACULATA, *Linn. (Helix.)*—*T. nucleus*, *Paludina impura*, etc.—Fresh-water, throughout Brit. Oval.

PALUDINA. In ponds.

8. P. LISTERI, *Forbes and Hanley.*—*Helix vivipara*, etc.—Lakes and ponds generally, Mc. Whorls more separate, umbilicus larger than *P. vivipara*.
9. P. VIVIPARA, *Linn.*—*Pal. achatina*, etc.—Thames, etc., C.

VALVATA. In ponds.

10. V. PISCINALIS, *Müller.*—*Nerita*, *Turbo*, *Cyclostoma fontinalis*, *obtusata*, *thermalis*, etc.—Fresh-water, C. Subglobose.
11. V. CRISTATA, *Müller.*—*V. planorbis*, etc.—Many loc., Mc. Orbicular.

LITTORINA. On the sea-shore.

- 12, 13. L. RUDIS, *Donov. (Turbo.)*—*L. littoreus*, etc., *L. nigro-lineatus* (var. f. 13).—British shores generally, Cc.
- 14, 15. L. LITTOREA, *Linn. (Turbo.)*—*L. vulgaris*, etc.—British shores generally. The common eatable Winkle.
- 16, 17. L. TENEBROSA, *Mont. (Turbo.)*.—British shores generally, C. Not thickened at bottom of mouth like *L. rudis*.
18. L. PATULA, *Jeffreys.*—*L. labiata*, *L. jugosa*, etc.—Common on our shores.

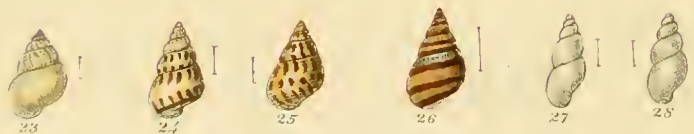
Fig.

19. *L. SAXATILIS*, Johnston.—*L. neglecta*.—Probably *L. patula* var.?
20, 21. *L. LITTORALIS*, Linn. (*Turbo*).—*T. neritoides*, *T. ustulatus*, etc.
—Brit. co. generally. Depressed above.
22. *L. FABALIS*, Turt.—*L. Beanii*.—Young of *L. littoralis*?
23. *L. NERITOIDES*, Linn. (*Turbo*).—*T. petræa*, *L. cærulea*, etc.—Kent,
Sussex, etc., C. With white band.
24. *L. PALLIATA*, Say, (*Turbo*).—Yarmouth, Mr.

LACUNA.

- 25, 26. *L. PUTEOLUS*, Turt. (*Turbo*).—*Cochlea*, *Helix*, and *Nerita parva*,
fasciata, *lacuna*, *rufa*, etc.—Brit. shores, C. Globose.
27, 28. *L. VINCTA*, Mont. (*Turbo*).—*T. canalis*, *quadrifasciatus*, etc.—
Brit. co. generally, C.
29. *L. CRASSIOR*, Mont. (*Turbo*).—*L. pallidus*.—Numerous Brit. co.
Thick, conical.
30. ——— var. ? of this rather than of *C. vincta*.
31. *L. PALLIDULA*, Costa, (*Turbo*).—Brit. co. generally, C.
32. *L. PATULA*.—Fry of *L. pallidula* ?

BRITISH SHELLS PL. XIII.



G. B. Sowerby

PLATE XIII.

ASSIMINEA.

Fig.

1. A. GRAYANA, *Jeffreys*.—*Limneus* and *Paludina* G.—Greenwich and other marshes.
2. A. LITTOREA, *Delle Chiaje*, (*Helix littorina*.)—*Rissoa globularis* and *littorea*.—On shore at Weymouth, Serk, Portland, Mr.

RISSEA, or CINGULA.

3. R. ULVÆ, *Pennant*, (*Turbo*.)—*Helix*, *Cingula*, *Paludina*, and *Littorina*.—In brackish water, on British shores, C.
- 3*. ——— var. *subumbilicata*, R.
4. R. BARLEEI, *Jeffreys*.—*R. ulvæ* var.—Loch Carron, Skye, R.
5. R. STRIATULA, *Mont.*—*R.*, *Turbo*, *Cingula*, and *Littorina carinata* and *monilis*.—Devon, Margate, Galway, Herm, etc., 0 to 7 fath., Mr.; S. Eu. Carinated.
6. R. CIMICOIDES, *Forbes*.—*R. sculpta*.—W. Scotland. Like *R. zetlandica*, but with outer lip crenulated; finely decussated.
7. R. ZETLANDICA, *Mont.* (*Turbo*.)—*R.*, *Cyclostoma*, *Cingula scalariformis*, *Cyclostrema* z.—N. Scotland, 0 to 60 fath., Mc. Whorls angulated.
8. R. CRENULATA, *Michaud*.—*Turbo* and *R. cimes* and *cancellatus*.—Falmouth, Cornwall, Skye, Galway, C. Very coarsely cancellated.
9. R. CALATHUS, *Forbes and Hanley*.—Sheerness, Whitesand Bay, 15 to 50 fath., R. Finely cancellated.
10. R. BEANII, *Hanley*.—Cornwall, Plymouth, Orkney, Galway, C.; N. Eu. Striated.
11. R. ABYSSICOLA, *Forbes*.—N. Scotland; deep water, R.
12. R. LACTEA, *Michaud*.—*Turbo cancellatus*.—Jersey and Medit., Rr. Oval, plicated and striated.
13. R. PUNCTURA, *Montagu*.—*Turbo* and *Cingula* and *R. reticulata*.—Brit. co. generally, 10 to 20 fath.
14. R. COSTATA, *Adams*.—*R.*, *Turbo*, *Cingula plicata*, *costata*, and *exigua*.—South co. Brit., S. Wales, Orkneys, Ireland, Channel Isls., 0 to 25 fath., C.
15. R. STRIATA, *Mont.*—*R.*, *Turbo*, and *Cingula semicostata*, *minutissima*, *communis*, *gracilis*, etc.—Brit. co. generally, N. and S. Eu.; littoral C.
- 16, 17, 18. R. PARVA, *Costa*.—*T.*, *C.*, and *R. sublutea*, *lactea*, *alba*, etc., *R. interrupta* (var. f. 17), *R. Sarsii*, var. f. 18 (unique).—Brit. shores generally, C.
19. R. COSTULATA, *Alder*.—*Turbo variabilis*, *R. similis*.—Devon, Channel Isls., W. Ireland, etc., C.; S. Eu.

Fig.

20. *R. RUFILABRUM*, *Leach*.—*R.* and *C. hyalina* and *punctata*.—Devon, Belfast, etc., Mc.
21. *R. LABIOSA*, *Mont.* (*Helix*).—*T.*, *C.*, and *R. membranacea* and *costata*.—Brit. co. generally, C.
- 22, 23, 24, *R. INCONSPICUA*, *Alder*.—*R. albula* and *supra-costata*, var. f. 23, *R. similis*, var. 24, *R. maculata*.—Brit. co. generally, C.
25. *R. SEMISTRIATA*, *Mont.*—*T.* and *R. pulchra* and *tristriata*.—Brit. shores generally, C.
26. *R. CINGILLUS*, *Mont.* (*Turbo*).—*R.*, *T.*, and *C. vittata*, var., *R. graphica* and *R. rupestris*.—Brit co. generally.
27. *R. VITREA*, *Mont.* (*Turbo*).—*Helix glabrata*, *R. crystallina*.—Exmouth, Oban, Birterbuy, etc., Mr. Elongated, smooth.
28. *R. PROXIMA*, *Alder*.—A rare Irish species. Elongated, striated.

BRITISH SHELLS. PL. XIV.



PLATE XIV.

Rissoa, —continued.

Fig.

1. *R. PULCHERRIMA*, *Jeffreys*.—Channel Isls., R.
2. *R. SOLUTA*, *Philippi*.—Exmouth, Bute, Cork, etc., R. Like *R. pulch.*, but with spiral striæ.
3. *R. ALDERI*, *Jeffreys*, *Annals*, Aug. 1858.—Skye, Rr. Larger and more conical than *R. soluta*.
4. *R. FULGIDA*, *Adams*, (*Helix*).—*Turbo* and *Cingula f.*—Weymouth, Arran, Cork, etc., Mr. Whorls rounded and banded.
5. *R. ANATINA*, *Drap.* (*Cyclostoma*).—*Paludina* and *Littorina a.*—Very rare, Greenwich marshes.
6. *R. EXIMIA*, *Jeffreys*.—*Chemnitzia Barleci*, Clark.
7. *R. VENTROSA*, *Mont.* (*Turbo*).—*Cyclostoma*, *Paludina*, and *Cingula acutus*, *ventricosus*, *octona*, *stagnorum*, etc.—Marine shores and brackish-water marshes, Mc.
8. *R. DENTICULATA*, *Mont.* (*Turbo*).—Herm, Rr.
9. *R. UNICA*, (*Turbo*).—*Aclis u.*, Brit. Moll., *Turritella*, *Pyramis*, and *Chemnitzia*, R.—Devon, Cork, etc., Mr.
10. *R. GLABRATA*, *Jeffreys*.—N. sp.
11. *R. CASTANEA*, *Jeffreys*.—N. sp.

BARLEEIA.

12. *B. RUBRA*, *Flem.* (*Cingula*).—*Turbo*, *C.*, and *Rissoa ruber*, *unifasciatus*, *fulva*.—Herm, Tenby, Dunbar, etc., S. Eu., Mr.

JEFFREYSIA.

13. *J. DIAPHANA*, *Alder*, (*Rissoa*).—*R. glabra*.—Dublin, Swansea, Northumberland, etc.; littoral, R.
14. *J. OPALINA*, *Jeffreys*, (*Rissoa*).—Channel Isls., R.
15. *J. GLOBULARIS*, *Jeffreys*.—Skye.
16. *J. GULSONÆ*, *Clark*, (*Odostomia*).—*Chemnitzia G.*—Sandwith, Lerwick, Weymouth, etc., Guernsey.

EUOMPHALUS.

17. *E. NITIDISSIMUS*, *Adams*, (*Helix*).—*Skenea*, B. Moll., *Truncatella atomus*.—Shetland to Channel Isls., Mc.
18. *E. ROTA*, *Forbes and Hanley*, (*Skenea*).—Donegal, rare. Like a minute Ammonite.

SKENEA.

19. *S. PLANORBIS*, *O. Fabr.* (*Helix*).—*Turbo*, *Sk. depressa*.—Brit. shores generally, on coastal Corallines, C. Flat, like a *Planorbis*.

Fig.

20. S. DIVISA, *Flem. (Turbo.)* — *Helix* and *Sk. serpuloides*, *Adeorbis striatus*.—Scarborough, Weymouth, Orkney, Galway, etc., 7 to 25 fath., Mr. Striated.
21. S. COSTULATA, *Möller, (Margarita.)*—Loch Fyne, Rr.
22. S. LÆVIS, *Philippi, (Delphinula.)*—Newcastle-on-Tyne, Rr.

ACLIS.

23. A. ASCARIS, *Turt. (Turbo.)*—*Turritella*, *Alvania*, and *Pyramis supra-nitida* and *acutissima*.—Ireland, Tenby, Zetland, Mr.
24. A. SUPRA-NITIDA, *S. Wood (Alvania.)*—Tenby, Dublin, etc., Rr.
25. A. NITIDISSIMA, *Mont. (Turbo.)*—*Turritella*, *Pyramis*, and *Chemnitzia*.—Falmouth, Burrow Isl., R.

EULIMELLA.

26. E. SCILLÆ, *Lovén, (Turbonilla.)*—*Eulima*, *Odostomia*, *Chemnitzia*, and *Eulimella crassula*, and *Macandréi*.—N. Scotland, Croulin, etc., 20 to 90 fath., R.
27. E. ACICULA, *Philippi, (Melania.)*—*E.*, *Chemn.*, *Odost.*, and *Eulima clavula*.—Skye, Rr.
28. E. AFFINIS, *Philippi, (Eulima.)*—*Pyramis*, *Odost.*, and *E. gracilis*, *lævis*.—Skye, Torbay, R.
29. E. CLAVULA, *Lovén (Turbonilla.)* — *Odostomia c.*—Torbay, Rr. Guernsey.
30. E. OBELISCUS, *Jeffreys, Ann. Nat. Hist. Jan. 1858.*—Shetland.

BRITISH SHELLS PL. XV.



G.B. Noddy

PLATE XV.

TURRITELLA.

Fig.

1. *T. CORNEA*, *Lamk.*—*T. communis*, var., B. M.—Cork and Zetland, Mr. Whorls less flat and less rapidly enlarged than *T. communis*. A white var. exists (*T. nivea*).
- 2, 3. *T. COMMUNIS*, *Risso.*—*T. cornea*?, *T. Terebra*.—Brit. co. generally; 4 to 100 fath., Cc. Aperture rather square.

APORRHAI.

4. *A. PES-PELICANI*, *Linn.* (*Strombus*).—*A. quadrifidus*, *Tritonium*, and *Rostellaria p.*—Brit. co. gen.; N. and S. Eu.; 4 to 100 fath., C. Outer lip with one anterior lobe.
5. *A. PES-CARBONIS*, *Brongniart.*—*Rostellaria* and *A. p.*, and *serresiana*.—Zetland, 70 to 100 fath., R. Outer lip with two anterior lobes.

CÆCUM.

6. *C. TRACHEA*, *Mont.*—*Dentalium* and *Orthocera imperforatum*, *C. annulatus*.—Devon, Weymouth, Scotland, Cork, etc., R.; S. Eu. Ringed and striated.
7. *C. GLABRUM*, *Mont.*—*C.*, *Dentalium*, and *Orthocera minutum*, and *lævissimum*.—Exmouth, Weymouth, Swansea, Lerwick, Bantry Bay. Rare, smooth.

CERITHIUM.

8. *C. RETICULATUM*, *Costa*, (*Strombiformis*).—*Murex* and *Terebra r.*—Brit. co. gen., 0 to 20 f., C. Narrow, and closely reticulated.
9. *C. METAXA*, *Delle Chiaje.*—*C. angustissimum*.—Guernsey, R.; S. Eu. Lengthened, white.
10. *C. ADVERSUM*, *Mont.* (*Murex*).—*C.*, *Triphoris*, *Turbo*, and *Terebra a.*, *perversus*, and *reticulatus*.—W. and S. Brit., Channel Isls., etc., 5 to 25 fath., Mr.

CERITHIOPSIS.

11. *C. TUBERCULARE*, *Mont.* (*Murex*).—*Cerithium* and *Terebra t.*—Brit. co. gen.; S. Eu.; 4 to 40 fath., Mc. Three rows of tubercles in the penultimate whorl.
12. *C. CLARKII*, *Hanley.*—Exmouth, R. Two rows of tubercles.
13. *C. NIVEA*, *Jeffreys, Ann. Nat. Hist.* 1859.—In shell sand, Belfast, R. Rather Buccinum-shaped.
14. *C. NETULA*, *Lovén*, (*Cerithium*).—*C. nitidum*, Forbes.—Zetland, 50 to 80 fath., R. White, with angular whorls.

Fig.

15. *C. PULCHELLA*, *Jeffreys*.—Falmouth, Plymouth, Guernsey, R. Closely whorled and cancellated.

SCALARIA.

16. *S. COMMUNIS*, *Lamk.*—*Turbo* and *Strombiformis clathrus* and *clathratus*.—*S.* co. principally, C. Laminarian zone, S. Eu. Ridges raised; whorls separated.
17. *S. GRONLANDICA*, *Chemn.* (*Turbo*).—*S. planicostata, subulata*.—Fragments only, N. Scotland, N. Eu. Grooved between ridges.
18. *S. TURTONIS*, *Turton*.—Scarborough, Exmouth, Cork, etc., N. and S. Eu., R. as Brit. Ridges flat.
19. *S. TREVELYANA*, *Leach*.—N. Brit., 15 to 85 fath., Mr. Thin, with ribs narrower than *Sc. Turtonis*.
20. *S. CLATHRATULA*, *Mont.*—S. Brit. and Channel Isls., Mr. Small, white, with thin ribs.

STYLIFER.

21. *S. TURTONI*, *Brod.*—*Phasianella stylifera, Velutina s., S. globosus* and *astericola*.—On spines of *Echinus sphæra*, Torbay and Berwick, R. Glassy, thin.

EULIMA.

22. *E. POLITA*, *Linn.* (*Helix*).—*Strombiformis, Turbo, Rissoa*, and *Phasianella p.* and *albus, Boscii* and *anglica*.—Ireland, S. Brit., E. Scot., N. and S. Eu., 7 to 50 fath., Mr. Rather solid.
23. *E. DISTORTA*, *Dehayes*.—Brit. co. gen., Mc.; 12 to 90 fath.; N. and S. Eu. Small, tortuous.
24. *E. STENOSTOMA*, *Jeffreys, Ann. Nat. Hist.* 1858.—Zetland and Norway, Rr. Thin, with rapidly increasing whorls.
25. *E. SUBULATA*, *Donov.* (*Turbo*).—*Strombiformis, Helix*, and *Melania s.* and *glaber, trifasciatus, Donovanii*, and *lineata*.—S. and W. Brit., Ire., Zetland, Medit., 10 to 80 fath., Mr. Whorls deep, banded.
26. *E. BILINEATA*, *Alder*.—Or *E. subulata*, var.—Northumberland, etc. Whorls more swelled than *E. su.*, two-banded.

BRITISH SHELLS PL. XVI.

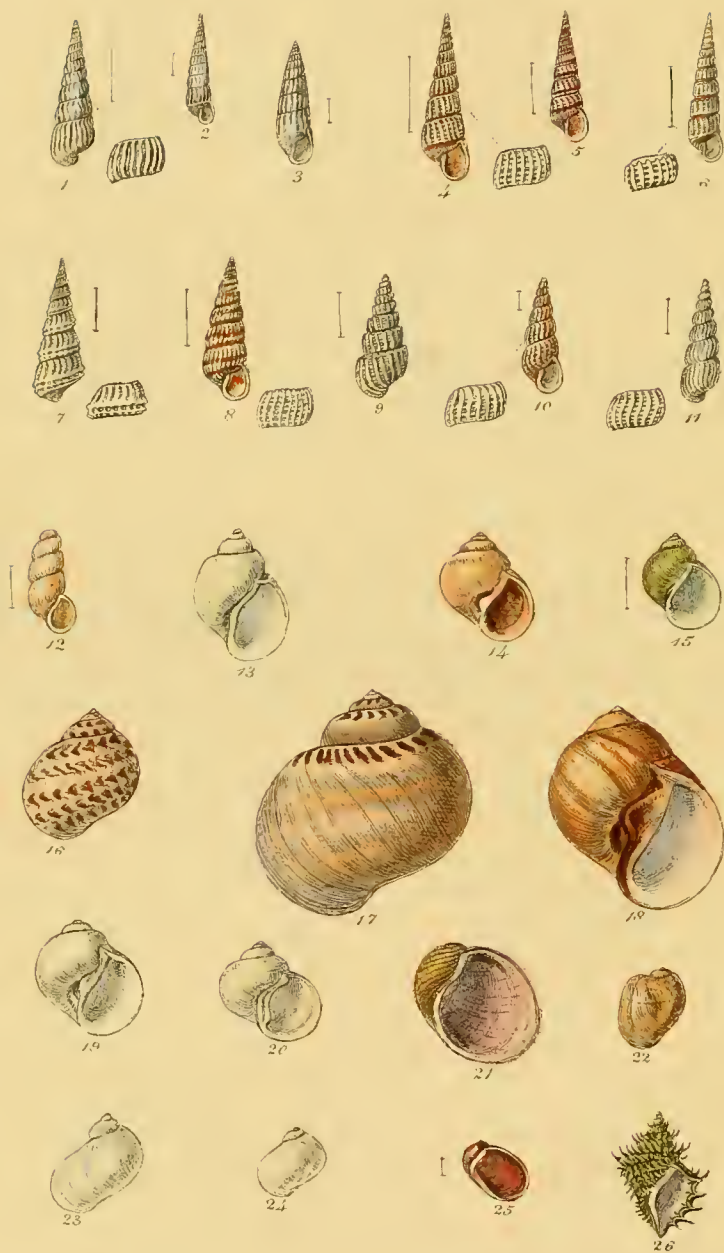


PLATE XVI.

CHEMNITZIA.

Fig.

1. *C. ELEGANTISSIMA*, *Mont. (Turbo.)*—*T. lacteus*, Linn.?, *T. acutus*.—Brit. co. generally; not deep, C. Interstices of longitudinal ribs smooth.
2. *C. SIMILLIMUS*, *Mont. (Turbo.)*—*C. gracilis*, Phil. More slender and minute than f. 1.
3. *C. PUSILLA*, *Phil. Moll. Sic. 2. p. 224. pl. 28. f. 21.*—More stout than f. 1, with the ribs straight and broad. *Medit., Brit.?*
- 4, 5. *C. RUFa*, *Phil.*—And var. *C. fulvocincta* (f. 5).—Brit. co. generally, 15 to 50 fath., Mc. Spiral grooves between ribs.
6. *C. FORMOSA*, *Jeffreys, (Odostomia.)*—Swansea, Shellness, Bantry Bay, etc., Mr. Grooved between ribs, excavated at suture.
7. *C. FENESTRATA*, *Forbes and Jeffr. (Odostomia.)*—Torbay, etc., R. With pits between spiral ridges.
8. *C. RUFESCENS*, *Forbes.*—*Odostomia* and *Turritella indistincta* and *scalaris*.—Clyde, Hebrides, Oban, 15 to 50 fath., R. More stout than *C. rufa*. Three-banded.
9. *C. SCALARIS*, *Philippi, (Melania.)*—Exmouth, Guernsey, *Medit., R.* Ribbed; whorls angular above.
10. *C. CLATHRATA*, *Jeffreys.*—Birterbuy Bay, R. Lower part of whorls spirally grooved between ribs.
11. *C. INDISTINCTA*, *Mont. (Turbo.)*—*Odost.*, *Turritella*, *Terebra*, and *Pyramis truncata* and *speciosa*, etc.—Brit. co. generally, 5 to 40 fath., Mr.; S. Eu. Ribs curved, striated between.

TRUNCATELLA.

12. *T. SUBCYLINDRICA*, *Linn. (Helix.)*—*T. Montagu*, *Turbo truncatus*, *subtruncatus*, *Cyclostoma truncatulum*, *Turritella t.* and *s.*, etc.—Weymouth, S. Devon, Scarborough, etc., C.

NATICA.

13. *N. HELICOIDES*, *Johnston.*—Scotland, Scarborough, etc., 15 to 40 fath., R.; N. Eu. Thin-grooved suture.
14. *N. MONTAGUI*, *Forbes.*—*Nerita rufa*, *Natica r.* and *rutilla*.—Principally northern loc. In sand and gravel, 12 to 90 fath., Mr. Small, stout.
15. *N. KINGII*, *Forbes and Hanley.*—Northumberland, unique, *Jeffreys* coll.
16. *N. NITIDA*, *Donovan.*—*Nerita* and *Natica catena*, *nitida*, *Alder*, *glaucina*, etc.—Brit. co. generally, 4 to 90 fath., C. Oblique, marked with undulating lines.

Fig.

17. N. MONILIFERA, Lamk. — *Nerita glaucina, catena*, etc.—Near water-mark, in sandy places generally, C. Whorls rounded.
18. N. SORDIDA, Phil.—*N. fulva, plumbea*, etc.—Scilly, Cape Clear, Zetland, etc., 25 to 90 fath., R.
19. N. PUSILLA, Say.—*N. Grænlandica, livida, alba*.—Northumberland, Yorkshire, N. Eu., 45 fath., R. White; umbilicus small.

RECLUZIA.

20. R. APERTA, Jeffreys.—*Natica aperta*, Lovén?—Zetland, Rr.

VELUTINA.

21. N. LÆVIGATA, Linn. (*Helix*).—*Bulla, Velutina*, etc.—Brit. co. generally, 1 to 30 fath., N. Eu., C.
22. N. FLEXILIS, Mont. (*Bulla*).—*Coriocella* and *Sigaretus plicatilis*.—N. Scot., 25 fath., Rr.

LAMELLARIA.

23. L. PERSPICUA, Linn.—*Helix, Bulla haliotoidea, Sigareta* and *Coriocella neritoideus*.—Brit. co. generally, but R.; 1 to 15 fath., Mr. Thin, glassy, more ventricose than *L. tentaculata*.
24. L. TENTACULATA, Mont.—*Sig.* and *Cor.*—Falmouth, Swansea, Arran, etc. Laminarian, Mr. Upper whorls less full than *L. perspicua*.

OTINA.

25. O. OTIS, Turt. (*Helix*).—*Felutina, Galericulum ovatum*.—Wales, Devon, Channel Isls., Clare, etc., Mc. Littoral.

TRICHOTROPIS.

26. T. BOREALIS, Broderip and Sowb.—*T.* and *Murex carinatus, umbilicatus, acuminatus*, etc.—N. Scotland, W. Ireland, 15 to 80 fath., R.

BRITISH SHELLS PL. XVII.



G. B. Sowerby

PLATE XVII.

ODOSTOMIA.

- Fig.
1. *O. UNIDENTATA*, *Mont. (Turbo.)—Voluta n., O. plicata.*—Brit. co. generally, Mc. Rather conical. Tooth strong; no epidermis.
 2. *O. TURRITA*, *Hanley, Brit. Mar. Conch.*—*O. unidentata*, var. B. M.—R. More lengthened than No. 1.
 - 3, 4. *O. ACUTA*, *Jeffreys.*—Torbay, Loch Fyne, Galway, etc., Mc. Strong, conical. Suture deep.
 5. *O. PLICATA*, *Mont. (Turbo.)—Voluta p., V. plicatula, O. Annae, Jaminia p., etc.,* Mc.—Salcombe, Swansea, Dublin, Aberdeen, Mc. Turreted. Narrow, thin.
 6. *O. INSCULPTA*, *Mont. (Turbo.)—Voluta, Jaminia, and O. ins.*—S. Devon, Oban, Hebrides, etc., R. Conical, spirally striated.
 7. *O. PALLIDA*, *Mont. (Turbo.)—Vol., Cingula, Phasianella p., O. ambigua.*—S. Devon, Rr. Broad. Thin, pillar straight.
 8. *O. CONOIDEA*, *Brock.*—*Turbo, Odost., etc.*—N. Scotland, Mc. S. Devon, Mr. N. and S. Eu. White. Whorls straight; throat striated.
 9. *O. CONSPICUA*, *Alder.*—Isl. Man, Whitburn, Herin. Coloured. Whorls rounded; throat striated.
 10. *O. TRUNCATULA*, *Jeffreys.*—Plymouth. Elongated.
 11. *O. CYLINDRICA*, *Alder.*—*Turbo nivosus?*—S. Devon, Ilfracombe, Guernsey, Cork, R. Cylindrical, few whorls.
 - 12, 13. *O. EULIMOIDES*, *Hanley.*—*O. crassa, O. pallida* (var. f. 13), *O. notata.*—Brit. co. generally. Coralline zone, Mr. Ample body-whorl.
 14. *O. DUBIA*, *Jeffr.*—S. Devon, Lerwick, Guernsey, Mr. Rather large body-whorl.
 - 15, 16. *O. ALBA*, *Jeffreys*, (and var.)—Swansea, Skye, Zetland, Guernsey, Mr. Thin, whorls rounded.
 17. *O. NITIDA*, *Alder.*—S. Devon. Littoral, Mc. Aperture differently formed from No. 17.
 18. *O. LUKISHI*, *Jeffreys, Ann. Nat. Hist.* 1859.—Guernsey. Sub-littoral and coralline, Mc. Whorls tumid; a slight umbilicus.
 19. *O. GLABRATA*, *Muhlfeldt, (Helix.)—Rissoa punctulum, etc.*—Zetland, R. Pillar-lip thin, arched.
 20. *O. RISSOIDES*, *Hanley.*—*O. scalaris.*—Channel Isls., Devon, Cornwall, Tenby, etc., Mc. Thin, conical, no umbilicus.
 21. *O. ALBELLA*, *Lovén.*—*O. rissoides*, var., B. M.—Guernsey, S. Devon, etc. Turreted, upper whorls more cylindrical than No. 20.
 22. *O. OBLIQUA*, *Alder.*—Tynemouth, Guernsey, 7 fath. to deep water, Rr. Thin, oblique.

Fig.

23. *O. DIAPHANA*, *Jeffr. Ann. Nat. Hist. New Ser. vol. ii. p. 341.*—*R.*
Manifestly distinct from No. 22.
24. *O. STRIALATA*, *Alder.* — Northumberland, *Rr.* Conical, striated.
25. *O. MINIMA*, *Jeffreys, Ann. Nat. Hist. Jan. 1, 1858.*
26. *O. INTERSTINCTA*, *Mont. (Turbo.)*—*T., O., Voluta*, and *Jaminia canaliculata, oblonga*, and *obtusa.*—*Brit. co.* generally. Shallow water, *C.* With longitudinal ribs.
27. *O. DOLIOLIFORMIS*, *Jeffr.*—Scarborough, Exmouth, Swansea, Tenby, *Rr.*, Scotland. Oval, body-whorl very tumid.
28. *O. WARRENI*, *Thompson, (Rissoa.)*—*Turbonilla* and *O. obliqua, O. decorata.*—Dublin, S. Devon, W. Scotland, *R.* Turreted. Mouth oblique; an umbilicus; no fold or columella.
29. *O. SPIRALIS*, *Mont. (Turbo.)*—*Voluta* and *Rissoa s., pellucida*, and *plicatula.*—*Brit. co.* generally, not deep, *Mc.* Whorls ribbed longitudinally above, spirally beneath.
30. *O. DECUSSATA*, *Mont. (Turbo.)*—*T. Helix, Rissoa* and *O. arenaria, pellucida?*, and *d.*—Exmouth, Lerwick, etc., *R.* Ribbed and spirally striated.
31. *O. EXCAVATA*, *Phil. (Rissoa.)*—*R., O.*, and *Cingula Harveyi* and *Deshayesiana.*—Dublin, Arran, Guernsey, *R.* Largely sculptured.

BRITISH SHELLS PL. XVIII.



B. sewer

PLATE XVIII.

TRITON.

1. T. CUTACEUS, *Linn.*—Channel Isls., Rr. as Brit. Mr. Lukis's specimen taken living off Guernsey.
2. T. NODIFERUS, *Lamk.*—Guernsey; three living specimens, one incrustated with *Lepralia coccinea* (truly British). Mr. Jeffrey's specimen reduced.

MUREX.

3. M. ERINACEUS, *Linn.*—*Purpura scalata*, var. *M. Tarentinus*.—Brit. co. generally; 5 to 30 fath., C. N. and S. Eu.
 4. M. CORALLINUS, *Scacchi.*—*Fusus* and *M. lavatus*, *inconspicuus*, *gyrinus*, and *ladius*?—Channel Isls. and S. Eu., C.
- M. RUDIS. See *Trophon*.

PURPURA.

5. P. LAPILLUS, *Linn.* (*Buccinum*).—*B.* and *P. filiosum*, *imbricatum*, and *bizonalis*.—In crevices on shores, Brit. co. generally, N. and S. Eu., C.

LACHESIS.

6. L. MINIMA, *Mont.* (*Buccinum*).—*B. brunneum*, *B. rubrum*, *Nesæa granulata*, *mamillata*, *Fusus minimus*, etc.—Channel Isls. and S. Brit., on shores. S. Eu.

BUCCINUM.

7. B. HOLBOLLII.—*Mangelia H.*—Cornwall, Rr.
8. B. UNdatum, *Linn.*—*B. striatum*, *anglicanum*, *pyramidale*, *imperialle*, etc.—Brit. co. generally, shores, Cc. N. Eu. and Am.
9. B. ACUMINATUM, *Brod.*—*B. undatum* var., B. M.—Rr.
10. B. CILIATUM, *Fabr.* (*Tritonium*).—Shetland, deep water, R. More thin than No. 9; with striæ finer, and hairs of epidermis tufted minutely.
11. B. FUSIFORME, *Brod.*—Cork, Wexford, Rr. Turreted, fusiform, white, ribbed, striated.
12. B. DALEI, *Sowerby.*—*B. ovum*, *Halía Flemingiana*.—Torbay, Northumberland, Aberdeen, etc., R. Ventricose.
13. B. HUMPHREYSIANUM, *Bennett.*—*Tritonium H.*—Cork, Skye, Bantry Bay, R. Light, smooth.

FUSUS.

14. F. BERNICIENSIS, *King.*—Northumberland, Rr. Carinated, with open pink mouth.

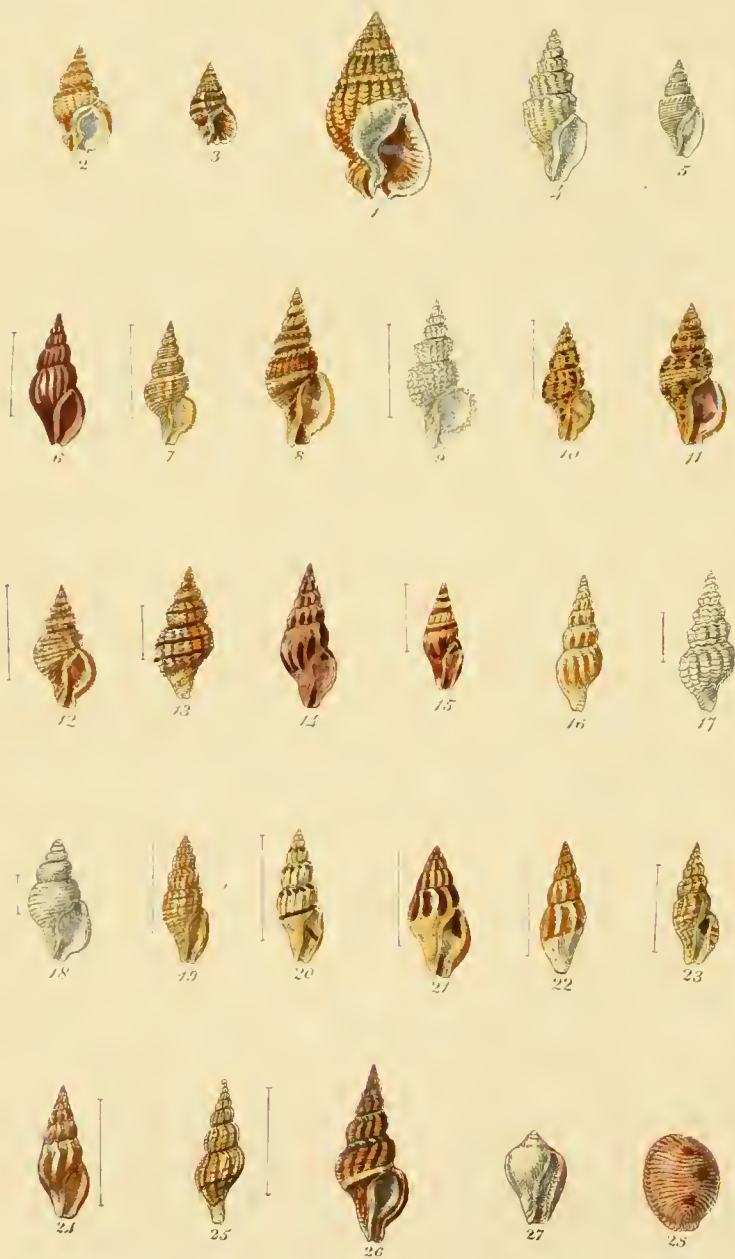
Fig.

15. *F. NORVEGICUS*, Chemn. (*Strombus*).—*Tritonium n.*—Scarborough, Durham, Rr. Oval, smooth, with large aperture.
16. *F. ANTIQUS*, Linn. (*Murex*).—*M.*, *B.*, and *Tritonium despectus*, *contrarius*, *carinatus*, *babylonicus*, etc.—Various Brit. co., 5 to 30 fath., C.
17. *F. ISLANDICUS*, Chemn.—*Murex corneus*, *Tritonium gracile*, etc.—Brit. co. generally; 5 to 80 fath.; N. Eu., C. (See *F. propinquus*.)
18. *F. TURTONI*, Bean.—Yorkshire, Northumberland, 60 fath., Rr.
19. *F. PROPINQUUS*, Alder.—*F. corneus* and *islandicus*, var.—N. Scotland, Bantry Bay, Northumberland, deep water, Mr. Shorter than *F. islandicus*, with deep suture and symmetrical spire.

TROPHON.

20. *T. RUDIS*, Phil. (*Fusus*).—*Murex r.*, Jeffreys.—Tenby; unique as British. Whorls and ribs rounded.
21. *T. MURICATUS*, Mont.—*Fusus* and *Murex m.*—Brit. co. generally, Channel Isls., 15 to 50 fath., Mr. Whorls angular, ribs intersected.
22. *T. SCALARIFORMIS*, Gould.—Belfast, in sand, Rr. Ribs smooth.
23. *T. CLATHRATUS*, Linn. (*Murex*).—*Tritonium*, *Fusus*, and *Pleurotoma Bamfius*.—Irish sea, Zetland, Mc. Ribs laminated.
24. *T. BARVICENSIS*, Johnston.—*Fusus* and *Tritonium b.*—Hebrides, Cork, Northumberland, 60 fath., Mr. Ribs aculeated.

BRITISH SHELLS. PL. XIX.



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PLATE XIX.

NASSA.

Fig.

1. *N. RETICULATA*, Linn. (*Buccinum*).—*N. pullus*, *Tritonium r.*—Brit. and Eu. co. generally. Littoral, Cc.
2. *N. INCRASSATA*, Müller, (*Buccinum*).—*N.* and *B. minutum*, *macula*, *asperulum*, etc.—Brit. shores generally, 0 to 50 fath., gravel, C.
3. *N. PYGMÆA*, Lank. (*Ranella*).—*B. tuberculatum*, *Tritonia varicosa*, etc.—S. Brit. co., S. Eu., 4 fath. to deep water, C. Small, with white varices on the body.

MANGELIA.

4. *M. TURRICULATA*, Mont. (*Murex*).—*Bela*, *Fusus*, and *Pleurotoma angulatus*, etc.—Brit. co. generally, 3 to 100 fath., N. Eu., C. Whorls flat above.
5. *M. TREVELLIANA*, Turt.—*Pleurotoma*, *Bela*, and *M. reticulata*, *decussata*, and *leucostoma*.—Northumberland, Aberdeen, Zetland, etc., 15 to 40 fath., R. Whorls with angular slope above.
6. *M. RUFA*, Mont. (*Murex*).—*F.*, *M.*, and *B. chordula*, *Ulideana* (var.), etc.—Brit. co. generally, Mc.
7. *M. TERES*, Forbes, (*Pleurotoma*).—*P. boreale*.—Various loc., 15 to 50 fath. S. Eu., Mr. Carinated, aperture deeply notched.
8. *M. PURPUREA*, Mont. (*Murex*).—*Fusus* and *Pleu. p.*, *Philberti versicolor* and *variegatum*.—Brit. co. gen., 3 to 60 fath., C. S. Eu.
9. *M. CANCELLATA*, Sowerby (*Fusus*).—*M. purpurea* var., *F. asperimus*.—Cornwall, Cork, R. Sharply sculptured.
10. *M. RETICULATUM*, Brown, (*Pleurotoma*).—*M. cancellata* var.—Shetland, Guernsey, Rr. Sculpture between 8 and 9; inner lip not thickened.
11. *M. LEUFROYI*, Michaud, (*Pleurotoma*).—*P.*, *F.*, and *M. inflata*, *Boothii*.—Arran, Orkneys, Guernsey, etc.; S. Eu., 5 to 50 fath., Mc.
12. *M. LINEARIS*, Mont. (*Murex*).—*M.*, *Pl.*, *Fus. elegans*, *concinna*, etc.—Brit. co. generally, sand and shells, 1 to 80 fath., C.
13. *M. SCABRA*, Jeffreys, (*Pleu.*).—*M. linearis* var.—Guernsey, Plymouth, R.
14. *M. NEBULA*, Mont. (*Murex*).—*M.*, *P.*, and *F. Bertrandi*, *varians*, and *pyramidatus*.—Various places and depths, N. and S. Eu., C.
15. *M. LÆVIGATA*, Phil. (*Pleu.*).—*M. nebula* var.—South Brit., S. Eu. Small, fusiform, shiny, banded.
16. *M. GUINNIANA*, Phil. (*Pleu.*).—*M. nebula* var. — Tenby, etc., Mr. S. Eu. Whorls longer than No. 14.
17. *M. BRACHYSTOMA*, Phil. (*Pleu.*).—*M. tiarula* and *Clavatula b.*—Brit. co. gen., Mr. Turreted; ribs crossed by raised lines.

Fig.

18. *M. NANA*, *Lovén*, (*Tritonium*.) — *Fusus albus*.—Lerwick, Zetland, Orkneys, etc., 45 fath., and deep, R. Ventricose, cancellated.
- 19, 20. *M. STRIOLATA*, *Scacchi*, (*Pleu.*)—*P.* and *Murex Smithii*, *Far-ranti*.—S. Devon, Clyde, Guernsey, Bantry, etc., Medit., R. as Brit. Ribs angularly curved above.
- 21, 22. *M. COSTATA*, *Pennant*, (*Murex*.)—*Buccinum*, *Fusus*, *Pl. c.*, etc.; var. f. 22, *M. Metcalfei*.—Brit. co. generally, 5 to 50 fath., N. and S. Eu., C. Body-whorl larger than No. 24.
23. *M. COARCTATA*, *Forbes*.—*Pl.*, *M. costata* var., B. M.—Distribution as 21 and 22; not so common.
24. *M. SEPTANGULARIS*, *Mont.* (*Murex*.)—*M.*, *F.*, and *Pl. costatus*, *heptagona*, etc.—Torbay, Bristol Channel, Forth, Galway, 5 to 30 fath., Mc.
25. *M. ATTENUATA*, *Mont.* (*Murex*.)—*M. aciculatus*, *Pl. gracilis*, *Villiersii*, etc.—S. Devon, Oban, Hebrides, Cork, etc., Mr. S. Eu.
26. *M. GRACILIS*, *Mont.* (*Murex*.)—*M. emarginatus*, *suturalis*, *elegans*, etc., S. Brit., Galway, S. Eu., Mr.
- M. HOLBOLLII*. See *Buccinum*.

ERATO.

27. *E. LEVIS*, *Donovan*, (*Voluta*.)—*E.*, *Marginella*, *Bulla*, *Volvaria*, and *Columbella fusiformis*, *Cypræola*, *Donovani*, *Muscaria*, etc.—Brit. co. generally, 1 to 50 fath., Mc.

CYPRÆA.

28. *C. EUROPÆA*, *Mont.*—*Cypr.* and *Trivia*, *Pediculus arctica*, *bullata*, and *diaphana*.—Brit. co. generally, 0 to 50 fath., C.

BRITISH SHELLS PL. XX.



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PLATE XX.

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### TORNATELLA.

Fig.

1. T. FASCIATA, Lamk.—*Voluta tornatilis*, Linn., *Bulimus T.*, *T. pellucida* and *pusilla* (young).—Brit. co. generally. N. and S. Eu.

### OVULA.

2. O. PATULA, Penn. (*Bulla*).—Exmouth, Arran, etc., 20 fath. S. Eu. Wide aperture, Mc.
3. O. ACUMINATA, Brug.—*Bulla* and *Folvula a.*—Loch Fyne, Lamash, Galway, etc., R. S. Eu. Narrow, pointed.

### CYLICHNA.

4. C. CYLINDRACEA, Penn. (*Bulla*).—*Bullina* and *Folvaria c.*, *oliva*, and *umbilicata*.—Brit. co. generally, C. N. and S. Eu.
5. C. OBTUSA, Montagu (*Bulla*).—*Utriculus*, *B.* and *C. Jerviscensis* and *discors*.—Brit. co. generally, C.
6. C. MAMILLATA, Philippi. — *Bulla* and *Tornatina m.* and *truncatula*.—Exm., Skye, Galway, etc., Mc. S. Eu. Spire sunk, apex mamillated.
7. C. TRUNCATA, Adams, (*Bulla*).—*B. truncatula*, *retusa*, *semisulcata*.—Brit. co. generally, C. N. and S. Eu.
8. C. NITIDULA, Lovén.—*C.* and *Bulla n.* and *umbilicata*.—Skye, Loch Fyne, etc., R. N. Eu. Elongated, oval.
9. C. CONULUS, Desh.—Zetland, Rr. Conical.
10. C. STRIGILLA, Lovén.—*C.*, *Bulla*, and *Atys s.* and *ovulata*.—Scotland, Mr. Spirally striated.
11. C. UMBILICATA, Mont. (*Bulla*).—*Bullina* and *Folvaria n.* and *subcylindrica*.—Brit. co. gen., Mc. With umbilicated apex.
- 12, 13. C. LAJONKAIREANA, Basterot, (*Bulla*).—Guernsey, R. Narrower, and with more raised spire than *C. obtusa*.

### AMPHISPIRA.

14. A. HYALINA, Turt. (*Bulla*). — *A. diaphana* and *Utriculus pellucidus*, *minutus*, and *candidus*.—Scarborough, Weymouth, Cork, etc. Littoral, Mc. N. Eu. Rather square.
15. A. GLOBOSA, Jeffreys, Ann. Nat. Hist. Jan. 1859.—Skye.

### AKERA.

16. A. BULLATA, Müller. — *Bulla Akera*, *B. norvegica*, *B. resiliens*, *fragilis*, *flcrilis*, *Hanleyi*.—Southampton, Zetland, Galway, etc. Littoral, Mc. N. and S. Eu.

## BULLA.

Fig.

17. *B. CRANCHII*, Leach.—*B. punctura* and *striata*.—Brit. co. gen. Devon, Aberdeen, Cork, etc., 50 to 100 fath., Mr. Spirally puncto-striated.
18. *B. CORNEA*, Lamk.—*B. hydatis* (as of Linn.), *B. naricula*, *B. ampulla*, *Haminea hydatis*.—South Brit. co., 0 to 50 fath., C. S. Eu. Broad, thin.
19. *B. HYDATIS*, Linn.—*Haminea elegans*.—Guernsey and Mediterranean. Narrower and more solid than *B. cornea*.

## PHILINE.

20. *P. APERTA*, Linn.—*P. Bulla*, *Bullæa*, and *Lobaria a., quadripartita, quadrilobata*, and *Planciana*.—Brit. co. gen., C. S. Eu. Large, smooth.
21. *P. SCABRA*, Müller.—*Bulla* and *Scaphander scabra, pectinata, dilatata*, and *catenulifera*.—Northumberland, Zetland, Ireland, etc., Mc., 5 to 50 fath. N. Eu. Oblong, serrated.
22. *P. QUADRATA*, S. Wood.—*Bullæa* and *P. scutulum*.—Zetland, etc., 10 to 100 fath., R. Striated.
23. *P. CATENA*, Mont.—*Bulla* and *Bullæa c., angustata*, and *punctata*.—Brit. co. generally, Mr., 0 to 40 fath. With chain-like sculpture.
24. *P. PUNCTATA*, Clark.—*Bulla* and *Bullæa*.—Devon, Swansea, Aberdeen, Clare. In sand, 60 fath., Mc. With punctured sculpture.
25. *P. PRUINOSA*, Clark.—*Bulla* and *Bullæa*.—Devon, Northumb., Hebrides, etc. Mud, 20 to 70 fath. N. Eu.

## SCAPHANDER.

26. *S. LIGNARIUS*, Linn. (*Bulla*).—*B. oblonga*.—Brit. co. generally. 1 to 50 fath. N. and S. Eu., C.
27. *S. ZONATUS*, Turt. (*Bulla*).—Young specimen taken at Zetland by Mr. Jeffreys, resembling older Norwegian specimens. More oval than *S. lignarius*. Spire umbilicated.

## APLYSIA.

28. *A. HYBRIDA*, Sowerby.—*Laplysia depilans*, *A. depilans* and *punctata*.—Brit. co. generally. Among seaweeds, 0 to 6 fath., C.

## PLEUROBRANCHIUS.

29. *P. MEMBRANACEUS*, Mont. (*Lamellaria*).—Devon, Arran, Cork, etc. Low-water, Mr. Broad, flexible.
30. *P. PLUMULA*, Mont. (*Bulla*).—Guernsey, Devon, Skye, etc. Littoral, R. Narrow, less flexible.

## SPIRULA.

31. *S. PERONII*.—Once taken near Swansea, imperfect.



BRITISH SHELLS PL. XXI.



G. B. Sowerby.

## PLATE XXI.

### LIMNÆUS. In and near fresh-water.

- Fig.  
 1, 2. *L. PEREGER*, Müller (*Buccinum*).—*Helix*, *Turbo*, *Bulinus*, and *L. putris*, *inflata*, *teres*, *lutea*, *limosa*, *orata*, *vulgaris*, *marginata*, *intermedia*, *lacustris*, etc.—Springs and ponds, Cc.  
 3. *L. STAGNALIS*, Linn. (*Helix*).—*Buccinum*, *Turbo*, etc., *stagnalis*, *fragilis*, and *major*, etc.—Ponds, etc., not so generally as No. 1, 2, C.  
 4. *L. PALUSTRIS*, Müller, (*Bucc.*)—*Helix* and *L. fragilis*, *fontinalis*, *stagnalis*, etc.—Ditches, ponds, etc., C. Whorls more numerous and less rapidly enlarged than No. 3.  
 5. *L. AURICULARIUS*, Linn. (*Helix*).—*L.*, *Helix*, *Bucc.*, *Turbo*, *Bulinus a.*, *patulus*, etc.—Near London, Swansea, etc., Mc. Aperture very wide, and outer lip partially reflected.  
 6. *L. ACUTUS*, Jeffreys.—*L. auricularius*, var. B. M.—Oban, Clumber Lake, Bloomfield, Kent, R. Apex sharp and tapering; aperture smaller than No. 5.  
 7. *L. TRUNCATULUS*, Müller, (*Bucc.*)—*H.*, *B.*, and *L. truncatus*, *fossarius*, *minutus*, *limosus*, etc.—Partly amphibious, generally diffused, C. Small, spire equal to body.  
 8. *L. GLABER*, Müller, (*Buccinum*).—*H.*, *B.*, and *L. octanfracta*, *peregrina*, *elongata*, *octona*, *leucostoma*, etc.—Fresh and brackish marshes, Stafford, Somerset, York, etc., R. Spire longer than aperture.  
 9. *L. INVOLUTUS*, Harvey.—*Amphipeplea i.*—Lake near Killarney, Belfast, Rr. Spire almost covered.  
 10. *L. GLUTINOSUS*, Müller, (*Buccinum*).—*Helix*, *Amphipeplea*, and *L.*—Windermere, etc., Mr. Oval.  
 11. *L. BURNETTI*, Alder.—Lakes in Dumfries and Breconshire. Inflated; spire flat; colour opaque-amber.

### PHYSA. In and near fresh-water.

12. *P. HYPNORUM*, Linn. (*Bulla*).—*Helix*, *Physa*, *Limnaea*, and *Aplexa turrita* and *marmorata*. Pools and lakes, Brit. generally, C.  
 13. *P. FONTINALIS*, Linn. (*Bulla*).—*Turbo*, *Planorbis*, *Bulinus*, and *Ph. adversus*, *bulia*, *bulloides*, and *fluviatilis*.—Brit. pools, lakes, and ditches, C.

### ANCYLUS. In fresh-water.

- 14, 15. *A. FLUVIATILIS*, Müller.—*Patella lacustris*.—Running streams, on stones and plants generally, C. Oval, apex turned to left.

Fig.

- 16, 17. A. OBLONGUS, *Lightfoot*, (*Patella*.)—*A.* and *P. lacustris*. More lacustrine than No. 14, Mc. Oblong, apex turned to right.

PLANORBIS. In fresh-water.

18. P. CORNEUS, *Linn.* (*Helix*.)—*P.* and *H. cornu-arietis*, *purpureus*, and *similis*, *P. nana* (young).—Ponds and ditches generally, C.  
19. P. ALBUS, *Müller*.—*Helix* and *P. hispidus*, *hirsutus*.—Distribution general, C. Finely ciliated in lines.  
20. P. GLABER, *Jeffreys*.—*P. laevis*, *Alder*.—Penzance, Falmouth, Swansea, Belfast, etc., Mr.  
21. P. NAUTILEUS, *Linn.* (*Helix*.)—*P. imbricatus*, *Müller*; *P. cristatus*, *Turbo nautilus*, etc., Mc. With horny ridges.  
22. P. CONTORTUS, *Linn.* (*Helix*.)—*P.* and *H. crassa*, *umbilicata*.—Distribution general, C. Numerous close whorls; aperture semi-lunar.  
23. P. CARINATUS, *Müller*.—*Helix Planorbis*, *Linn.*; *P. planata* and *lutescens*.—Generally distr., C. Whorls more rapidly increased than No. 24; keel more distinct.  
24. P. MARGINATUS, *Drap.*—*H. Planorbis*, *H.*, *P. limbata*, *complanata*, *Draparnaldi turgidus*, *rhombus*, etc.—Distr. gen., C. Whorls more rhomboidal than 23.  
25. P. VORTEX, *Linn.* (*Helix*.)—*Pl. compressa*.—Distr. gen., C. Many whorls, very compressed.  
26. P. SPIORBIS, *Linn.* (*Helix*.)—*P. vortex*, var.—Distr. general, C. Fewer whorls than No. 25; mouth not angular.  
27. P. NITIDUS, *Müller*.—*Helix* and *P. fontanus*, *complanatus*, and *lenticularis*.—Most parts of Brit., Mc. Very compressed.  
28. P. LACUSTRIS, *Lightfoot*.—*P. nitidus*, var., *Segmentina lineata*, *P. nautilus* and *clausulatus*.—Ponds and ditches near London, etc., Mc. With internal divisions; lower disc flat.



BRITISH SHELLS. PL. XII.



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## PLATE XXII.

### SUCCINEA. Amphibious.

Fig.

1. *S. PUTRIS*, Linn. (*Helix*).—*H.*, *S.*, and *Limnæa Succinea* and *amphibia*.—On plants by the side of rivers, ditches, etc., C. Rather oval in form.
2. *S. GRACILIS*, Alder.—*S. putris*, var. *gracilis*, *S. amphibia*, var. *Pfeifferi*.—By sides of streams and in damp meadows, C. Elongated, with spire produced.
3. *S. OBLONGA*, Drap.—*Helix elongata*, *Amphibulina o.* and *e.*—Swansea, Glasgow, etc. Sometimes at a distance from water, R. Spire with more distinct whorls.

### CONOVULUS. Partly marine, amphibious.

4. *C. BIDENTATUS*, Mont. (*Foluta*).—*C.*, *N.*, *Actæon*, and *Auricula alba* (var.) and *erosa*.—Salt-water marshes, and on rocks near high-water mark all round our coasts, C. No tooth on outer lip.
5. *C. MYSOTIS*, Drap.—*C. denticulatus*, var., etc.—Brackish marshes, Thames, etc., C. Outer lip with one tooth.
6. *C. DENTICULATUS*, Mont. (*Foluta*).—*C.*, *F.*, *Auricula*, and *Actæon ringens*, *reflexa* (var. f. 7), *Mysotis*, and *personata*.—Numerous places, near the sea, C. Outer lip with many teeth.
7. *C. REFLEXUS*.—*Auricula reflexa*, *C. denticulatus*, var. *Jeffreys*.

### CARYCHIUM.

8. *C. MINIMUM*, Müller.—*Turbo Carychium*, *Auricula minima*.—Moist places, wet Mosses, etc. Generally distr., C.

### LIMAX. Land Slug, with shell under shield.

9. *L. CINEREUS*, Müller.—*L. maximus*, *maculatus*, *Limacella parva*. Brit. gen., C.; Eu. Shell oval, large, thin.
10. *L. AGRESTIS*, Müller.—*L. concava* and *obliquus*.—Brit. gen., C. *Foss cr.* Shell small, oblique.
11. *L. BRUNNEUS*, Drap.—*L. concava*.—Under stones, etc. Shell minute, square.
12. *L. FLAVUS*, Linn.—*Limacella unguiculata* and *variegata*.—The large Cellar Slug. Shell thick, rather square.

### TESTACELLA. Slug with shell or tail.

13. *T. MAUGEI*, Férussac.—Clifton, Taunton, Plymouth, Swansea, etc., Mr. Large, and more square than 14.

VITRINA. Shell not including the whole Slug.

Fig.

14. *T. HALIOTOIDEA*, *Drap.*—*T. europæa*, *T. scutulum*. — Near London. Channel Isls., etc., Mc.
15. *V. PELLUCIDA*, *Müller*, (*Helix*.)—*H. diaphana*, *Helicolimax*, *Limacina major*, etc.—Various parts of the country, under stones, etc., Mc. Eu. Very transparent.
16. *V. DRAPARNALDI*, *Jeffreys*.—*V. oblonga*, *H. brevipes*?—Less globular than 15, R.

ZONITES. Transparent, thin-edged Snails.

- 17, 18. *Z. CELLARIUS*, *Müller*, (*Helix*.)—*H.* and *Z. lucida* and *nitens*.—Brit. gen., C.
- 19, 20. *Z. NITIDUS*, *Müller*, (*Helix*.)—*H.* and *Z. nitens*, *lucida*, *tenuis*, *Succinea*, etc.—Less depressed than 17, 18, with larger umbilicus.
21. *Z. CRYSTALLINUS*, *Müller*, (*Helix*.)—*H.*, *Z.*, *Discus*, and "*Polita*" *c.*, *eburnea*, *vitrea*.—In damp spots, among stones and Moss. Minute, white, transparent.
22. *Z. NITIDULUS*, *Drap.*—Generally distributed, Mc. Mouth oblique. Umbilicus small.
- 23, 24. *Z. ALLARIUS*, *Miller*, (*Helix*.)—*H.* and *Z. glabra*, *alliaeea*, *nitens*, *tenera*, *lurida*, etc.—Distr. gen., C. Smaller and more convex than 17, 18.
25. *Z. EXCAVATUS*, *Bean*, (*Helix*.)—*H.* and *G. nitida*, *lucida*, etc.—Durham, Northumberland, Galway, etc., Mc. Umbilicus very large.
- 26, 27. *Z. RADIATULUS*, *Alder*, (*Helix*.)—Distr. gen., C. Striated, minute.
- 28, 29. *Z. PURUS*, *Alder*, (*Helix*.)—*H.* and *Z. polita*, and *Helicella nitidosa*, *electrina*, etc.—Most common North Engl. Whorls less close and more oblique than 21.



BRITISH SHELLS PL. XXIII



G. B. Sowerby

## PLATE XXIII.

### HELIX. Snails with thickened lips.

Fig.

1. *H. PISANA*, Müller.—*H. zonaria, cingenda, rhodostoma, strigata, albella*.—Cornwall, S. Wales, Dublin, C. S. and N. Eu.
2. *H. ASPERSA*, Müller.—*H. grisea, hortensis, variegata, vulgaris*, etc.—Common in all our gardens and hedges.
3. *H. VIRGATA*, Costa.—*H. variabilis, ericetorum, zonaria*, etc.—In sandy and chalky places, C. More compressed than No. 1.
4. *H. CANTIANA*, Mont.—*H. pallida*, etc.—South and west Engl., C.
5. *H. ERICETORUM*, Müller.—*H. itala, striata, albella, erica, nivea, cæspita*, etc.—Chalky and sandy places, C. Depressed, delicately banded; large umbilicus.
6. *H. RUFESCENS*, Pennant.—*H. rufina, montana, calata, clandestina*, etc.—Most common in southern, chalky and limestone districts. Depressed, striated; whorls slightly angular. Generally lighter than our figure, sometimes nearly white.
7. *H. LAPICIDA*, Linn.—*H. acuta, affinis, Carocolla l.*—Chalk and limestone districts, C. S. and N. Eu. Sharply angular.
- 8, 9. *H. HISPIDA*, Linn.—*H. rufescens, sericea, concinna* (var. without hairs), etc., *plebeia*.—All parts of Brit., C. More depressed than *H. sericea*, with larger umbilicus.
10. *H. FUSCA*, Mont.—*H. subrufescens*.—Brit. gen., Mc.
11. *H. SERICEA*, Drap.—*H. hispida, globularis, granulata*, etc.—Granulated, hairy. Mouth wider than 8. Small umbilicus.
12. *H. OBVOLUTA*, Müller.—*H. trigonophora*, etc.—Ditcham Wood, Hampshire. In Moss at roots of trees, Rr.
13. *H. FULVA*, Müller.—*H. terrestris, trochiformis, nitidula*, etc.—Pretty general and common. Conical, minute, transparent.
14. *H. POMATIA*, Linn.—Southern chalky districts, S. Eu., C.
15. *H. CAPERATA*, Mont.—*H. striata, H. crenulata*, etc.—Chalk-pits, etc., C.
16. *H. CARTHUSIANA*, Müller.—*H. nitida, carthusianella, rufilabris*, etc.—Chalk-districts of Surrey and Kent, C.
- 17, 18. *H. NEMORALIS*, Linn.—*H. hortensis, fasciata, hybrida*, etc.—Cc. A peculiar flattening near the base of aperture.
19. *H. ARBUSTORUM*, Linn.—Common and general. Brown-marbled. Edge of aperture different from 17, 18.
- 20, 21. *H. ROTUNDATA*.—*H. radiata, Turtoni*, etc.—Common and general.
- 22, 23. *H. PULCHELLA*, Müller.—*H. costata, paludosa, crenella, minuta*, etc.—Common and general under stones, etc.
24. *H. REVELATA*, Férussac.—Cornwall, Devon, Torquay, Guernsey. Rare. A transparent, greenish, hairy shell.

Fig.

25. H. APERTA. — *H. neritoides*, *naticoides*, etc. — A single specimen found in Guernsey. Not uncommon in S. Eu. Our specimen is foreign.
26. H. UMBILICATA, *Mont.* — *H. rupestris*, etc. — On perpendicular heights and under stones, C.
27. H. PYGMÆA, *Drap.* — *H. minuta*, etc. — Common in damp places.
28. H. LAMELLATA, *Jeffreys.* — *H. Scarburgensis*, *seminulum.* — Brit. and Germany, C.
29. H. ACULEATA, *Müller.* — *H. spinulosa*, etc. — Among Moss and stones, etc., C. General.



BRITISH SHELLS PL. XXIV.



*B. Gowerb.*

## PLATE XXIV.

### BULIMUS. Long Snail.

Fig.

1. *B. LACKHAMENSIS*, Mont.—*B. montanus*, *Montacuti*, *Eua montana*.—Kent, Surrey, Gloucester, Selborne, N. and S. Eu., R. as Brit. Shagreened.
2. *B. OBSCURUS*, Müller.—*Turbo rupium*, *B. hordaccus*, etc.—C. and general. Surface smooth.
- 3, 4. *B. ACUTUS*, Müller.—*Helix barbara*, *B. cretacea*, *articulatus*, *Turbo fasciatus*, etc.—On sand and limestone in marine neighbourhoods, C.

### PUPA. Small Snails, among Moss, stones, etc.

5. *P. SECALE*, Drap.—*Turbo*, *Helix*, *Chondrus*, and *Vertigo juniperi* and *cylindricus*.—S. Engl., Channel Isls., C. S. Eu. Larger and more tapering than the other sp.
6. *P. UMBILICATA*, Drap.—*Turbo*, *Bulimus*, *Helix*, and *P. muscorum*, *cylindræus*, *bidentata*, etc.—C. and general, Eu. Mouth oblique, long, one tooth.
7. *P. MUSCORUM*, Linn.—*T.*, *P.*, *H.*, *B. marginata*, *chrysalis*, *unidentatus*, etc.—C. and gen. A rib behind the outer lip.
8. *P. ANGLICA*, Féussac.—*Vertigo*, *Turbo*, and *P. a.* and *ringens*.—Scarborough, Newcastle, Guernsey, etc., Mr. More cylindrical than 5.
9. *P. EDENTULA*, Drap.—*H. exigua*, *Vertigo*, *Helix*, and *Jamimia e.*, *nitida*, etc.—C. and gen. No teeth in aperture; smooth.
10. *P. MINUTISSIMA*, Hartmann.—*P.*, *Vertigo*, *Alæa cylindrica*, *obtus*, *muscorum*, etc.—Bristol, Salisbury, Skyc, etc., R. as Brit.; C. in S. Eu. No teeth in aperture; striated.
- 11, 12. *P. PYGMÆA*, Drap.—*P.*, *T.*, *V.*, *H.*, *Alæa*, etc., *sexdentatus*, *quinquedentatus*, *vulgaris*, etc.—The lighter variety, *P. alpestris*, C. and general. Four or five teeth.
13. *P. SUBSTRIATA*, Jeffreys.—*Vertigo*, *Turbo*, *Alæa sexdentata*, *curta*, etc.—C. and gen. Very cylindrical; six teeth; striated.
14. *P. ANTIVERTIGO*, Drap.—*P.*, *V.*, *Alæa octodentata*, *septemdentata*, *palustris*, etc.—Near Swansea and London; Bristol, Devon, Northumberland, Ayr, Mr. Ireland. Aperture subtrigonal, eight or nine teeth.
15. *P. PUSILLA*, Müller.—*Helix vertigo*, and *V. heterostropha*.—S. Wales, Northumberland, Belfast, etc., Mc. Sinistral, with seven teeth.
16. *P. VENETZII*, Charpentier.—*Turbo*, *Vertigo*, and *P. vertigo* and *angustior*.—Swansea, Cork, Clare, R. Sinistral; four teeth and a flat fold on columella.

#### BALEA.

Fig.

17. *B. FRAGILIS*, *Drap.* (*Pupa*).—*Bulimus*, *Pupa*, *Clausilia f.*, *perversus*.  
—C. and gen. Under bark on trees, and under stones.

CLAUSILIA. With a twisted *clausium* on columella.

18. *C. LAMINATA*, *Mont.*—*Helix*, *Turbo*, *Bulimus*, and *Pupa bidens* and *perversus* and *derugata*.—S. Brit. principally. Among dead leaves, and on Beech-trunks, Mc. Smooth, broad.  
19. *C. NIGRICANS*, *Maton and Rackett.*—*Strombiformis*, *Turbo*, and *Odo-stomia perversus*, *bidens*, *parvula*, etc.—C. and gen.; under stones, on walls and trees, etc. Narrow, striated.  
20. *C. BIPPLICATA*, *Mont.*—*Helix*, *Turbo*, *Odost.*, *C. perversa*, *plicata*, *ventricosa*, etc.—Near London, etc., Mc. Two folds on columella.  
21. *C. PLICATULA*, *Drap.*—*Turbo* and *C. conversus*.—Charlton Wood, Kent, Hastings, Gloucestershire, etc., R. Numerous plaits on columella above fold.

#### ZUA.

22. *Z. LUBRICA*, *Müller*, (*Helix*).—*Turbo*, *Bulimus l.*, *subcylindrica*, *muscorum*, etc.—C. and gen. Among leaves and under stones.

#### AZECA.

23. *A. TRIDENS*, *Pulteney*, (*Turbo*).—*Helix*, *Pupa* and *Cionella Goodallii*, *Britannica*, etc.—C. and general. Habits as *Zua* and *Pupa*.

#### ACHATINA.

24. *A. ACICULA*, *Müller.*—*Buccinum*, *Bulimus*, *Helix octona*, *terrestre*, etc.—In marshy places, among Grass, etc., C. S. Eu.

CYCLOSTOMA. Snail with operculum.

25. *C. ELEGANS*, *Müller*, (*Nerita*).—*Turbo reflexus*, *T. tumidus*, *striatus*, *elegans*.—Chalky districts of S. Engl., C.

ACME. Cylindrical Snail with operculum.

26. *A. LINEATA*, *Drap.* (*Auricula*).—*Turbo*, *Carychium*, *Cyclostoma*, *Bulimus fuscus*, *Cochlea minuta*.—Bristol, Pembroke, Clare, Dublin, etc., R.

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