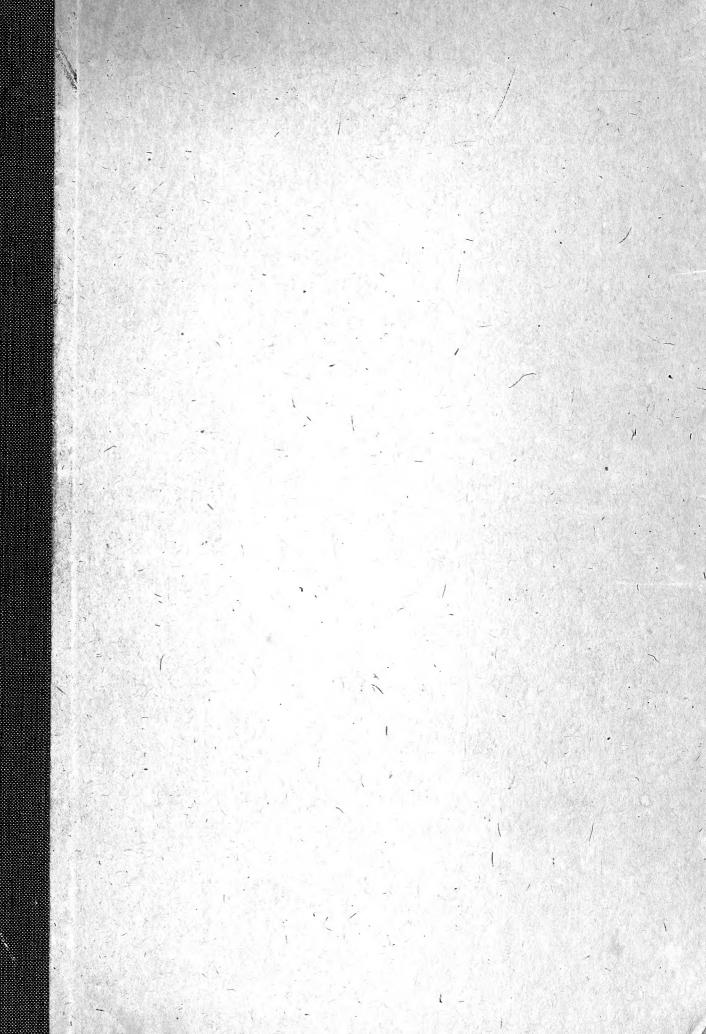
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# EXOTIC CONCHOLOGY;

OR

# FIGURES AND DESCRIPTIONS

OF

## RARE, BEAUTIFUL, OR UNDESCRIBED



DRAWN ON STONE FROM THE MOST SELECT SPECIMENS;

THE DESCRIPTIONS SYSTEMATICALLY ARRANGED ON THE PRINCIPLES OF MM. CUVIER AND DE LAMARCK, WITH REFERENCES TO THE LINNÆAN CLASSIFICATION.

BY

## WILLIAM SWAINSON, F.R.S. & F.L.S.

MEMBER OF THE WERNERIAN SOCIETY OF EDINBURGH, THE HISTORIC SOCIETY OF NEW YORK, &c.

VOL. I.

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1821.

NOODON CONCORDENT

PIOLORS AND DESCRIPTIONS

PRINTED BY RICHARD AND ARTHUR TAYLOR, SHOE LANE.

## ADVERTISEMENT.

IT is a remarkable fact, that, while the perfection to which the Fine Arts have attained in this country, is so great, as to be obvious in the embellishments of the minor pamphlets which daily issue from the press, the delineations of Zoological subjects in general remain uninfluenced by this universal improvement; and, with a few exceptions, present lamentable deficiencies in design, drawing, perspective, and the most common principles of light and shade; any one of which would not be tolerated, even in the frontispiece to the most humble of our periodical publications.

The causes of this may be two-fold. Natural History in this country, until very lately, has been little pursued, and still less estimated; and, the publication of works relating to it being attended with a great and inevitable expense, followed by a comparatively small sale, the burden, in most instances, of engaging artists to produce original designs has been avoided, by substituting those from books long ago published; and thus, we have reiterated copies of the mis-shapen figures given by the writers of the last century, perpetuated with all their glaring faults, in the hot-pressed volumes of the present day.

The other cause may, perhaps, be attributed to an idea which many people entertain, that only the slightest knowledge of drawing is necessary to represent a Bird or a Shell; and that, if the first is painfully copied in the exact position it stands in the Museum, and, if the latter has its due proportion of colour, every thing is done. But they forget, that, in Birds particularly, every family has a decided peculiarity of form and habit, and that all originally possessed the gracefulness of life and action, which does not remain with the preserved skin; and, that, to delineate a shell with a proper degree of accuracy, as complete a knowledge of design, colouring, and *chiaro-scuro*, is requisite, as in painting a cabinet picture of still life. To those who may doubt this assertion, a simple reference to the unrivalled plates of M. de Ferrusac's work on Land Shells, now publishing in Paris, will be sufficient; while the exquisite designs of Barraband, for Le Vaillant's "Parakeets," will evince a consummate knowledge of every principle necessary to constitute a painter of first-rate eminence.

Yet amidst the decided inferiority which our own works in general present in this respect, we can boast of some names, whose productions have set an example of correct design and masterly finishing, but too little followed, because perhaps not sufficiently encouraged. The life and animation which characterize the Zoological plates of the two Daniells, and the spirit of Howit's etchings are universally acknowledged. In plates of Ornithology and Conchology we are, however, very deficient, yet who does not admire the truth and nature so conspicuous in the wood-cuts of Bewick? The plates of Mr. Selby

#### ADVERTISEMENT.

are also highly spoken of. The numerous etchings of Mr. Sowerby (particularly in his Mineral Conchology and Wood's General Work on Shells) evince that union of scientific and professional knowledge, so desirable, yet so rarely met with. Many of the Conchological Plates in Dr. Rees's Cyclopædia are original, and for the most part remarkably good, and the outline plates from the amateur pencil of Mr. Burrow, show an accuracy of design and delicacy of touch, which might serve as a model for a General Conchology, in which every species might be so figured, and published at a moderate expense.

It may be proper also in this place to notice Martyn's Universal Conchologist, particularly as that costly book suggested the idea of the present work. The plates have an imposing effect, and many of them are not only beautiful but faithful representations; the majority however, though laboriously finished, betray an incorrectness of drawing and a gaudiness of colouring, that renders the eye often incapable of recognising a well-known shell. The plates also, from being but slightly etched, and afterwards finished in body colours (which leaves so much to those who perform the mechanical process of colouring), are so unequal, that scarcely two copies will be found of the same subject that are alike; an imperfection, which, although it may lessen the appearance of the present work in the eyes of many, has been carefully avoided, by finishing the plates in water-colours only, and engraving in a decided manner all such delicate characters as belong to the species, instead of leaving them to be put in by the uncertain ability of those who colour.

A few words may appear necessary on the general intention of this work, which is simply that of bringing together a selection of the most rare, undescribed, and beautiful Shells that can be procured; and although, in pursuing this plan, figures of many will be given that are already scattered in the works of the last age, their representations in general are so imperfect, that few, it is hoped, will regret the repetition. All the drawings are original, and executed by the author on stone; and the letter-press is so contrived, that at the termination of the work the whole will present a scientific arrangement.

With every endeavour to attain some degree of excellency, the author is fully aware that numerous defects may be discovered in his delineations. Nevertheless, the undertaking has been commenced under the primary wish of inducing others, more competent than himself, to rescue this branch of the Fine Arts from the neglect it has hitherto experienced, and at the same time to stimulate as much as possible the increasing taste now manifested (particularly among the gentler sex) for a pursuit, which, while it brings together some of the most lovely of Nature's productions, has furnished materials for deep and philosophic inquiry, not only into the nature and economy of organized beings, but also into the formation of the planet which we inhabit.

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## FAMILY, VOLUTÆ.

## GENUS. VOLUTA-Volute.

Testa ovata, subventricosa; spirá aperturá breviore; apice papilloso; basi emarginatá; columellá plicatá, plicis inferioribus majoribus.

Animal capitatum, capite duobus tentaculis cuspidatis compressis instructo, tubâ alatâ inter tentacula interpositâ, oculis ad tentaculorum basin adsitis, ore tubulato, producto, cylindraceo, margine dentibus parvis, incurvatis, armato, pede maximo, foliaceo, operculo caret.

#### SECTIONES.

I. Testa ventricosa, lævis; spirå brevissimå, crasså; apice obtuso. Cymbeolæ.

II. Testa ovalis spinosa vel tuberculosa. Musicales.

III. Testa subelongata, plerumque lavis. Fusoideæ.

Shell ovate, subventricose; spire shorter than the aperture; the lip papillary; base emarginate; columella plaited; inferior plaits largest.

Animal capitated, the head furnished with two short flat and pointed tentacula, near the base of which are the eyes. Mouth tubular, lengthened, cylindrical, margined with small hooked teeth, a winged tube inserted between the tentacula. Foot very large, foliaceous. Operculum none.

#### SECTIONS.

I. Melons. Shell ventricose, smooth; spire very short, thick, obtuse.

II. Horned Musics. Shell ovate, spined or tuberculated.

III. Smooth Musics. Shell slightly elongated, generally smooth.

**THE** Genus *Voluta*, as left by Linnæus, comprehended all such shells (however their forms or inhabiting animals differed) as had the pillar plaited or twisted, a character which, however simple and embracing many natural groups, nevertheless included others the most opposite in their nature and appearance. To the Chev. de Lamarck we are indebted for the reformation of the genus as it now stands, comprising only such shells as are known to collectors by the appellation of Melons and Musics: the former of these have been separated by some writers; but the characters of both blend so harmoniously into each other, that no distinguishing character in one group exists, which cannot be found in some individuals of both.

The Volutes are, without any exception, the most rare and nearly the most beautiful of any family of shells; but few of the species are usually seen in collections; the greatest proportion being of high price or excessive rarity. They are all inhabitants of warm latitudes, principally the Asiatic Ocean. In a luminous monograph of the genus by Lamarck, 62 recent species are described, as well as 18 hitherto found only in a fossil state in France. Some of the former I apprehend should more properly be considered as varieties, while the number of the latter will be augmented by those found in our own country.

To the accurate observations of Adanson we are indebted for a perfect knowledge of the animals inhabiting *Voluta Cymbium* and *porcina*, the only two species he found on the coasts of Senegal; but we may for the present fairly conclude, that the animals inhabiting the others are of the like construction. VOLUTE-Voluta. Sect. 1.

## VOLUTA diadema. Short-crowned Melon.

V. (Sect. 1.) T. ventricosâ, marmoratâ, coronatâ; spinis remotis, rectiusculis; columellâ triplicatâ. Shell ventricose, marbled, coronated; spines remote and nearly straight; pillar three-plaited.

Voluta diadema. Lam. Ann. du Mus. 17. p. 57. 1.

Gualt. 29. H. Martini 3. tab. 74. fig. 780. Seba, tab. 64. 1.—tab. 65. 2.—tab. 66. 1. 2. 3. ? 7. ? 8. 10. 15.

Var. A. nearly brown. Martini 3. tab. 73. 777.

No doubt can remain that Linnæus has placed more species of Melon than one under the name of *Voluta athiopica*, and both Solander and Lamarck have characterized four of these as distinct. It must however be confessed, that the *V. diadema* and *armata* of the latter approach so near each other as to admit of some doubts on this point, though I should observe that specimens of the latter shell, as figured by Martini and Seba, I have never hah the fortunte to see. The characters of the short-crowned Melon appear to rest on the spines being much more remote, longer, and not depressed towards the spire, as in *V. tessellata* or *athiopica*; from both of which it is distinguished in having only three plaits. No criterion can be given as to the colour, which varies very much; but the two bands of large brown spots and white angular blotches are generally seen more or less in all. Our drawing is made from a young but uncommonly beautiful shell in the Bligh collection (now the property of Mrs. Mawe), which comes very near that variety figured by Seba at pl. 66. fig. 15.

This species inhabits the Asiatic Ocean, and fine specimens are rarely seen.

## VOLUTA tessellata. Flat-spined Melon.

V. (Sect. 1.) Testâ ventricosâ, melinâ, maculis fuscis tessellatis ferè ornatâ; spinis depressis, frequentibus, eodem vergentibus; columellâ 4-plicatâ.

Shell ventricose, straw-coloured, generally with two bands of tessellated brown spots; spines depressed, crowded, and greatly converging, pillar 4-plaited.

Var. A. immaculate. Voluta tessellata. Lam. Ann. du Mus. 14. p. 58. Seba 64. 2. Ency. pl. 387. 2. Mart. 3. 75. f. 785.-76. 786.

Var. B. spotted. Lister 797. 4. Seba, tab. 65. 10.-66. 6.

**T**HE great inclination of the spines in this species towards the spire, which it almost hides, will readily distinguish it from all others. It varies; being either entirely of a deep straw colour; or having two bands composed of dark tessellated spots. It is singular, however, that Lamarck should take no notice or refer to the figures of the pale variety, and make his specific character rest on the spots found on the other. This shell is more ventricose than any other of the coronated Melons. In the shell here figured from Mr. C. Dubois's collection, a few spots on the inner lip point out the connexion of the two varieties. It inhabits the Asiatic Ocean.

## VOLUTA nivosa.

Snow-spotted Volute.

Voluta (Sect. 2.) T. ovatâ, lividè-helvinâ, maculis niveis adspersâ; fasciis duabus fusco-lineatis; columellâ 4-plicatâ.

Volute (Sect. 2.) Shell ovate, livid flesh-coloured, covered with white spots, with two bands of brown lines; pillar 4-plaited.

Voluta nivosa. Lam. Ann. du Mus. vol. 5. p. 58. tab. 12. f. 2. a. b.-Vol. 5. pl. 12. 1.-Vol. 17. p. 64. No. 18.

LAMARCK appears the first writer who described this remarkably rare and not inelegant shell. Although it is generally known in this country by the unpublished name of *V. gamberonica*; in its general form and character it approaches very near to the *Bat Volute*, particularly in the tuberculated termination of the spire, and in being either nearly smooth, or armed with short, angular, obtuse spines. The mouth, however, is more effuse, and the peculiarity of colour appears constant; the mouth is of a deep yellowish buff, the ground of the shell livid flesh colour, covered with irregular spots of pure white, like snow flakes; across the body whorl are two pale cinereous bands, in which are a number of short irregular brown lines, and others more slender and crowded arise from the suture of each whorl. Our figure is from the celebrated shell which belonged to the late Mr. Jennings, and which is now in the possession of Mrs. Mawe, who obliged me with the use of it. Two'other small, though very perfect, specimens are also in the cabinet of Mr. C. Dubois, one of which is nearly smooth; the other remarkably rich in colour. It is found, according to M. Péron, the French circumnavigator, on the coast of New Holland. VOLUTE-Voluta. Sect. 2.

## VOLUTA marmorata.

## Marbled Volute.

V. (Sect. 2.) Testâ subventricosâ, coronatâ, spirâ brevi; apice conico, lævi; columellâ 4-plicatâ.
Yolute (Sect. 2.) slightly ventricose, coronated, with muricated tubercles; spire short; apex conic; very smooth; pillar 4-plaited.

**O**<sub>F</sub> this excessively rare shell I can discover neither figure nor description, and it appears to have been unknown to the indefatigable Lamarck; indeed the only specimen known in England is that here figured from Mr. Angus's collection, but which now belongs to Mrs. Mawe. The singular termination of the spire, which is most perfectly conic, remarkably smooth, and with the suture very slender and scarcely impressed, affords strong and peculiar characters; the specimen is not in great perfection, but sufficiently perfect in all its leading markings. Locality unknown.

## VOLUTA Pacifica.

#### Pacific Music.

V. (Sect. 3.) Testà ovato-fusiformi, venulis spadiceis angulatis, fasciisque tribus fusco-maculatis ornată; anfractibus tuberculatis vel nodosis; columella 5-plicatâ.

V. (Sect. 3.) Shell ovately fusiform, with angulated veins and three bands of brown marks; volutions tuberculated or nodulous; pillar five-plaited.

V. Pacifica. Chemnitz, 11. t. 178. f. 1713 & 14. Lam. Ann. 70. no. 33. Dill. 565.

V. Arabica. Gmelin, 3461. no. 144. Martyn, vol. 2. pl. 52. .

**U**NTIL lately, this has been considered one of the most rare and valuable shells of the genus. A few specimens have however been recently brought to England by the South Sea vessels, principally, as I learn, from the Bay of Islands, and have found their way into the London Collections; it is, nevertheless, a shell very rarely seen. Two striking varieties appear to exist; one of which is nearly smooth, or with only small tubercles; the other has large three-sided nodules on the two lower volutions, and the terminal ones plaited. This variety is figured from Mr. Dubois's cabinet; it has the apex imperfect, but the aperture filled up by the animal—a circumstance that occurs in two others in that gentleman's collection, one of which is near half as large again. The smooth variety is in the possession of C. Maud, Esq. and is remarkable for its perfection. It is often tinged with a bright reddish colour, similar to *V. olla*, but which is external, and not the real colouring matter of the shell. Gmelin erroneously describes the number of plaits as four instead of five. The mouth at the base is effuse, and the margin slightly reflected.

#### VOLUTA tuberculata.

Tuberculated Music.

V. (Sect. 2.) Testá ventricosá; anfractibus transverse sub-levatis, tuberculatis; spirá brevi atlenuatá; aperturá effusá; columellá 5-plicatá.

V. (Sect. 2.) Shell ventricose; whorls with an elevated transverse row of tubercles; spire short, attenuated; aperture effuse; pillar 5-plaited.

Voluta sub-nodosa? Leach Zool. Misc. 1. t. 8. p. 24.

**ANOTHER** strikingly new and undescribed Music; unless indeed the V. subnodosa of Dr. Leach is intended for this species, which it is impossible to ascertain, from the brevity of the description, and insufficiency of the figure, neither of which expresses the number of plaits, or the form of the mouth, &c. The only specimen of the shell I have seen was purchased in Paris, and is now in my possession. Towards the top of the body whorl there is a slightly carinated elevation, broken into small nodulous tubercles, which are continued on the three following volutions of the spire; the two next whorls, which form the tip, are smooth, polished, and white. The suture is prominent, the aperture effuse, and the pillar has five thick obtuse plaits, of which the three middle are the largest. The angulated markings on the back are orange brown, and not disposed in bands. I am unacquainted with its locality, which may probably be the Pacific Ocean.

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## VOLUTA elongata.

Elongated Music.

V. (Sect. 3.) Testà oblongà, spirà mediocre, attenuatà, tantùm non lævi, lineis fuscis undatis fasciatà; columellà medio leviter crassescente, 6-plicatà.

V. (Sect. 3.) Shell oblong; spire moderate, attenuated, nearly smooth, with undulated brown lines disposed in bands; pillar slightly thickened in the middle, and 6-plaited.

A SINGLE Shell of this elegantly-formed and unknown species, was brought a few months back from the Bay of Islands, by one of the South Sea trading vessels, and is in the possession of Mr. C. Dubois. Its generic characters are strikingly dissimilar from all others that have been described, though, in its general form it approaches to *Voluta magnifica*, and in its markings to *V. Pacifica*. With the exception of a few faintly marked and nearly obsolete plaits on the under side of the body whorl and the following volution, the shell is quite smooth. The pillar is slightly thickened in the middle, where the two first plaits terminate, and there are four much stronger ones below. The suture is compressed on the succeeding volution, and slightly wrinkled. Though not in perfection, this shell may be termed unique, and the most rare of this beautiful and noble family.

VOLUTA angulata.

Angulated Music.

V. (Sect. 3.). Testà elongatà, inermi, epidermide vitreà tectà; anfractu basali supra gibbo; spirà brevi, attenuatà, lavi; apice acuto; aperturà effusà, aurantii colore tinctà; columellà 3-plicatà.

V. (Sect. 3.) Shell elongated, unarmed, covered with a polished epidermis; upper part of the body whorl gibbous; spire short, attenuated, smooth; apex pointed; aperture effuse, orange; pillar 3-plaited.

THE characters of this rare and undescribed shell connect the Melons with the smooth Musics, or the first and third of the divisions here made of the genus: like many of the former shells, it is covered with a glazed epidermis, is rather thin, and the aperture very large; while, in the formation of the spire and similarity of markings, it is connected with the smooth Musics.

Two matchless specimens are in the possession of Mrs. Mawc, who favoured me with them for this work. One of these had the epidermis covering the whole shell, through which the waved lines were partially seen as represented in the figure of the under side; the upper part of the body whorl has a gibbous rim, which forms an obtuse angle with the suture and the back of the shell; the spire is pointed, and not at all papillary. It is, I believe, from the Pacific Ocean, so rich in these rare and valuable shells.

## VOLUTA Æthiopica. Æthiopian Melon.

V. (Sect. 1.) Testá obovatá, ventricosá, castaneá; spinis brevibus, frequentibus, depressis, rectiusculis, et in anfractum spiræ primum continuatis; columellá 4-plicatá.

Shell obovate, ventricose, chesnut brown; spines short, numerous, depressed, nearly straight, and continued on the basal spiral whorl; pillar 4-plaited.

Lam. Ann. du Mus. 14. p. 58. No. 5.

Var. A. entirely chesnut.

Lister, 801.7. b. Gualt. 29. I. Martini, 3. 75. 784. Ency. Meth. 387. 1.

B. with a pale obsolete band.

Gualt. 29. H. Seba, 65. fig. 4. 11. tab. 66. fig. 9. Martini, 3. 73. 778-9.

C. with two brown bands.

Martini, 3.74. f.782.

THE peculiarity of this species, which is retained under the original name of Linnæus, consists in the spines being more numerous and slender, but not less crowded, than in V. tessellata; like the spines of that shell, these also are flattened on the upper surface, but, instead of being greatly depressed on the spire, are nearly straight, and are often continued on the next and even succeeding volution. Its shape is more oval, but its colour varies considerably; yet, with the exception of those in Seba (a book seldom seen) no tolerable figures exist of these beautiful varieties. The fine specimen here delineated of Var. B. is from the cabinet of my friend, W. J. Broderip, Esq. The upper plait on the pillar in this shell is very slender and indistinct; the spines are thick set, and beautifully graduating to a very small size on the first spiral whorl, and longitudinal lines of a paler colour than the general tint run the whole length of the shell. A singular variety, as I conceive, of this species and of immense size, is in the possession of Mrs. Mawe, entirely cream-coloured, with the spines more distant, probably owing to the age of the shell.

Inhabits the Asiatic Ocean.

## VOLUTA melo.

#### Spotted Melon.

V. (Sect. 1.) Testà ventricosà, albido-lutescente, maculis fuscis fusciatà; spirà lævi, obtectà; columellà 4-plicatà.

V. (Sect. 1.) Shell ventricose, pale yellowish, with 2-3 bands of chesnut spots; spire smooth, nearly concealed; pillar 4-plaited.

Voluta Indica. Gmelin, 3467. no. 120.

----- melo. Lam. Ann. du Mus. p. 59. no. 6. Martini, 3. tab. 72. 772 & 3. Ency. Meth. 389. 1. Knorr, 5. tab. 8. f. 1.

Young, V. præputium. Gmelin, 3468. no. 124. Lister, 798.5. Chemnitz, 10. tab. 148. 1391 & 2.

 $O_F$  this beautiful though common Shell, not a tolerable coloured figure has yet been published; its usual colour is a clear orange-tinted yellow, marked by rich chesnut spots disposed in two or three transverse bands; in form it is subject to much variation. The slender variety here figured is from the Bligh Cabinet. Others more than usually ventricose, Mr. Mawe informs me, are principally received from Ceylon. A character sometimes exists in this species, which in others is not observable, of 3 or 4 remote slender indented striæ across the body whorl. The young shells of this and all the Melons have the spire of the same size as in the full-grown shell, when it becomes nearly covered by the body whorl. Linnæus, not being aware of this, has in several instances described them as distinct species. No doubt can exist that his V. praputium is no other than the young of this shell which is a native of the Indian Seas.

The shell figured by Seba at plate 66. fig. 11. is clearly the young of V. diadema, as is shown by the appearance of spines near the top. It has, however, been quoted by Gmelin for his Voluta navicula, and again we find a reference to the same figure under the description of Vol. praputium, and this error has also been copied by Mr. Dillwyn.

## VOLUTA cymbium.

#### Clouded Melon.

V. (Sect. 1.) Testà nebulosà, coloreque castaneo undatà; suturæ alveatæ margine carinato; spirå anfractibus 2 brevissimis obtusis; labio interiore castaneo; columellæ plicis variis.

V. (Sect. 1.) Shell clouded, and waved with chesnut; suture deeply channelled, the margin carinated; spire of 2 very short obtuse volutions; inner lip chesnut; plaits on the columella variable.

Voluta cymbium. Lam. Ann. du Mus. p. 60. no. 8. Martini, 3. t. 70. f. 762 & 3. Seba, tab. 65. f. 8, 9. Gualt. tab. 29. f. B. Ency. Meth. tab. 386. f. 3.

**T**HIS and *Voluta melo* are the only smooth Melons variegated with markings. Although figured by several authors, the only coloured representation is given by Martini, and that very badly. It appears to vary much, according to Lamarck, in the number of plaits on the pillar, which in very large individuals he mentions as being six, from the first and last plaits being each divided into two: this, however, I have not myself seen. A fine example of this shell in my own collection has only four, the last of which is very slender, and nearly hid by the preceding plait. The suture is very deeply channelled, and the inner lip sometimes of a deep polished chesnut; this is generally the case in dwarf specimens, which are sometimes only half the size of that here represented. The figures of Seba, and in the Ency. Méthodique, of this species, are particularly good.

## VOLUTA rubiginosa.

#### Burnt-mouthed Melon.

V. (Sect. 1.) Testà oblongâ, subcylindraceâ; suturæ alveatæ margine carinato; spirå.anfractibus 2 brevibus; columellâ 3-plicatâ; aperturâ fuscâ.

V. (Sect. 1.) Shell oblong, sub-cylindric; suture channelled, the margin carinated; spire of 2 short volutions; pillar 3-plaited; aperture brown.

MRS. MAWE obliged me with this strikingly new and unique Shell, possessing many of the characters common to the unspotted Melons, but essentially distinct from all hitherto described; it was stated as having come from Peru; but this *habitat*, from the geographic distribution of the genus, I am inclined to doubt; thinking it more probably an inhabitant of the African or Oriental Seas.

This species has the nearest affinity to *V. cymbium*; but its form is more slender, and the spire somewhat resembles that of *V. olla*, but the margin of the suture, which in that shell is convex, in this is thin, carinated, the edge reflected, and leaving a deep concave groove or channel between the spire and body whorl, which nearly disappears in the next volution. The colour of the back is a very pale grey or cinereous, over parts of which are the remains of a light brown epidermis, which is glazed, and is darker and thicker on the spire. The mouth is chesnut brown, dark at the base and inner lip, and shaded with cinereous within. The belt (terminated by the notch at the base of the shell, where the animals of this genus project their head) is also chesnut, and but slightly carinated.

## VOLUTA olla.

#### Wrinkled Melon.

V. (Sect. 1.) Testà epidermide fuscà; suturæ alveatæ margine obtuso, convexo; spirû anfractibus 2 brevibus; columellà 2-plicatà.

V. (Sect. 1.) Shell with a brown epidermis; suture channelled, the margin obtuse and convex; spire of 2 short volutions; pillar two-plaited.

Voluta olia. Gmelin, 3466. no. 115. Lam. Ann. du Mus. p. 60. no. 9. Ency. Meth. 385. f. 2. Gualt. tab. 29. f. A. Martini, 3. tab. 72. f. 772 & 3.

**T**HE definitions of this shell in the Linnæan Systems are vague, and the synonyms abound in errors; these have, however, been rectified by Lamarck. *Voluta olla* is a common shell, though rarely met with in perfection, &c. it is then covered by a bright chesnut epidermis, which is sometimes so dark as to appear black; it is usually seen of a light fawn colour: in both these states it is here represented. The pillar has only two plaits, and the upper part of the whorls, though channelled, are not carinated, but obtuse; the *V. papillaris* of Gmelin, placed as a variety of this shell by Dillwyn, is the young of *V. porcina*. In its adult state this is more wrinkled than any of the Melons, and generally has a distorted appearance; the variety mentioned by Lamarck, and figured by Lister, (pl. 794 f. 1.) I have not yet seen.

Inhabits the Asiatic Ocean, and probably the shores of Africa.

## VOLUTA porcina.

Common glazed Melon.

V. (Sect. 1.) Testâ elongatâ, sub-cylindraceâ, suprà latiore; labio exteriore tantùm non recto; sutura margine carinato; spirâ sub-obtectâ; columellâ 2-plicatâ.

V. (Sect. 1.) Shell lengthened, subcylindric, broadest above; outer lip nearly straight; margin of the suture carinated; spire nearly obsolete; pillar 2-plaited.

V. porcina. Lam. Ann. du Mus. p. 61. no. 11. Martini, 3. t. 70. f. 764 & 5. Seba, tab. 65. f. 56. tab. 66. f. 5. Ency. Meth. pl. 386. f. 2.

Le Philin. Adanson, tab. 3. f. 2. Young. Seba, 64. f. 9. tab. 66. f. 13. 14. 16.

**THIS** shell is introduced more to complete the series of this interesting family, than from any beauty or rarity that belongs to it, for it is one of the plainest and most common of all the Melons. It has, in its colour, a close resemblance to *V*. proboscidalis, and, like that shell, is furnished with a glazed epidermis; the upper part, however, is not contracted, but very broad, making the margin of the outer lip nearly straight; the pillar also has only two plaits.

The figure of the young shell by Seba  $(tab. \hat{6}4. f. 9.)$  has erroneously been quoted for V. glans by Gmelin and Dillwyn. Adapson found this species on the coast of Senegal, and has described the animal under the name of Le Philin.

On the authority of Bonanni this species is stated as being found on the coast of Spain. No subsequent writer has, however, confirmed this *habitat*, and it is more than doubtful, when the geography of the genus is considered. Dead shells might have been found on the southern extremity of that country, carried by currents from the African coast; but even this by no means proves that this shell should form an exception to all the rest of its family, which are purely tropical. VOLUTE-Voluta. Sect. 1.

## VOLUTA proboscidalis.

Boat-shaped Melon.

V. (Sect. 1.) Testá elongatá, naviculari, extremo utroque contracto; basi lineis 3 levatis transversis cinctá; sutura margine carinato; spirá obtectá; columellá 4-plicatá.

V. (Sect. 1.) Shell lengthened, boat-shaped, both extremities contracted; base with three elevated transverse lines; margin of the suture carinated; spire concealed; pillar 4-plaited.

V. proboscidalis. Lam. Ann. du Mus. p. 60. no. 10. Ency. Meth. pl. 389. f. 2. Lister, t. 800. f. 7.

LAMARCK was the first writer who characterized this shell as distinct from both V. porcina and cymbium, with the last of which it stands in the Systema Natura; but the differences between them are too striking to need any further discrimination than those given in the specific character. The whole shell is covered with a brown glazed epidermis, under which the colour is paler, but the mouth brighter and tinged with orange; the contraction of the upper part of the shell (which is greater than at the base) gives it a slender and very graceful form. Its largest size is sometimes nearly double that here represented, which is in my own collection. The spire is quite concealed, and the projecting carinated margin of the basal whorl gives it a concave appearance; the last plait on the pillar is very small, and nearly hid by that which precedes it. Lamarck gives the Philippine islands as its locality.

VOLUTA scapha.

Heavy Boat Melon.

V. (Sect. 1.) Testà ponderosà, inermi, lævi, subventricosà; labio exteriore leviter reflexo, supra prominente et angulato; spirà brevi, crassà; aperturà albà; columellà 4-plicatà.

V. (Sect 1.) Shell ponderous, unarmed, smooth, subventricose; outer lip slightly reflected, prominent, and angulated above; spire short, thick; aperture whitish; pillar 4-plaited.

Voluta scapha. Gmelin, 3468. Lam. Ann. du Mus. 61. no. 12. Lister, t. 799. f. 6. Martini, 3. tab. 72. f. 774-tab. 73. 775 & 6. Ency. Meth. 391. Seba, tab. 64. f. 5, 6. Gualt. tab. 28. S. (bad.)

THIS shell may be considered as the link uniting the Melons with the Music-shells, and will prove the impossibility of drawing sound generic distinctions between these two groups. The form of the outer lip also, as Lamarck well observes, gives it a resemblance to the Strombi; the upper part being angulated, slightly dilated, and, in large specimens, reflected. It grows to a very large size, and presents in its colouring a great diversity. The most beautiful in this respect, as well as in size, which I have hitherto seen, is in the possession of C. Maud, Esq., by whom it was purchased at Mrs. Angus's sale. It is a very heavy shell, and is generally marked with sharply angulated longitudinal lines, without the transverse bands seen in Mr. Maud's. The suture appears overlaid with a glazed substance, and the lower volutions of the spire are concave; the aperture is sometimes cream-coloured. It appears to come from the Cape of Good Hope. A variety mentioned by Lamarck, which may be a distinct species, has an appearance of nodules, and was received from Java.

STROMBI-Pterocera.

## PTEROCERA aurantia.

Orange-mouthed Scorpion.

P. Testæ labio exteriore processibus 6 inæqualibus (3 lateralibus falcatis) armato; margine dentato; labio interiore crasso; aperturâ lævi, aurantiacâ.

Outer lip with six unequal processes (the three lateral falcated); the margin toothed; inner lip thick; aperture smooth, orange red.

Strombus Scorpio. Martini, vol. 10. tab. 158. f. 1508 & 9.

 $\mathbf{T}_{HE}$  form and direction of the claws, and the great thickness of the lower part of the inner lip strongly characterize the shell. The mouth is always smooth, and of a rich orange colour. It is not very uncommon, though with its precise locality I am unacquainted.

## PTEROCERA nodosa.

Purple-mouthed Scorpion.

P. Testa labio exteriore processibus 6 tuberculatis compressis armato; margine dentato; aperturâ intus purpureâ, costis albis striatâ, ad marginem aurantiacâ.

Outer lip with six tuberculated compressed processes; the margin toothed; aperture within, purple striated with white ribs, and margined with orange.

Strombus Scorpius. *Gmelin*, 3508. 4. *Seba*, *tab*. 82. 11. 15. P. nodosa. *Brug. Ency. Meth. pl.* 410. 2. *Rumph. tab*. 36. K.

**T**HE name of Bruguiere is so very characteristic of this species, that I think it will justify its adoption in preference to the original but unmeaning one given by Linnæus. It is the most beautiful of the genus. The throat is of the darkest purple, vivid at its edges, and crossed by white elevated striæ; the ground colour of the inner lip being brownish. The tubercles are always opposite each other. When young, the inside border of the inner lip is flesh-colour. It is not common, and fine specimens come from the Isle of France.

#### PTEROCERA robusta.

Thick-clawed Scorpion.

P. Testa labio exteriore processibus 6 vel 7 crassis, subcylindraceis, tantùm non rectis armato; aperturâ fuscâ, costis albis densis inaqualibus; canali subrectâ.

Outer lip with 6 or 7 thick, rounded, nearly straight processes; aperture brown, with thick, unequal, white ribs, channel nearly straight.

**VERY** distinct, but nearest allied to *P. nodosa*; the claws, instead of being as in that slender, compressed, and knobbed, are thick, round, and smooth; it is a stout heavy shell. The throat dark brown, with thick irregular ribs. It is very rare, and neither figured nor described.

#### STROMBI—Pterocera.

## PTEROCERA elongata.

Short-clawed Scorpion.

P. Testa labio exteriore processibus 8 brevibus, latis, compressis armato; spirâ productâ; aperturâ striată.

Outer lip with 8 short, broad, and compressed processes; aperture striated; spire lengthened. Lister, 868. 23. Martini, 10. tab. 155. f. 1479 & 1480. P. millepeda. Brug. Ency. Meth. 410. fig. 1. a. b.

 $\mathbf{T}_{HIS}$  is so very distinct a shell from the true *millepeda*, that it is surprising Bruguiere should have continued the error of placing it as the same species: his figure, however, is very good. The claws are very short and dilated, and the spire always lengthened. Mr. Dubois has the finest example of this rare shell I have ever seen.

## PTEROCERA millepeda.

Many-clawed Scorpion.

P. Testæ labio exteriore processibus 9 falcatis, leviter compressis, armato; spirå brevi; aperturå striatå. Outer lip with 9 curved, slightly compressed processes; spire short, aperture striated. Lister, 869. 23. Martini, 3. tab. 88. f. 861 & 2. Seba, 3. tab. 82. Young. Martini, 3. tab. 93. 906 & 7.

ALTHOUGH not uncommon in a young state, this shell is rarely seen well grown, nor have I ever heard of a specimen in full perfection. The figures and specific characters will so easily point out the dissimilarity between this and the last, that no further reasons for separating them appear necessary. It may however be observed, that the lip in this is always reflected, and in *P. elongata* inflected.

#### PTEROCERA violacea.

White purple-mouthed Scorpion.

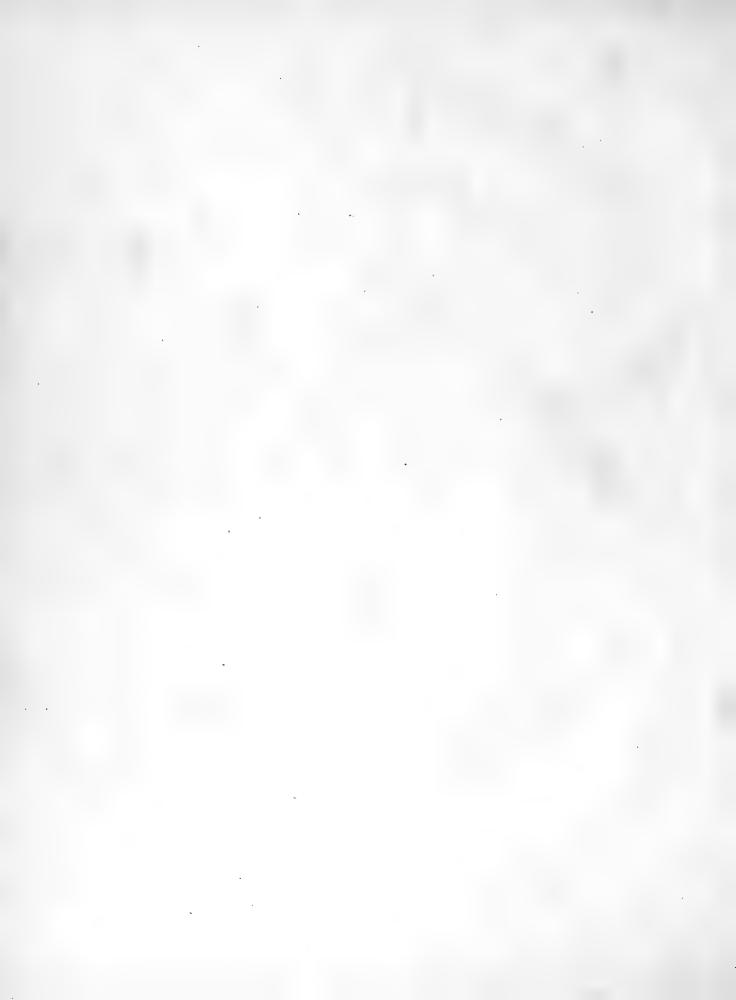
P. Testa labio exteriore processibus 10 brevibus, compressis, (2 superioribus divaricatis) armato; canali brevi; apertura labiisque albis, costatis, intus purpureis.

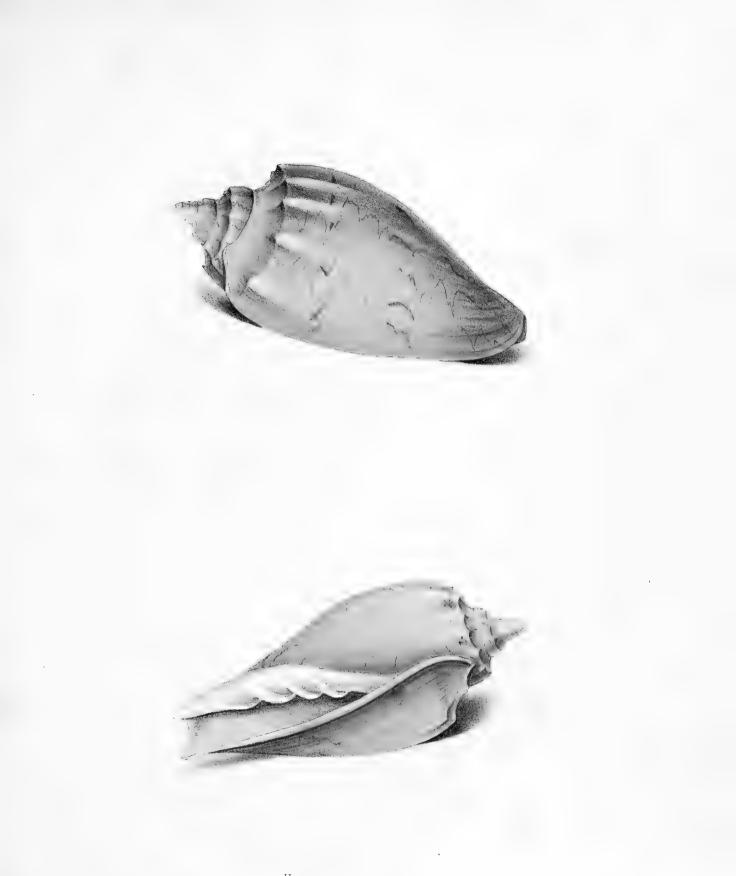
Outer lip with 10 short compressed processes; the two upper divaricated; channel short; aperture and lips white, ribbed, and within purple.

Martini, vol. 10. tab. 157. pl. 1494 & 5.

**T**HE most delicate, and one of the rarest species. Excepting the throat, which is of a beautiful purple violet, the mouth is pure white, marked by regular and delicate ribs, larger and more distant on the inner lip, which is faintly tinged with purple; the margin is a little reflected; the claws flattened, and the two upper ones much divaricated; the back is white. Beautiful specimens were collected by Lord Valentia (now Earl of Mountnorris) in the Red Sea; and to this nobleman we are indebted for the knowledge of a vast number of new shells collected during his Oriental travels.

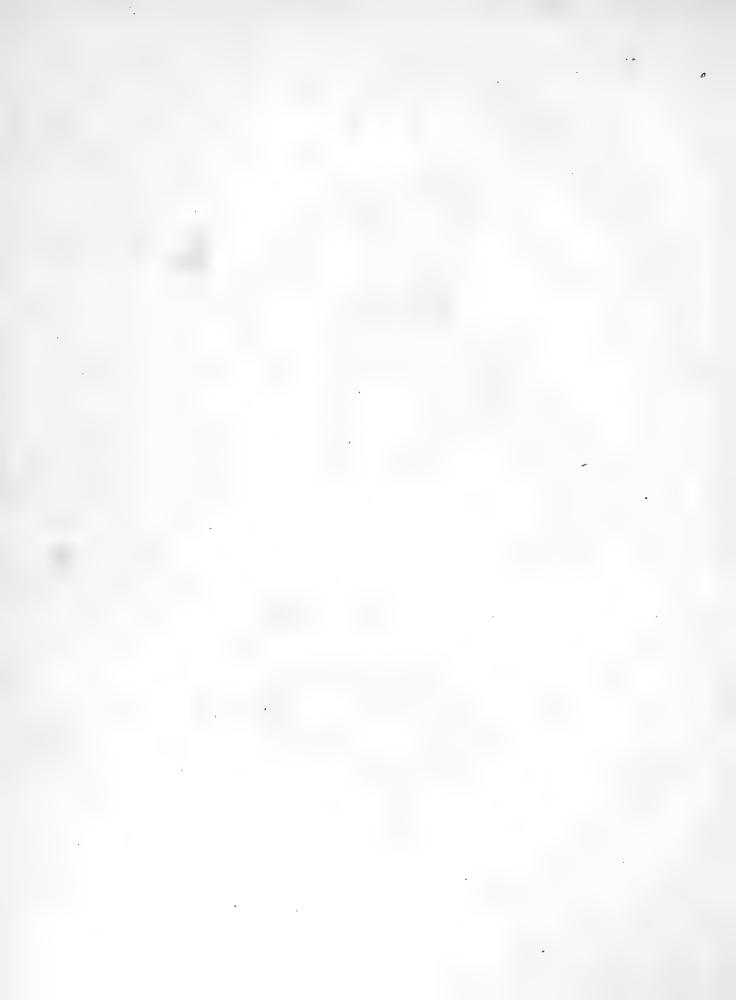




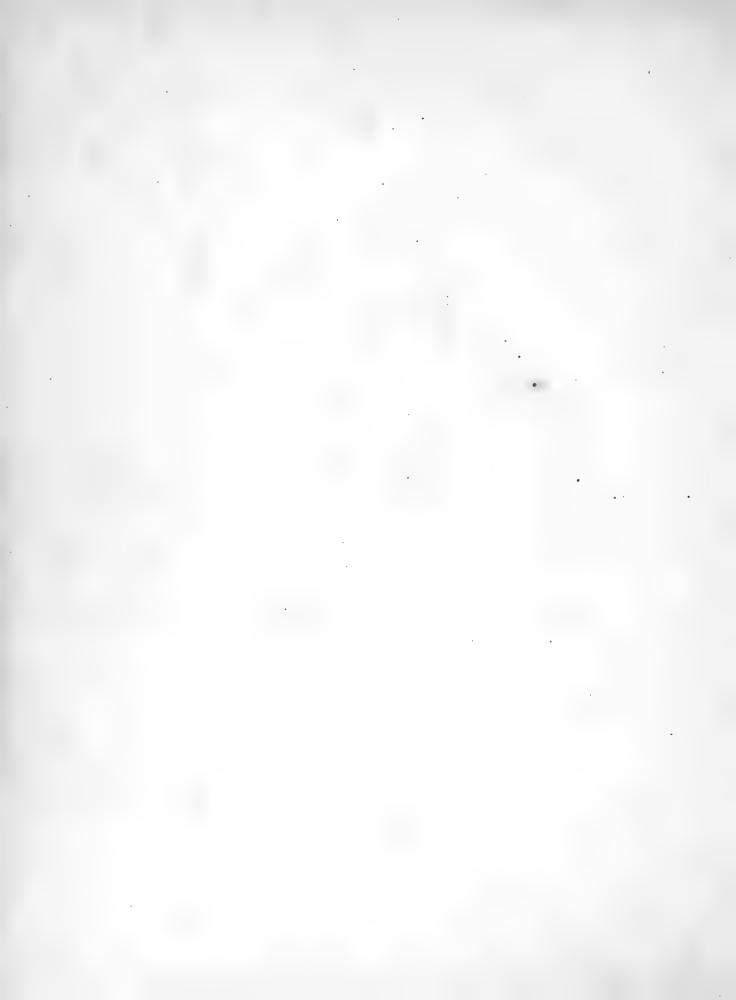


Voluta marmorata Sw."

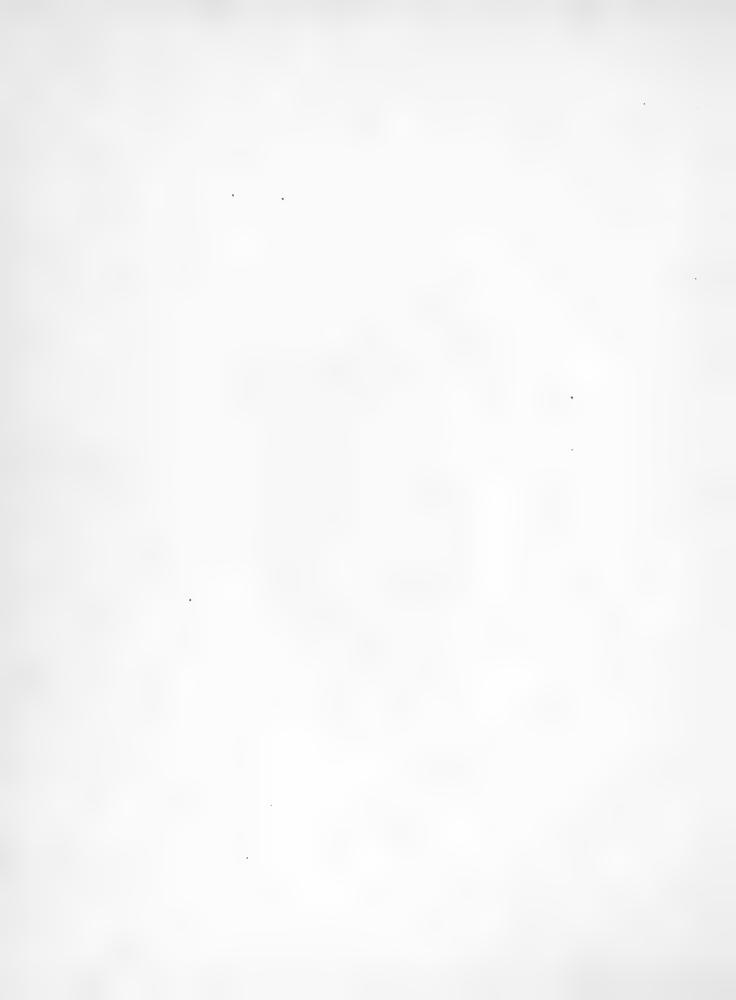
Mus. D'Anous.

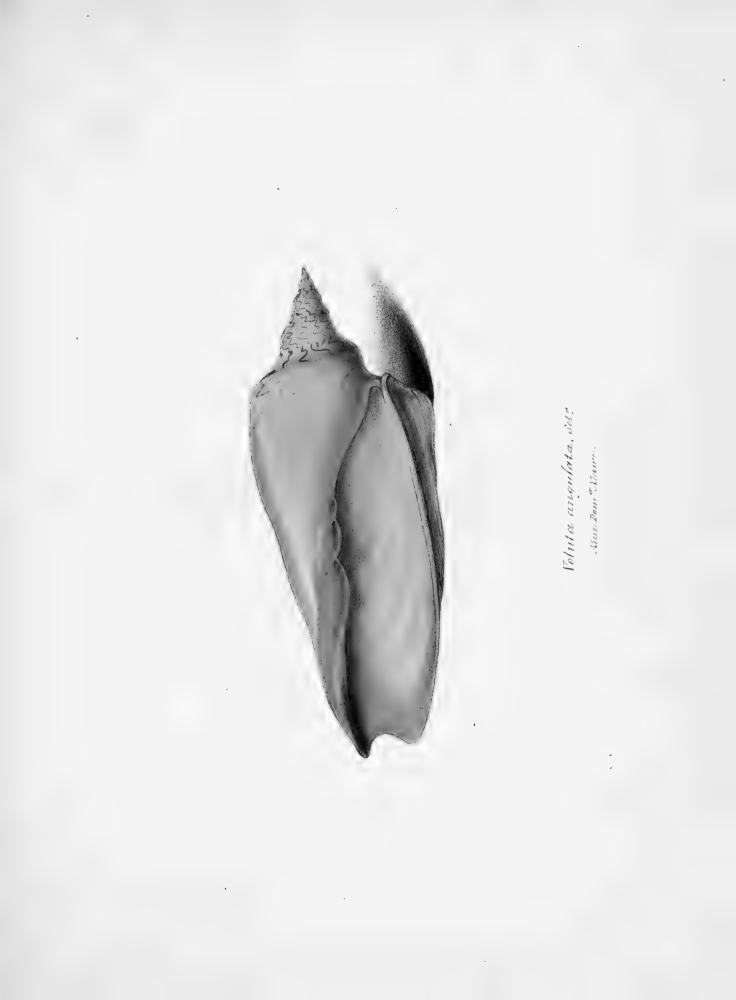




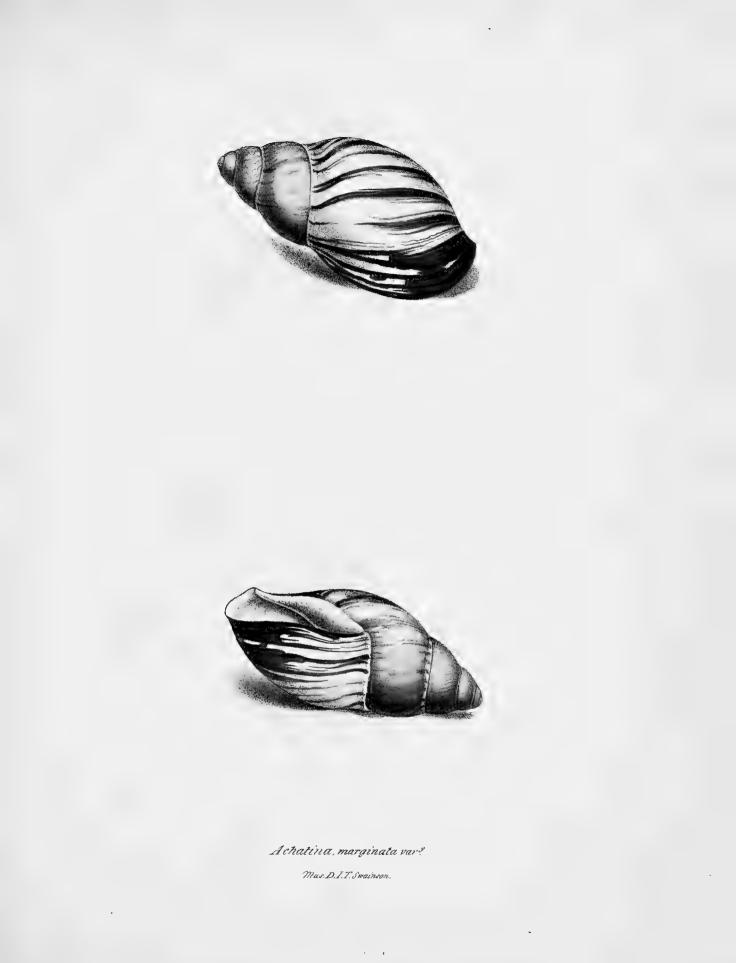








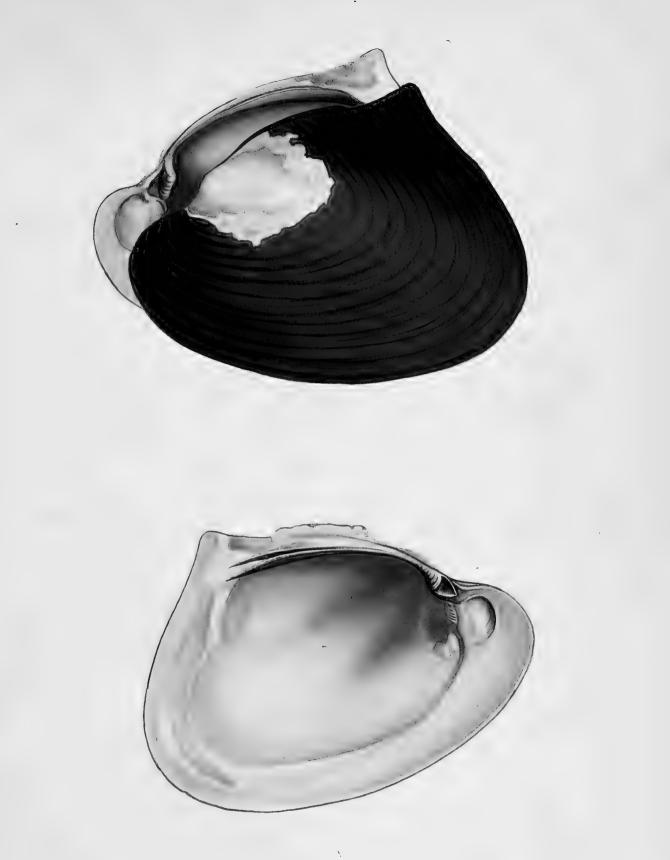










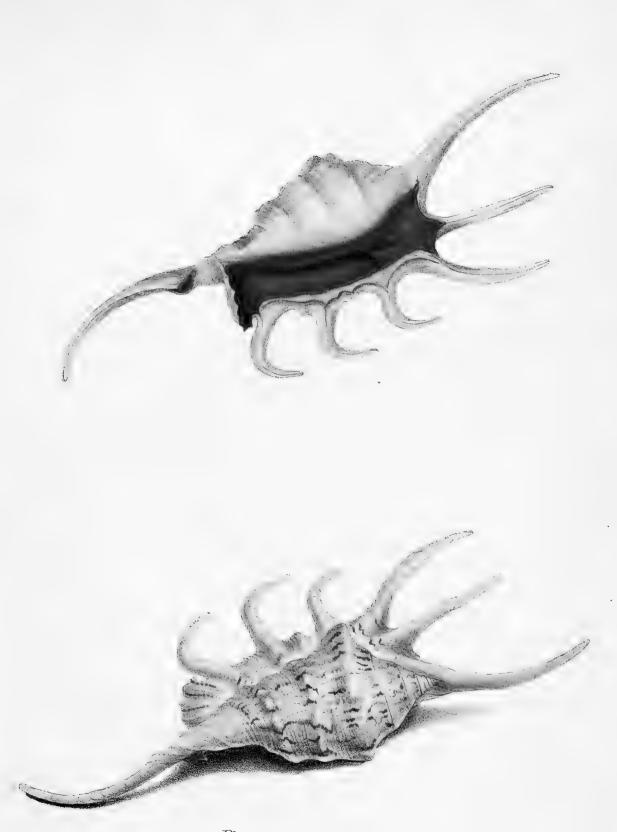


Unio alata. Lam! Mus. Dom. Gul Snaincon







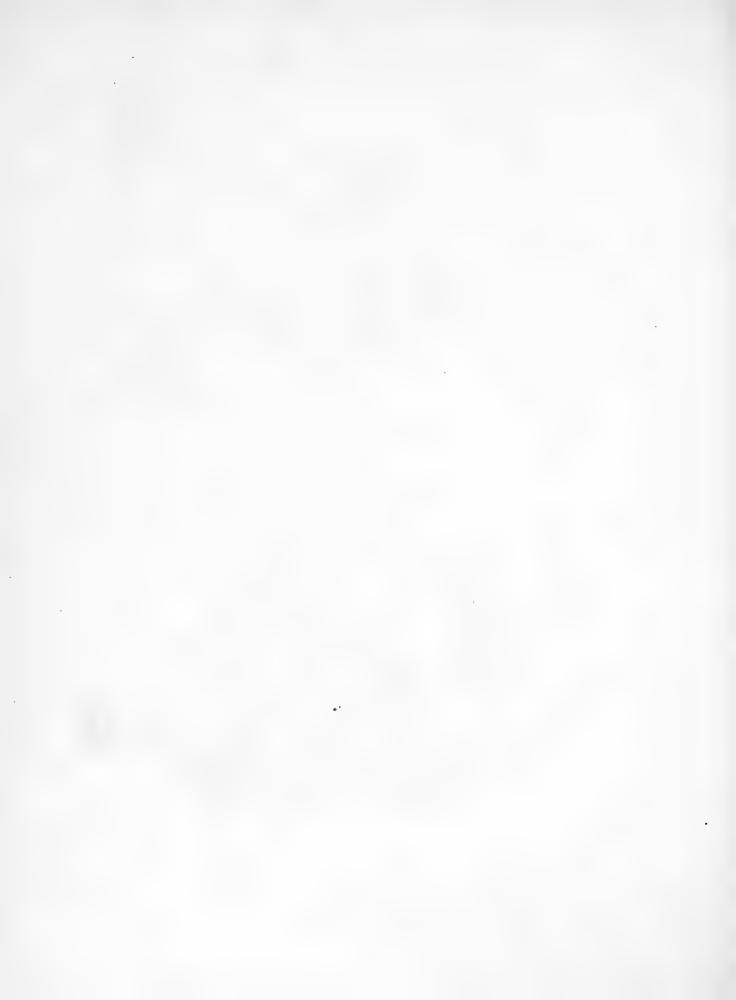


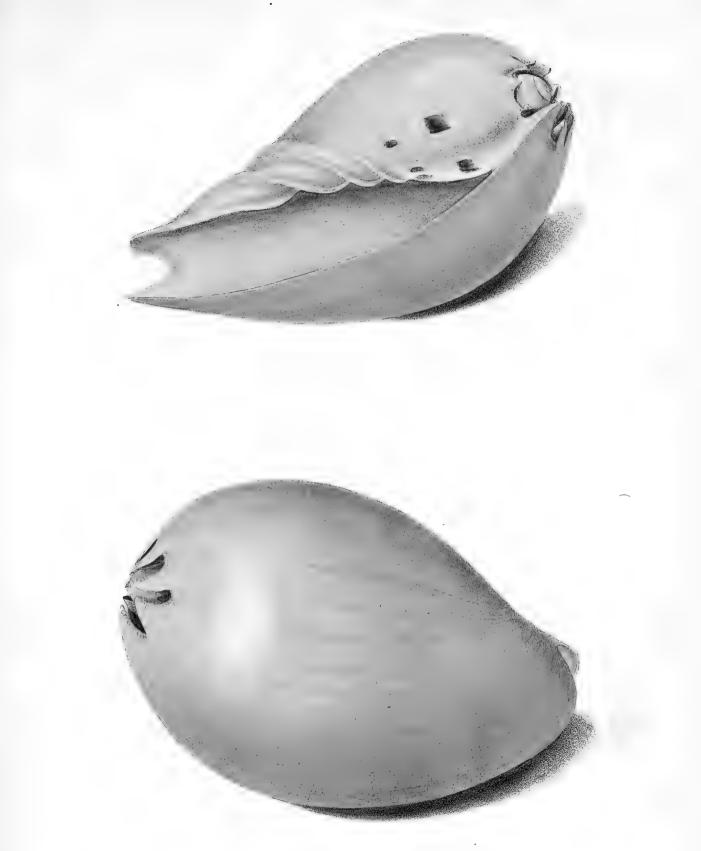
Pterocera aurantia sw<sup>n.</sup> Mus.Dom. C.Dudois.





Strombus Pugilis. var. Lin. Mus.Dom. Bligh.





Voluta te/selata. Lam \* Mus.Dom, C Dubois.





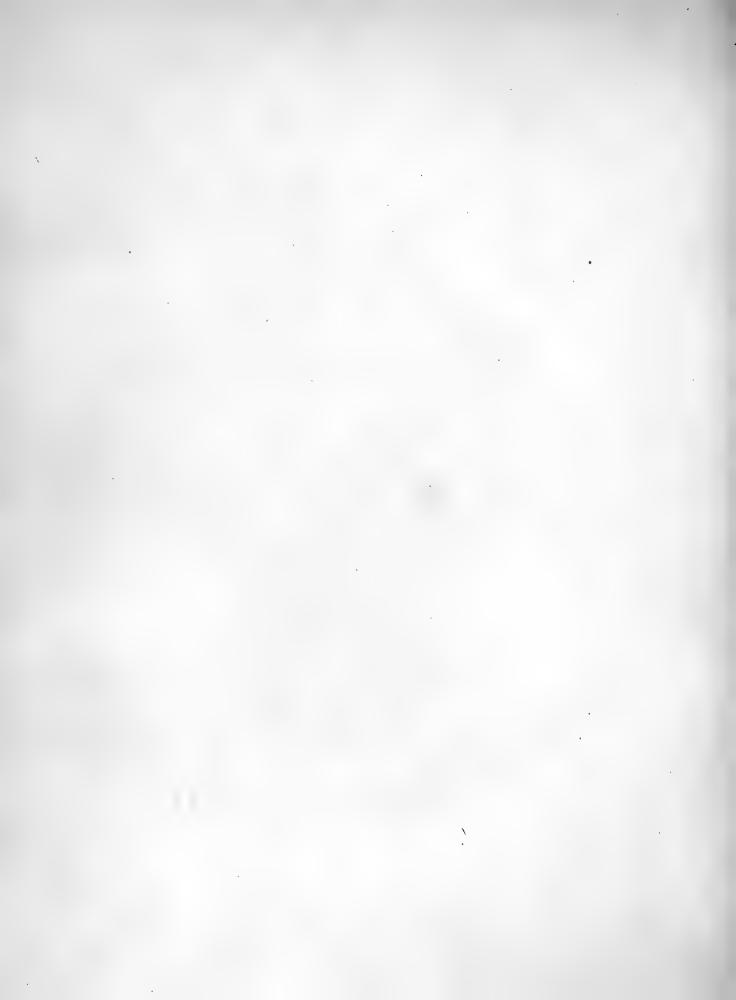
Voluta Scapha. Mur. Dom-Maua

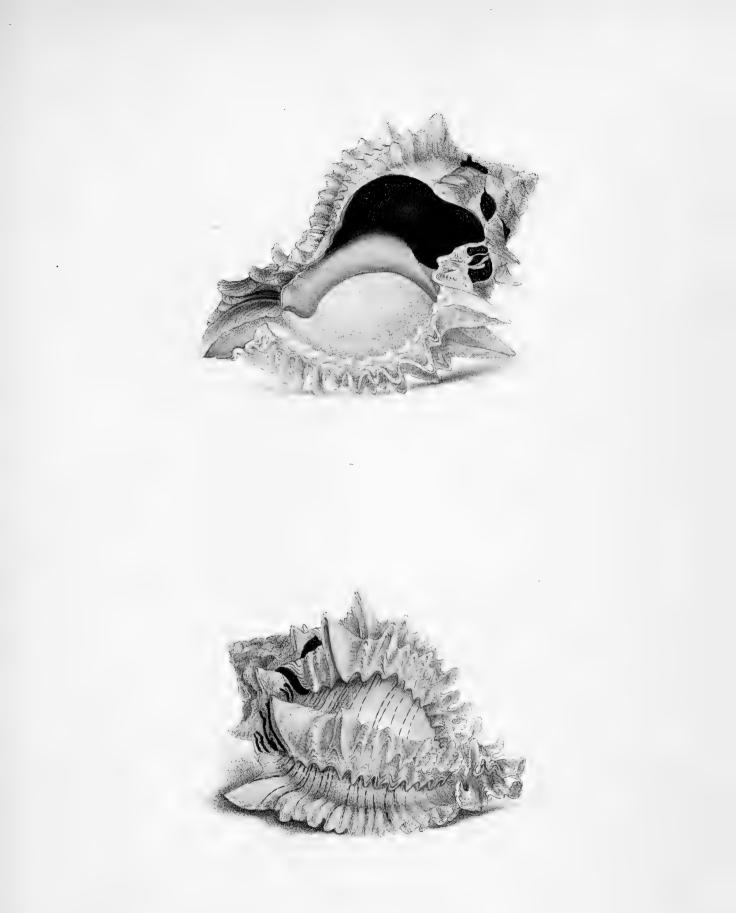




Voluta Pacifica. Sol?

Mus.Dom . C. Dubois.





Murer Revius. Su?"

Mus. Dom. W.J. Broderup.





Anodonta sinuosa. Lam! \_Mus.Dom.ª Bolton.



