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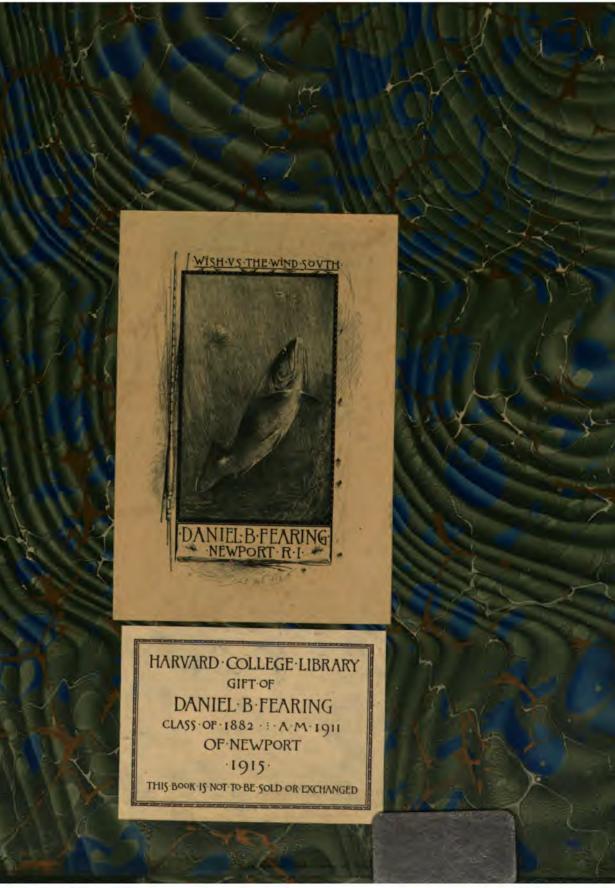
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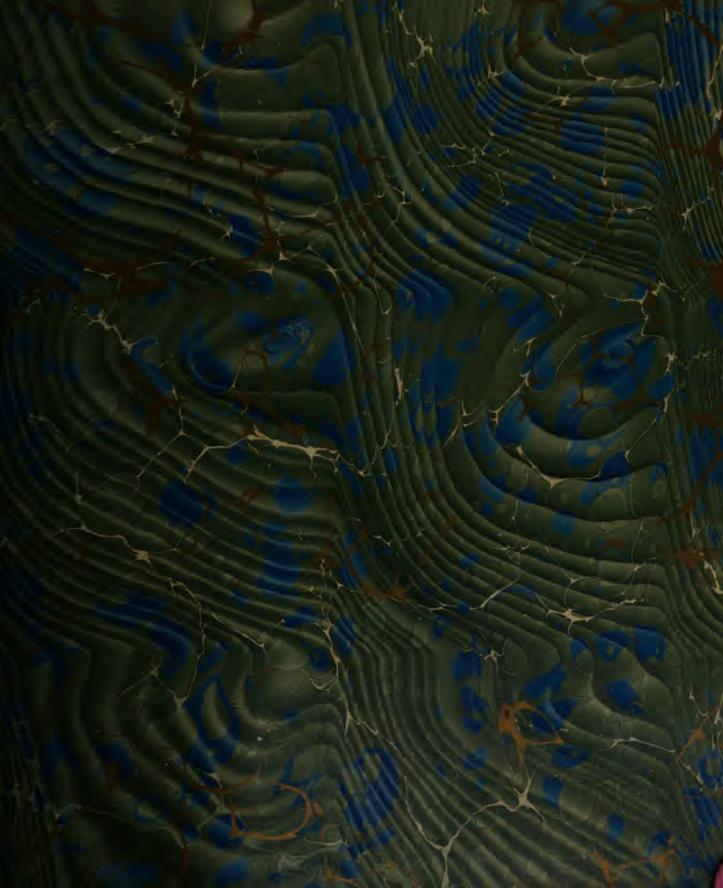
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## BRITISH ZOOLOGY.

### VOL. IV.

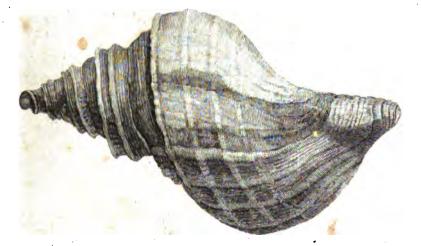
CRUSTACEA MOLLUSCA.

#### TESTACEA .

### O MARE, O LITTUS, verum secretumque

Myoelov.'quam multa invenitis, quam multa

dictatis !



LONDON, Printed for Benj. White, MDCCLXXVII.

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# BRITISH ZOOLOGY.

# CLASS.V.

# CRUSTACEA.

# CRUSTACEOUS ANIMALS.

· · · . 

### TO THE

## DUTCHESS DOWAGER

OF

# PORTLAND,

THIS WORK IS DEDICATED,

AS A GRATEFUL ACKNOWLEGEMENT

OF THE MANY FAVORS

**CONFERRED BY HER GRACE** 

ON HER MOST OBLIGED,

AND MOST OBEDIENT

HUMBLE SERVANT,

Downing, March 1, 1777.

THOMAS PENNANT.

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# A D V E R T I S E M E N T.

**I** WISH it had been in my power to have given a perfect conclution to the ZOOLOGY of our country: but my fmall acquaintance with INSECTS, and the fourth divifion of the VIth clafs, *Lithophyta* and *Zoophyta*, forbad me to meddle with them. The Public has little reafon to regret this omiffion, fince the univerfal genius JOHN REIN-HOLD FORSTER, has hinted \* a defign of undertaking the first; and my late worthy friend Mr. ELLIS, (whom LINNÆUS fo juftly ftiles Lynceus) has in a great measure executed the laft.

IN my arrangement of the prefent work, I have taken the liberty of making a diffinct class of the CRUSTACEOUS ANIMALS; and feparated them from INSECTS, among which they are ufually placed.

\* Catalogue of British Infects. 2.

2 2

I HAVE

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I HAVE paid implicit respect to the Swedish NATURA-LIST, in my classing of the VERMES and SHELLS. I have on another occasion \*, given my sentiments of that wonderful man, (after RAY) the greatest illuminator of the study of Nature. I have borrowed from him the Latin trivial names; sometimes given translations of them; sometimes given other English names, when I thought them more apt.

GRATITUDE prompts me to mention a most irreparable loss in my amiable friend BENJAMIN STILLINGFLEET, Equire, in whom were joined the best heart and the ablest head. Benevolence and innocence were his infeparable companions. Retirement his choice, from the most affectionate of motives 1. How great, yet how unneceffary was his diffidence in public! How ample, his inftruction in private! How clear his information ! How delicate the conveyance! The pupil received advantage, edified by the humility of the master. Thoroughly imbued in Divine Philosophy, he had an uncommon infight into the uses of every object of Natural History; and gave fanction to those ftudies, which by trivial observers were held most contemptible. The end of his labors was the GOOD OF MANKIND. He attempted to deftroy the false shame that attended the devotee to Ornithology, the chace of the

- \* Synopfis of Quadrupeds, Preface vii.
- ‡ Mr. GRAY's Letters, 288.
  - 2

### Infect

iv

### ADVERTISEMENT.

Infect, the fearch after the Cockle, or the poring over the Grafs. He proved every subject to be of the greatest fervice to the world, by the proper remarks that might be made on them. The traveller, the failor, the hufbandman might, if they pleafed, draw the most useful conclufions from them. The reader may receive the proof from his translations of various elfays, the productions of the LINNEAN School; his own CALENDAR of FLORA, and Obfervations on GRASSES. How much to be lamented is this fhort catalogue of the works of fo great, fo good a man ! I fpeak not of his Effay on Mufic, as foreign to the fubject. Some of his remarks appear in my British Zoology. He thought me so far deferving of his encouragement, as to dedicate part of his time to farther acts of friendship. \_\_\_\_ received the unfinished tokens of his regard by virtue of his promife; the only papers that were refcued from the flames, to which his modesty had devoted all the rest.

DEFENDED by fo great an example, (howfoever unequally I may follow it) there is hardly any need for an apology for the fubject of the following fheets. But if any fhould require one, I take the liberty of delivering it in the words of my ever regretted friend:

FROM a partial confideration of things, we are very
apt to criticife what we ought to admire; to look upon
as ufelefs what perhaps we fhould own to be of infinite
advantage to us, did we fee a little farther; to be peevifh
where we ought to give thanks; and at the fame time to
ridicule

!

### A D V E R T I S E M E N T.

ridicule thofe, who employ their time and thoughts in
examining what we were, i. e. fome of us most affuredly
were, created and appointed to ftudy. In fhort, we are
too apt to treat the Almighty worse than a rational man
would treat a good mechanic; whose works he would
either thoroughly examine, or be assumed to find any
fault with them. This is the effect of a partial confideration of Nature; but he who has candour of mind and
leisure to look farther, will be inclined to cry out:

• How wond'rous is this fcene! where all is form'd

\* With number, weight, and meafure ! all defign'd

" For fome great end ! where not alone the plant

" Of flately growth; the herb of glorious hue,

" Or food-full fubftance; not the laboring fteed,

• The herd, and flock that feed us; not the mine

" That yields us flores for elegance, and use;

• The fea that loads our table, and conveys

• The wanderer man from clime to clime, with all

\* Those rolling spheres, that from on high shed down

" Their kindly influence; not thefe alone,

" Which strike ev'n eyes incurious, but each mois,

• Each shell, each crawling infect holds a rank

" Important in the plan of Him, who fram'd

" This scale of beings; holds a rank, which lost

\* Wou'd break the chain, and leave behind a gap

. Which Nature's felf would rue. Almighty Being,

" Caufe and fupport of all things, can I view

' These objects of my wonder; can I feel

" These fine sensations, and not think of thee?

" Thou who doft thro' th' eternal round of time ;.

· Doft thro' th' immenfity of space exift

" Alone, that thou alone excluded be

5

' From

### A D V E R T I S E M E N T.

• From this thy universe ? Shall feeble man

" Think it beneath his proud philosophy

" To call for thy affiftance, and pretend

• To frame a world, who cannot frame a clod ?----

" Not to know thee, is not to know ourfelves-----

' Is to know nothing—nothing worth the care

• Of man's exalted spirit-all becomes

"Without thy ray divine, one dreary gloom;

" WHERE lurk the monsters of phantastic brains,

· Order bereft of thought, uncaus'd effects,

· Fate freely acting, and unerring Chance.

" WHERE meanless matter to a chaos finks

• Or fomething lower still, for without thee

" It crumbles into atoms void of force,

· Void of refistance-it eludes our thought.

\* WHERE laws eternal to the varying code

" Of felf-love dwindle. Intereft, paffion, whim

" Take place of right, and wrong, the golden chain

· Of beings melts away, and the mind's eye

• Sees nothing but the prefent. All beyond

" Is visionary guess-is dream-is death."

#### SYSTEMATIC

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## SYSTEMATIC INDEX

### O F

# PLATES.

## CRASS V. CRUSTACEOUS.

GENUS'I. C R A B S.

PLATE I. N° I. Pea. 2. Minute. 3. Long-horned. 4. Broad-foot. II. 5. Common. 6. Cleanfer. III. 7. Black-clawed. IV. 8. Velvet. A. 6.

Ь

PLATE V.

PLATE	<b>v</b> .	N° 9.	Wrinkled.
	·	10.	Angular.
	VI.	. 1,1.	Briftly.
-		ŕ 12.	Gréat-clawed:
	VII.	13.	Long-clawed M. and F.
	VIII:	14.	Horrid.
•		15.	Four-forked.
	IX.	16.	Spider.
		17.	Slender-legged.
	•		Weymouth.
	ار. الدينة ب	Ľ 19.	Uneven.
		20.	Rough.

### F GENUS II. LOBSTERS 3 UOUDATSURD V MAD

<b>X.</b>	:	21.	Vulgar.		•	•		
XI.	2	<b>%</b> 2.	ASpiny. )	T		<b>う</b>		
XII.		24.	Norway.		•			
		32.	Atom.					
XIII.	:	25.	Long-clawed.				_	
XIV.		-	Plated.			•.1	J.	5 AuS
XV.	:	27.	Craw-fifh.	• •	7			
		20.	Shrimp.	. !	-2			
XVI.		•	Prawn.		;			
•	:	21.	Linear.	.`			11	
XVII	-	-	Hermit.	•	J -			•
		3	•1				· • • •	
			•••		3 \	(	0 N	ISCI,

J

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ON ISC I, & &c.

PLATE XVIII. Nº I. O. Pfora.	
2. Linearis.	
3. Marinus.	
4. Oceanicus.	
5. Entomon.	
6. Oeftrum.	
.,	
SCOLOPENDRA Marina. No.	
Tab. xxv.	
••••••••••••••••••••••••••••••••••••••	
Class VI. WORMS.	
alle in a second and the second and	
DIV. I. I.N.T.E.S.T.I.N.E.	
PLATE XIX. Nº 6. Greater DEW-WORM.	
6.A. 'Leffer DEW-worm.	
2. 7. Lug-worм.	
XX. "3. Marine HAIR-WORM.	
10. Naked TUBE-WORM.	
"13. Geometrical LEECH, from Roefel"	5
Infects:	
14. Tuberculated LEECH.	
it. I for the second se	
b 2 Div	٢
	2

DIV. II. S O F T.

PLATE	XXI.	N° 21.	Depilatory LAPLYSIA.
		23.	Warty Doris.
	XXII.	22.	
2	XIII.	25.	Aculeated APHRODITE.
		-	Scaled Aph.
		35.	Rustic Ascidia.
3	CXIV.		Pedunculated APHRODITA.
		28.	Annulated APH.
		29.	Minute ApH.
		24.	Amber Doris.
	XXV.	32.	Blue Nereis.
		33.	Red N.
		111.	Sca Scolopendra.
2	KXVI.	41.	Five-rowed Holothuria.
Х	XVII.	43.	Great CUTTLE.
- X	XVIII.		Eight-armed C.
2	XXIX.	<b>4</b> 5•	Middle C.
		46.	Small C.
-	XXX.	56.	Dotted ASTERIAS.
		58.	-
2	CXXI.	59	A. Flat Ast.
X	XXII.	63.	Beaded Ast.
		62.	Lizard Ast.
X	XXIII.	71.	Ten-rayed Ast.

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		75.	Cordated EcH.
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# CLASS VI. DIV. III. S H E L L S.

• MULTIVALVE.

PLATE XXXVI.	Nº 1	Hairy Chiton.
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	3.	Smooth Сн.
XXXVII.	4.	Common Acorn.
	5.	Sulcated A.
	6.	Cornish A.
XXXVIII.	7.	Striated A.
	9.	Anatiferous A.
XXXIX.	10.	Dactyle Pholas.
	11.	White PH.
XL.	12.	Curled PH.
	13.	Little PH.

### •• BIVALVE.

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XLV.	20. Pod RAZOR.	
	22. Scymeter R.	
E XEVIJ	2 E Sheath R.	
•	23. Pellucid R.	
· .	24. Sub-oval R.	
	<sup>7</sup> 25. Kidney R.	
XLVII.	26. Fragile Tellin	re
	27. Depressed T.	<b>.</b> .
	31. Carnation T.	•
XLVIII.	28. Flat T.	
	29. Plain T.	-
XLIX.	30. Rayed T.	·
	32. Flesh-coloured	Т.
	36. Horny T.	
L.	37. Aculeated Cock	LE.
	39. Fringed C.	
	41. Edrole C.	The Arte
LI.	40. Smooth C.	· _
	43. A. Strong MACT	<b>LA.</b> ,
LII.	42. Simpleton's M.	
	43. Strong M.	•
•	44. Large M.	
	45. Yellow DONAX.	<b>1</b> 2
	46. Purple.	
LIII.	47. Commercial VE	NUS.
LIV.	48. Sicilian V.	
- 1 A	49.A. Antiquated V.	
- · - <b>-</b>	6	PLATE

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	•		49.	Antiquated V.
			56.	Oval V.
_	LVII.		53.	Lettered V.
-	·	•	, 54.	Fading V.
. •	.•	••	34.	Rugged Telline. Vide p.
· · ·	LVIII.		58.	Orbicular Arca.
•		•	59.	Bearded A.
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		•	65.	Writhed Sc.
, · . ·	. :	'	66.	Worn Sc.
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	•-	<b>^ 1</b> - /	• •	the Common Oyster, N <sup>•</sup> 69.
I I	XIII.	•		Rugged Mussel.
	· · · · ·		73.	Edible M.
	•••••		75.	Pellucid M.
. 1	LXIV.	• •		Incurvated M.
	•••••••	• • •	76.A	. Short M.
	LXV.	•	-	Umbilicated M.
	XVI.			Great M.
	XVII.			Swan M.
	KVIII.	•		Duck M.
I	XIX.	•	80.	Brittle NACRE.
		• •		· ·

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### \*\*\* TURBINATED SHELLS.

PLATE

ГЕ	LXX.	N° 82.	Common Gowrie.
	•	83.	Wood DIPPER.
		85.	Cylindric D.
		85.A	. Open D.
	LXXI.	86.	Oval VOLUTE.
		87.	Jona V.
]	LXXII.	88.	Brown WHELK.
		89.	Maffy W.
			Reticulated W.
L	XXIII.	· 90.	Waved W.
L	XXIV.	91.	Striated W.
J	LXXV.	94.	Corvorant's foot STROMBUS.
L	XXVI.	<b>9</b> 5•	Urchin Murex.
		99.	Horny M.
$\mathbf{L}$	XXVII.	96.	Angulated M. Engraven also in
			the Frontispiece.
LX	XVIII.	98.	Despifed M.
L	XXIX.	100.	Buccina and Murices.
		101.	
		102.	
•		103.	Minute Buccinum.
]	LXXX.	103.	Livid Top.
		104.	Cornule T.
		10б.	Umbilical T.
	•	107.	Tuberculated T.
		108,	Land

PLATE

LXXXI.	N° 109.	Perriwinkle WREATE	н.
	<b>1</b> 11.	Barred WR.	
	r.1 1.4	A. Variety of the fame.	
	112.	Doubled WR.	
	113.	Auger Wr.	
	117.	Bident.	
XXXII.	110,	Tumid Wie.	
	* 11L	Studded WR.	
	1 i 6.	Reverse WR.	
	118,	Moss Wr.	
	119.	Fasciated WR.	
XXXIII.	12I.	Rock SNAIL.	
	I 24.	Whirl S.	•
	125.	Dwarf S.	
	126.	Horny S.	
XXXIV.			
	129.	Garden S.	
	132.	Viviparous S.	
XXXV.		•	
	127.		. •
	-	•	
	1 <sup>-</sup> 33.		
XXVI.	ı35.	Eight-spired S.	
•	136.	Lake S.	
	57		
	138.		
	1 39.	Smoothed S.	
	140.	Olive S.	
		C	<b>B</b> r
	XXXII.	LII. LII.	III. Barred WR. III. Variety of the fame. II2. Doubled WR. II3. Auger WR. II3. Auger WR. II7. Bident. XXXII. II0. Tumid WR. * III. Studded WR. II6. Reverfe WR. II8. Mofs WR. II9. Fafciated WR. II9. Fafciated WR. II21. Rock SNAIL. I23. Flat S. I24. Whirl S. I25. Dwarf S. I26. Horny S. XXXIV. I28. Exotic S. I29. Garden S. I22. Viviparous S. XXXV. I22. Grey S. I27. Mottled S. I30. Shrub S. I33. Zoned S. I35. Eight-fpired S. I36. Lake S. I37. Mud S. I38. Ear S. I39. Smoothed S.

PLATE

Livid NERITE. PLATE LXXXVII. Nº 141.

> River N. I 42.

Strand N. 143.

LXXXVIII.

Tuberculated HALIOTIS. 144.

Common LIMPET.

### UNIVALVE SHELLS not turbinated.

LXXXXIX.

145. Flat L. 146.

1 52.

I 54.

155.

Striated L. 153.

- 147. Bonnet L.
- 148. Inclining L.

Transparent L. 1 50.

Smooth L. 151. Slit L.

XCI.

XC.

Intricate S. 157.

158. Twined S.

162. Honey-combed SABELLA.

Spiral SERPULE.

163. Tube S.

XCIII.

XCII.

161. Coarse S. Vide tab. xxv. and 39. Beardless Ophidium. Br. Zool. iii. Appendix.

Common Tooth-shell

In Plate LXXIX is engraven the BUCCINUM DECUSSATUM from Weymouth. It is a young shell. When old, the lip is revolute and granulated.

In Plate LXIV. at the bottom, are three etchings of a Mytilus, from Weymouth : a new species.

# BRITISH ZOOLOGY.

### CLASS V.

## CRUSTACEOUS ANIMALS.

With eight feet, or ten; rarely fix.

Two of the feet clawed.

Two eyes, remote; for the most part fixed on a stalk, moveable. Tail foliated, and short, lodged in a groove in the body.

C. Lin. Syft. 1039.

CR. WITH rounded and fmooth thorax, entire and blunt. With a tail of the fize of the body, which commonly is of the bulk of a pea.

Inhabits the muffel, and unjuftly has acquired the repute of being poifonous. The fwelling after eating of muffels is wholly conftitutional; for one that is affected by it, hundreds remain uninjured.

B

*Pifum*, 1. P<sub>BA</sub>.

CRABS,

CANCER, CRAB. CRABS.

CLASS V.

CRABS, either of this kind, or allied to them, the antients believed to have been the confentaneous inmates of the *pinnæ*, and other bivalves; which being too ftupid to perceive the approach of their prey, were warned of it by their vigilant friend. Oppian tells the fable prettily \*.

Organov au Buzias, &c.

In clouded deeps below the Pinna hides, And thro' the filent paths obscurely glides; A ftupid wretch, and void of thoughtful care, He forms no bait, nor lays the tempting fnare. But the dull fluggard boafts a Crab his friend, Whofe bufy eyes the coming prey attend. One room contains them, and the partners dwell Beneath the convex of one floping fhell; Deep in the wat'ry vaft the comrades rove, And mutual int'reft binds their conftant love : That wifer friend the lucky juncture tells, When in the circuit of his gaping fhells Fish wand'ring enter; then the bearded guide Warns the dull mate, and pricks his tender fide; He knows the hint, nor at the treatment grieves, But hugs th' advantage, and the pain forgives: His closing shells the Pinna fudden joins, And 'twixt the preffing fides his prey confines ; Thus fed by mutual aid, the friendly pair Divide their gains, and all the plunder share.

Halient. lib. ii. He calls the crab Hurroquiat, cuftos Pinna.

C. Lin

CLASS'V.

### CRABS,

C. Lin. Syft. 1040. Gronow. Zoopb. No. 962. Bafter, ii. p. 26. tab. iv. f. 1. 2. Minutus. 2. MINUTE.

. 8

CR. with a fmooth and fomewhat fquare thorax; the edges fharp; horns fhort; lefs than the laft.

Inhabits our shores among Alga.

C. Lin. Syft. 1040. Gronov. Zoopb. No. 968. Bafter, ii. p. 26. tab. iv. f. 3. Longicornis, 3. Long-HORNED.

CR. with a round fmooth thorax; with large claws; very long horns; fize of the laft.

Inhabits our shores.

Cancer latipes. Rondel, 565. Gronov. Zeopb. No. 954. Cancer latipes parvus oblongus variegatus. Planens, 34. tab. iii. fig. 7.

Latipes. 4. BROAD-FOOT.

CR. with a fub-cordated body; fhort feelers; angular claws; five fmall teeth on each fide; the hind legs ovated.

C. Lin. Syft. 1043. Bafter, ii. tab. ii. f. 1. Marnas. Fann. Suee. No. 2026. Gronov. Zoopb. 955. 5. Common.

CR. with three notches on the front; five ferrated teeth on each fide; claws ovated; next joint, toothed; hind feet fubulated; dirty green color; red when boiled.

Inhabits all our fhores; and lurks under the Alga, or burrows under the fand. Is fold; and eaten by the poor of our capital.

B 2

C. Lin.

# CRABS.

CLASS V.

Depurator. C. Lin. Syft. 1043. No. 23. 6. CLEAN- Seb. Mus. iii. tab. Xviii. fg. 9. SER.

> CR. with a fub-cordated body; thorax on each fide quinquedentated; front indented; claws angulated; fecond joint fpined; hind legs have the two last joints ovated and ciliated.

A. vi. Variety with a tuberculated furface. Vide tab. iv.

Inhabits generally the deeps; feeds on dead fish: hence called the purifier or clean/er, as causing the removal of putrid bodies.

Pagurus. C. Lin. Syft. 1044. Gronow. Zoopb. No. 967. 7. BLACK- Belon. aquat. 368. Rondel. pifc. 560. Faun. Suec. No. 2028. Merret's Pinax. CLAWED.

CR. with a crenated thorax; fmooth body; quinque-dentated front; fmooth claws with black tips; hind feet fubulated.

Inhabits the rocky coafts; the most delicious meat of any; cafts its shell between *Chrissmas* and *Easter*.

The tips of the claws of this fpecies are used in medicine; intended to absorb acidities in the stomach and bowels.

Velutinus. 2. Velver.

CR. with the thorax quinque-dentated; body covered with fhort brown velvet-like pile; claws covered with minute tubercles; fmall fpines round the top of the fecond joint; hind legs broadly ovated. This is among the fpecies taken notice of by *Ariftotle* \* on account of the broad feet, which, he fays, affift them in fwimming: as web-feet do the water-fowl.

Inhabits the western coasts of Anglesea.

• De Part. Anim, lib. iv, c. 8.

CR. with

#### CRABS; CLASS Vi

CR. with the thorax quinque-dentated; ferrated; body wrinkled Corrugatus. transversely; claws furnished with a single spine on the first and 9. WRINKfecond joint; fangs ferrated; last pair of legs ovated.

Found on the shores of Skie, opposite to Loch Jurn.

CR. with a rectangular body; the thorax armed near the corner Angulatus. with two fpines; the claws very long; the upper fangs black; LAR. legs flender and fubulated.

Weymouth. From the PORTLAND cabinet.

C. Lin. Syst. 1045.	Faun. Succ. No. 2029: Rondel. 568.	4	Hirtellus.
Cancer Diriutus.	Kondel. 508.	•	11.BRISTLY.

CR. with a hairy thorax; on both fides flightly quinque-dentated; claws ovated, flightly echinated, and hairy; feet, briftly and fubulated. A fmall species; of a reddish color.

Found beneath stones.

CR. with a tridentated front; thorax entire; claws of a large fize; Platy-chales. depressed, and greatly ciliated on the outside; only three subulated 12. GREATS legs on each fide; body little bigger than a horfe-bean, and almost round: Antennæ very long and turning back, when not in ule.

Inhabits the Alga on the coast of Anglesea and the Hebrides.

CR. with bifurcated front; a fpine at the corner of each eye; Caffevelannus, another on each fide of the thorax towards the tail; body ovated 13. Long-claward. and fmooth; Antenne of the length of the body; the claws above;

23

### CRABS.

as long again as the body; feet fubulated. The fuppofed female; of the fame form; only the claws not half fo long.

Inhabits the deep near Holybead and Red-Wharf Anglesea, Dredged up.

Horridus. Cancer. Lin. Syft. 1047. 14. HORRID. C. fpinofus. Seb. Mus. iii. tab. xxii. f. 1. Gronov. Zoopb. No. 976. Fano, Trold Crabber. Pontop. Norway ii. 176. tab. p. 177.

> CR. with a projecting bifurcated fnout, the end diverging; body heart-fhaped; and with the claws and legs covered with long and very fharp fpines. A large fpecies.

> Inhabits the rocks on the eaftern coast of *Scotland*. Common to *Norway* and *Scotland*, as many of the marine animals and birds are.

Tetra-odon. 15. Four-FORKED. CR. with a quadri-furcated fnout; the two middle fpines the longeft; thorax fpiny; body heart-fhaped and uneven; claws long; legs flender.

Inhabits the Isle of Wight.

Aranens. Cancer. Lin. Syst. 1044. 16. SPIDER, Faun. Susc. No. 2030. Jonston Exang. tab. v. fig. 13.

CR. with a bifid fnout; briftly thorax; body, heart-fhaped, and tuberculated; claws long and oblongly ovated; legs flender, long and fubulated.

Inhabits our shores. Often covered with a byffus, as in specimen xvi. A.

CR. with

# CLASS V. C. R. A. B. S.

CR. with a bifid fnout; heart-fhaped, fmall tuberculated body; *Phalangium*. long claws; legs of a vaft length, very flender, and hairy. Inhabits the depths on the coafts of *Anglefea*.

CR. with a cordated body, rugged and bent, with a few fpines; Derfettenfis. very thick, and long claws; and very flender legs, the first pair 18. WEXmuch longer than the reft.

Weymouth. From the PORTLAND cabinet.

CR. with a tuberous, fmooth back; fmall claws, and fhort legs; *Tuberofus*. fnout flightly bifid.

From the fame cabinet.

CR. with a cordated body; bifid fnout; legs and claws fhort; Appr. 20- Rough-

From the fame cabinet.

Cilyndric

# LOBSTERS.

ASTACUS: LOBSTER Cylindric body. Long antennæ. Long tail.

Gammarus. Cancer. Lin. Syft. 1050. No. 21. VULGAR. Aftacus. Rondel. 538.

> L. WITH a fmooth thorax; fhort ferrated fnout; very long antennæ; and between them two fhorter, bifid; claws and fangs, large, the greater tuberculated, the leffer ferrated on the inner edge; four pair of legs; fix joints in the tail; caudal fins rounded.

Inhabits all the rocky fhores of our island; but chiefly where there is a depth of water. In *Llyn*, in *Caernarvon/bire*, a certain fmall lobster, nothing different except in fize, burrows in the fand.

Brought in vast quantities from the Orkney isles, and many parts of the eastern coast of Scotland, to the London markets. Sixty or seventy thousand are annually brought, in well-boats, from the neighborhood of Montrose alone \*.

Lobsters fear thunder; and are apt to cast their claws on a great clap. I am told they will do the fame on firing a great gun; and that when men of war meet a lobster-boat, a jocular threat is used. That, if the master does not fell them good lobsters, they will *falute bim*.

• Tour in Scotland, 1772. part. ii. p. 146.

**T**'he

CLASS V.

# CLASS V. LOBSTERS.

The habitation of this fpecies is in the clearest water; at the foot of rocks that impend over the fea. This has given opportunity of examining more closely into the natural history of the animal, than many others who live in an element that prohibits most of the human refearches, and limits the inquiries of the most inquifitive. Lobsters are found on most of the rocky coasts of *Great Britain*. Some are taken by the hand; but the greater quantity in pots, a fort of trap formed of twigs, and baited with garbage; they are formed like a wire mouse-trap, so that when the lobster gets in, there is no return. These are fastened to a cord funk into the fea, and their place marked by a buoy.

They begin to breed in the fpring, and continue breeding moft part of the fummer. They propagate *more bumano*; and are extremely prolific. Doctor *Bafter* fays he counted 12,444 eggs under the tail, befides those that remained in the body, unprotruded. They deposit these eggs in the fand, where they are foon hatched.

Lobsters change their crust annually. Previous to their putting off their old one, they appear fick, languid, and restles. They totally acquire a new coat in a few days; but during the time that they remain defenceless they seek some very lonely place, for fear of being attacked and devoured by such of their brethren that are not in the same weak situation.

It is also remarkable, that Lobsters and Crabs will renew their claws, if by accident they are torn off; and it is certain they will grow again in a few weeks.

They are very voracious animals, and feed on fea-weeds, on garbage, and on all forts of dead bodies.

С

Additional

# L O B S T E R S. CLASS V.

Additional to this, I beg leave to give an accurate account of the natural history of this animal, communicated to me by the ingenious Mr. Travis, furgeon, at Scarborougb.

SIR,

" Scarborough, 25th OEt. 1768.

"WE have vaft numbers of fine Lobsters on the rocks, ' near our coaft. The large ones are in general in their best seafon from the middle of October till the beginning of May. Many • of the imall ones, and fome few of the larger fort are good all • the fummer. If they be four inches and a half long or upwards, from the tip of the head to the end of the back shell, they are ' called *fizeable Lobsters*. If only four inches, they are effected ' half fize; and when fold, two of them are reckon'd for one of • fize. If they be under four inches, they are called pawks, and ' are not faleable to the carriers, though, in reality, they are in • the fummer months fuperior to the large ones in goodness. The · pincers of one of the lobiters large claws are furnished with ' knobs, and those of the other claw are always ferrated. With the · former it keeps firm hold of the stalks of submarine plants, and • with the latter it cuts and minces its food very dextroufly. The ' knobbed or numb claw, as the Fishermen call it, is fometimes • on the right and fometimes on the left, indifferently. It is more <sup>6</sup> dangerous to be feized by them with the cutting claw than the other; but in either cafe, the quickeft way to get difengaged from the creature is to pluck off its claw. It feems peculiar to the Lobster and Crab, when their claws are pulled off, that ' they will grow again, but never fo large as at first.

• The Female or Hen Lobster does not cast her shell the fame • year that she deposits her ova, or, in the common phrase, is in • berry. CLASS V.

## LOBSTERS

· berry. When the ova first appear under her tail, they are very fmall and extremely black; but they become in fucceffion al-• most as large as ripe elder-berries before they be deposited, and • turn of a dark brown color, especially towards the end of the < time of her depositing them. They continue full and depositing the ova in constant succession, as long as any of that black subftance can be found in their body, which, when boiled, turns of 'a beautiful red color, and is called their coral. Hen Lobsters • are found in *berry* at all times of the year, but chiefly in winter. • It is a common miltake, that a berried Hen is always in perfection for the table. When her berries appear large and brownish, she ' will always be found exhausted, watery, and poor. Though the • ova be cast at all times of the year, they feem only to come to · life during the warm fummer months of July and August. Great ' numbers of them may then be found, under the appearance of ' tad-poles, fwimming about the little pools left by the tides among the rocks, and many also under their proper form, from half an • inch to four inches in length.

• In caffing their fhells, it is hard to conceive how the Lobster is • able to draw the fifh of their large claws out, leaving the shells • entire and attached to the shell of their body; in which state they • are constantly found. The sinflermen say the Lobster pines before • caffing, till the sist is large claw is no thicker than the quill of a • goole, which enables it to draw its parts through the joints and nar-• row passage near the trunk. The new shell is quite membraneous at • first, but hardens by degrees. Lobsters only grow in fize while their • fhells are in their fost state. They are chosen for the table, by their • being heavy in proportion to their fize; and by the hardness of their • fhells on their fides, which, when in perfection, will not yield to C 2 LOBSTERS.

CLASS V.

"moderate preffure. Barnacles and other fmall fhell-fifh adhering • to them are efteemed certain marks of fuperior goodnefs. Cock-· Lobsters are in general better than the Hens in winter; they are · diftinguished by the narrowness of their tails, and by their having • a ftrong fpine upon the center of each of the transverse processes beneath the tail, which fupport the four middle plates of their The fifh of a Lobster's claw is more tender, delicate, and • tails. eafy of digeftion than that of the tail. Lobsters are not taken here ' in pots, as is usual where the water is deeper and more still than • it is upon our coaft. Our fishermen use a bag-net fixed to an iron hoop, about two feet in diameter, and fuspended by three lines · like a scale. The bait is commonly fish-guts tied to the bottom and • middle of the net. They can take none in the day-time, except when the water is thick and opake; they are commonly caught ' in the night, but even then it is not possible to take any when • the fea has that luminous appearance which is fuppoled to pro-· ceed from the nereis notiluca. In fummer, the Lobsters are found • near the fhore, and thence to about fix fathoms depth of water ; in winter, they are feldom taken in lefs than twelve or fifteen fathoms. Like other infects, they are much more active and alert in warm weather than in cold. In the water they can run ' nimbly upon their legs or fmall claws, and if alarmed can fpring ' tail-foremost, to a surprising distance, as swift as a bird can fly. . The fishermen can see them pass about thirty feet, and by the ' fwiftness of their motion, suppose they may go much farther. · Athenaus remarks this circumstance, and fays, that the incurvated · Lobsters will fpring with the attivity of dolphins. Their eyes are • raifed upon moveable bafes, which enables them to fee readily every way. When frightened, they will fpring from a confider-• able

# CLASS V. LOBSTERS.

• able diftance to their hold, in the rock; and what is not lefs fur-• prifing than true, will throw themfelves into their hold in that • manner, through an entrance barely fufficient for their bodies to • pafs; as is frequently feen by the people who endeavor to take • them at *Filey Bridge*. In frofty weather, if any happen to be • found near the fhore, they are quite torpid and benumbed. A • fizeable Lobster is commonly from one pound to two in weight. • There was one taken here this fummer which weighed above four, • and the fifthermen fay they have feen fome which were of fix • pounds, but thefe are very rare.

· I am, Sir, Gc.

I conclude with faying, that the Lobster was well known to the ancients, and that it is well described by *Aristotle*, under the name of Asaxos<sup>\*</sup>; that it is found as far as the *Hellespont*, and is called, at *Constantinople*, + *Liczuda*, and *Licbuda*.

Cancer. Lin. Syft. 1053. Locufta. la Langouste. Rondel. pifc. 535.

L. with a front broad, armed with two large fpines, and between them a fmaller, guards to the eyes, which are prominent; Antennæ longer than body and tail; fpiny at their origin; beneath them two leffer; claws fhort, fmall, fmooth; fangs fmall, fingle, hinged; legs flender and fmooth; body and thorax horrid with fpines; tail longer than that of the common Lobster; on each part, above, is a white fpot, the bottoms are crooked and fertated; the tailfin, partly membranaceous, partly crustaceous.

Hift. An. lib. iv. c. z.
Belen Hift. Poissons. 357.

Homarus. 22. SPINY.

Inhabits

# LOBSTERS, CLARV.

Inhabits our rocky coafts; often taken about the promontory of  $Ll_{yn}^{\Lambda}$ , and Bard/ey ifle.

The French name of this species has been barbarously translated into the Long-oyster.

ArBus. C. Lin. Syst. 1053. No. 75. Fanz. Suc. No. 2040. 23. BROAD. Squilla lata. Rondel. 545.

L. with two broad ferrated plates before the eyes; fhort furcated antenna; body and tail flat and broad.

Size of the fpiny Lobster.

Found by Doctor Borlase on Careg Killas, in Mounts-Bay. Is common to the four quarters of the world.

Norvegicus. Cancer Norvegicus. Lin. Syft. 1053. 24. Nor- Sundfiord, Pontop. Norway. ii. 175. lab. p. 177. WAY.

> L. with a long fpiny fnout; thorax flightly fpiny; body marked with three ridges; claws very long, angular, and (along the angles) fpiny; antennæ long; legs flender, clawed; tail long; elegantly marked with fmooth and fhort-haired fpaces, placed alternately.

> Common length, from tip of the claws to the end of the tail near nine inches.

Bamffius. 25. Long-CLAWED. Leo. Rondel. 542.

L. with a fmooth thorax, with three fharp flender fpines in front; claws fix inches and a half long, flender and rough; fangs ftrait; legs weak, briftly; *antennæ* flender, two inches and a half long; tail and body about five inches.

Taken

### CLASS V. LOBSTERS.

Taken near Bamff. Communicated to me by the Reverend Mr. Cordiner, and engraven from his beautiful drawing.

Cancer. Liz. Syft. 1052.

L. with a pyramidal fpiny fnout; thorax elegantly plated; each plate marked near its junction with fhort *firia*; claws much longer than the body, thick, echinated, and tuberculated; the upper fang trifid; only three legs, fpiny on their fides; tail broad.

The largest of this species is about fix inches long.

Inhabits the coafts of *Anglefea*; under ftones and *fuci*. Very active. If taken, flaps its tail against the body with much violence and noise.

Cancer. Lin. Syft. 1051-

L. with a projecting fnout flightly ferrated on the fides; a fmooth thorax; back fmooth, with two fmall fpines on each fide; claws large, befet with fmall tubercles; two first pair of legs clawed; the two next fubulated; tail confists of five joints; the caudal fins rounded.

Inhabits many of the rivers of *England*; lodged in holes which they form in the clayey banks. *Cardan* fays that this fpecies is a fign of the goodnefs of water; for in the beft water, they are boiled into the reddeft color \*.

Squilla Crangon. Rondel. 547.

L. with a long ferrated fnout bending upwards; three pair of very long filiform feelers; claws small, furnished with two fangs; smooth

· Quoted by Plot. Hift. Staffordf. 185.

*Strigofus.* 26. Plate**d.** 

Aftacus. 27. CRAW-FISH.

Serratus. 28. PRAWN-

thorax;

### LOBSTERS. CLASS V.

thorax; five joints to the tail; middle caudal fin fubulated; two outmost flat and rounded.

Frequent in feveral fhores, amidft loofe ftones; fometimes found at fea, and taken on the furface over thirty fathoms depth of water; cinereous when fresh; of a fine red when boiled.

Squilla 29. WHITE.	Cancer Squilla. Lin. Syft. 1051. Faun. Succ. No. 2037. Squilla Batava. Seb. Muss. iii. p. 55. tab. xxi, fg. 9. 10 Squilla fusca. Baster ii. 30. tab. iii. fg. 5.	>}
	Squilla fuica. Baster 11. 30. 1ab. 111. fig. 5. Squilla Gibba. Rondel. 549.	

L. with a fnout like the prawn, but deeper and thinner; and feelers longer in proportion to the bulk; the fub-caudal fins rather larger; is at full growth not above half the fize of the former.

Inhabits the coafts of *Kent*; is fold in *London* under the name of *the white forimp*, as it assures that color when boiled.

Crangon. Cancer Crangon. Lin. Syft. 1052. 30. SHRIMP. Squilla marina Batava. Bafter. ii. 27. tab. iii. fig. 1. 11. Reefel infest. iii. tab. lxiii.

> L. with long flender feelers, and between them two thin projecting laminæ; claws with a fingle-hooked moveable fang; three pair of legs; feven joints in the tail; the middle caudal fin fubulated; the four others rounded and fringed; a fpine on the exterior fide of each of the outmost.

> Inhabits the fandy fhores of Britain, in vast quantities. The most delicious of the genus.

6

Cancer

# CLASS V. L O B S T E R S.

Cancer. Lin. Syft. 1056. Leffer garnel or thrimp. Marten's Spitzberg. 145. tab. P. fig. 1.

L. with-long flender claws, placed very near the head, with a flender body, and fix legs on each fide; is about half an inch long.

Found in the fand, on the fhore of *Flint/bire*; is very frequent in Spitzbergen.

Cancer. Lin. Syft. 1056. Mirum animalculum in corallinis, &c. Bafter. i. 43. tab. iv. fig. 11.

L. with a flender body; filiform *antenne*; three pair of legs near the head; behind which are two pair of oval *veficula*; beyond, are three pair of legs, and a flender tail between the laft pair.

Very minute. The help of the microscope often necessary for its infpection.

C. Lin. Syft. 1055. No. 81.

L. with five pair of legs, and two pair of claws imperfect; with twelve joints in the body.

Very common in fountains and rivulets; fwims fwiftly in an incurvated pofture on its back; embraces and protects its young between the legs; does not leap.

L. Lin. Syft. 1055. No. 82. Rofel Infet. iii. tab. 62.

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L. with four antenne; two pair of imperfect claws; the first joint ovated; body confists of fourteen joints, in which it differs from the former.

D

*Locufta.* 34. Locust.

Abounds

Atomos. 32. Атом.

Pules.

33. FLEA.

*Linearis.* 31. LINEAR.

### LOBSTERS. CLASS V.

Abounds in fummer-time on the fhores, beneath ftones and. alga; leaps-about with vaft agility.

Salinus. Cancer. Lin. Syft. 1056. 35. SALT.

> L. with jointed body; hands without claws; antennæ fhorter than the body; ten pair of legs; tail filiform, fubulated; very minute.. Difcovered by Doctor Maty in the falt pans at Limington.

Stagnalis. 36. Pond.

Cancer. Lin. Syft. 1056.

L. with jointed body; hands without claws; a bifid tail.

Inhabits the crannies of rocks, in fresh waters; suspected by Linneus to be the larva of an Ephemera.

The two last never fell under my notice.

Mamis. C. Lin. Syft. 1054. No. 76.. 37. MANTIS.

> L. with fhort antennæ; fhort thorax, and two pinnated fubftances: on each fide; three pair of claws with hairy ends; the body long, divided by eight fegments: two fins on each fide of the tail; tail. conoid, with fpines on the margin.

From the PORTLAND cabinet, Weymouth.

2

Bernardus. Cancer. Lin. Syst. 1049. 38 HERMIT.

> C. with rough claws; the right claw is the longer; the legs fubulated, and ferrated along the upper ridge; the tail naked and ten-

> > der,

# CLASS V. LOBSTERS.

der, and furnished with a hook, by which it secures its lodging.

This fpecies is parafitic, and inhabits the empty cavities of turbinated shells, changing its habitation according to its increase of growth, from the small *nerite*, to the large *whelk*. Nature denies it the strong covering behind, which it has bestowed on others of this class, and therefore directs it to take refuge in the deserted cases of other animals.

Aristotle deferibes it very exactly under the name of Kagainor\*. By the moderns it is called the *foldier*, from the idea of its dwelling in a tent; or the *bermit*, from retiring into a cell.

• Hift. An. lib. iv. c. 4. lib. v. c. 15.

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# ( 21 )

# TABLE XVIII.

# MARINE INSECTS.

- I. ONISEUS PÍOFA.
- II. Linearis.
  III. Marinus. Pallas Spicil. faíc. ix. tab. iv. f. 6.
  IV. Oceanicus.
  V. Entomon.
  VI. Oeftrum.
  VII. PHALANGIUM Balænæ.

# N° III. of TABLE XXV.

SCOLOPENDRA Marina.

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# CLASS VI.

# V E R M E S.

# W O R M S.

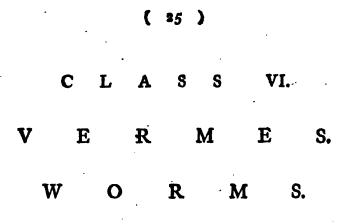
DIV. L. INTESTINE. II. SOFT.

III. TESTACEOUS.

# · · · · ·

I

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MIHI CONTUENTI SESE PERSUAAIT RERUM NATURA, NIHIL INCREDI-BILE EXISTIMARE DE BA. Plinii lib. xi. c. 3.

SLOW, foft, expanding, tenacious of life, fometimes capable of being new formed from a part; the enliveners of wet places; without head or feet; hermaphroditical; to be diffinguished by their feelers.

Not improperly called by the ancients, *imperfeil animals*; being defititute of head, ears, nole, and feet, and for the most part of eyes; most different from infects; from which LINNÆUS has long fince removed these works of Nature.

They may be divided into INTESTINE, SOFT, TESTACEOUS, LITHOPHYTES, and ZOOPHYTES.

The INTESTINE (heretofore ftyled *the earthly*) perforate all things by help of the great fimplicity of their form. The GORDIUS pierces the clay, that the water may percolate; the LUMBRICUS, the common foil, leaft it fhould want moifture; the MYXINE, dead

E

bodies,

W O R M S. CLASS VI.

bodies, in order that they may fall innoxiously to pieces; the TEREDO, wood, to promote its decay. In like manner, PHO-LADES, and some forts of mussies penetrate even rocks, to effect their diffolution.

The MOLLUSCA, or SOFT, are naked, furnished with arms; for the most part wander through the vast tract of ocean; by their phosphoreous quality illuminate the dark abys, reflecting lights to the heavens; thus what is below corresponds with the lights above.

These Mollusca often become the inhabitants of testaceous calcareous covers, which they carry about with them, and often they themselves penetrate calcareous bodies; like infects, are multiplied into infinite variety: and exhibit, both in form and colors, fplendid examples of the excelling powers of the all-mighty Artificer. Nor are they without their uses; several strains afford a delicious and nourishing nutriment. The healing art calls in the straight in confumptive cases; and the scale are of known efficacy in stubborn acidities. Shells are the great manure of lands in many parts of these kingdoms. The pearls of Great Britains have been celebrated from the time of Ce/ar.

26

ił,

#### CLASS

#### С S VI. L A S V E R M E S. W R Μ S. 0

1.

# Div. I. INTESTINE.

I. With a filiform body, of equal thickness; smooth.

GORDIUS. HAIR-WORM.

17

Gordius. Lin. Syf. 1075. Fann. Succ. No. 2068. Vitulus aquaticus. Gefner aq.

Aquaticus. 1. WATER.

Argillaceous. 2. CLAT.

Marinns. 3. MARINE.

G. OF a pale color, with the ends black. Inhabits boggy places, and clay at the bottom of water.

G. Lin. Syft. 1075. Fann. Succ. No. 2069.

G. of an uniform yellow color.

G. Lin. Syft. 1075.

7 🔹

G. filiform, twifted spirally and lying flat. Tab. xx. fig. 3.

E :

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Common

Common in the inteffines of the herring and other fea-fish. Ariftotle \* remarks that the Ballerus and Tillo are infested in the dogdays with a worm that torments them so much, that they rife to the top of the water, where the heat destroys them. Bleaks are observed to rife at certain seasons to the surface, and tumble about for a considerable space, in seeming agonies. I suffect them to be affected in the same manner with those Aristotelian fish.

ASCARÍS.

II. Slender filiform body, attenuated at each end.

Vermicularis. Ascaris. Lin. Syst. 1076. 4. VERMI-CULAR.

Asc. With faint annular *ruge*; thicker at one end than the other; mouth transverse.

Inhabits, according to *Linneus*, boggy places, and under the roots of decayed plants; found in the *reclum* of children and *i* horfes; often obferved in the dung of the laft; emaciates children greatly; is fometimes vomited up.

Lumbricoides. Ascaris. Lin. Syft. 1076. 5. COMMON.

> Asc. with a flender body, fubulated at each end; but the tail triangular; grows to the length of nine inches; viviparous; and . produces vaft numbers.

Inhabits the human intestines.

Hift. An. lib. viii. c. 20.

II. Slender

#### CLASS VI.

III. Slender annulated body, furnished with a lateral pore.

R

Μ-

S.

Lumbricus. Lin. Syft. 1076. Faun. Suec. No. 2073. Raii infest. 1.

L. with a hundred and forty rings; head taper; mouth, at the end, round; fore part of the worm cylindric, the reft depressed; at about one third of its length is a prominent annulated belt; on each fide of the belly a row of minute spines, distinguishable only by the touch; affistant in motion. Tab. xix. fig. 6.

A variety only of the former; excepting in fize, refembling it. Minor. Raii in/ect. 2.

Inhabits the common foil, and by perforating, renders it apt to receive the rain; devours the *cotyledons* of plants, or part of the feed that vegetates; comes out at night to copulate; is the food of moles, hedge-hogs, birds, &cc. In *Englifb*, the *Dew* or *Lob*worm. Tab. xix. fig. 6. A.

Inhabits the leffer inteftines of the human species, chiefly of Inteftinalis. Children; does not differ in the left from the former kinds.

L. marinus. Lin. Syft. 1077. Faun. Suec. No. 2074. Belon. ag. 444.

Marinus. 7. Luc.

Inhabits

L. with round mouth, and circular body annulated with greater • and leffer rings; the first prominent; on each of them are two tufts of short bristles placed opposite; the tail-part is smooth; elegant ramifications are observed to iffue from among the tufts in the living worm; is soft and full of blood.

6

LUMBRICUS. DEW-WORM.

Terrefiris. 6. 'Dew.

A. Lesser.

S.

Inhabits fandy fhores, burying itself deep; but its place diffinguissable by a little rising, with an aperture on the surface; of great use as a bait for fish. Tak. xix. fg. 7.

R

М

**FASCIOLA.** IV. Flattish body; a pore at the extremity, and on the belly. FLUKE.

Hepatica. Fasciola. Lin. Syst. 1077. Fann. Suec. No. 2075. Aman. Acad. 8. LIVIL. Rafel. app. tab. XXXII. f. 5. Borlafe Nat. Hift. Cornwall, tab. XX. fig. 10.

F. with an ovated body, a little fharper on the fore part; in the centre is a white fpot, with a line of the fame color paffing towards each extremity.

Infefts the livers of sheep and hares.

Intefinalis. Fasciola. Lin. Syft. 1078. Faun. Suec. No. 2076. 9. INTES- Lin. Syft. ed. vi. 70. 1ab. vi. f. 1. TINE.

F. with a long flender body, if extended; when contracted, of a fub-oval form.

Inhabits the inteffines of fresh-water fish; discovered in breams and flicklebacks.

IV. A

V. A flender lengthened body. Mouth, at the very end; attenuated, cylindric. Aperture on the fide of the body.

R

Sipunculus. Lin. Syft. 1078. Vermis macrorhynchopterus. Rondel. Zooph. 110. Gefner. eq. 1026. Nudus. 10. NAKED. Syrinx. Bebed/cb. marin. 93. tab. vii. fg. 6. 7.

T. With a cylindric extended mouth, laciniated round the inner edges; body rounded, taper, at the end globofe; about eight inches long; aperture at the fide, a little below the mouth. Tab. XX. fig. 10.

Inhabits the fea.

VI. Body oblong; moves by dilating the head and tail, and raifing HIRUDO. the body into an arched form. LEECH.

H. Liu. Syft: 1079. Faun. Suec. No. 2079. Raii infett. 3. Gefner pift. 425.

Medicinalis-11. MEDE-CINAL.

L. With a brown body, marked with fix yellow lines.

Inhabits standing waters. The best of phlebotomists, especially in *bemorrhoids*. The practice is as old as the time of Pliny, who gives it the apt name of birudo fanguisuga. Leeches were ufed instead of cupping-glasses for perfons of plethoric habits, and those who were troubled with the gout in the feet. He afferts, that if they left their head in the wound, as fometimes happened, 31

SIPUNCULUS. TUBE-WORM.

S.

32

it was incurable; and informs us, that *Meffalinus*, a perfon of confular dignity, loft his life by fuch an accident \*.

Sanguisuga. H. Lin. Syst. Fann. Suce. No. 2078. 12. HORSE. Hirudo maximè apud nos vulgaris. Raii instell. 3.

> L. with a depressed body; in the bottom of the mouth are certain great sharp tubercles or whitish caruncles. The slenderest part is about the mouth; the thickest towards the tail; the tail itself very slender; the belly of a yellowish green; the back dusky.

Inhabits standing waters.

Leeches are good barometers, when preferved in glasses, and predict bad weather by their great reftless and change of place.

Geometra. H. Lin. Syst. 1080. Faun. Suec. No. 2083. 13. GEOME- Rafel. App. tab. xxxii. f. 1. 4. TRICAL.

L. with a filiform body; greenish, spotted with white; both ends dilatable, and equally tenacious.

Inhabits the fame places; moves as if measuring like a compass, whence the name; found on trout and other fish, after the spawning scalon. Tab. xx. fig. 13.

Muricata. H. Lin. Syfl. 1080. Faun. Succ. No. 2080. Muf. Ad. Fr. i. 93. 14. TUBER- Hirudo marina. Ropdel. aquat. CULATED. Hirudo pifcium. Bafter, i. 82. tab. x. f. 2.

> L. with a taper body; rounded at the greater extremity, and furnished with two small horns; strongly annulated, and tuberculated upon the rings; the tail dilated.

• Lib. xxxii. c. 19.

Inhabits

# CLASS VI. W O R M S.

Inhabits the fea; adheres ftrongly to fifh, and leaves a black mark on the fpot. Tab. xx. fig. 14.

VII. Slender body, carinated beneath.

MYXINE. HAG.

Mouth at the extremity, cirrated.

The two jaws pinnated.

An adipofe or raylefs fin round the tail, and under the belly.

M. Lin. Syft. 1080. Putaohl. Faun. Suec. No. 2086. Mz/. Ad. Fr. i. 91. tab. viii. f. 4. Lampetra czeca. Wil. Idb. 107. Raii pife. 36:

*Glutiusfa.* 15. Gluti-2008.

Dry. II.

• This species is amply described in the definition; is about eight inches long.

Inhabits the ocean; enters the mouths of fifh, when on the hooks of lines that remain a tide under water, and totally devours the whole, except skin and bones. The Scarborougb fishermen often take it in the robbed fifb, on drawing up their lines. They call it the bag. Linnæus attributes to it the property of turning water into glue. Tab. xx. fig. 15.

F

W O R M S. CLASS VI.

DIV. II. MOLLUSCA. SOFT.

Animals of a fimple form, (naked) without a Shell; furnished with members.

LIMAX. SLUG. VIII. Oblong body; attenuated towards the tail. Above, is a flefhy buckler, formed convexly; flat beneath. A lateral hole on the right fide, for its genitals, and difcharge of excrements.

Ater. L. Lin. Byft. 1081. Faun. Suec. No. 2088. Lift. Angl. 131. Gefner. aq. 2544 16. BLACK.

SL. wholly black.

Rufus. L. Lin. Syst. 1081. Fann. Snec: No. 2089. 17. BROWN. Lift. Augl. App. 6. tab. ii. fig. 1.

SL. of a brownish color.

Maximas. L. Lin. Syft. 1081. Fann. Snot. No. 2090. Lift. Angl. App. 6. tab. ii. fig. 2. 18. GREAT. Lift. Angl. 127.

> SL. with a cinereous ground; the head reticulated with black; on the back three pale lines and four dufky; the last spotted with black.

> These vary; at times, part is of an amber color. The largest of the genus, five inches long.

L. Lin

### CLASS VL W O R M S.

L. Lin. Syft. 1082. Limax cinercus parvus immaculatus. Lift. Angl. 130.

SL. fmall, and of an uniform cinereous color; are very common in gardens, and deftructive to plants.

These have sometimes been swallowed by perforts in a consumptive habit, who thought them of service.

L. Lin. Syft. 1082. Fann. Succ. No. 2092.

SL. of an amber color, marked with white.

IX. Body covered with membranes reflected.
A fhield-like membrane on the back.
A lateral pore on the right fide.
The vent on the extremity of the back.
Four feelers, refembling ears.

Lepus marinus. Plinii, lib. ix. c. 48. Rondel. pifc. 520. Lernza. Bobad/cb. 3. 1ab. i. fig. Laplyfia. Lin. Syft. 1082.

Depilans. 21. DEPILA-

Defcribed in the character. The specimen engraven shews its fize. Those of *Italy* grow to the length of eight inches. *Pliny* calls it offa informis, and placing it among the venomous marine animals, fays, that even the touch is infectious. The smell is extremely nauseous. *Tab.* xxi. fig. 21.

Taken off Anglesea.

**F** 2

X. Body

Florens. 20.Yellow.

LAPLYSIA.

Agreftis.

19. FIELD.

S.

DORIS.

X. Body oblong, flat beneath; creeping. Mouth placed below.
Vent behind; furrounded with a fringe. Two feelers, retractile.

Argo. Doris. Lin. Syft. 1083. Bobad/cb. tab. v. fig. 4. 5. 28. LEMON.

> D. with an oval body, convex, marked with numerous punctures; of a lemon color; the vent befet with elegant ramifications.

> Inhabits different parts of our seas; called, about Brighthelmftone, the sea-lemon. Tab. xxii. fig. 22.

Verrucofa. Doris. Lin. Syft. 1083. 32. WARTY.

> D. of an ovated form, convex, tuberculated. Tab. xxi. fig. 23. Inhabits the sca, near Aberdeen.

**Electrine.** D. with the front abrupt; body has the appearance of a fnail; 24. AMBER. bilamellated; fize of the figure; amber colored.

Taken off Anglesea. Tab. Xxiv. fig. 24.

XI. Body

XI. Body oval; numbers of fasciculi, serving the uses of feet, on APHRODITA. each fide.

S.

Mouth cylindric, retractile, placed at the extremity. Two fetaceous feelers.

APH. Lin. Syst. 1084. Fann. Suec. No. 2099. Baster, ii. 62. tab. vi. sig. 12. Aculeata-Mus. Ad. Fr. i. 93. 25. Acu-Eruca marina. Seb. Mus. i. tab. xc. 1. 111. tab. iv. s. 7. 8. LEATED. Sea mouse. Dale's Harwich. 394. Beate's Nat. Hist. Ireland, 172.

App. with the back cloathed with fhort brown fur; the fides, with rich pavonaceous green hairs, mixed with fharp fpines; vent covered with two fcales; belly covered with a naked fkin; mouth placed beneath; each foot confifts of a *fafciculus* of five or fix ftrong fpines; on each fide about thirty-fix; grows to the length of between four and five inches. *Tab.* xxiii. *fig.* 25.

Inhabits all our feas; often found in the belly of the cod-fifh.

APH. Lin. Syft. 1084. Bafter, ii. 66. tab. vi. fig. 5.

Squammata-26. SCALED+

APH. with the back covered with two rows of large scales, deciduous; about an inch long.

Taken off Anglesea.

Tab. xxiii, fig. 26.

APH. with two rows of fcales on the back, placed alternately; Pedunculatav the mouth cylindric, projecting; an inch long.

Taken off Brighthelmstone. Tab. xxiv. fig. 27.

CULATI

Атн.

CLASS VI.

Annulata. 28. Annu-LATED'.

38

APH. oblong; fuliform; annulated; fmooth, excepting a row of minute fpines, one on each ring, running along the back; feet fmall; fize two inches and a quarter; of a pale yellow color. Tab. xxiv. fig. 28.

Minuta. APH. Lepidota. Pallaf. Miscel. Zool. 209. sab. viii. fig. 1. 2. vii. 15. 19. LITTLE.

> APH. with small scales; slender; not an inch long. Taken off Anglesea. Tab. xxiv. fig. 29.

NEREIS.

XII. Oblong flender body.

Feet formed like a pencil of rays, and numerous on each fide.

Mouth at the extremity, unguiculated. Feathered feelers above the mouth.

Nocillaca. N. Segmentis xxiii. corpore vix conspicuo. Lin. Syft. 1085. 30. Nocti- Nocilluca marina. Aman. Acad. 100013. Bafter, i. tab. iv. fg. 3.

> These are the animals that illuminate the sea, like glow-worms, but with brighter splendor. I have at night, in rowing, seen the whole element as if on fire round me; every oar spangled with them; and the water burnt with more than ordinary brightness. I have taken up some of the water in a bucket, seen them for a short space illuminate it; but when I came to search for them, their extreme smallness eluded my examination.

Nereis.

### CLASS VI. W O R M Si

Nereis. Lin. Syft. 1085. Rafel. infect. Polyp. tab. lxxix.

N. with a linear jointed body, with a filiform foot iffuing from each; the whole animal of the fize of a fhort briftle of a hog; an object of the microfcope.

Inhabits wet places.

Nereis. Lin. Syft. 1086. Fame. Suec. No. 2095.

Cærska. 32. BLUI.

Lacultris.

31. BOG.

N. fmooth; depressed; with 184 fegments of a bluish-green color, femi-pellucid; a longitudinal *fulcus* runs along the belly, about four inches long.

Inhabits the deeps. Two figures are given, fig. 1. on its belly, 2. on its back, flewing the *fulcus*.

N. with a very flender depressed body; two black spots on the Refe. front; attenuated at the end when it draws in its forceps; a blood- 33. RED. red longitudinal line along the middle of the back; the segments very numerous; about four inches long.

Taken off Anglesea. Tab. xxv. fig. 33.

Nereis. Pallaf. Mifc. p. 131. tab. ix. fig. 17.

Conchiloga. 34. Smelli

N. with a flat body, attenuated towards the tail; pellucid; about thirteen feet on each fide; about the mouth a feries of very fine filaments.

Inhabits the SABELLA Tubiformis. No. 163. of this work.

XIII. Body,

### ) R M

S.

ASCIDIA.

XIII. Body fixed to a fhell, rock, &c. Two apertures, one on the fummit. The other lower, forming a fheath.

Ruftica? Afc. Lin. Syft. 1087. 35. RUSTIC.

> Asc. with fcabrous extremities; one end bending upwards; middle part fmooth; lower flat; of a brown color.

> Taken off Scarborough. Animals of this genus have the faculty of squirting out the water they take in. Tab. xxiii. fig. 35.

# **ACTINIA.** XIV. Body oblong, round, affixing itfelf to fome other fubftance. The top dilatable, furrounded within with numberlefs *tentacula*.

Mouth the only aperture; furnished with crooked teeth.

Sulcata. HYDRA tentaculis denudatis, numerofifimis, corpore longitudinaliter fulcato. 36. SUL- Gaertner, Pb. Tr. 1761. p. 75. tab. i. b. fig. 1. A. B. GATED.

> Ac. with a body marked with trifurcated fulci; and fummit furrounded with long flender *tentacula*, from 120 to 200 in number; color of the body pale chefnut; of the tentacula a fea-green, varied with purple.

Inhabits the rocks of the Cornifb and Anglesea seas.

HYDRA

#### CLASS VI. R M 5.

HYDRA calyciflora, tentaculis rotractilibus variegatis corpore verrucoso. Ibid. Pedunculata. fg. z. A. B. C. 37. STALKY.

Ac. with a long cylindric stalk, expanding at top, and tuberculated. The tentacula disposed in feveral ranges, short, and when open, form a radiated angular circumference, like a beautiful flower, with a fmooth polygonal difc; the color of the flalk, a fine red; of the tentacula varied with feveral colors. This fpecies is retractile.

Inhabits Cornwall.

HYDRA discissora, tentaculis retractilibus subdiaphanis; corpore cylindrico, Verrucosa. miliaribus glandulis longitudinaliter firiato. Ibid. fg. 4. A. B. 28. STUD-DED.

Ac. with a long cylindric stalk; marked with elegant small tubercles, difposed in strait lines from top to bottom; the circumference of the mouth striated, furrounded with short petals, like those of the fun-flower; and those again with white sentacula, barred with brown. When drawn in, it affumes the form of a bell; and the lines of tubercles converge to the central of the fummit, Body of a pale red.

Inhabits Cornwall.

HYDRA discissora, tentaculis retractilibus, extimo disci margine tuberculato. Hemispherica. Ibid. fig. 5. A. B.

39.BUTTON.

Ac. with a fmooth fhort thick falk; the edge of the difc furrounded with a fingle row of tubercles; the *tentacula* numerous G and 41

# W O R M S. CLASS VI.

and flender. Color a dull crimfon. Retractile, and flings itfelf in that flate into the form of a conoid button.

Inhabits most of our rocky shores.

Pentapetala. ACTINIA dianthus. ELLIS. Pb. Tr. 1767. p. 436. tab. xix. f. 8. 40.CINQUE-POIL.

> Ac. with a circular contracted mouth; the difc divided into five lobes, covered with feveral feries of fhort fubulated *tentacula*. Stalk fhort and thick. When contracted, affumes the form of a long white fig.

Inhabits the rocks near Haftings. Sussex.

**MOLOTHURIA.** XV. Body not affixed; naked; gibbous.

Many tentacula at one extremity, furrounding the mouth.

Pentades. Hol. Lin. Syft. 1091. 41. FIVE- Hydra corolliflora tentaculis retractilibus frondosis. Gaertner. Pb. Tr. 1761. ROWED. p. 75. tab. i. b. fig. 3. A. B.

> H. with an incurvated cylindric body, marked with longitudinal rows of *papille*; out of the centre of each iffue, at will, flender feelers like the horns of fnails; the upper extremity retractile; when exerted, affumes a cordated form, furrounded at the apex with eight tentacula, elegantly ramified, of a yellow and filver color.

> Found on the fhore between *Penfance* and *Newland*. Supposed to inhabit the deep.

3

The

# CLASS VI. W O R M S.

The figure engraven to illustrate this genus was dredged up near Weymouth. Tab. xxvi. fig. 41.

Aristotle and Pliny make use of the words  $O\lambda_0 \Im_{outgia}$  and Holothuria  $\bullet$ ; but I should imagine, from the context, that they intend those marine bodies, which modern naturalists style Zoophyta, perhaps Alcyonia: for both of the former make them analogous with plants. Yet Aristotle hints that they have life; a discovery assumed in later times.

XVI. Body oblong; roundifh; which affixes itfelf to other animals LERNEA. by its tentacula.

A thorax heart-fhaped.

Two, or three tentacula in form of arms.

L. Lin. Syft. 1093. Faux. Surc. No. 2102.

Salmonea. 42. Salmon.

L. with an ovated body, cordated thorax, and two linear arms approaching nearly to each other.

Inhabits the gills of falmon. Observed in great numbers on the first arrival of that fish out of the fea; but after being a little time in fresh waters, drops off and dies. The falmon is reckoned in highest feason when these vermes are found in them. Called by the fishermen, falmon-lice.

Ariftot. Hift. An. lib. i. c. 1. de Part. An. lib. iv. c. 5. Plinii Hift. Nat.
 kb. iz. c. 47.

G 2

XVII, Eight

R Μ S.

CLASS VI.

XVII. Eight arms placed round the mouth, with fmall concave CUTTLE. difcs on their infides.

Often two long tentacula.

Mouth, formed like a horny beak. Eyes, placed beneath the tentacula. Body flefhy, a fheath for the breaft. A tube at the base of the last.

Loligo. Loligo, five Calamarus. Matthiol. in Diescorid. 327. 43. GREAT. Loligo magna. Rondel. 506. Le Cafferon. Belon. aquat. 342. Sepia. Lin. Syst. 1096. No. 4. Seb. Mass. iii. tab. iv. fog. 1, 2. Fann. Succ. No. 2107. Borlase Cornwall. tab. XX. fog. 27.

> S. with fhort arms and long tentacula; the lower part of the body rhomboid and pinnated, the upper thick and cylindric.

> Inhabit all our feas, are gregarious; fwift in their motions; take their prey by means of their arms; and embracing it, bring it to their central mouth. Adhere to the rocks, when they with to be quiescent, by means of the concave difes that are placed along their arms. Tab. xxvii. fig. 43.

Ottopedia. Le Pourpre. Belon. aquat. 336. Polypi prima species. Rondel. 513. 44. EIGHT-Sepia. Lin. Syft. 1045. No. 1. Seb. Maf. iii. tab. ii. fig. 1. ARMED.

> S. with a fhort round body, without fins or tentacula; with only eight arms; connected at their bottom by a membrane. This Į٦.

10

SEPIA.

is the *Polypus* of *Pliny*, which he diffinguishes from the *Loligs* and *Sepia*, by the want of *tentacula*.

Inhabits our feas. In hot climates thefe are found of an enormous fize. A friend of mine, long refident among the *Indian* ifles, and a diligent observer of nature, informed me that the natives affirm, that fome have been seen two fathoms broad over their centre, and each arm nine fathom long. When the *Indians* navigate their little boats, they go in dread of them; and least these animals should fling their arms over, and fink them, they never fail without an ax to cut them off. *Tab.* xxviii. fg. 44-

S. Lin. Syft. 1093. Loligo Parva. Rondel, 508. Seb. Maf. iii. tab. iv. fig. 5.

S. with a long, flender, cylindric body; tail finned, pointed, and carinated on each fide; two long tentacula; the body almost tranfparent; green, but convertible into a dirty brown, confirming the remark of *Pliny*\*, that they change their color thro' fear, adapting it, *Chameléon* like, to that of the place they are in. The eyes are large and finaragdine. *Tab.* xxix. fig. 45.

S. Lin. Syft. 1096: Sepiola. Rondel. 519:

Sopiola. •46. SMALL

S. with a fhort body, rounded at the bottom; a round fin on each fide; two *tentacula*.

Taken off Flintsbire. Tab. xxix. fig. 46.

• Lib. ix c. 29,

Media. 45.MIDBLE. 46

Officinalis. La Seiche. Belon. aquat. 338. Matthiol. in Dio/corid. 326. Sepia. Rondel. 498. 47. OFFICI- Sob. Mu/. iii. tab. iii. fg. 1, 2. S. Officinalis. Lin. Syft. 1095. Fann. Succ. WAL. No. 2706. Amaen. Acad.

> S. with an ovated body; fins along the whole of the fides, and almost meeting at the bottom; two long tentacula; the body contains the bone, the *cuttle-bone* of the fhops, which was formerly used as an abforbent.

> The bones are frequently flung on all our fhores; the animal very rarely.

This (in common with the other species) emits, when frighted or pursued, the black liquor which the antients supposed darkened the circumambient wave, and concealed it from the enemy.

Σηπία αυτε δολοφροσυνησι, &cc.

Th' endanger'd Cuttle thus evades his fears, And native hoards of fluid fafety bears. A pitchy ink peculiar glands fupply, Whofe fhades the fharpeft beam of light defy. Purfu'd he bids the fable fountains flow, And wrapt in clouds eludes th' impending foe. The fifh retreats unfeen, while felf-born night, With pious fhade befriends her parent's flight ".

The antients fometimes made use of it instead of ink. *Perfus* mentions the species in his description of the noble student.

\* Jenes's Translation of Oppian's Halient, lib. iii.

Jam

M S.

Jam liber, et bicolor pofitis membrana capillis, Inque manus chartæ, nodofaque venit arundo. Tum querimur, craffus calamo quòd pendeat humor ; Nigra quòd infufa vanescat SEPIA Lympha \*.

R

At length, his book he fpreads; his pen he takes = His papers here, in learned order lays; And there, his parchment's fmoother fide difplays. But oh ! what croffes wait on fludious men, The CUTTLE's juice hangs clotted at our pen. In all my life fuch fluff I never knew, So gummy thick-Dilute it, it will do. Nay, now 'tis water ! DRYDEN.

This animal was effected a delicacy by the antients; and is eaten even at prefent by the *Italians.* Rondeletius gives us two receipts for the dreffing +, which may be continued to this day. Athenaus  $\pm$ alfo leaves us the method of making an antique Cuttle-fifth faufage; and we learn from Ariftotle ||, that those animals are in higheft feason, when pregnant.

1 Lib. vii. p. 326.

• Sat. iii. + De Pifc. 510. 1 Lib. viii. c. 30. Hift. An.

XVIII. Body

MEDUSA. XVIII. Body gelatinous, orbicular, convex above; flat or concave beneath.

R

Mouth beneath, in the middle. Tentacula placed below.

Fusca. BORLASE's Cornwall, p. 256. tab. XXV. fig. 7, 8. 4×. BROWN.

> M. with a brown circle in the middle; fixteen rays of the fame color pointing from the circumference towards the centre. On the circumference a range of oval tubercles, and crooked fangs placed alternately. Four ragged *tentacula* extend little farther than the body.

Purpura. BORLASE's Cornwall, p. 257, tab. XXV. fig. 9, 10. 49. PURPLE.

> M. with a light-purple crofs in the centre; between each bar of the crofs, is a horfe-fhoe-fhaped mark of deep purple; from the circumference diverge certain rays of pale purple. Four thick *tentacula*, fhort, not extending farther than the body.

Tuberculata. BORLASE's Cornwall, p. 257. 14b. XXV. fg. 11, 12. 50. TUBER-SLED.

> M. with fifteen rays pointing to and meeting at a finall fpot in the centre. Round the edges are finall oval tubera; four plain *tentacula* extending far beyond the body.

> > BORLASS's

BORLASE's Cornwall, p. 257. tab. XXV. fig. 15.

M. with undulated edges, with fangs on the projecting parts; four orifices beneath; between which rifes a ftem, divided into eight large ragged *tentacula*.

BORLASE's Cornwall, p. 258. tab. XXV. fig. 16, 17.

Lunulata. 52. Lunu-LATED.

M. with the circumference tuberculated on the edges; in the center of the lower part are four conic appendages forming a crofs; feveral others, like ferrated leaves, furround it. Eight *tentacula*, not exceeding the edges of the body; eight femilunar apertures, one between each *tentaculum*.

#### BORLASE's Cornewall, p. 257. tab. XXV. fig. 13, 14.

Simplex. 53. Arm-Less.

names

M. with a plain circumference; four apertures beneath; no tentacula.

These animals inhabit all our seas; are gregarious; often seen floating with the tide in vast numbers; feed on infects, small fish, &cc. which they catch with their classers or arms. Many species, on being handled, affect with a nettle-like burning, and excite a redness. The antients, and some of the moderns, add something more \*. They were known to the *Greeks* and *Romans* +, by the

• Provitum in pudendis, et oredinem in manibus et oculis movent, atque acrimonia fua, venerem fopitam, vel extinctam excitant. *Rondel.* 532. In feveral hanguages they are called by an obscene name.

+ Arist. Hist. An. lib. v. c. 15. Diescorides notis Matthiel. 341. Plinii, lib. ix. c. 47.

Undulata. 51. WAVED.

M

S.

CLASS VI.

names of  $\Pi_{FUPPA}$   $\Im_{AAATOTOS}$ , and Pulmo marinus, SEA-LUNGS. They attributed medicinal virtues to them. Diofcorides \* informs us, that if rubbed fresh on the disafed part, they cured the gour in the feet, and kibed heels. <u>Ælian</u> + fays, that they were depilatory, and if macerated in vinegar, would take away the beard. Their *phosphorous* quality is well known; nor was it overlooked by the antients. *Pliny* notes, that if rubbed with a stick it will appear to burn, and the wood to shine all over  $\ddagger$ . The same elegant naturalist remarks, that when they sink to the bottom of the sea, they portend a continuance of bad weather. I must not omit, that Aristotle, and Athenaeus after him, give to some species the apt name of Kuda, or the nettle, from their stinging quality 1.

The antients divided their Kulon into two classes, those that adhered to rocks, the Attinia of Linnaus; and those that wandered through the whole element. The last are called by later writers Urtica Soluta; by Linnaus, Medusa; by the common people Sea Gellies and Sea Blubbers.

I do not find that the moderns make any use of them. They are left, the prey of basking sharks, perhaps of other marine animals.

• P. 341. † De Animal. lib. xiii. c. 27. ‡ Lib. xviii. c. 35. # Arift. Hift. An. lib. v. c. 16. Athenans, lib. iii. p. 90.

# XIX. Depressed

5**Q** -

XIX. Depressed body; covered with a coriaceous coat; fur- ASTERIAS. nished with five or more rays, and numerous retractile SEA-STAR. tentatula.

Mouth in the center.

### • FIVE-RAYED.

Ast. Lin. Syft. 1099. Faun. Sunc. No. 2113. Stella coriacea acutabgula lutea vulgaris LLUIDII. Linchii, p. 31. tab. XXXVI. 54. Com-No. 61. Mon.

Ast. with five rays depressed; broad at the base; sub-angular, hirfute, yellow; on the back, a round striated opercule.

These are found sometimes defective, or with only four rays. See Linckius, tab. xxxv. fig. 60.

Common in all our feas; feed on oysters, and are very destructive to the beds.

Stella pentapetalos cancellata anomalos. Lischii, p. 32. tab. xiv. No. 23. and tab. vii. No. 9. Claibrata. 55.CANCEL-LATED.

Ast. with five flort thick rays; hirfute beneath; cancellated above.

Found with the former; more rare. Tab. xxx. fig. 7.

Hs

Pentadacty

Oculata. Pentadactylosafter oculatus, Linckii, p. 31. teb. XXXVI. No. 62. 56.DOTTED.

> Ast. with five fmooth rays, dotted or punctured; of a finepurple color.

Anglesea. Tab. xxx. fig. 56.

Irregularis. Astropecten Irregularis. Linchii, p. 27. tab. vi. fig. 13. 57.RIMMED.

Ast. with five fmooth rays; the fides furrounded with a regular fcaly rim; on the mouth, a plate in form of a cinquefoil; of a reddifh hue.

Hispida. Stella coriacea acutangula hispida. Linckii, p. 31. tab. ix. No. 19. 58. HISPID.

> Ast. with five rays, broad, angulated at top; rough, with fhort briftles; brown.

Anglesea. Tab. xxx. fig. 58.

Gibbofa. Pentaceros gibbus et plicatus, altera parte concavus. Linckii, p. 25. 1ab. iŭ. 59. G1B- No. 20. BOUS. BORLASE's Cormwall, p. 260. 1ab. XXV. fig. 25, 26.

> Ast. with very fhort broad rays flightly projecting; a pentangular fpecies, much elevated, fmall, covered with a rough skin; brown; the mouth in the midst of a pentagon.

------**5** 

Stells

### GEASS.VI. W. ORM 5.

Stella quinquefida palmipes. Linckii, p. 29. tab. i. fig. 2. Placenta. Pentoppidan's Norway, part. ii. 179. 59.A.FLAT.

Ast. with five very broad and membranaceous rays, extremely thin and flat.

Tab. xxxi. fig. 59: A. Weymouth. From the Portlans cabinet.

Pontadactylofafter fpinofus regularis. Linckii, tab. iv. No. 7. BORLASE's Corn-Spinofas wall, p. 259. tab. xxv. fig. 18. 60. SPINY.

Ast. with five rays of almost equal thickness, beset with numerous spines.

FIVE-RAYED, with slender or ferpentiform rays.

Hirfuta, seu stella grallatoria vel macrosceles LUIDII. Linckii, p. 50. Minuta.

61. MI-

Asr. with a round body, and five very flender and long hirfute rays. Found by Mr. Lluyd near Tenbigb.

Stella lacertofa. Linckii, p. 47. tabi ii. No. 4.

Lacertofa. 62. LIZARD.

Ast. with five fmooth flender rays, fcaled, jointed, white. Linckius calls this Lacertofa, from the likeness of the rays to a Lizard's tail. Anglesea. Tab. xxxii. fig. 62.

AsT.

Spharulata. Ast. with a pentagonal indented body, fmooth above the aper-63.BEADED. ture; below five-pointed; between the base of each ray a small globular bead; the rays slender, jointed, taper; hirsute on their fides.

Anglesea. Tab. xxxii. fig. 63.

Pentaphylla. BORLASE's Cornwall, p. 260. tab. XXV. fg. 24-64.CINQUE-FOIL.

> Ast. with the body regularly cinquefoil; rays very flender; hirfute on the fides, teffulated above and below with green, fometimes with fky-blue.

Varia. BORLASE's Cornwall, p. 259. tab. XXV. fg. 21. 65. PIED.

> Ast. with a circular body, with ten radiated ftreaks; the ends of a lozenge form; the rays hirfute, annulated with red. Cornwall.

Aculeatá. BORLASE's Cornwall, p. 259. tab. 22. fig. 19.

66. RADI-ATED.

> Ast. with a round body, with ftreaks from its centre alternately broad and narrow; the rays flender, hirfute. Cornwall.

#### BORLASS'S

Cornwall.

#### CLASS VI. W O R M S.

BORLASE's Cornwall, p. 259. tab. XXV. fg. 22.

Asr. with a pentagonal body indented; of a deep brownish-red hue, marked with ten ochraceous streaks; five of the streaks slender, with javelin-shaped extremities; rays hirsute, jointed.

Cornwall.

BORLASE's Cornwall, p. 259. tab. XNV. fig. 20.

Fifa. 68. Inden7-Ed.

Ast. with a circular body, with five equidiftant dents, penetrating deep into the fides; five light-colored streaks darting from the centre; rays slender, hirfute.

Cormoall.

BORLASE's Cornwall, p. 260. tab. XXV. fig. 23.

Ast. with a pentagonal body, black, with five radiating ftreaks Nigra. of white; rays hirfute olivaceous, teffulated with deeper shades. 69. BLACE Cornwall.

.\*. With more than FIVE RAYS.

Stella decacnemos rofacea, seu decempeda Cornubionfium. Linckii, p. 55. Bisida. sab. xxxvii. sig. 66. 70. BIFID.

Asr. with ten flender rays, befet with tendrils on their fides; the mouth furrounded with flort filiform rays.

Cornwall. 10 Stella

Haftata. 67.]AVELIN. Decacnemes. Stella decacnemos barbata, seu fimbriata, Barrelier. Linckii, p. 55. tab. xxxvii. 71. TEN- fig. 64. RAYED.

> Ast. with ten very flender rays, with numbers of long beards on the fides; the body fmall, furrounded beneath with ten fmall filiform rays.

Inhabits the western coasts of Scotland. Tab. xxxiii. fig. 71.

Helianthe-Stella dodecactis Helianthemo fimilis. Linckii, p. 42. tab. xvii. fig. 28. moides ? 72.Twelve-RAYED.

Ast. with twelve broad rays finely reticulated, and roughened with fafciculated long papillæ on the upper part; hirfute beneath; red.

These vary into thirteen, such as the *Triscaidecattis* of *Linckius*. *Tab.* xxxiv. fig. 54. I have had one of fourteen rays.

Aristotle and Pliny \* called this genus  $A_{5np}$ , and stella marina, fays the first, from their resemblance to the pictured form of the stars of heaven. They afferted that they were so exceedingly hot, as instantly to confume whatsoever they touched.

Arborefcens. Afterias caput medufæ. Lin. Syft. 1101. 73. ARBO- Soc-Soele. Pontop. Norway, il. 180. RESCENT.

> Ast. with five rays iffuing from an angular body; the rays dividing into innumerable branches, growing flenderer as they receded from the bafe; the most curious of the genus.

• Arifiet. Hift. An. lib. v. c. 15: Plinii Hift. Nat. lib. ix. c. 60.

Found

#### CLASS VI. W O R M S.

Found, as I have been told, in the north of Scotland. The late worthy Doctor William Borlafe informed me that it had been taken off Cornwall.

XX. Body covered with a futured cruft, often furnished with ECHINUS. moveable fpines.

Mouth quinquevalve, placed beneath.

Echinus. Lin. Syft. 1102. Lift. Angl. 169. tab. iii. Extros sá. Ariftot. Hift. An. lib. iv. c. v. Tab. xxxiv. fg. 74. E/culentus. 74. EAT-ABLE.

ECH. of a hæmispherical form, covered with sharp strong spines, above half an inch long; commonly of a violet color, moveable; adherent to small tubercles, elegantly disposed in rows. These are their instruments of motion, by which they change their place.

This fpecies is often taken in dredging, and often lodges in cavities of rocks just within low-water mark.

Are eaten by the poor in many parts of *England*, and by the better fort abroad. In old times a favorite difh. They were dreffed with vinegar, honied wine, or mead, parfley and mint; and efteemed to agree with the ftomach\*. They are the first difh in the famous fupper of *Lentulus* +, when he was made *Flamen Martialis*, prieft of *Mars*. By fome of the concomitant diffes, they feem defigned as a whet for the fecond course, to the holy personages, priefts, and vestals invited on the occasion. Many

\* Athenans, lib. iii. p. 91.

† Macrobius, as quoted by Arbutbuot.

**fpecies** 

# WO, R. M. S. CLASS VI.

fpecies of shell fish made part of the feast. The reader will perhaps find some amusement in learning the taste of the *Roman* people of fashion in these articles.

Echini, the species here described.

Offree Crude, raw oysters.

Peloridæ<sup>•</sup>, a fort of Mya, still used as a food in some places. Vide No. 15.

Sphondyli, a fort of Bivalve, with ftrong hinges, found in the Mediterranean fea. Not the griftly part of oysters, as Doctor Arbutbnot conjectures.

Patina Offrearum. Perhaps stewed ovsters.

Pelorides. Balani nigri et albi; two kinds of Lepades.

Sphondyli, again.

- 58

Glycymerides +. A shell. I suspect to be the same with the Matira Lutraria of this work, No. 44.

Murices, Purpure. Turbinated shells, whose species I cannot very well determine, there being more than one of each in the Italian seas.

Cordatus. Echinus spatagus. Lin. Syft. 1104. Lift. App. tab. i. fig. 13. 75. CORDAT-

> Ech. of a cordated fhape, gibbous at one end, and marked with a deep *fulcus* at the other; covered with flender fpines refembling briftles. Shell moft remarkably fragile.

Length, two inches. Tab. xxxiv. fig. 75.

\* Rendel. Teffacea, p. 11: + Idem. p. 13.

Lite

### CLASS VI. WORMS

Lin. Syst. 1104. Argenville, 310. tab. 22. fig. K. Rumpb. Mus. tab. xiv. fig. 2. Lacunofus. 76. Oval.

ECH. of an oval depressed form; on the top of a purple color, marked with a quadrefoil, and the spaces between tuberculated in waved rows; the lower side studded; and divided by two smooth spaces.

Length, four inches. When cloathed, is covered with fhort thickfer briftles mixed with very long ones.

Weymouth, from the PORTLAND cabinet. Tab. XXXV. fig. 76.

Doctor Borlase gives a figure of an Ecbinus, found in Mount's Bay, that refembles in shape the above; but I cannot, either from description or print, determine whether it be the young, or distinct. Vide Nat. Hist. Cornwall, p. 278. sab. xxviii, fig. 26.

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DIV. III.

# DIV. III. TESTACEA.

VERMES of the fost kind, and simple make, commonly covered with a calcareous habitation.

DIV. I. MULTIVALVE SHELLS.

# CHITON. I. The animal, or inhabitant of its shell, the DORIS. The shell plated, consisting of many parts, lying upon each other transversely.

#### SECT. I. MULTIVALVE SHELLS.

Crinitus. 2. HAIRT.

CH. WITH seven valves; thick set with short hairs; fiveeighths of an inch long. Of the natural size. A. 1. magnified.

Inhabits the fea near Aberdeen. Tab. xxxvi. fg. 1.

Margizatus. 2. Margi-NATED.

 CH. with eight valves; with a ferrated reflected margin, fmooth;
 fize of the figure. Tab. xxxvi. fg. 2. Inhabits the fca near Scarborough.

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CH. with

CH. with eight valves; quite fmooth, with a longitudinal mark *Lavis*. along the back; a little elevated. Size of a wood-loufe. *Tab.*<sup>3. SMOOTH.</sup> XXXVI. fig. 3.

Inhabits the shores of Locb Broom in West Ross-shire. The inhabitant of this shell is a species of the Doris.

The name Chiton, taken from XITWY, Lorica, a coat of mail.

II. Its animal the TRETON. The shell multivalve, unequal, fixed by a stem: or sessible.

Eepas. Lin. Syft. 1107. Faun. Suec. No: 2122. Balanus. Common English Barnacle. Ellis Ph. Tr. 1758. Tab. XXXIV. fg. 17. 4. COMMON.

L. of a conoid form, fmooth, and brittle; the lid or operculum tharp pointed.

Found adhering to rocks, oysters, and shell-fish of various forts. Tab. xxxvii. fig. 4.

L. Lin. Syft. 1108. Faun. Suec. No. 2123. Lift. Angl. tab. v. fig. 41.

Balanoides. 5. SULCAT-

*LEPA*S. ACORN.

L. with ftrong fulcated fhells; aperture fmaller in proportion than the former.

Adheres to the fame bodies. Tab. xxxvii. fig. 5. Quere, the figure, A. 5. if not an accidental variety?

Lepas-

#### E . L L

#### CLASS VI.

S.

Cornubienfis. Lepas Cornubienfis. Ellis Pb. Tr. 1758. tab. xxxiv. fg. 16. 6. CORNISH. Berlafe Nat. Hift. Cornwall.

> L. in form of a limpet, with a dilated bottom, and rather narrow aperture; the shell fulcated near the lower edges. Tab. xxxvii. fig. 6.

L. with the shells lapping over each other, and obliquely striated. 7. STRIAT-The fea near Weymouth. Tab. xxxviii. fg. 7. From the Port-LAND cabinet.

Tintinnabu-L. Lin. Syft. 1108. lum: 8. Bell.

> L. with a large deep shell, rugged on the outside, of a purple color.

As large as a walnut.

Found frequently adhering to the bottom of fhips, in great clusters. Probably originated in hot climates.

L. Lin. Syft. 1109. Faun. Suec. No. 2120. Lift. Concb. tab. 439.

Anatifera. 9. ANATI-FRROUS.

> L. confifting of five shells, depressed, affixed to a pedicle, and in clufters. Tab. xxxviii. fig. 9.

Adheres to ships bottoms by its pedicles.

The tentacula from its animal are feathered; and have given our old English historians and naturalists the idea of a bird. They ascribed the origin of the Barnacle Goole to these shells. The account given

Striata.

ED.

CLASS VI. S H E L L S.

given by the Sage Gerard, is fo curious, that I beg leave to tranfcribe it.

. But what our eyes have feene, and hands have touched, we . shall declare. There is a small island in Lancashire called the · Pile of Foulders, wherein are found the broken pieces of old " and bruifed fhips, fome whereof have been caft thither by fhip-" wracke, and also the trunks and bodies with the branches of old ' and rotten trees, caft up there likewife; whereon is found a cer-• taine fpume or froth that in time breedeth unto certaine fhels, • in fhape like those of the Muskle, but sharper pointed, and of a " whitish colour; wherein is contained a thing in form like a lace • of filke finely woven as it were together, of a whitish colour; • one end whereof is fastened unto the infide of the shell, even as . the fifh of Oifters and Muskles are : the other end is made fast • unto the belly of a rude maffe or lumpe, which in time commeth. • to the fhape and form of a bird : when it is perfectly formed, • the shell gapeth open, and the first thing that appeareth is the · forefaid lace or ftring; next come the legs of the bird hanging • out, and as it groweth greater it openeth the shell by degrees, • till at length it is all come forth, and hangeth onely by the bill: · in fhort space after it commeth to full maturitie, and falleth into <sup>6</sup> the fea, where it gathereth feathers, and groweth to fowle · bigger than a Mallard and leffer than a Goofe, having blacke · legs and bill or beake, and feathers blacke and white, fpotted in . fuch manner as is our Mag Pie, called in fome places a Pie-• Annet, which the people of Lancashire call by no other name than • a tree Goofe : which place aforefaid, and all those parts adjoyn-• ing, do fo much abound therewith, that one of the beft is bought · for three pence. For the truth hereof, if any doubt, may it · pleafe. 6

63

• pleafe them to repaire unto me, and I shall fatisfie them by the • testimonie of good witness. • Vide HERBAL, p. 1587, 1588.

This genus is called by Linnaus, LEPAS, a name that is given by the antients to the Patella. Shells of this clafs are called by Ariftotle, Bahavou<sup>\*</sup>, from the refemblance fome of them bear to acorns. We have feen before in the account of the fupper of Lentulus, that they were admitted to the greatest tables.

PHOLAS. III. Its animal an ASCIDIA.

Shell bivalve, opening wide at each-end, with feveral leffer fhells at the hinge.

The hinges folded back, united with a cartilage.

An incurvated tooth in the infide beneath the hinge.

Dachylus. PH. Lin. Syft. 1110. Fann. Suec. No. 2124. Lift. Angl. App. Tab. xi. fg. 3. 10. DAC-TYLE.

PH. with an oblong fhell, marked with echinated *firie*; the tooth broad; the fpace above the hinge reflected, and cancellated beneath; breadth four inches and a half; length one and a quarter. *Tab.* xxxix. *fig.* 10.

Candidus. PH. Lin. Syft. 1111. Lift. Angl. 1ab. v. fig. 39. 11. WHITE.

PH. with a brittle shell, and smoother than the former; the tooth very slender; breadth an inch and an half; length near an inch. Tab. xxxix. fig. 11.

Hift. An. lib. v. c. 15.

Рн. *Lin*.

CLASS VI. H · E Ľ Ľ S)

PH. Lin. Syft. 1111. Lift. Angl. tab. v. fig. 38. Faux. Szec. No. 2125.

Crispatus. 12.CURLED.

65

PH. with a ftrong oval shell; the half next to the hinge waved and ftriated; tooth large and ftrong; breadth three inches and a half; length one and three quarters. Tab. xl. fig. 12.

This genus takes its name from  $\varphi \omega \lambda \epsilon \omega$ , to lurk in cavities. A shell of the name of *Pholis* and *Pholas*, is mentioned by Aristotle and Athenaus; but I fuspect it to be the Dattylus of Pliny. A species now called Datyl, abounding within the rocks of the Mediterranean, is much admired as a food \*.

Ph. with a shell thinner than the former; and the tooth very Parvas. flender and oblique; in externals refembling the former, only 13. LITTLE. never found larger than a hazel nut.

I have often taken them out of the cells they had formed in hard clay, below high-water mark, on many of our fhores. They also perforate the hardest oak plank that accidentally is lodged in the water. I have a piece filled with them, which was found near Penfacola in West Florida, and prefented to me by that ingenious naturalist the late JOHN ELLIS, Esquire.

I have also found them in masses of fossil wood, in the shores of Abergelli in Denbigbsbire. The bottom of the cells are round, and appear as if nicely turned with fome inftrument.

Tab. xl. fig. 13.

\* Pliny, lib. ix. c. 61. Armsfrong's Hift. Minorca, 173-

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Div. II.

# DIV. II. BIVALVE SHELLS.

*MYA.* Gaper. ъ

IV. Its animal an Ascidia.

A bivalve shell gaping at one end.

The hinge, for the most part, furnished with a thick, strong, and broad tooth, not inferted into the opposite valve.

Truncata. M. Truncata. Lin. Syft. 1112. Faun. Suec. No. 2126. Lift. Angl. tab. v... 14. ABRUPT. fig. 36.

M. WITH a broad, upright, blunt tooth, in one shell; the closed end rounded; the open end truncated, and gaping greatly; the outside yellow, marked with concentric wrinkles. *Tab.* xli. *fig.* 14.

Lodged under flutchy ground, near low-water mark; discovered by an aperture in the flutch, beneath which it is found in coarfe gravel.

Denlivis. 15. SLOP-ING. M. with a brittle half-transparent shell, with a hinge slightly prominent; less gaping than the *truncata*; near the open end floping downwards.

Frequent about the Hebrides; the fifh eaten by the gentry.

M. Arenaria:

10

# CLASS VL S H E L L S.

#### M. Arenaria. Lin. Syf. 1112. Fann. Snec. No. 2127.

Aronaria. 16. SAND,

67

M. with a tooth like the former; mouth large, rough at the bafe; the whole shell of an ovated figure, and much narrower at the gaping end.

Three inches and a half broad; two inches long in the middle. Tab. xlii.

M. Pictorum. Lin. Syft. 1112. Fann. Succ. No. 219. Lift. Angl. App. tab. i. Pictorum: fig. 4. RES.

M. with an oval brittle shell; with a single longitudinal tooth like

a lamina in one shell, and two in the other. Tab. xliii. fig. 17.

Breadth a little above two inches; length one.

Inhabits rivers.

Used to put water colors in; whence the name. Otters feed on this and the other fresh-water shells.

Lin. Syft. 1112: Faun. Susc. No. 2130. Lift. Angl. App. tab. i. fig. 1. Margariti-Schoffer Lapland, 145. 18. PZARL.

M. with a very thick coarfe opake shell; often much decorticated; oblong, bending inward on one side; or arcuated; black on the outside; usual breadth from five to six inches; length two and a quarter. Tab. xlisi. fig. 18.

Inhabits great rivers, especially those which water the mountanous parts of Great Britain.

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CLASS VI.

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Τ.

This shell is noted for producing quantities of pearl. There have been regular fisheries for the sake of this pretious article in feveral of our rivers. Sixteen have been found within one shell. They are the difease of the sish, analogous to the stone in the human body. On being squeezed, they will eject the pearl, and often cast it spontaneously in the sand of the stream.

The Conway was noted for them in the days of Cambden. A notion also prevales, that Sir Richard Wynne, of Gwydir, chamberlain to Catharine queen to Charles II. prefented her majesty with a pearl (taken in this river) which is to this day honored with a place in the regal crown. They are called by the Wellb Cregin-Diluw, or Deluge Shells, as if left there by the flood.

The Irt in Cumberland was also productive of them. The famous circumnavigator, Sir John Hawkins \*, had a patent for fifting that river. He had observed pearls plentiful in the Straits of Magellan, and flattered himself with being inriched by procuring them within his own island.

In the last century, several of great fize were gotten in the rivers of the county of *Tyrone* and *Donegal*, in *Ireland*. One that weighed 36 carats was valued at  $\pounds$ . 40, but being foul, lost much of its worth. Other fingle pearls were fold for  $\pounds$ . 4. 10 s. and even for  $\pounds$ . 10. The last was fold a second time to Lady *Glenlealy*, who put it into a necklace, and refused  $\pounds$ . 80 for it from the Duchess of *Ormond*  $\ddagger$ .

Suetonius reports, that Cafar was induced to undertake his Britifle expedition for the fake of our pearls; and that they were fo large that it was neceffary to use the hand to try the weight of a fingle one  $\pm$ . I imagine that Cafar only heard this by report; and that

1 Sueton. Vit. Jul. Caf. c. xliv.

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the

<sup>•</sup> Camden. ii. 1003. † Pb. Tr. Abridg. ii. 831.

#### CLASS VI. H E S S.

the crystalline balls in old leafes, called mineral pearl, were miftaken for them \*.

We believe that Calar was disappointed of his hope : yet we are told that he brought home a buckler made with British pearl, + which he dedicated to, and hung up in the temple of Venus Genetria. A proper offering to the Goddels of Beauty, who fprung from the fea. I cannot omit mentioning, that notwithstanding the claffics honor our pearl with their notice, yet they report them to have been fmall and ill colored; an imputation that in general they are still liable to. Pliny ± fays, that a red small kind was found about the Thracian Bosphorus, in a shell called Mya, but does not give it any mark to afcertain the fpecies.

M. with a rudiment of a tooth within one shell; with an oval and Dubia. large hiatus opposite to the hinge. Shells brown and brittle. OUI-

19. Dva

69

Shape of a pistachia nut.

Length of a horfe-bean. Tab. xliv.

Found near Weymouth. From the PORTLAND cabinet.

Woodward's Method of Fossils, 29. partii. \* Plinii, lib. ix. c. 35. Tacitus Vit. Agricola.

t Ibid-

V. Its

LL

9.

SOLEN. RAZOR.

70

V. Its animal an ASCIDIA.

A bivalve; oblong; open at both ends.

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At the hinge, a fubulated tooth turned back, often double; not inferted in the opposite shell.

\* With the hinge near the end.

Siliqua. Lin. Syft. 1113. Faun. Succ. No. 2131. Lift. Angl. tab. v. fg. 37. 20. Pop. Lift. Concb. tab. 409.

> S. with a ftrait shell, equally broad, compressed, with a double tooth at the hinge, receiving another opposite; and on one fide ' another tooth sharp pointed, and directed downwards. Color olive, with a conoid mark of an association of the state of th

Tab. xlv. fig. 20.

Vagina. Lin. Syft. 1113. Lift. Conch. tab. 410. 21. SHEATH.

> S. with a fhell nearly cylindrical, one end marginated; the hinge confifting of a fingle tooth in each fhell placed oppofite. Shell yellow, marked much like the former; ufually about five or fix inches broad.

Inhabits Red Wbarf, Anglesea.

Lin:

#### CLASS NI. S H E L S. Ŀ

Lin. Syft. 1114. Lift. Angl. App. tab. ii. fg, 9. Lift. Conch. tab. 411-

Enfis. 22. SEYME-TIR.

S. with a fhell bending like a fcymeter, with hinges like those of the Siliqua; and colored and marked like it. The shell thin, and rounded at each end. Usual breadth four or five inches. Tab. xlv. fig. 22.

S. fub-arcuated and fub-oval; with the hinge confisting of a fharp- Pellacidus. double tooth on one fide, receiving a fingle one from the oppo- cip, fite, with a process in each shell, pointing towards the cartilage of the hinge. Shell fragile, pellucid; about an inch broad. Tab. xlvi. fig. 23.

Inhabits Red Wharf, Anglesea.

With the hinge near the middle.

Lin. Syf. 11-14. Lift. Concb. tab. 420-

Legumen 24. SUB-

S. with a ftrait fub-oval shell; with teeth exactly refembling those of the last, furnished likewise with similar processes; one end is fomewhat broader than the other. Ufual breadth about two inches and an half. Shell sub-pellucid, radiated from the hinge to the margin.

Tab. xlvi. fg. 24. Inhabits the fame place.

Lin.

23. PELLUM

Cultollus. Lin. Syft. 1114. No. 37. Lift. Comb. 421. 25.KIDNEY.

> S. with a kidney-shaped shell; with a single tooth in both fides of the hinge. The shell covered with a rough *epidermis*. Breadth near two inches; length seven-eighths of an inch.

Inhabits the fea near Weymouth.

Tab. xlvi. fig. 25.

This species borders on the mye, and connects the genera.

I am not acquainted with the natural hiftory of the two laft. The three firft lurk in the fand near low-water mark, in a perpendicular direction: and when in want of food, elevate one end a little above the furface, and protrude their bodies far out of the fhell. At approach of danger, they dart deep into the fand, fometimes at left two feet. Their place is known by a fmall dimple on the furface. Sometimes they are dug out of the fand with a fhovel; at other times are taken by a bearded dart fuddenly ftruck into them. They were ufed as a food by the antients. *Athenaeus* \* (from *Sophron*) fpeaks of them as great delicacies, and particularly grateful to widows.

Μαχραί χόγχαι σῶλενες τέτιγα

Γλυχυχέζεων χογχύλιον χηξῶν γυναιχῶν λιγχνεῦμα. Oblongæ conchæ *folenes*, et carne jucundâ Conchylium, viduarum mulierum cupediæ.

These are often used as a food at present; and brought up to table fried in eggs.

• Lib. iii. p. 86.

. VI. Its

72

VI. Its animal a TETHYS. A bivalve, generally floping down on one fide. Three teeth at the hinge.

E

#### • Ovated.

Lin. Syft. 1117. No. 49.

Fragilis. 26.FRAGILE.

TELLINA.

T. with a very brittle white shell, truncated at the narrower, and sounded at the broader end. An inch broad.

Tab. xlvii. fig. 26.

T. with a very thick depressed oblong shell; white; with concen- Depresse. tric striæ.

Tab. xlvii. fig. 27.

T. with very thick, broad, and depressed shells, marked with *Crassa*. numerous concentric *striæ*. Breadth, an inch and three quarters; <sup>28. FLAT.</sup> length, an inch and a quarter.

Has the habit of the VENUS *borealis*; but the fides of this are unequal, one being more extended than the other.

Tab. xlviii. fig. 28.

L

Lin.

Planata. Lin. Syft. 1117. No. 52. 29. PLAIN.

> T. with a very flat delicate fhell, marked with concentric lines of red; the fpace about the hinge brown. Breadth, two-thirds of an inch.

Tab. xlviii. fig. 29.

Radiata. Lin. Syft. 1117. No. 54. 30. RAYED.

> T. with very convex shells of a faint ash color, radiated with red; tinged within with a faint purple. Breadth an inch and an half. *Tab.* xlix. *fig.* 30.

Incarnata. Lin. Syft. 1118. No. 58. Faun. Succ. No. 2133. Lift. Angl. App. tab. 1. fig. 8. 31. CARNA-TION.

T. oblong, depressed; originally covered with a thick brown epidermis. When naked, of a whitish color rayed with red, and crossed again with minute concentric strice.

Usual breadth, one inch and three quarters.

Tab. xlvii. fig. 31.

Lin. Syft. 1119. No. 66. Lift. Angl. tab. iv. fig. 25.

32. FLESH-COLORED.

Garnaria.

T. with a ftrong and rounded shell, generally of a bloom color within and without; externally marked with belts of deeper red.

Breadth about seven-eighths of an inch.

Sometimes

CLASS VI. S. H. E. L. S. Sometimes found quite white, as fig. 32. A. Tab. xlix. fig. 32.

Lin. Syft. 1119. No. 58.

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Trifasciata. 33. TRI-Fasciated.

75

T. with a very brittle shell, radiated like the T. Incarnata; but lesser.

T. with oval shells, marked with rugged concentric striæ. This Rugosa. has much the habit of the Mytilus Lithophagus. 34.Ruggeb.

About the fize of a filbert.

Dredged up at Weymouth. Misplaced among the VENUSES. Vide tab. lvii. fig. 34.

Borlase Hist. Cornwall, tab. xxviii. sig. 23.

Cornubienfis. 35. Con-

T. with oblong oval shells, deeply striated parallel to the margin. Described by Doctor Borla/e.

Lin. Syft. 1120. No. 72. Faun. Suec. No. 2138. Lift. Angl. App. 1ab. i. fig. 5. Cornea.

36. HORNY.

T. with round shells very convex, marked with a transverse furrow; color brown.

Size of a pea. Inhabits ponds and fresh waters. Tab. xlix. fig. 36.

L 2

VII. Bivalve,

CLASS VL

CARDIUM. VII. Bivalve, nearly equilateral, equivalve. COCKLE.

Its animal a TETHYS.

Two teeth near the beak : a larger (placed remote) on each fide; each locking into the oppofite.

Aculeatum. Lin. Syft. 1122. No. 78. 37. Acu-LEATED.

> C. with high ribs radiating from the hinge to the edges; each rib fulcated in the middle; and near the circumference befet with large and ftrong proceffes, hollowed. One fide of the shell projects further than the other, and forms an angle. Color yellowishbrown.

> As large as a fift. The marginal circumference ten inches and a half.

Found off the Hebrides and Orknies. Tab. 1. fig. 37.

Echinatum. 38. Echi-NATED. Lin. Syft. 1122. No. 79. Faun. Suec. No. 2139. Lift. Angl. tab. v. fig. 33. Concb. tab. 324.

C. leffer than the former, being little more than fix inches in circumference; the color white; the ribs echinated higher up; has only fixteen ribs, the former twenty-one; the fhape rounder.

Found dead on many of our fhores.

### CLASS VI. S H E L

Lin. Syft. 1122. No. 80.

Ciliare. 39. Frin-Ged.

S,

'L

C. with a very brittle shell, and delicate; of a pure white; eighteen ribs rifing into thinner spines.

Of the fize of a hazel nut.

Tab. l. fig. 39.

Lin. Syft. 1123. No. 88.

Lævigatum. 40. SMOOTH-

C. of a fub-oval fhape, fomewhat depressed; of a deep brown color, with obsolete longitudinal *firie*; and a few transversal, concealed by a thin *epidermis*.

Circumference fix inches and a half. Tab. li. fig. 40.

Lin. Syft. 1124. No. 90. Fann. Suec. No. 2141. Lift. Angl. tab. v. fig. 34. Edule. 41. EDIBLE.

C. with twenty-eight depressed ribs, transversely striated; one fide more falient than the other.

Common on all fandy coafts, lodged a little beneath the fand; their place marked by a depressed spot. Delicious and wholesome food.

Tab. 1. fig. 41.

#### VIII. Its

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MACTRA. VIII. Its animal a TETHYS.

Bivalve, unequal sided, equivalve.

Middle tooth complicated; with a little concavity on each fide; the lateral teeth remote, mutually received into each other.

Stultorum. Lin. Syft. 1126. No. 99. 42. SIMPLE-TON'S.

M. with femi-transparent shells, smooth, glossy; white without; purplish within.

Size of a hazel nut. Tab. lii. fig. 42.

Solida. Lin. Syft. 1126. No. 100. Fann. Suec. No. 2140. Lift. Angl. tab. iv. fig. 24. 43. STRONG.

> M. with very ftrong shells; in a live state, smooth, white, glossy, and marked with a few transverse striæ. In dead shells, the striæ appear like high ribs. Vide fig. 43. A. Tab. 1.

Lutraria. Lin. Syft. 1126. No. 101. Fann. Suce. No. 2128. Lift. Angl. tab. iv. fig. 19. 44. LARGE.

> M. with an oblong thin shell; one fide much extended, and gaping; for which reason *Linnaus* once placed it among the *Mya*. Breadth five inches; length two and a half.

> > Inhabits

Inhabits the fea near the mouth of rivers; and even fometimes within the mouth.

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S.

Tab. lii. fig. 44.

Concb. tab. 376. J. 217.

IX. Its animal a TETHYS. Bivalve, with the frontal margin very blunt.

DONAX.

Lin. Syft. 1127. No. 105. Fann. Succ. No. 2142. Lift. Angl. tab. v. fig. 35.

Trunculus. 45. Yellow.

D. with a gloffy shell, of a whitish color tinged with dirty yellow, and marked lengthways with many elegant minute *firie*; the infide purple.

Breadth an inch and a tenth. Tab. lv. fig. 45.

Lin. Syft. 1127. No. 107.

Denticulata. 46. PURPLE:

C. of a cuneiform fhape; extremely blunt at one end, ftriated like the former, ferrated at the edges; color within purple; transversely tinged with the fame on the outfide.

Breadth, a little fuperior to the former.

# X. Its

VENUS.

X. Its animal a TETHYS.

Hinge with three teeth near to each other; one placed longitudinally, and bent outwards.

Mercenaria. Lin. Syst. 1131. No. 123. Faun. Suec. No. 2144. List. Angl. tab. iv. fig. 22. 47. COMMER- Concb. tab. 272. CIAL.

V. With a ftrong, thick, weighty shell, covered with a brown epidermis; pure white within; slightly striated transversely.

Circumference above eleven inches.

Lin. Syft. 1131. No. 122. Lift. Conch. tab. 284.

These are called in North America Clams; they differ only in having a purple tinge within. Wampum or Indian money is made of them \*.

Tab. liii. fig. 47.

**Brycina.** 48. Sici-LIAN.

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V. with a very thick shell, marked with high-ridged ribs transversely; undulated longitudinally.

List

Fig. 48. A. a worn shell.

Circumference about five or fix inches.

Tab. liv. fig. 48. 48. A.

• Burnaby's Trayels, p. 104. ed. 2.

Lin. Syft. 1134. No. 142.

Exoleta. 49. Anti-QUATED.

S.

V. with orbicular shells, with numerous transversal firie; white, glosfy.

Diameter about two inches.

A. Variety of the fame, marked strongly with numerous firia, and longitudinally with a few short yellowish lines. Vide Lift. Concb. tab. 292. 293.

Tab. liv. fig. 49. A. Tab. lvi. fig. 49.

Lift. Concb. tab. 281.

Rugo/u. 50. WRINK-LED.

V. with thick shells, marked with rugose concentric frie.

A. Variety, with *firie* lefs elevated, and marked with yellowith zigzag lines. *Lift. Concb.* 282.

Length, an inch; breadth, an inch and a quarter. Tab. lvi. fig. 50.

V. with thin convex orbiculated fhells, of a white color, tinged Undata. with yellow, and marked with thin concentric firice; waved at the edges.

Size of a hazel nut. Tab. lv. fig. 51.

V. with thin convex shells, with a very deep obtuse finus, or bend. Sinus/a. s1. A. INpented.

Size of the figure.

Μ

Weymouth.

## ELLŞ.

CLASS VI-

Weymouth. From the PORTLAND cabinet. Tab. lv. fig. 51. A.

Borealis. Lin. Syft. 1134. No. 143. Lift. Angl. tab. iv. fig. 23. Cond. tab. 253: fig. 88. 52. NOR-THERN.

> V. with thin shells, much depressed, marked with slender concentric fria.

Length one inch and a half; breadth near two inches.

Litterata. Lin. Syft. 1135. No. 147. Faun. Succ. No. 2146. Lift. Conch. tab. 400. 53. LETTER- fig. 239. BL.

V. with thick fhells, marked transversely with frequent crenulated *firie*, fometimes fmoother; of a whitish color, streaked with lines refembling characters. In *British* specimens usually faint; in foreign very strong and elegant.

Length an inch and three quarters; breadth two inches and a half.

Tab. lvii. fig. 53.

Deflorata. Lin. Syst. 1133 No. 132. 54. FADING.

V. with thin oval shells, striated lengthways, semipellucid; rayed with purple and white, both within and without.

Size near an inch and half in breadth.

Tab. lvii. fig. 54.

### V. with

V. with depressed rhomboidal shells, marked with concentric and *Rhomboids*. very neat *firie*, of a pale brown color variegated.

Length three quarters of an inch; breadth an inch and three quarters.

V. with ovated shells, striated elegansly from hinge to margin, and Ovata. solution flightly striated transversely.

Size of a horfe-bean.

Tab. lvi. fig. 56.

XI, Its animal a TETHES? ARCA. Shell bivalve equivalve.

Teeth of the hinge numerous, inferted between each other,

Lin. Syft. 1140. No. 168. Borlafe Nat. Hift. Cornew. tab. xxviii. fig. 15, 16. Tortuofa. Lift. Concb. tab. 368. Mytilus Matthiel. apud Dio/cor. lib. ii. c. 5. p. 301. TORTED.

A. with a rhomboid shell, deeply striated from the apex to the edges.

Inhabits Cornwall. Found also near Weymouth. Tab. lviii. fig. 57.

Lin. 81/2. 1143. No. 181. Lift. Conch. tab. 247. 19:82.

Glycymerts. 58. ORBICU-

A. with thick orbicular fields; marked with concentive first s - white zigzagged with ferruginous, edges crenulated.

M 2

Diameter

#### S H E

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CLASS VL

Diameter about two inches. Tab. lviii. fig. 58.

· Nucleus. 59. SIL-VERT.

> A. with unequally triangular shells; smooth, pure white without, filvery within; margin finely crenated.

Size of a pea. Tab. lviii. fig. 59.

Lin. Syft. \$141. No. 184.

Barbata. Lin. Syft. 1140. No. 170. 60. FRIN-OID.

> A. with oblong shells faintly striated; befet with Byffus to as toappear bearded.

> In England of the fize of a horfe-bean, the foreign specimens. much larger.

PECTEN. SCALLOP. XII. Its animal a TETHYS.

Shell bivalve, unequal.

The hinge toothlefs, having a fmall ovated hollow.

Maximu. Lin. Syft. 1144. No. 185; Fann. Suce. No. 2148. Lift. Angl-iab. v. Sg. 29. 61. GALAT.

> P. with fourteen rays, very prominent and broad; ftriated lengthways above and below; cars equal.

Grows

## CLASS VI. S H E L L

Grows to a large fize. Tab. lix. fig. 61.

Found in beds by themfelves; are dredged up, and pickled and barrelled for fale.

S:

The antients fay, that they have the power of removing themfelves from place to place by vaft fprings or leaps  $\bullet$ . This shell was called by the *Greeks* Kreis, by the *Latins Petten*, and was used by both as a food; and when dreffed with pepper and cummins, was taken medicinally +.

The elegant figure of the crouching *Kenus*, in the *Maffei* collection, is placed fitting in a shell of this kind. The sculptor probably was taught by the mythology of his time, that the goddess arose from the sea in a scallop. This perhaps may have been the concha veneres of *Pliny*, so styled from this circumstance.

Another shell has the same name, for a different reason  $\ddagger$ .

The fcallop is commonly worn by pilgrims on their hat, or the cape of their coat, as a mark that they had croffed the sea in their way to the *Holy Land*, or to fome distant object of devotion.

Lin. Syft. 1144. No. 186. Lift: Conch. tab. 165. fg. 2.

Jacobons. 62. LESSER.

P. with fifteen broad rays, rounded on the flat fide, and most finely transversely striated; angulated on the convex, and striated lengthways; ears nearly equal; concave and smooth on the upperfide.

A rare species in Great Britain. Tab. lx. fig. 62.

Arif. Hif. An. lib. iv. c. 4.
 1. Sec No. 82.

+ Athinans, lib. iii. p. 90.

\*\* Both

#### **Both Shells convex.**

Subrufus. Pecten tenuis, subrusus, maculosus, circiter 20 firiis najoribus, at lævibus, dona-63. RED. tus. Lift. Augl. 9. 185. tak. v. fg. 30.

P. with twenty narrow rays, finely striated; ears nearly equal, and also striated.

A species seldom exceeding two inches and a quarter in length; the breadth nearly the fame.

A thin shell, generally of a fine pale red.

Tab. 1x. fig. 63.

Farins. Lin. Syf. 1146. No. 199. Lift. Conch. tab. 178. fig. 15. 64. VARIE-GATED.

P. with about thirty echinated imbricated rays; thells almost equally convex; one car vaftly larger than the other.

General length two inches and a half; breadth a little lefs. Color, a fordid red mixed with white.

Often found in oyster-beds, and dredged up with them. Tab. lxi. fig. 64.

Pusso? Lin. Syst. 1146. No. 200. 65. WRITH- Pecten minimus angustior inequalis ferè et asper, &c. 20. List. Angl. p. 186. sab. v. fig. 31.

> P. with above forty fmall rays; with unequal ears; the furface always irregularly waved or deformed, as if by fome accident; but this appearance regularly maintained.

> > Length

CLASS VI. E S H L ·L S.

Length about two inches. Colors commonly very brilliant reds. Tab. lxi. fig. 65.

P. with one large striated ear, with smooth equal shells; eight Obfoletus. 66. Worn. obfolete rays; of a dark purple color.

A fmall species three quarters of an inch long. Tab. lxi. fig. 66.

P. with unequal ribbed ears; the reft of the shell entirely smooth. Levis. **б**7. Ѕмоотн. Very fmall. Anglesea.

Lin. Syft. 1146. No. 201.

Glaber. 68. Fur-ROWRD.

P. with a very thin shell; fifteen faint rays; equal ears. The inner fide of the shells marked with rays, divided by a single sulcus.

Anglesea. A scarce species. Small.

· XIII. Its animal a TETHYS. Shell bivalve, roughly plated on the outfide. •

OSTREA. OYSTER.

Lin. Syft. 1148. No. 211. Faun. Suec. No. 2149. Lift. Angl. tab. iv. fig. 26. Edulis.

69. EDIBLE.

in

O. commonly of an orbicular form, and very rugged. Α description of fo well-known a shell is needless. Varies in fize

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in different places. This is figured with an Anomia on it, No. 70. B.

. L

Britain has been noted for oysters from the time of Juvenal, who fatyrizing an epicure, fays,

> *Circeis* nata forent, an *Lucrinum* ad Saxum, *Rutupinove* edita fundo, Oftrea, callebat primo deprendere morfu.

He, whether Circe's rock his oysters bore, Or Lucrine lake, or distant Richborough's shore Knew at first taste.

The luxurious *Romans* were very fond of this fifh, and had their *layers* or flews for oyfters, as we have at prefent. Sergius Orata + was the first inventor, as early as the time of *L. Craffus* the orator. 'He did not make them for the fake of indulging his appetite, but through avarice, and made great profits from them. Orata got great credit for his *Lucrine* oysters; for, fays *Pliny*, the British were not then known.

The antients eat them raw, and fometimes roafted. They had also a custom of stewing them with mallows and docks, or with fish, and esteemed them very nourishing <u>t</u>.

Britain still keeps its superiority in oysters over other countries. Most of our coasts produce them naturally, and in such places they are taken by dredging, and are become an article of com-

\* Satyr. iv. V. 140. + Plin. Nat. Hift. lib. ix. c. 54. 1 Athenany, lib. iii. p. 92.

merce,

CLASS VI. S H E L L S.

merce, both raw and pickled. The very fhells, calcined, become an ufeful medicine as an abforbent. In common with other fhells, prove an excellent manure.

Stews or *layers* of oyfters are formed in places, which nature never allotted as habitations for them. Those near Colcbester have been long famous; at present there are others, that at left rival the former, near the mouth of the Tbames. The oysters, or their spats, are brought to convenient places, where they improve in taste and fize. It is an error to suppose, that the fine green observed in oysters taken from artificial beds, is owing to copperas; it being motorious how destructive the substance or the solution of it is to all fish. I cannot give a better account of the cause, or of the whole treatment of oysters, than what is preferved in the learned Bishop Sprat's History of the ROYAL SOCIETY, from p. 307 to 309.

• In the month of *May* the oyfters caft their fpaun, (which the • dredgers call their fpats;) it is like to a drop of candle, and • about the bignefs of a halfpenny.

• The *fpat* cleaves to flones, old oyfter-fhells, pieces of wood, • and fuch-like things, at the bottom of the fea, which they call • culteb.

• 'Tis probably conjectured, that the *fpat* in twenty-four hours • begins to have a shell.

In the month of May, the dredgers (by the law of the Admiralty court) have liberty to catch all manner of oysters, of
what fize foever.

When they have taken them, with a knife they gendy raife
the fmall brood from the *cultcb*, and then they throw the *cultcb*in again, to preferve the ground for the future, unlefs they be

80

fo newly fpat, that they cannot be fafely fevered from the cultcb;
in that cafe they are permitted to take the ftone or fhell, &c.
that the *fpat* is upon, one fhell having many times twenty *fpats.*

After the month of May, it is felony to carry away the cultch,
and punishable to take any other oysters, unless it be those of
fize, (that is to fay) about the bigness of an half-crown piece,
or when the two shells being shut, a fair shilling will rattle between them.

• The places where these oysters are chiefly catcht, are called • the *Pont-Burnham*, *Malden*, and *Colne* waters; the latter taking • its name from the river of *Colne*, which passetheth by *Colne-Chester*, • gives the name to that town, and runs into a creek of the sea, at • a place called the *Hythe*, being the suburbs of the town.

This brood and other oysters they carry to creeks of the sea,
at Brickel-Sea, Mersey, Langno, Fringrego, Wivenbo, Tolesbury,
and Saltcoase, and there throw them into the channel, which
they call their beds or layers, where they grow and fatten, and
in two or three years the smallest trood will be oysters of the size
aforesaid.

Those ovsters which they would have green, they put into
pits about three feet deep in the falt-marshes, which are overflowed only at spring-tides, to which they have fluces, and let
out the fault-water until it is about a foot and half deep.

• These pits, from fome quality in the foil co-operating with the • heat of the fun, will become green, and communicate their • colour to the oysters that are put into them in four or five days, • though they commonly let them continue there fix weeks or two • months, in which time they will be of a dark green.

• To

• To prove that the fun operates in the greening, *Tolefbury* pits • will green only in fummer; but that the earth hath the greater • power, *Brickel-Sea* pits green both winter and fummer: and for • a further proof, a pit within a foot of a greening-pit will not • green; and those that did green very well, will in time lose • their quality.

3.

• The oyfters, when the tide comes in, lie with their hollow • fhell downwards, and when it goes out, they turn on the other • fide; they remove not from their place, unlefs in cold weather, • to cover themfelves in the Oufe.

• The reason of the scarcity of oysters, and confequently of their • dearness, is, because they are of late years bought up by the • Dutch.

• There are great penalties, by the Admiralty court, laid upon • those that fish out of those grounds which the court appoints, • or that deftroy the *cultch*, or that take any oysters that are not of • fize, or that do not tread under their feet, or throw upon the • shore, a fish which they call a *Five-finger* \*, refembling a spur-• rowel, because that fish gets into the oysters when they gape, • and sucks them out.

• The reason why such a penalty is set upon any that shall de-• stroy the cultch, is, because they find that if that be taken • away, the Ouse will increase, and the muscles and cockles will • breed there, and destroy the oysters, they having not whereon to • stick their spat.

• The oysters are fick after they have spat; but in June and • July they begin to mend, and in August they are perfectly well:

\* ASTERIAS glacialis, the common Sea Star.

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f the

the male oyfter is black-fick, having a black fubftance in the fin;
the female wbite-fick, (as they term it) having a milky fubftance
in the fin. They are falt in the pits, falter in the layers, but
falter at fea.'

To this I beg leave to join a fort of present state of this article, borrowed from the 84th page of the History of *Rochefter*, in 12mo, published in 1776.

Great part of the inhabitants of Stroud are supported by the · fisheries, of which the oyster is most confiderable. This is con-· ducted by a company of free dredgers, established by prescrip-' tion, but fubject to the authority and government of the mayor ' and citizens of Rochefter. In 1729 an act of parliament was sobtained, for the better management of this fifthery, and for · confirming the jurifdiction of the faid mayor and citizens, and • free dredgers. The mayor holds a court of admiralty every ' year, to make fuch regulations as shall be necessary for the well: · conducting this valuable branch of fifhery. Seven years apprenticeship entitles a person to the freedom of this company. All. · perfons catching oyfters, not members of the fifhery, are liable ' to a penalty. The company frequently buy brood or fpat from other parts, which they lay in this river, where they foon grow-' to maturity. Great quantities of these oysters are sent to Lon-. don; to Holland, Weftphalia, and the adjacent countries.

92

XIV. Bivalve,

#### XIV. Bivalve, inequivalve.

One valve perforated near the hinge, affixed by that perforation to fome other body.

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**Rin.** Syft: 1150. No. 218. Lift. Conch. tab. 274. fig. 38.

Ephippium. 70. LARGER.

ANOMIA.

A. with the habit of an oyster; the one fide convex, the other flat; perforated, adherent to other bodies, often to oyster-fhells, by a strong tendinous ligature; color of infide perlaceous.

Size near two inches diameter.

Tab. lxii. thews the exterior fide of the fhell; and the interior of the upper valve adhering to an oyster.

Ein. Syf. 1151. No. 221.

Squammula. 71. SMALL.

A. with fhells refembling the scales of fish; very delicate and filvery. Much flatted. Perforated. Very small.

Adheres to oyfters, crabs, and lobsters, and shells.

The foffil species of the Anomia genus are uncommonly numerous in this island, in our chalk-pits and limestone-quarries; but are foreign to the work in hand. The reader who wishes to be acquainted with their appearance, may fatisfy himself, by confulting Lister's History of Shells, appendix to the 3d book, tab. 447, &c. and Hist. an. Angl. tab. viii. and ix. Plot's Hist. Oxfordfoire, tab. iii. and his History of Stafford/bire, tab. xi.

## ELLS.

MYTILUS. XV. Its animal an Ascepta. MUSSEL.

Bivalve; often affixed to fome fubftance by a beard. Hinge without a tooth, marked by a longitudinal hollow line.

Rugofus, Lin. Syft. 1156. No. 249. Lift. Angl. tab. iv. fig. 21. 72 Rugged.

M. with a brittle shell, very rugged, and in shape most irregular; usually oblong, and rounded at the ends.

Length near an inch. Color whitifh.

Always found lodged in *limeftone*. The outfide generally appear honey-combed; but the apertures are too finall for the fhell to paf sthrough, without breaking into the cell they are lodged in. Multitudes are found in the fame ftone: but each has a feparate apartment, with a different external fpiracle.

Tab. lxiii. fig. 72.

Edulis. Lin. Syft. 1157. No. 253. Faun. Suec. No. 2156. Lift. Angl. tab. iv. fig. 28. 73. EDIBLE.

> M. with a ftrong fhell, flightly incurvated on one fide: angulated on the other. The end near the hinge pointed; the other rounded. *Tab.* lxiii. fig. 73.

When the epidermis is taken off, is of a deep blue color.

Abundance of small pearls, called *feed-pearls*, were till of late procured from this species of mussel, for medical purposes; but I believe they are now difused, fince crabs-claws and the like have been

#### Ľ CLASS VI. H Ē S.

been discovered to be as efficacious, and a much cheaper abforbent.

Found in immense beds, both in deep water; and above lowwater mark. A rich food, but noxious to many conftitutions. Affect with fwellings, blotches, &c. falfely attributed to the peacrab. The remedy oil, or falt and water.

Ne fraudentur glorià sua littora. I must in justice to Lancafoire add, that the finest mussels are those called Hambleton Hookers, from a village in that county. They are taken out of the fea, and placed in the river Wier, within reach of the tide, where they grow very fat and delicious.

M. very crooked on the fide, near the end; then greatly dilated, Incurvatus. and covered with a thick rough epidermis. Within has a violet 74. CROOKtinge.

Found on the coaft of Anglesea, near Priestbolme; usually an inch and an half long.

Tab. lxiv. fig. 74.

M. with a delicate transparent shell, most elegantly rayed length- Pellucidus. ways, with purple and blue; like the former in fhape, but more 75. PELLUoval. Commonly fhorter than two inches.

Anglesea. Found fometimes in oyster-beds; fometimes in trowling over flutchy bottoms.

Tab. lxiii. fig. 75.

M. with a ftrong fhell, and the space opposite to the hinge deeply Umbilicature. inflected or umbilicated.

76.UMBILI+ CATED-

The

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95.

The form nearly oval. The length fometimes five inches. A rare fpecies, and new. Sometimes dredged up off *Prieftbolme* island, *Anglefea*. Difcovered by the reverend Mr. Hugb Davies. The pea-crab found in this fpecies of a larger fize than usual. Tab. lxv. fig. 76.

Curtus. M. with a fhort, ventricole, obtule fhell, of a dirty yellow 76.A.SHORT color.

Size of the figure. Weymouth. From the PORTLAND cabinet. Tab. lxiv. fig. 76. A.

Modielus. Lin. S.f. 1158. No. 256. Lift. Concb. tab. 356. fg. 195. 77. GREAT.

> M. with a firong shell, with a blunted upper end; one side angulated near the middle; from thence dilating towards the end, which is rounded.

> The greatest of Brilish mussels. Length from six to seven inches.

Lies at great depths. Often feizes the bait of the ground lines, and is taken up with the hooks.

Tab. lxvi. fig. 77.

Cygneus. Lin. Syft. 1158. No. 257. Lift. Angl. App. tab. i. fig. 3. 76. SWAN.

> M. with a thin brittle shell, very broad and convex, marked with • concentric striæ. Attenuated towards one end; dilated towards the other. Decorticated about the hinge.

> > Color,

#### CLASS VI. S H E L L S.

Color, dull green.

Length fix inches; breadth three and a half.

Inhabits fresh waters. Pearls are found in this and the following species.

Tab. lxvii. fig. 78.

Lin. Syft. No. 258. Fann. Sutc. No. 2158. Lift. Augl. tab. i. fig. 2.

Anatinus. 79. Duck.

M. with a fhell lefs convex, and more oblong than the laft. Very brittle, and femi-transparent. Space round the hinges like the laft.

Length about five inches; breadth two and a quarter.

· Inhabits fresh waters.

Crows feed on these mussels; and also on different shell-fish. It is diverting to observe, that when the shell is too hard for their bills, they will say with it to a great height, drop the shell on a rock, and pick out the meat, when the shell is fractured by the fall.

Tab. lxviii. fig. 79.

#### XVI. Its animal a SLUO.

## PINNA.

Bivalve, fragil, furnished with a beard. Gapes at one end. NACRE. Hinge without a tooth.

P. with a very thin femi-pellucid whitifh fhell, most opake near Fregilic. to the apex. Marked on the furface with longitudinal flender O ribs,

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CLASS VT.

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ribs, roughened with concave scales; and the whole traversed by innumerable fine firic.

In young shells, the ribs and scales are almost obsolete. The values of lesser transverse diameter.

The largest about five inches and a half long; and three and a quarter broad in the broadest part. The figure is of a broader specimen than usual.

Dredged up at Weymouth. From the PortLAND cabinet. Tab. lix. fg. 80.

Ingent. I faw specimens of some walt Pinna, found among the farther
 SI. GREAT. Hebrides, in the collection of Doctor Walker, at Moffat. They were very rugged on the outlide, but I cannot recollect whether they were of the kind found in the Medicerranean or Weft Indies.

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# DIV. III. UNIVALVE SHELLS.

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S.

With a regular fpire.

XVII. Its animal a SLUG.

Shell fub-oval, blunt at each end.

CYPR.E.A. GOWRIE.

The sperture the length of the shell, longitudinal, linear. Toothed.

Lin. Syft. 1180. No. 364. Lift. Angl. tab. iii. frg. 17. Concb. tab. 706, 707. Pedicular. frg. 56 and 57. 82. Com-

C. with numerous ftriæ, fome bifurcated. Varies with having three brown from on the back.

Tab. 1xx. fg. 82.

This genus is called Cypres, and Veneres, from its being peculiarly dedicated to Venus; who was faid to have endowed a shell of this genus with the powers of a Remora, so as to impede the course of the ship which was sent by Periander, tyrant of Gorinth, with orders to castrate the young nobility of Corcyrs \*.

• Plinii, lib. ix. c. 25. xxxii. e. 3.

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XVIII. In

XVIII.

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BULLA. DIPPER.

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Its animal a SLUG. Shell fub-oval. Aperture oblong, fmooth. One end a little convoluted.

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Lignaria. Lin. Syft. 1184. Lift. Conch. tab. 714. fig. 71. 83. Wood.

> B. of an oval form, and ftriated transversely. Is narrower towards one end, which is a little umbilicated. Of a dirty color, like fome woods, whence the trivial name. The infide of the shell visible to the very end, through the columella.

Length about two inches. Tab. lxx. fig. 83.

Ampulla. Lin. Syft. 1183. No. 378.

84. OB-TRUSE.

> B. with a brittle shell, more obtuse at the end; and the inner side lapping over the *columella*, so as to render it invisible. Possibly a young shell of the B. Ampulla? Found near Weymouth.

Cylindracea. Lift. Conch. tab. 714. fg. 70. 85. CYLIN-BRIC.

B. white, cylindric, a little umbilicated at the end.
About twice the fize of a grain of wheat.
Tab. lxx. fig. 85.

B. with

LLS.

B. with one end much produced, and fuliform. The aperture very patulous.
Weymoulb. From the PORTLAND cabinet.
Tab. lxx. fg. 85. A.

> XIX. Its animal a SLUG. Aperture narrow, without a beak. Columella pleated.

E

OLUTA. VOLUTE.

Tornatilis. 86. OVALA

Patula. 85.A. Open.

Lin. Syft. 1187. No. 394. Lift. Conch. tab. 835.

V. exactly oval; acuminated at each end; with a fingle fold near the mouth, or upper part of the *columella*. With five fpires. Striated fpirally. Pale red, with white *fafcia*.

Anglesea. Tab. lxxi. fig. 86.

V. with a very thin brittle shell, with two small spires. Inhabits the isle of Jona, or 2 Columb-kil. Tab. lxxi. fig. 87. Jonenfiss 87. JONAS

XX. Its

#### HĘL

BUCCINUM, WHELK.

101

XX. Its animal a SLUG. , Aperture oval, ending in a faort canal.

L

S,

Pullus. Lin. Syft. 1301. No. 458. Gualteri. tab. 44. fig. N. Lift. Concb. tab. 971. 88. BROWN. fig. 26.

B. with five fpires ftriated, waved, and tuberculated. Aperture wrinkled; upper part replicated.

Length five-eighths of an inch.

Tab. lxxii. fig. 88.

Lapittus: <sup>1</sup>Lin. Syft. 1202. No. 467. Fann. Succ. No. 2161. Lift. Angl. tab. iii. fig. 5.6. 89. MASSY. Lift. Concb. tab. 965.

**B.** with about five fpires, often obfolete; infide of the mouth flightly toothed. A very ftrong thick fhell, of a whitifh color.

A variety yellow; or fasciated with yellow on a white ground; or fulcated spirally, and sometimes reticulated.

See figures 89. tab. lxxii.

In many, which I fuspect to be shells not arrived at full growth, the lip is thin and cultrated.

Length near an inch'and a half.

Inhabits (in vast abundance) rocks near low-water mark.

This is one of the *Englifb* shells that produces the purple dye, analogous to the *purpura* of the antients : our shell has been made use of as an object of curiosity.

The

# CLASS VI. 5 H E L L S.

The antient has been long fince fuperfeded by the introduction of the infect Coccus Calli, or the Cockineel beetle. The fhells were of the genus of Murex, mentioned by Linnaus, pp. 1214, 1215. But one was a fort of Buccinum. Pliny defcribes both •. The fineft was the Tyrian.

• Tyrioque ardebat Murice lana;

A frong expression of Virgil, who describes the cloth,

Glowing with the Tyrian MUREX.'

The species of shells are found in various parts of the Mediterranean. Immense heaps of them are to be seen about Tarentum + to this day, evincing one place where this precious liquor was extracted.

The process of obtaining the English Purpura is well described by Mr. William Cole, of Bristol, in 1684, in the following words  $\pm$ .

• The fhells being harder than moft of other kinds, are to be • broken with a fmart ftroke with a hammer, on a plate of iron, • or firm piece of timber, (with their mouths downwards) fo as • not to crufh the body of the fifth within; the broken pieces • being pick'd off, there will appear a white vein, lying tranf-• verfely in a little furrow or cleft, next to the head of the fifth, • which muft be digged out with the ftiff point of a horfe-hair • pencil, being made fhort and tapering. The letters, figures, • or what elfe fhall be made on the linnen, (and perhaps filk too) • will prefently appear of a pleafant light-green color, and if

• Lib. ix. c. 36. † Baren Riedefel's Travels. p. 174. ‡ Pb. Tr. Abr. ii. 826.

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+ placedi

<sup>6</sup> placed in the fun, will change into the following colours, i. e. if <sup>6</sup> in winter, about noon; if in the fummer, an hour or two after <sup>8</sup> fun-rifing, and fo much before fetting; for in the heat of the <sup>6</sup> day, in fummer, the colours will come on fo faft, that the fuc-<sup>6</sup> ceffion of each colour will fcarcely be diftinguifhed. Next to <sup>6</sup> the firft light-green, it will appear of a deep-green, and in few <sup>6</sup> minutes change into a fea-green, after which, in a few minutes <sup>6</sup> more, it will alter into a watchet-blue; from that, in a little <sup>6</sup> time more, it will be of a purplifh-red; after which, lying an <sup>6</sup> hour or two, (fuppofing the fun ftill fhining) it will be of a <sup>6</sup> very deep purple-red, beyond which the fun can do no more.

L

But then the last and most beautiful colour, after washing in
fcalding water and foap, will (the matter being again put into
the fun or wind to dry) be of a fair bright crimson, or near to
the prince's colour, which afterwards, notwithstanding there is
no use of any stiptick to bind the colour, will continue the fame,
if well ordered; as I have found in handkerchiefs, that have
been washed more than forty times; only it will be somewhat
allayed, from what it was, after the first washing. While the
cloth so writ upon lies in the fun, it will yield a very strong and
fœtid smell, as if garlick and assistant assistant.

Undatum. Lin. Syft. 12C4. No. 475. Faun. Suec. No. 2163. Lift. Angl. tab. iii. fig. 2. 90. WAVED. Lift. Concb. tab. 962. fig. 14.

B. with feven spires, spirally striated, and deeply and transversely undulated.

Length three inches. Inhabits deep water. Tab. lxxiii. fig. 90.

B. Seve

# CLASS VI. S H E L L S.

B. Leve tenne firiatum et undatum. Lift, Angl. p. 157. tab. iii. fig. 3.

Striatum. 91- STRIAT-RD-

B. with eight fpires, with elevated *firia*, undulated near the apex. Length near four inches.

Tab. lxxiv. fig. 91.

Lin. Syft. 1204. No. 476. Lift. Conch. tab. 966. fig. 21.

Reticulatum. 92. RETI-CULATED.

B. with fpires fcarcely raifed, and ftrongly reticulated; of a deepbrown color, and of an oblong oval form. The aperture white, gloffy, and denticulated.

Size of a hazel-nut.

Tab. lxxii. fig. 92.

B. with five fpires, ftriated fpirally; ribbed transversely. Size, lefs than a pea. Found also in Normer. Vide AFT Nide tom in tak 15 for a c

P

Migninn. 93. Smalle

XXI. Its

Found also in Norway. Vide AE. Nidr. tom. iv. tab. 16. fig. 25. Tab. lxxix. 100

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STROMBUS XXI. Its animal a SLUG.

Shell univalve, spiral.

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The opening much dilated, and the lip expanding, produced into a groove.

Pes Pelscani. Lin. Syft. 1207. No. 490. Faun. Succ. No. 2164. Lift. Conch. tab. 866-fig. 94. CORVO- min. RANT'S BOOT

> STR. with ten fpires, tuberculated along their ridges, with the lipexpanding and digitated. The fpires end in a most exquisite point. Length about two inches. Extent of the expanse an inch and a quarter.

Tab. lxxv. fig. 94.

MUREX. XXII. Its animal a SLUG.

The aperture oval; the beak narrows into a canal or gutter, a little afcending.

Erinacens. Lin. Syft. 1206. No. 526. Gualtieri. tab. 49. fig. H. 95. URCHIN.

> M. with an angular shell, furrounded with tubular ribs; each rib ending with its mouth on the angle. Confists of fix spires on the whole; a most rugged shell. The aperture exactly oval; the gutter or canal covered.

Length near two inches.

Tab. lxxvi. fig. 95.

M. with

M. with five or fix fpires, the body ventricole: the fpires rifing Carinatus. into angulated ridges. The aperture femicircular. Length near four inches.

From the PORTLAND cabinet.

Tab. lxxvii. sig. 96.

Lin. Syft. 1222. No. 558. Gualtieri, tab. 46. E. Faun. Suec. No. 2165. Antiques. 97. An-TIQUE.

M. with eight fpires finely striated; the first very ventricole. Color a dark dirty yellow. Length three inches and a half.

Lin. Syft. 1222. No. 559. Faun. Succ. No. 2166. Lift. Angl. tab. iii. fig. 1. Defpectus. 98. DESPI-

M. with eight fpires. The first large, ventricose, and produced; the others more prominent than those of the preceding. Striated and somewhat rugged. The outside white, the inside glossy and yellow.

Length near five inches.

Inhabits the deep fea. Dredged up in plenty with oyfters. Eaten by the poor; but oftener ufed for baits for cod and ray.

. Tab. lxxviii. fig. 98.

Lin. Syft. 1244. No. 565. Lift. Angl. tab. iii. fig. 4. Concb. tab. 913. fig. 5. C 9

Cornens. 99.HORNET.

M. with a narrow oblong shell of eight striated spires. Snout much produced. Color pure white, covered with a brown epidermis.

P 2

Length

# S H E L L S. CLASS VJ. Length near three inches, Tab. 1xxvi. fig. 99.

Cofficients M. with an oblong shell of fix spires, nearly ribbed. Wide take

Minute.

Anglesea. Inhabits also Norway. All Nidr. tom. iv. 1ab. 16. fig. 26.

Atuminatus. M. with a narrow oblong shell, acuminated spires, ribbed. Vide 101. SHARP. tab. lxxix.

Minute.

Decollatus? Lin. Syft. 1226. No. 578. 102. SHORT-BNED.

> A species offered with doubts. Perhaps accidentally mutilated. Let the critical conchyliologist consult tab. laxix.

Minute.

XXIII. Its animal a SLUG. Shell conic. Aperture fub-triangular.

E

TROCHUS.

Bin. Syft. 1231. No. 599. Lift. Conch. tab. 616. No. 1. Bift. Angl. tab. iii. Zizipbinus. fig. 14. Faun. Succ. No. 2168. 103. LIVID.

TR. with a fharp apex, imperforated bottom; with a *firia* elevated above the reft. Each is fmooth. The color livid, much fpotted, with deep red.

Tab. 1xxx. fig. 103.

Lin. Syf. 1230. No. 598.

Consis. 104. Co-

TR. with an imperforated base, and a prominent line along the spires. Scarcely distinct from the last.

Tab. 1xxx. fig. 104.

Trochus pyramidalis parvus, ruberrimus fasciis crebris exasperatus. Lift. Conch: Exasperatus. tab. 616. fig. 2. 105.Rougue

I am unacquainted with this fpecies; fo refer the reader to Lifter, who defcribes it as above; and marks the figure with A. as an Englifb fhell.

Liz

Umbilicaris. Lin. Syft. 1229. No. 592. Lift. Conch. tab. 641. frg. 31, 32. Lift. Angl. tab. iii. 106. UMB1- fig. 15. LICAL.

**T**<sub>R</sub>. with a perforated bafe, and of a convex conic form; dirty white waved with purple. Varies much in colors.

A most common shell on all our shores.

Tab. lxxx. fig. 106.

Cinerarius. Lin. Syft. 1229. No. 590. 106\*. CINE-REOUS.

> T. with a perforated bafe; fpires a little prominent. Of a cinereous color, ftriped obliquely.

Size of a pea. Anglesea.

Magus. Lin. Syft. 1228. No. 585. 107. TUBER-CULATED.

> TR. with a perforated bafe; formewhat depressed: friated; with the ridges of the fpires rising into blunt diffinct tubercles. Color white, ziz-zagged with red.

> When the upper coat is taken off, the next is of a rich motherof-pearl color.

Anglesea.

Tab. 1xxx. fig. 107.

# Minute,

Minute, conic, livid.

Terrestris.

FIÞ

A new species, discovered in the mountains of Cumberland, by Mr. Hudson.

S.

Tab. 1xxx. fig. 108.

XXIV. Its animal a SLUG. Aperture round.

TURBO. WREATH.

• Ventricole.

Lin. Syft. 1232. No. 607. Lift. Angl. 1ab. iii. fig. 9. Faun. Suec. No. 2169.

Littorens. 109. Perri-Winkle.

T. with five fpires, the first ventricose, in younger subjects striated spirally; in the old smooth, and of a dusky color.

Tab. 1xxxi. fig. 109.

Abundant on most rocks, far above low-water mark. The Swedifb peafants believe, that when these shells creep high up the rocks, they indicate a storm from the south.

They are called *Perriwinkles*; are fold commonly in *London*, and eaten by the poor; as they are in most parts of the kingdom.

Lift. Angl. tab. ii. fig. 5.

Tumidus. 110-TUMID-

T. with five tumid fpires, the first ventricose, and all most elegantly striated; of a pale-red color.

10

A rare

A rare shell. Inhabits woods in Cambridgesbire, and some other counties in England.

Tab. lxxxii. fig. 110.

# \*\* Taper.

Clathrus. Lin. Syf. 1237. No. 631. Farm. Same. No. 2170. Lift. Conch. tab. 588. fig. 51. 111. Bat-RED.

> T. with a taper shell of eight spires, diffinguished by elevated divisions, running from the aperture to the apex.

A. A variety? Pellucid; ridges very thin.

These are analogous to that curious and expensive shell the Wentle-trap.

Tuberculata. AII<sup>•</sup>.STUD-DED. T. with about twelve fpires of a dufky color, finely tuberculated. From the coaft of Northumberland. Tab. lxxxii. fg. \*III.

Duplicatus. Lin. Syft. 1239. No. 645. Lift. Angl. tab. iii. fig. 7. 112. DOUB-LED.

T. with a ftrong taper shell, each spire marked with two prominent *ftrice*. Has about twelve spires.

Found by Doctor Lifter at Scarborough, who fays it was five inches long.

Tab. 1xxxi. fig. 112.

Liz.

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CLASS VI.	's h	E	L	Ł	S.		113	,
Lin. Syft. 1139. J Lift. Angl. tab. ii	Vo. 645. Seb i. fig. 8. Fam	Mu/. iii. t . Suec. No	að. lvi. f. 9. 2171.	ig. 40.	·		<i>Terebra.</i> 113.Auger.	
T. with a tape <i>Tab.</i> lxxxi. j		elve fpi	res, Ipin	raliy fti	riated.			• •
T. with eight <i>Tab.</i> lxxix.	lpires, striate	d tranfv	erfely;	white.		¢	Albus. 114.White.	
T. with eight : Tab. lxxix. Both about Anglesea.	lmooth fpires a third of		_		on the	fhores of	<i>Lævis.</i> 115.\$моотн	•' ,
Lin. Syft. 1250. N	lo. 650. Fann.	Susc. No.	Lift., A	Ingl. tab.	ii. <i>fig</i> . 1	1.	Perverjas. 116. Re- Versed.	
T. with eleve contrary way to Length four Found in m Tab. lxxxii.	o most others tenths of an offes, especia	of the g inch;	genus. very tap	per.	mouth	turned a		· ·
Lin. Syft. 1249. N	Io. 649. Lift. (	Conch. tab	• 41 • fig	maj.			<i>Bidens.</i> 117. B1- DENT.	
T. at first figh two teeth in th		-				•	,	·
,	•						•	

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1: .

Ulve.

#### S H Ε L S. CLASS VI.

turn of the fpires, which are twelve in number, and of a dufky hue.

Tab. lxxxi.

Muscorum. Lin. Syft. 1249. No. 651. Faun. Suec. No. 2173. Lift. Angl. tab. ii. fig. 6. 118. Moss. Conch. tab. 41. fig. min.

> T. of an oval fhape, of the fize of a grain of white multard. With four fpires, very fhining and brittle.

Found with the Perverfus. Tab. 1xxxii. fig. 118.

Buccinum exiguum fasciatam & radiatum. Fasciatus. 119. FAS-Lift. Concb. tab. 19. fig. 14. CIATED.

> T.with fix fpires; white, marbled or fasciated with black. Length half an inch. Very frequent in Anglesea, in fandy foils near the coafts. Tab. 1xxxii. fig. 119.

T. with four spires, the first ventricole; of a deep brown color; 120. ULVA. aperture oval.

Size of a grain of wheat.

. Tab. lxxxvi. fig. 120.

Inhabits the Ulva Lastuca on the shores of Flintsbire.

#### XXV. Its

XXV. Its animal a SLUG. Shell fpiral, fub-pellucid. Semi-lunar aperture.

\* Depressed.

: • \* •

S.

Lin. Syft. 1241. No. 656. Lift. Angl. tab. ii. fg. 14. Fann. Succ. No. 2174.

*Lapicida*. 121. Rock.

*HELIX.* SNAIL.

SN. with five fpires, externally carinated or depressed to an edge. Umbilicated; of a deep brown color.

A land shell. Inhabits clefts of rocks. Tab. lxxxiii. fig. 121.

Lin. Syft. 1242. No. 658. Lift. Angl. tab. ii. fig. 13. Gualtieri, tab. iii. fig. Q. Albella. Faun. Succ. No. 2175. 122. GREY.

SN. with five fpires rounded on the outfide. Thin, prettily fafciated along the fpires with brown and white. Deeply umbilicated. Inhabits dry fandy banks.

Tab. lxxxv. fig. 122.

Lin. Syft. 1242. No. 662. Lift. Angl. tab. ii. fig. 27. Gualtieri, tab. iv. fig. Planorbis. E. E. Faun Succ. No. 2176. 123. FLAT.

SN. with a very flat brown shell, slightly carinated on the outside ; the aperture oblique.

Inhabits ponds.

Tab. lxxxiii. fig. 121.

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Lin.

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Vortex. Lin. Syft. 1243. No. 667. Lift. Angl. tab. ii. fig. 28. Gualtieri. tab. iv. fig. G. G. 124. WHIRL. Lift. Concb. tab. 138. fig. 43. Faus. Sac. No. 2178.

SN. with a very flat thin shell, and fix small spires. The outmost carinated.

Found with the former.

Tab. 1xxxiii. fig. 124.

Nana. SN. with four fpires; the exterior very large. Thick in propor-125.Dwarr. tion to its diameter. Umbilicated.

> Whether a young, or a variety of the following? Tab. lxxxiii. fig. 125.

Cornea. Lin. Syft. 1243. No. 671. Lift. Angl. tab. ii. fg. 26. Gualtieri. tab. iv. D. D. 126. HORNY. Fann. Succ. 2179.

SN. with four rounded spires. Umbilicated; of a horny appearance.

Found in dull deep rivers, and in ponds. The largest of the British depressed species.

Tab. lxxxiii.

#### \*\* Ventricole.

Russicens. Cochlea diluté rusescens, aut subalbida, sinu ad umbilicum exiguo, circinato. 127. Mor-List. Angl. sab. ii. sig. 12. TLED.

> SN. with four fpires, and minutely umbilicated; the exterior fpire fub-carinated. Of a pale brownish red mottled with white.

> > Inhabits

#### CLASS VI. S H Ē Ł L

Inhabits woods. Tab. 1xxxv. fig. 127. S.

Pomatia Diescer. lib. ii. c. 9. p. 305. Gesner. Aq. 655. Lin. Syft. 1244. No. 677. Lift. Angl. tab. ii. fig. 1. Faun. Suec. No. 2183.

Pomatia. 128. Exo-TIC.

SN. with five fpires most remarkably ventricose. Slightly umbilicated. Falciated with a lighter and deeper brown.

Inhabits the woods of the fouthern counties of England.

A naturalized species, introduced, as is faid, by Sir Kenelm Digby; whether for medical purposes, or as a food, is uncertain. Tradition fays, that to cure his beloved wife of a decay was the object.

They are quite confined to our fouthern counties. An attempt was made to bring them into Northamptonshire \*, but they would not live there.

These are used as a food in several parts of Europe during Lent; and are preferved in an Escargatoire, or a large place boarded in, with the floor covered half a foot deep with herbs, in which the fnails neftle and fatten +. They were also a favorite difh with the Romans, who had their Cochlearia, a nurfery fimilar to the above. Fulvius Hirpinus ± was the first inventor of this luxury, a little before the civil wars between Cefar and Pompey. The fitails were fed with bran, and fodden wine. If we could credit Varro II, they grew to large, that the shells of some would hold ten quarts ! People need not admire the temperance of the supper of the younger Pliny §, which confifted of only a lettuce a piece, three SNAILS, two

\* Morton, 415. + Addison's Travels, 272. ‡ Pliny, lib. x. c. 56. De Re Ruffica, lib. iii. c. 14. § Epift. lib. i. Epift. xv.

6

eggs,

eggs, a barley cake, fweet wine, and fnow; in cafe his fnails bore any proportion in fize to those of *Hirpinus*.

Its name is derived not from any thing relating to an orchard, but from  $\Pi \tilde{\omega} \mu \alpha$ , an operculum, it having a very fitrong one. This feems to be the fpecies defcribed by *Pliny*, lib. viii. c. 39, which he fays was fcarce; that it covered itfelf with the opercle, and lodged under ground; and that they were at first found only about the maritime *Alps*, and more lately near *Velitra*.

Tab. lxxxiv. fig. 128.

Nortesfis. 129. GAR-DEN. Coch!ea vulgaris major pulla maculata et fasciata hortensis. List. Angl. tab. ii. fig. 2. Gualtieri, tab. i. fig. C. Helix lucorum. Lin. Syst. 1247. No. 692. List. Concb. tab. 49. fig. 47. The common garden fnail.

SN. in form like the laft, but leffer, and not umbilicated and clouded, or mottled with browns.

These are often used with success in confumptive cases. Tab. lxxxiv. fig. 129.

Arbastorum. Lin. Syst. 1245. No. 680. List. Angl tab. ii. fig. 4. Fann. Succ. No. 2184. 230. Shrub.

SN. with a gloffy fhell, brown, marked with a fingle black fpiral fafcia: the rim of the aperture reflects a little. Sub-umbilicated. Varies with deeper and lighter colors.

Inhabits woods.

Tab. 1xxxv. fig. 130.

# CLASS VI. S H E L L S.

Lin. Syft. 1247. No. 691. Guahieri. tab. i. fg. P. Lift. Concb. tab 57. Lift. Nemoralis. Angl. tab. ii. fig, 3. GATED.

Sw. with a gloffy fhell; very thin and pellucid. The aperture awry. Varies infinitely: often yellow, or light green, or red fafciated with black or white, along the fpires. Often quite plain.

Inhabits woods and gardens.

Lin. Syft. 1247. No. 690. Lift. Angl. tab. ii. fig. 18. Conch. tab. 126. fig. 26. Vivipera. Faun. Succ. No. 2185. PAROUS.

SN. with fix ventricose spires, umbilicated. The aperture almost round. Color brown, with dusky spiral fascia.

Inhabits stagnant waters, and semi-stagnant rivers. Tab. 1xxxiv. fig. 132.

Lin. Syft. 1245. No. 681. Guakieri. tab. iii. fig. L.

Zonaria. 133. Zon-ED.

SN. with five fpires; the first very ventricole. Slightly umbilicated. Fasciated spirally with narrow stripes of white, dusky, and yellow.

Inhabits dry banks.

Variety? of the former. A shell of a plain color, with the apex a little more projecting. Fig. 133. A.

Cochlea

Pellucida. Cochlea terrefiris umbilicata pellucida flavescens. Gualtieri, tab. ii. fg. G. 134. PEL-LUCID.

SN. a very thin pellucid shell, of a yellowish-green color. Very brittle. With four spires, the first very tumid.

Found by me only once; in Sbrop/bire.

#### \*\*\* Of a taper Form.

Offina? Lin. Syft. 1248. No. 698. Gualtieri. tab. 6. fig. B.? 135. EIGHT-SPIRED.

> SN. with eight spires of a brown color. My specimen was mutilated.

Inhabits ponds. Tab. lxxxvi. fig. 135.

#### \*\*\*\* Ovated, imperforated.

Stagnalis. Lin. Syft. 1249. No. 703. Lift. Angl. tab. ii. fig. 21. Concb. tab. 123. fig. 21. 136. LAKE: Fann. Succ. No. 2188.

SN. with fix fpires; the first very large and ventricose, and the last quite pointed. Very brittle. Length two inches one eighth.

Inhabits still waters; is, with others of the kind, the food of trouts.

In

#### E 20

## CLASS VI. S H E L L S.

In younger fpecimens is a duplicature of the shell, from the aperture spreading along the sirst spire; as in fig. A. In old shells it vanishes.

B. Another, which I suspect to be also a variety: lesser and fomewhat stronger. Perhaps the Helix lineofa of Linnaeus, No. 706. List. Angl. tab. ii. No. 22.

Tab. 1xxxvi. fig. 136. A. B.

Lin. Syft. 1249. No. 705. Lift. Angl. tab. ii. fig. 24. Concb. tab. 123. fig. 23. Putris. Faun. Succ. No. 2189. 137. MUD.

SN. with the first spire vastly large and tumid. The two others very small.

Inhabits ponds, &c.

Tab. lxxxvi. fig. 137.

Lin. Syft. 1250. No. 708. Lift. Angl. tab. ii. fig. 23. Concb. tab. 123. fig. 22. Auricularia. Faun. Suec. No. 2192. 138. EAR.

SN. with a very ventricofe first spire, sub-umbilicated. The last forms a minute apex. Color yellow. Very brittle.

Inhabits ponds.

Tab. lxxxvi. fig. 138.

Lin. Syft. 1250. No. 709.

Levigatum ? 139.SM00TH-RD.

SN. with only two fpires : the first very ventricole; the other very minute, and placed laterally. Of a pale-red color. Pellucid. R Inhabits

# S H E L .L S. CLAIS VI. Inhabits pends. Teb. lxxxvi. fg. 139.

Yentaculata. Lin. Syft. 1249. No. 707. Lift. Angl. tab. ii. fig. 19. Concb. tab. 132. fg. 32. 140. OLIVE. Fann. Susc. No. 2191.

SN. of an oval fub-conic form, with five fpires. Clouded with brown.

Inhabits ponds. Tab. lxxxvi. fig. 140.

#### *NERITA.* NERIT**B.**

# XXV. Its animal a SLUG. Shell gibbous, flattifh at bottom. Aperture femi-orbicular.

Glancing. Lin. Syft. 1251. No. 716. Lift. Angl. tab. iii. fig. 10. Faun. Suec. No. 2197. 141. LIVID.

> N. with five fpires, umbilicated. Of a livid color. The fpires marked with fhort brown ftripes; but'it varies in colors. *Tab.* lxxxvii. fg. 141.

Pluviatilit. Lin. Syft. 1253. No. 723. Lift. Angl. tab. ii. fig. 20. Conch. tab. 141. fig. 38. 142. RIVER. Fann. Succ. No. 2394.

N. with only two spires. Brittle, dusky, marked with white spots.
Not half the size of a pea.
Inhabits still rivers and standing waters.
Tab. lxxxvii. fig. 142.

# CLASS VI. S

L L

S.

Lin. Soft. 1253. No. 725. Lift. Angl. tab. iii. fg. 11, 13, 13. Concb. tab. 607. Littoralis. fg. 39, &cc. Fann. Suct. No. 2195. 143.STRAND

N. with a thick shell, with four spires. Generally of a fine yellow. Varies greatly into other colors.

E

H

Large as a horfe-bean.

Common at the fea rocks.

Tab. lxxxvii. fig. 143.

XXVI: Its animal a SLUC.

HALIOTIS.

123

Shell of the shape of a human ear, with a row of orifices along the surface.

The spire near one end turned in.

Lin. Syft. 1256. Lift. Conch. tab. 611. Lift. Angl. tab. iii. fig. 16;

H. with a rough shell, the inside like mother-of-pearl.

Inhabits the sca near Guernsey; also frequently cast up on the fouthern shores of Devonsbire. When living adheres to rocks.

This was the Asmas ayes, the wild limpet, and ballarrow is, the fea car of Aristotle .

Tab. lxxxviii. fig. 144.

Hift. An. lib. in. a. 4.

R 2.

Tuberculata 144.Tuber-Culated.

DIV. IV.

E

DIV. IV. UNIVALVE SHELLS.

L

L

S;

Without a regular spire.

*PATELLA.* Limpet.

## XXVII. Its animal a SLUG. Conic shell, without spires.

Vulgata. Lin. Syft. 1258. No. 758. Lift. Angl. tab. v. fig. 40: Fann. Sutc. No. 2199. 145. Com-MON.

P. with rough prominent *firie*, and *fharply* crenated edges. Vertex pretty near the centre. The edges often in old fubjects are almost fmooth.

Tab. lxxxix. fig. 145.

Depression. List. Concb. 1ab. 538. fig. inf. 146. FLAT.

> P. much depressed; the vertex approximating nearly to one edge. More oblong than the former. *Tab.* lxxxix. *fig.* 146.

Hungarica. Lin. 147. Bon-NET.

Lin. Syft. 1259. No. 761. Gualtieri. tab. ix. fig. vv:

P. with a white acuminated firiated fiell, the top turning down like a *Pbrygian* bonnet.

Tab. xc. fig. 147.

10

Patella

### CLASS VI. S H E L L S.

Patella vertice intorto, &c. Gualtieri. tab. ix. fig. 10.

Intorta. 148.INCLIN-ING.

P. with an elevated shell, slightly striated; the vertex bending, but not hooked.

Inhabits Anglesea. Found on the fhores. Tab. xc. fig. 148.

Lin. Syft. 1260. No. 769. Lift. Angl. tab. ii. fig. 32. Concb. tab. 141. fig. 39. Lacuftris. Faun. Succ. No. 2200. 149. Lake.

P. with a fhell almost membranaceous; the top reclined. Inhabits fresh waters.

Lin. Syft. 1260. No . 770. Lift. Concb. tab. 543. fig. 27.

Pellucida. 150. TRANS-PARENT.

P. with a pellucid shell, marked longitudinally with rows of rich blue spots. The vertex placed near one edge.

Inhabits the fea rocks of Cornwall. Tab. xc. fig. 1 50.

Patella lævis fusca. Lift. Conch. tab. 542. fig. 26.

Eavis. 151.Smooth

P. with a fmooth and gloffy shell, fomewhat depressed; the apex inclining.

Found on the fhores near Bamff. Tab. xc. fig. 151.

Lim

126

Fiffura. Lin. Syft. 1261. No. 778. Lift. Concb. 1ab. 543. fg. 28. 152. SLIT.

H

P. with a white shell, of an elevated form, vertex inclining; elegantly striated and reticulated. Has a remarkable slit in front. Inhabits the seas of the West of *England*.

Tab. xc. fig. 152.

Graca? Lin. Syft. 1262. No. 720. Lift. Concb. tab. 527. fig. 2. 153. STRI-ATED.

P. with an oblong shell, perforated vertex, striated roughly to the edges.

Inhabits the West of England.

Tab. lxxxix. fig. 153.

This genus was called by the Greeks  $\lambda \iota \omega \alpha s$ , and is mentioned by Aristotle and Athenaus  $\bullet$ ; who acquaint us, that it was used for the table; and also inform us of its nature of adhering to rocks. Aristophanes with much humour speaks of an old woman who struck as close to a young fellow as a Lepas to a rock.

Linneus has adopted the Latin name of Patella, a fort of difh; and has applied it, (as fome other modern writers have before) to this genus.

• Ariflot. Hift. An. lib. iv. c. 4. Athenans, lib. iii. p. 85.

XXVIII, Its

XXVIII. Its animal a TERBBELLA. A flender tubiform shell.

#### Lin. Syft. 1263. No. 786. Lift. Conch. tab. 547. fig. 2. Fann. Suec. No. 2201. Entalis. 154. Com-Mon.

S.

D. with a flender fhell, a little bending. Pervious.
Length near an inch and a half.
Inhabits moft of our feas.
Tab. xc. fig. 154.

# XXIX. Its animal a TEREBELLA. Tubular shell adhering to other bodies.

Lin. Syft. 1264. No. 794. Faun. Succ. No. 2204.

S. with a fhell fpiral or wreathed, like the cornu ammonis. Very fmall; adhering to fhells, cruftacea and alga. Tab. xci. fig. 155.

Lin. Syft. 1265. No. 795. Faun. Suec. No. 2206.

S. with a triangular shell, irregularly twisted. Adheres to (in a creeping form) stones and other substances. Spi**rerbis.** 155.Spiral.

SERPULA.

Triquetra. 156. Angu-Lar.

Lin.

DENTALIUM. TOOTH-SHELL.

**F2**7

·S.

Intricata. Lin. Syft. 1265. No. 796. 157. Com. PLICATED.

> S. with a flender shell greatly entwined. Adheres to shells, &c. most intricately twisted. *Tab.* xci. fig. 157.

Contortupli- cata. 158. Twin-	Lin. Syf. 1266. 2205.	No. 799.	Lift. Conch. tab. 29. fig. D.	Faun. Succ. No.
ED.	S. with a ftror	ng, rugged	, angulated shell, entwined.	

Adheres to fhells, &c. Tab. xci. fig. 158.

Vermicularis. Lin. Szft. 1267. No. 805. Ellis Coral. tab. xxxviii. fig. 2. 159. WORM.

> S. with a flender, incurvated, taper, and rounded fhell. According to Mr. Ellis, inhabits all our coafts.

TEREDO.Its animal a TEREBELLA.PIERCER.Shell flender, bending.

Novalis. Lin. Syst. 1267. No. 807. Faun. Suec. No. 2087. 160. SHIF.

Justly called by *Linneus calamitas navium*. Was imported from the *Indies*. Penetrates into the stoutest oak plank, and effects their destruction.

XXX. Its

XXX. Its animal a NEREIS. A tubular covering, fabricated with fand and broken fhells, coherent by a glutinous cement.

Lin. Syft. 1268. No. 811. Bafter fubfef. 1. p. 80. tab. 9. fig. 4.

Alveolata. 162. Honzy-

COMB

S. with a fingle cafe formed of larger fragments of shells, with little or no fand.

Found near Weymouth, lodged in the shell of a bivalve. The animal is represented magnified in Tab. xxvi. marked A. A.

Lin. Syft. 1268. No. 819. Ellis Coral. tab. xxxvi. p. 90.

S. with numerous tubes placed parallel; with the orifices open, forming in the mass the appearance of the furface of honey-combs: composed chiefly of fand, with very minute fragments of shells. The tubes fometimes above three inches long.

Found on the western coasts of Anglesea; near Criccetb, Caernarvonsbire; and near Yarmoutb. It covers the rocks for a confideráble space near low-water mark.

Tab. xcii. fig. 162.

Nereie

SABELLA.

Rudis. 161.COARSE.

S.

Tubiformis. Nereis cylindracea belgica. Pallas. Misc. Zool. p. 211. tab. ix. fig. 3. 163. Tube.

S. with a cafe of a taper frait form; made up of minute particles of fand, most elegantly put together.

Its animal defcribed at No. 34.

Common on all our fandy fhores.

Tab. xcii. fig. 163.

# F I N I S.

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# CORRECTIONS of the SPELLING in the WELSH NAMES of REPTILES and FISHES. in Vol. III. BRITISH ZOOLOGY, with fome Additions thereto, by RICHARD MORRIS, Esq.

No.

Lyffant gwyllt. 41. Heulgi. 5. 🥒 Llyffant mawr. 42. For gwin, read gwyn. б. 7. Genau goeg gennog. 46. dele Morgi mawr. 11. For naredig, read nadreddig. 47. Morgi lleiaf. 49. Corgi môr. 12. For du, read ddu. 14. Neidr Aberdeen. 50. Morgi mawr. 19. For Trwngrwn, read Trwyngrwn. 55. ---- byrr. 56. —— crothog. 20. —— trwynfain. 59. ---- leiaf. 21. — penbwl. 23. For aden, read adain. 60. Pibellbyig hir. 25. For Llamhydydd, read Llam-61. — byrr. hidydd. 27. For bendol, read bendoll. 69. Morddraig emmog. 29. Llamprai'r llaid. 70. \_\_\_\_\_ falw. 32. Moreath arw. 72. \_\_\_\_\_ fawr. 33. Ceffyl Gwyn. 34. Morcath ffreinig. 82. ---- fforchogfarf 35. ----- gynffon gwialen. 81. ----و مشروه م 36. For Swithbyfg, read Swrth-Llofen, Llofenen. byfg. 38. For Cefn, read lefn. 87. Codfyn farf teirfforch. 40. For Pegod, Picewd, read Pi-90. Llyfnafeddbyfg cribog. gog, Piccwd. т

No. 53. For Isturtion, read Ystwrfion. 64. For Llyfowen, read Lyfowen. 78. For chwetlyn, read chwitlyn. - lleiaf. 86. For Llefen, Llefenan, read 88. \_\_\_\_\_ pumfforch.

92. Clei-

#### / CORRECTIONS OF THE SPELLING.

No.

92. Cleirach gwymmon. 93. Gwrachen fair. 95. Craigbyig du. 96. ——— brych. 99. Sarph y môr. 101. Brenhinbyig. 104. For 'ddu, read ddu. 106. Lleden iraidd. 108. Llefn Dafod yr Hydd. 111. Lleden arw fafnrwth. 113. For Brôm, read Brêm. 114. Eurben danheddog. 118. Gwrach rengog. 119. \_\_\_\_ gefngrwm. 123. Côgwrach. 126. Perc y môr. 127. Y Garwberc. 128. -- du. 133. For Sopaen, read Yipaen. 134. Macrell y meirch. 136. \_\_\_\_\_ rhengog. 139. For Pibyd, read Pibydd. 141. Penhaiarn rheftrog. 143. Dele Taliefin. 145. Brithyll y môr. 147. \_\_\_\_\_ gwyn. 152. For Gwiniad, read Gwyniad. 156. Arianbyig. 159. Ehedbyfg.

167. For Ifgretten, read Yfgretton.

No.

168. For Crothel, read Crothell.

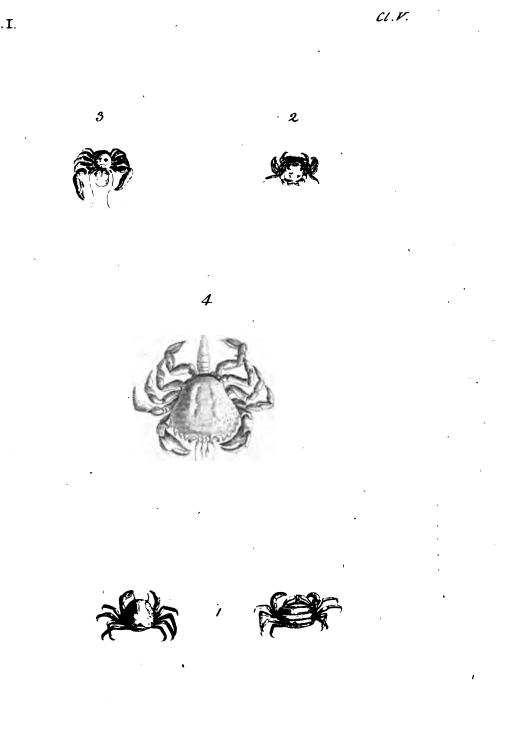
- 173. For Golenbyig, read Goleuby fg.
- 177. For Crothel, read Crothell.
- 178. Eurbyfg.
- 179. Môrfalwen ddeufann.

#### Page

- 225. For Raithlyn, read Rhaithlyn.
- 261. For Llyndivi, read Llyntein.
- 262. For Eynion, read Einion.
- For Machyntleth, read Machynllaeth.
- For Merionethshire, read Montgomeryshire.
- 263. For Llynallet, read Llynaled.
- 268. For Llynberris, read Llynperis.
- 276. For Gwiniad, read Gwyniad. Ditto, and in running title
- 277. of four pages, and in-278. dex.
- 345. For Cythrawl, read Sythraul.

For Welch, read Welfh, throughout.

White Bait, not in Catalogue. Yr Abwyd Gwyn.



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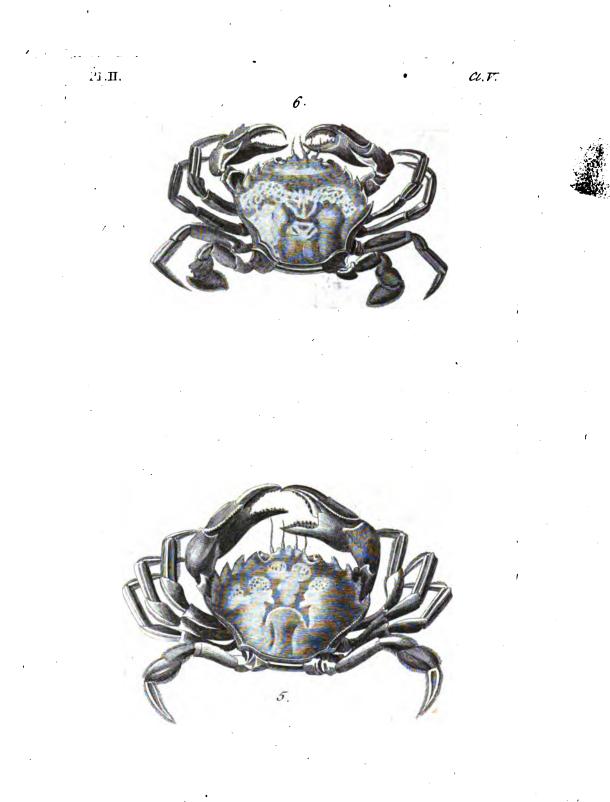
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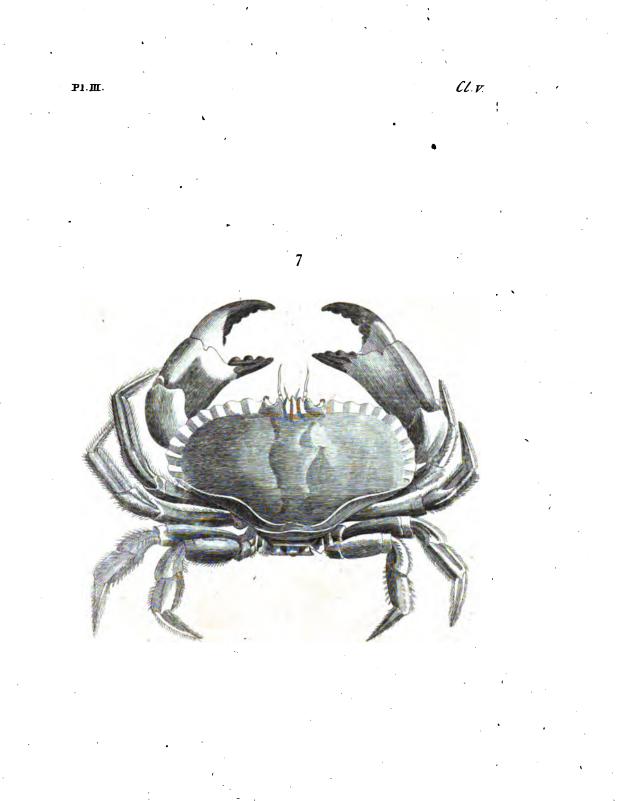
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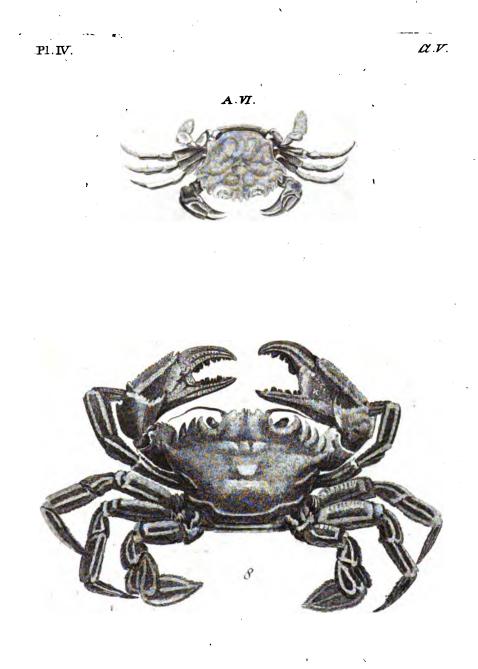
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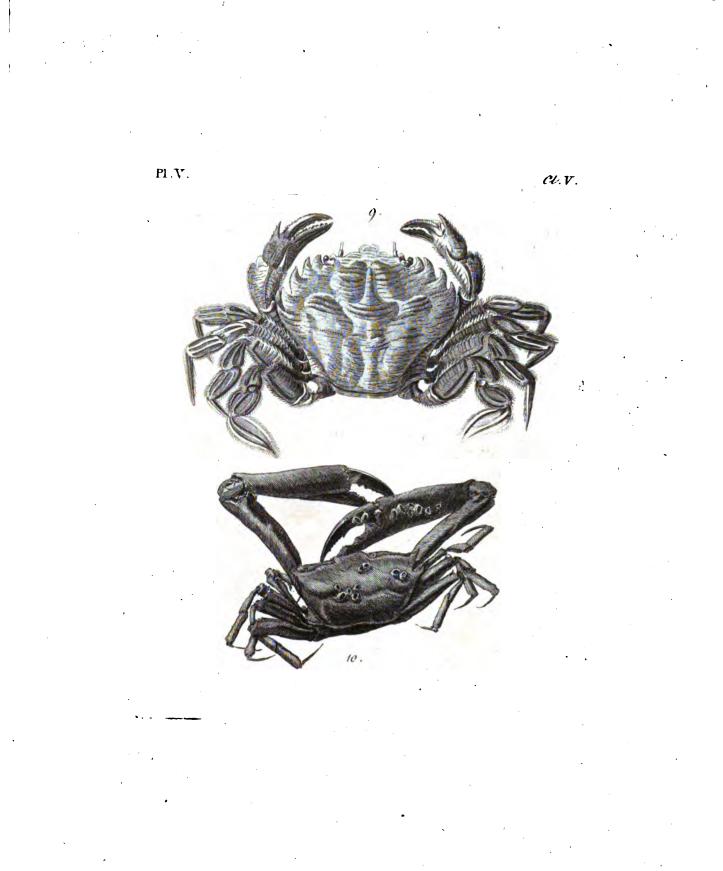


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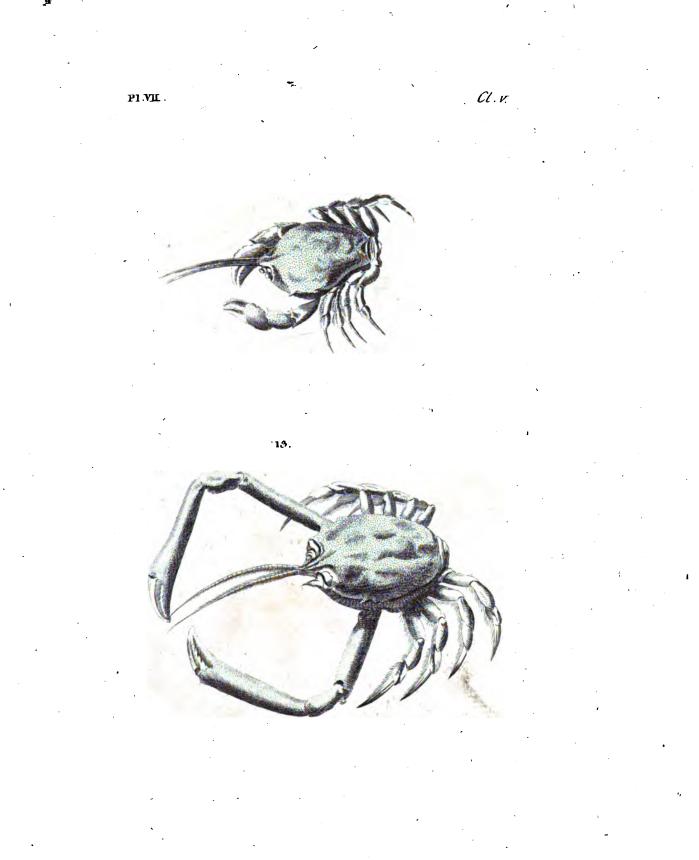


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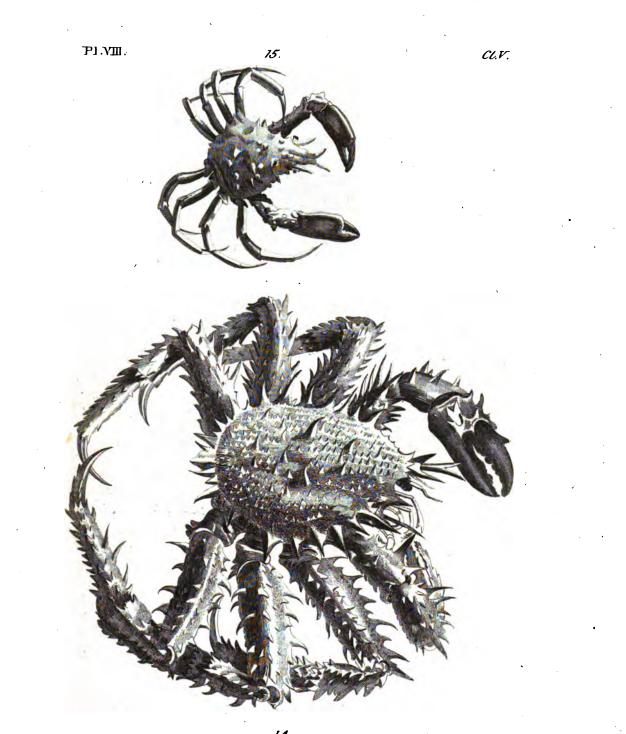
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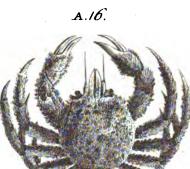
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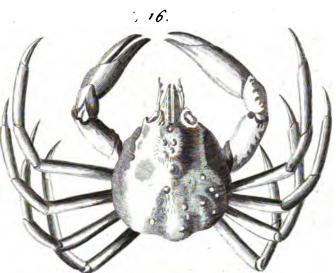
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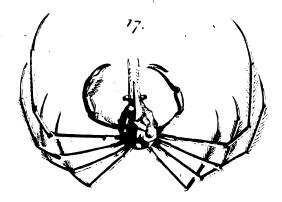


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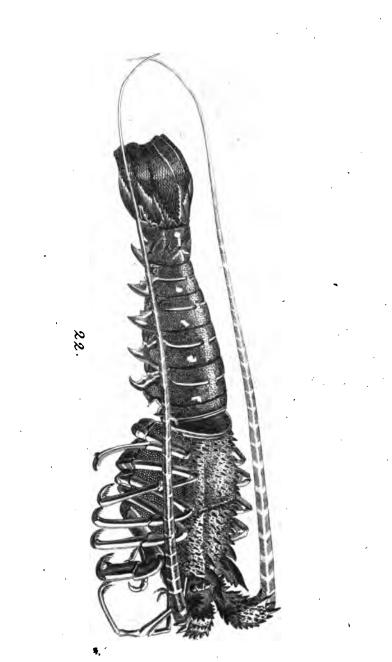
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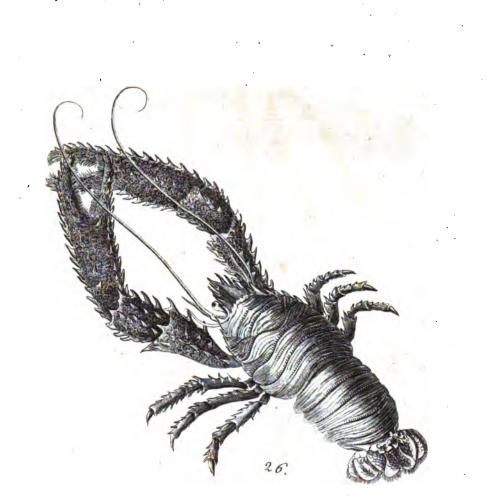
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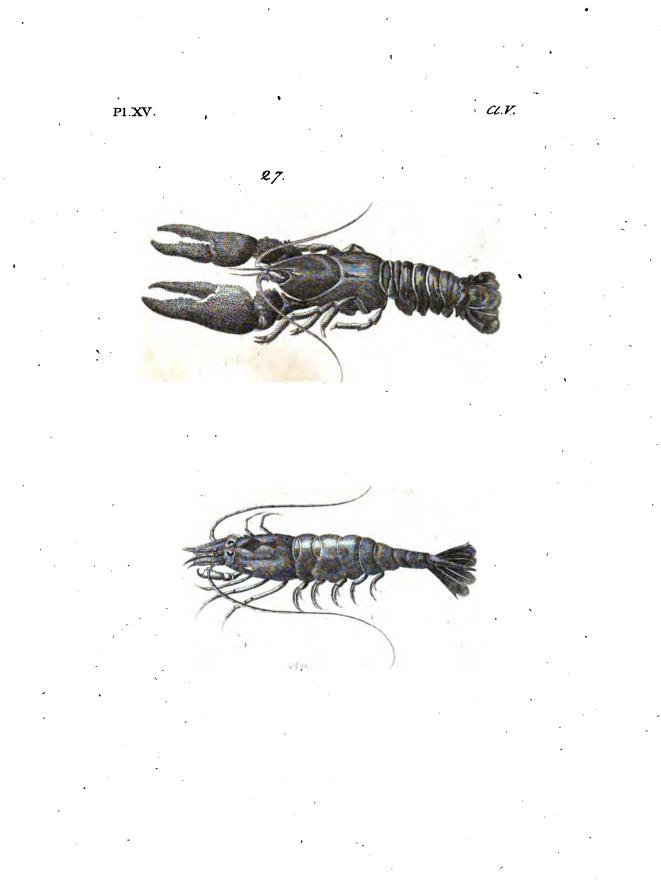


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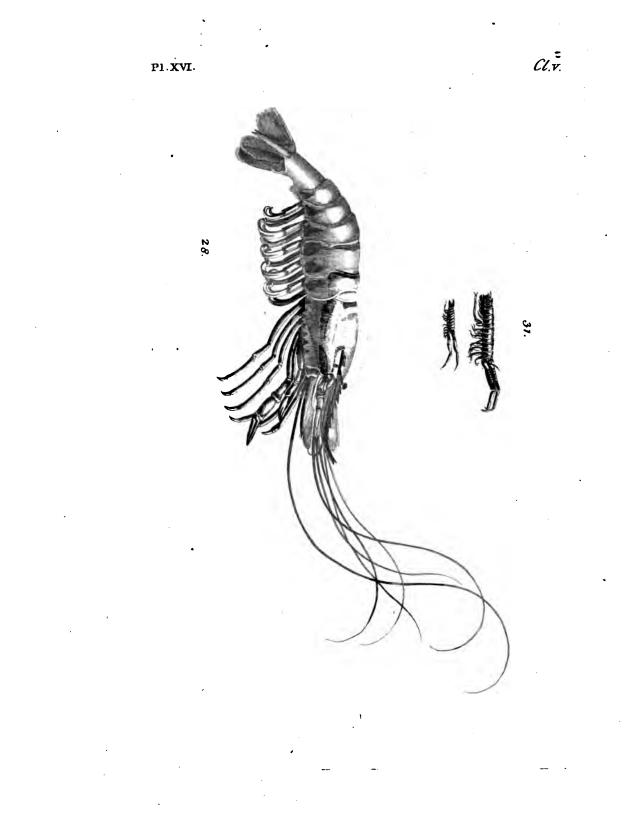
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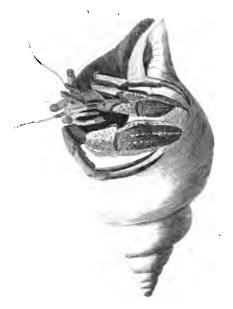
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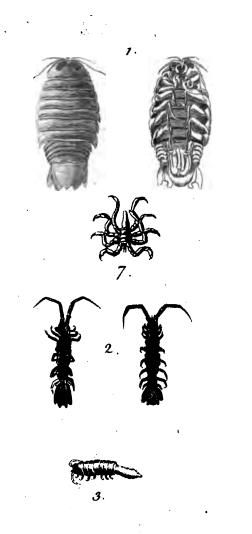


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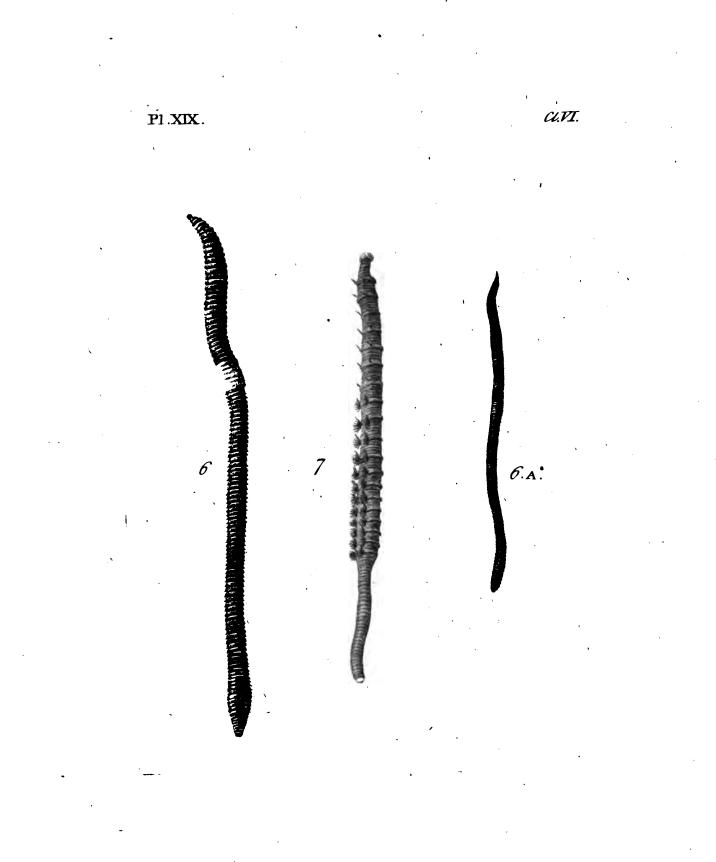


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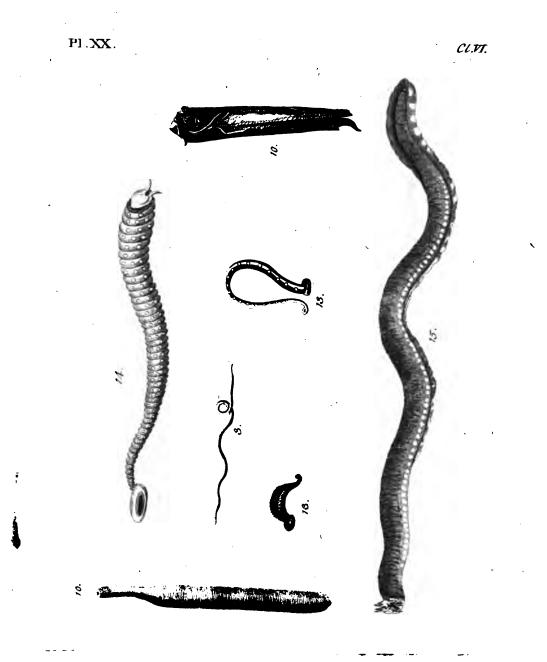
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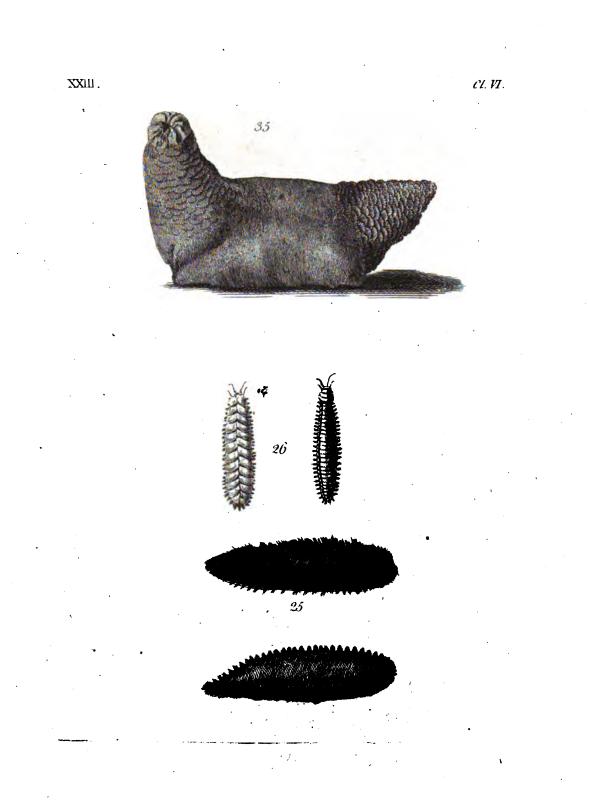
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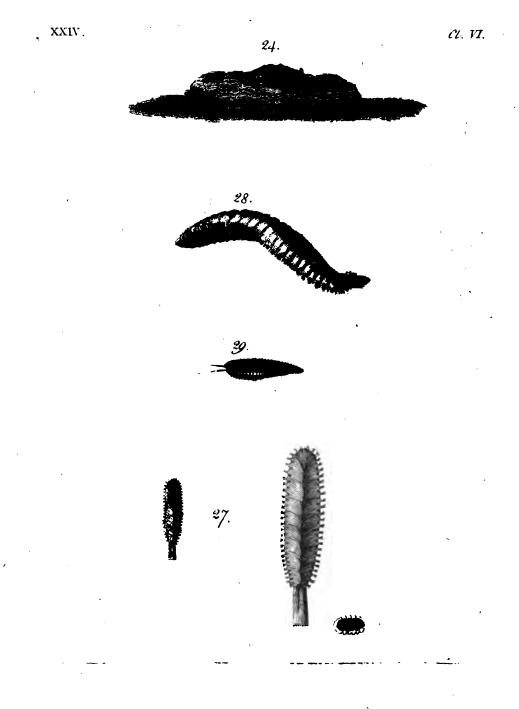
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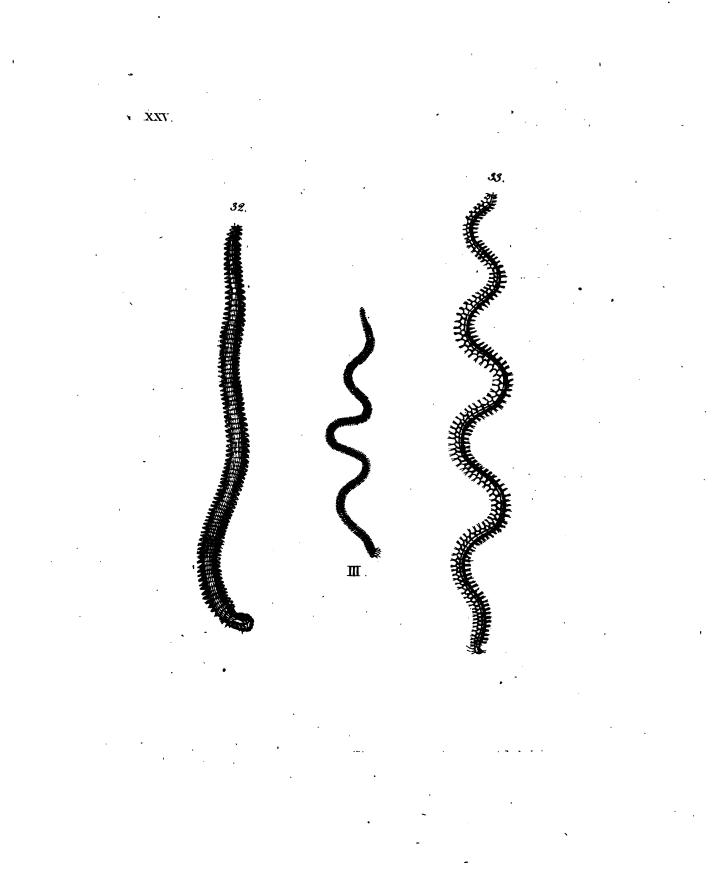


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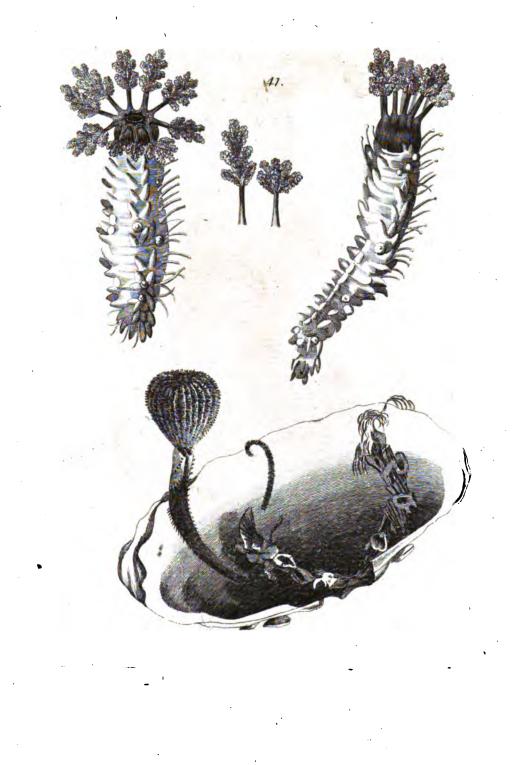
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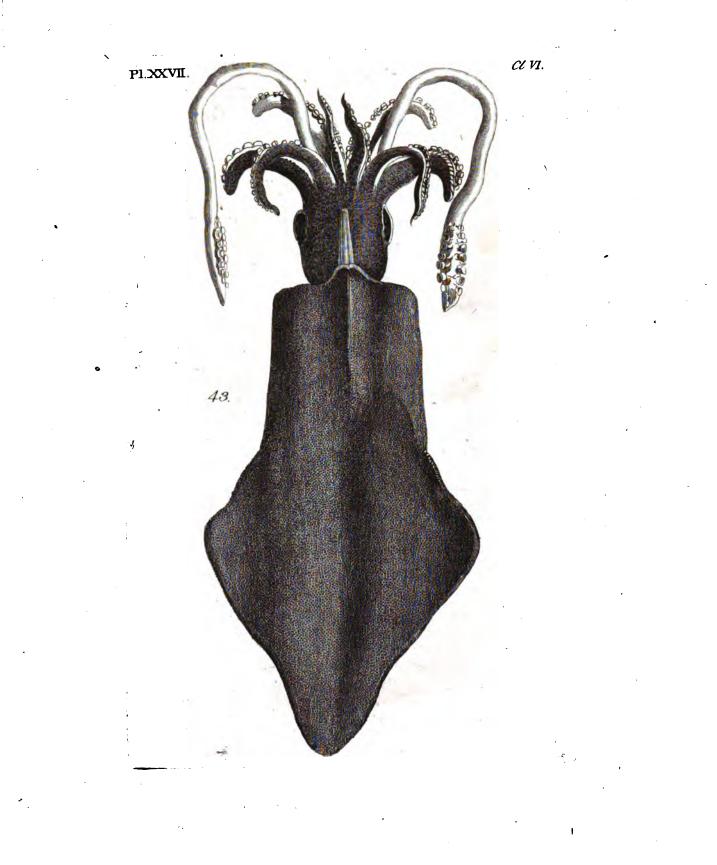


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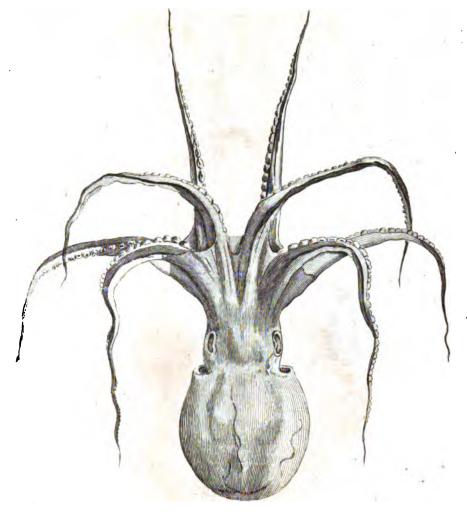
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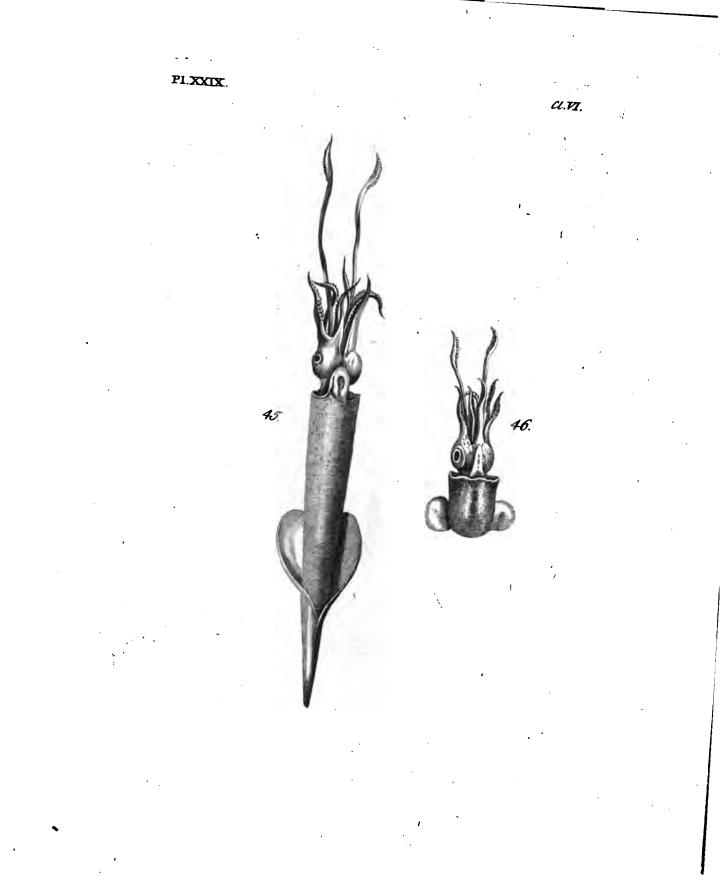
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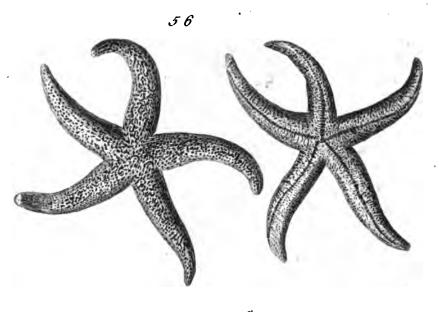
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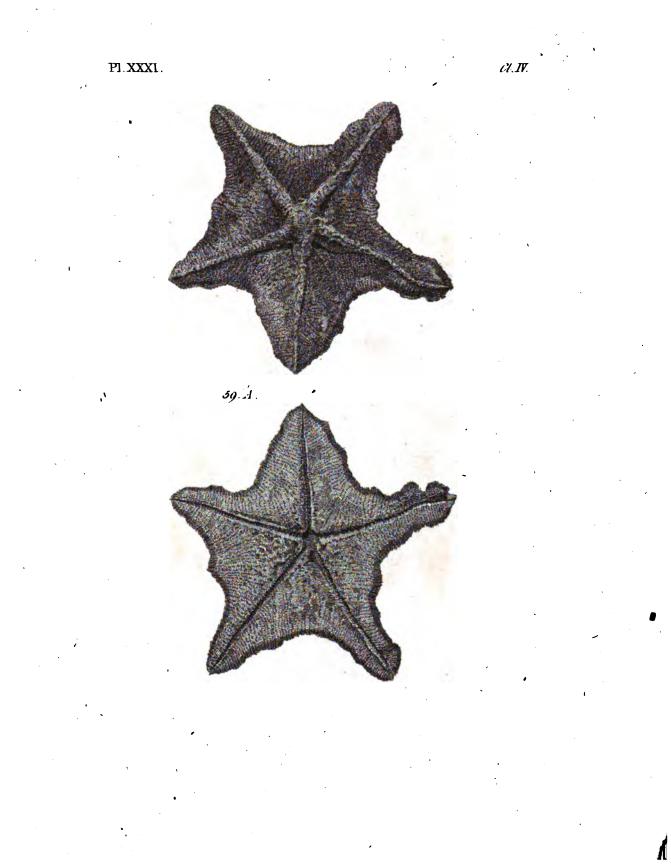
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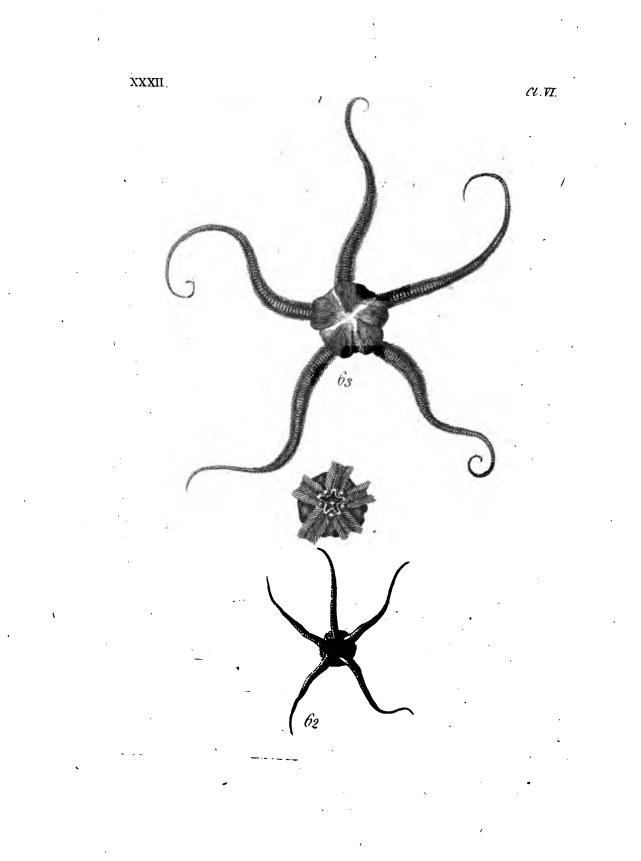
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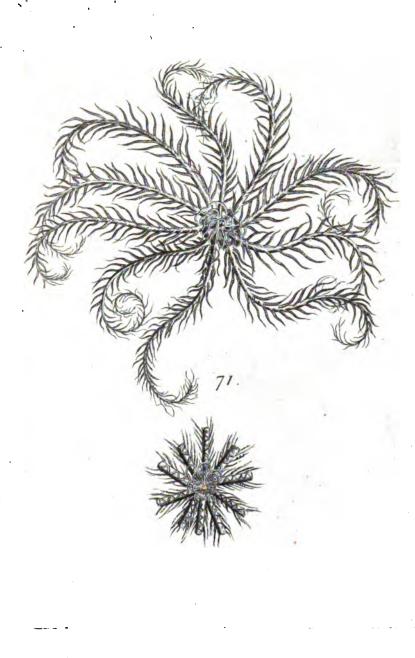
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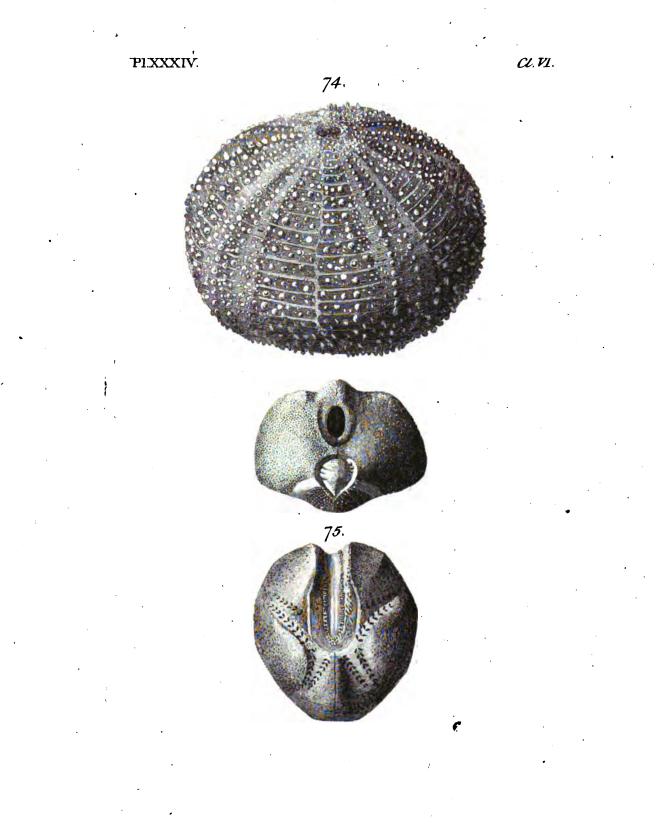
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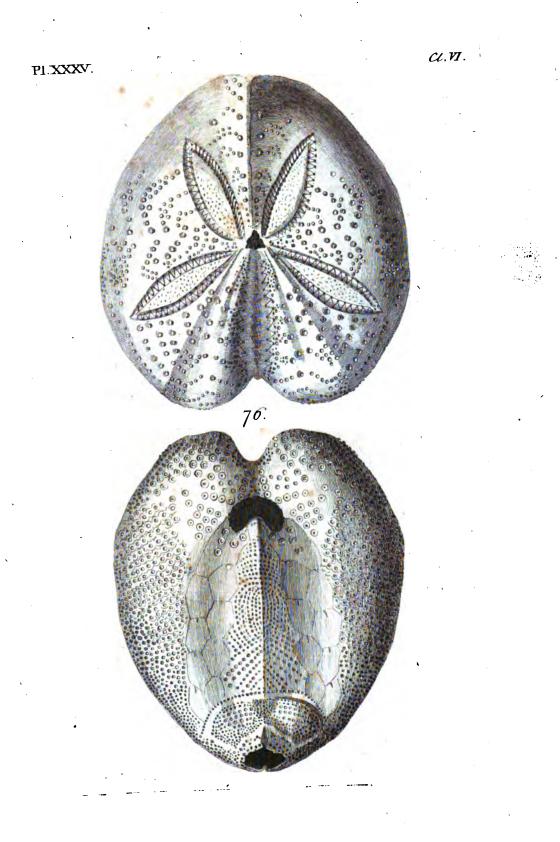
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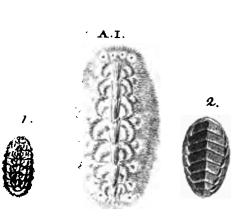


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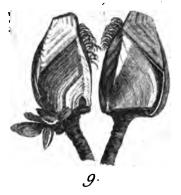
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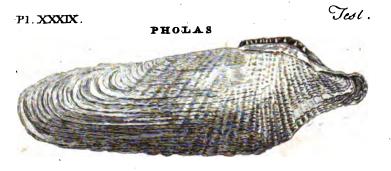


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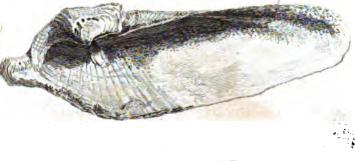




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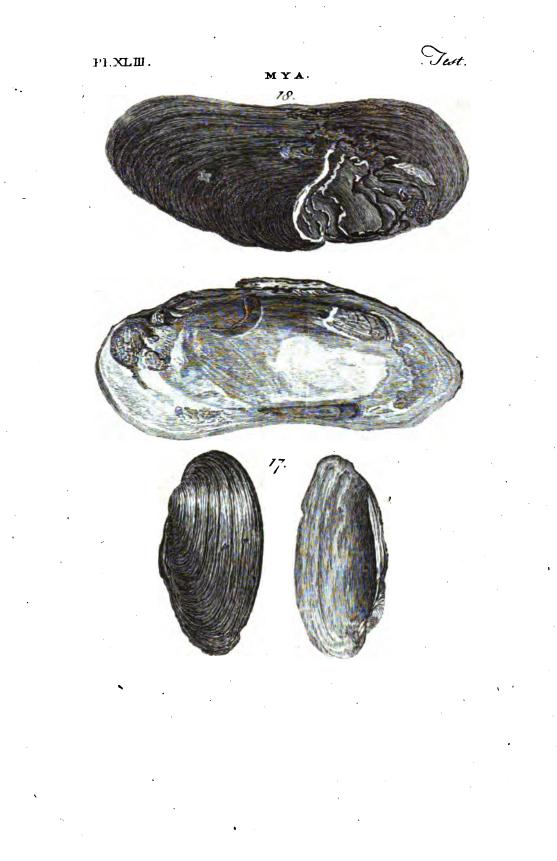
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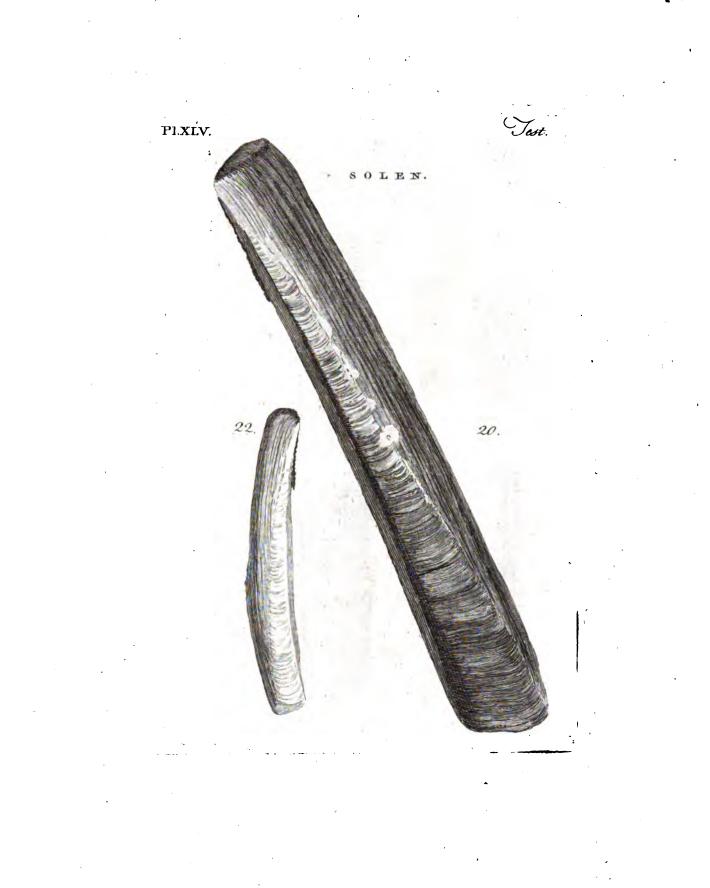
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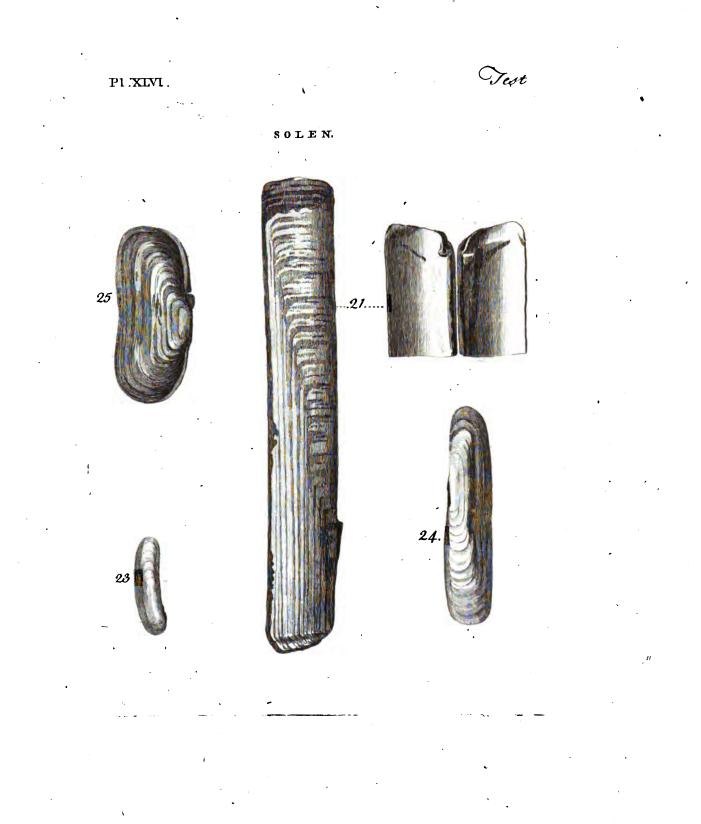
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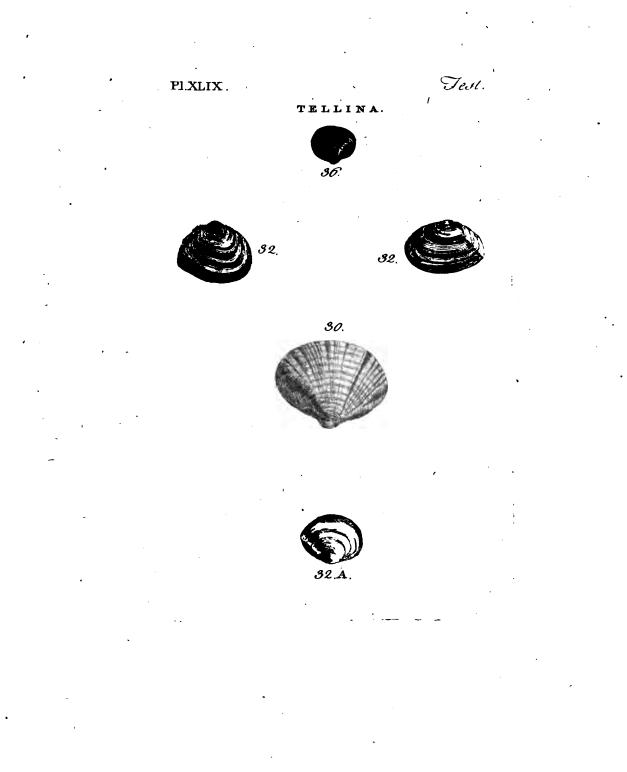








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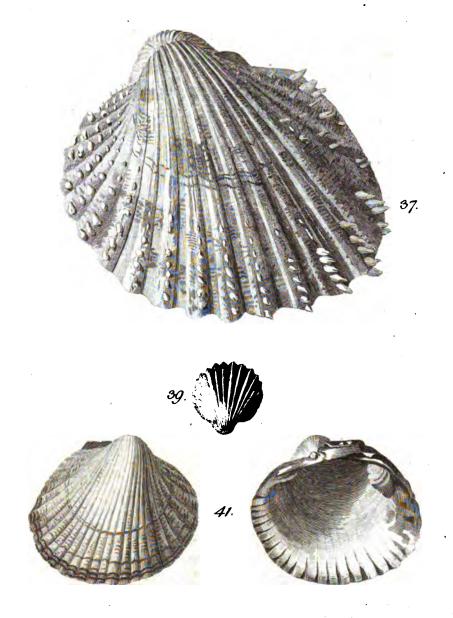
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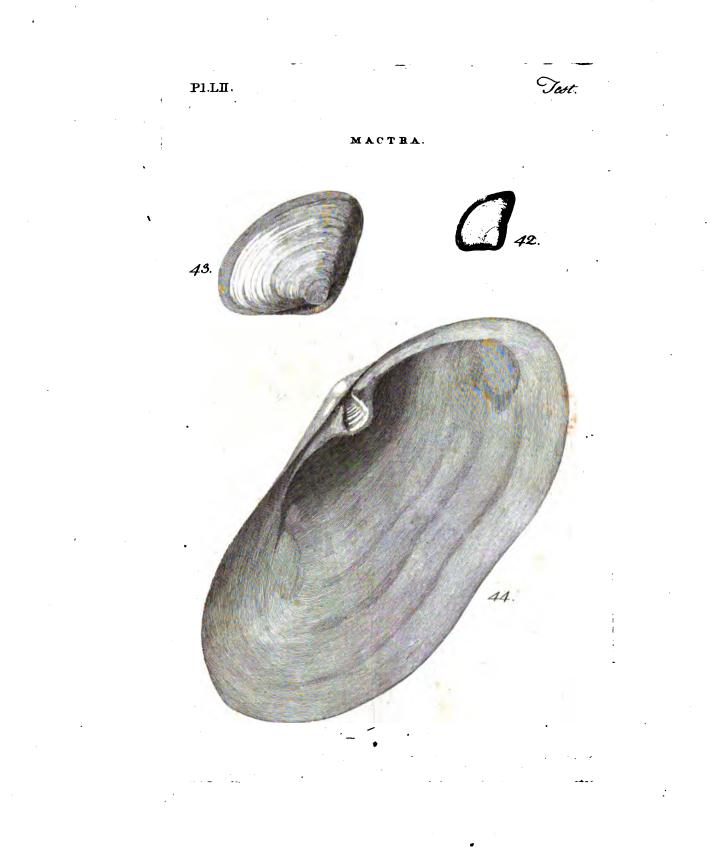
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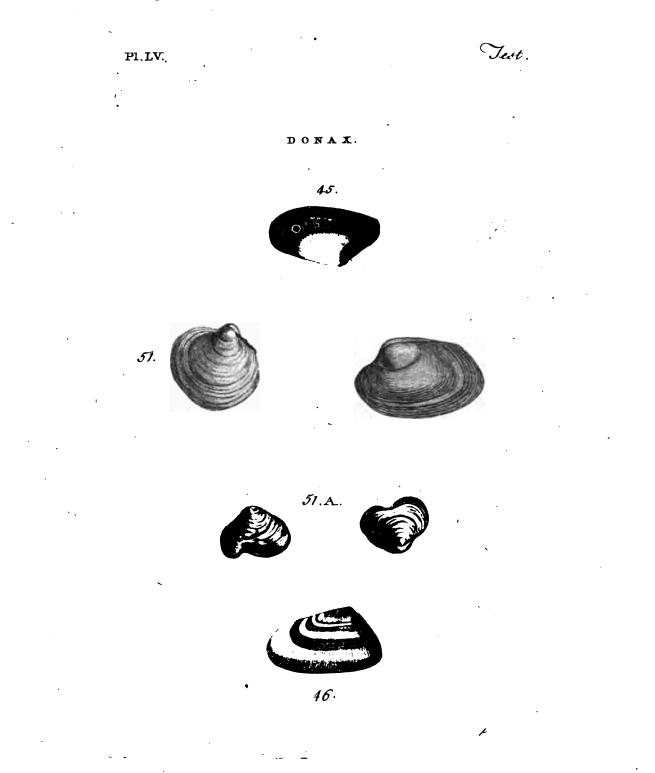


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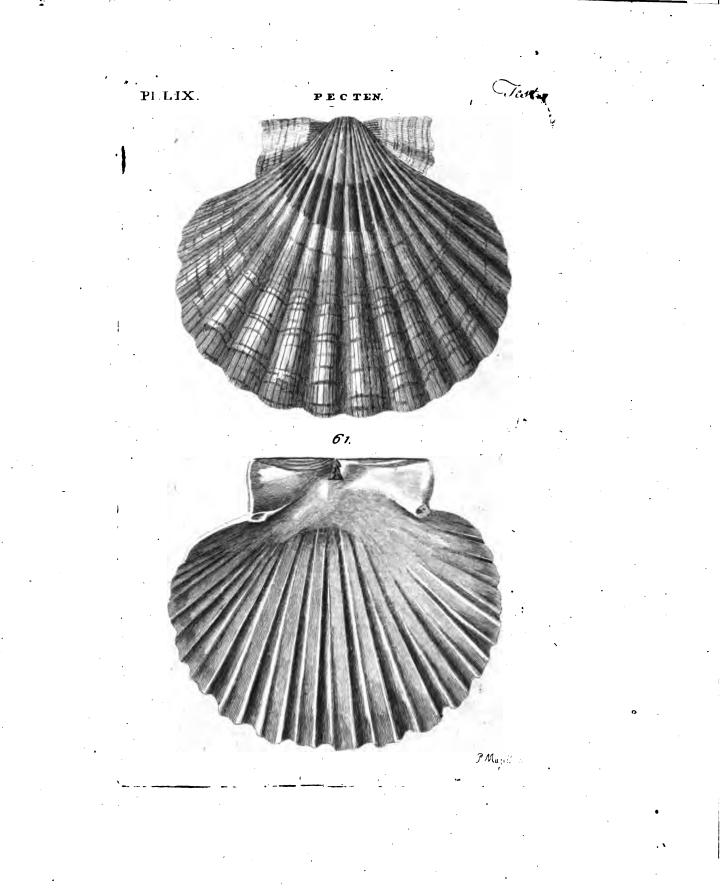
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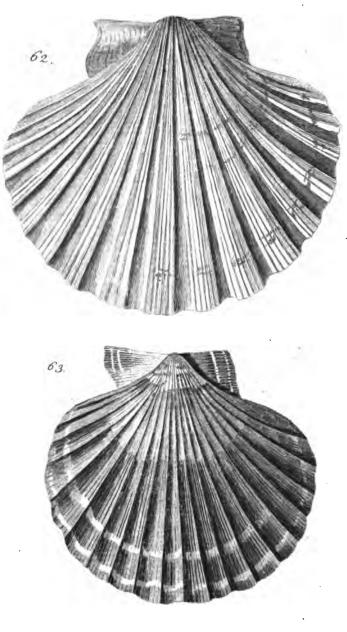
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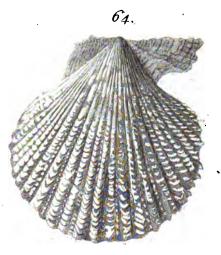


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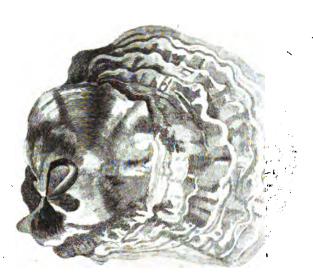
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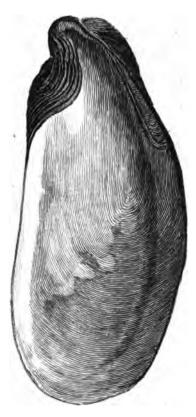
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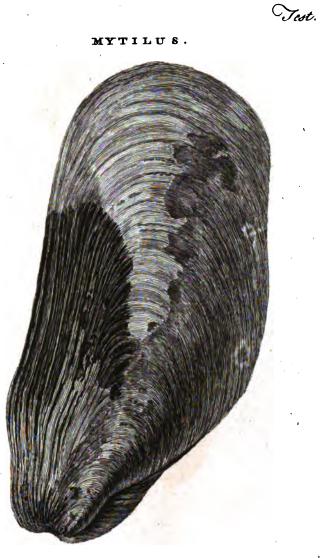


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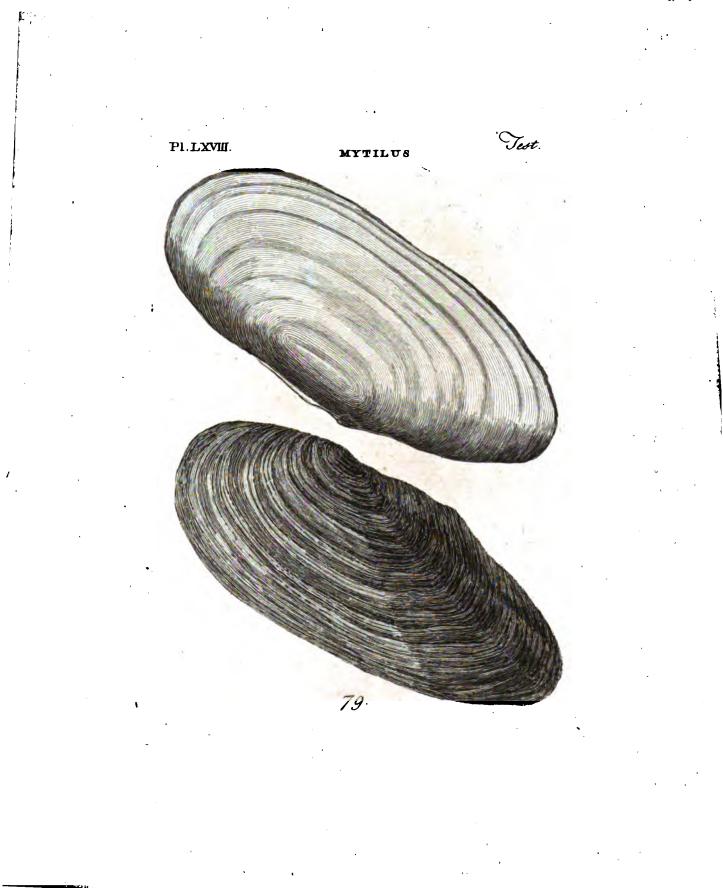
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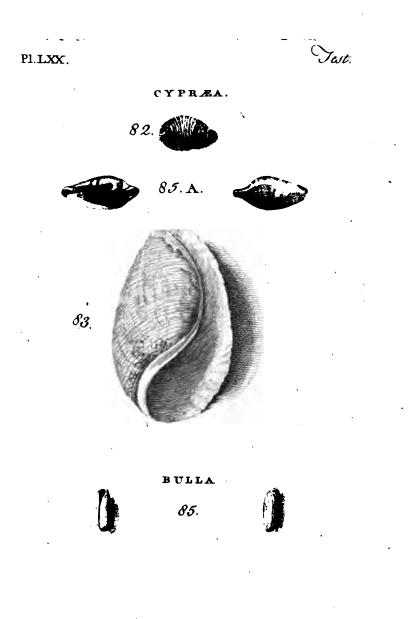
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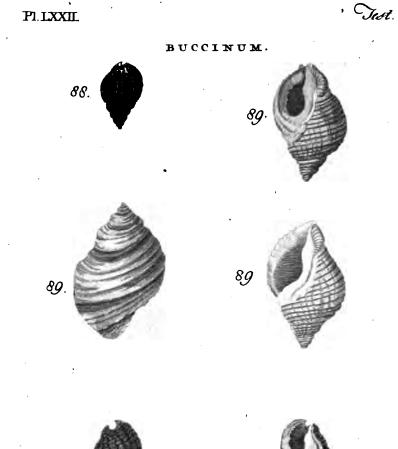


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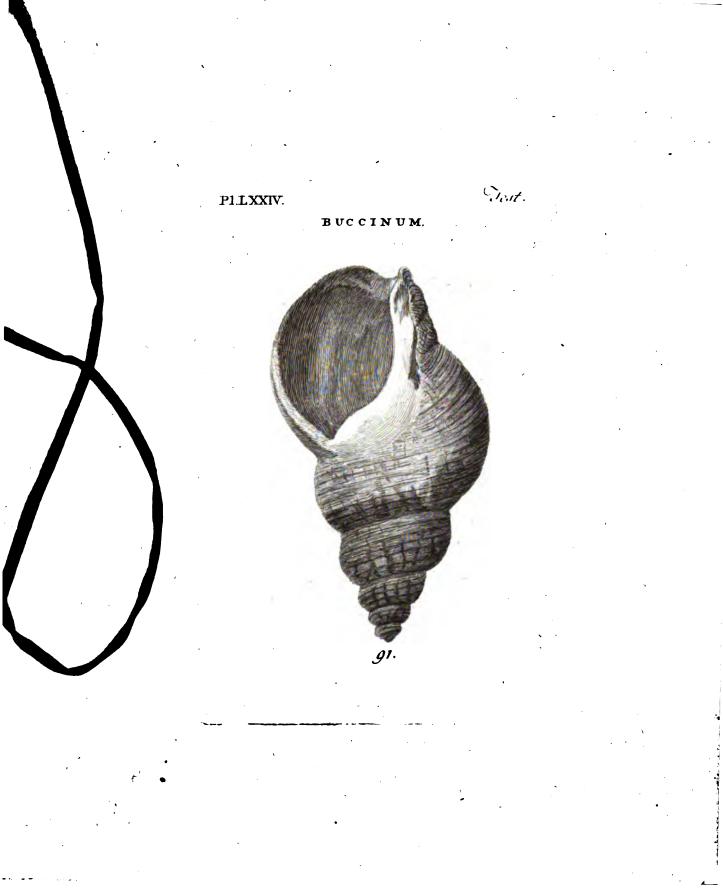
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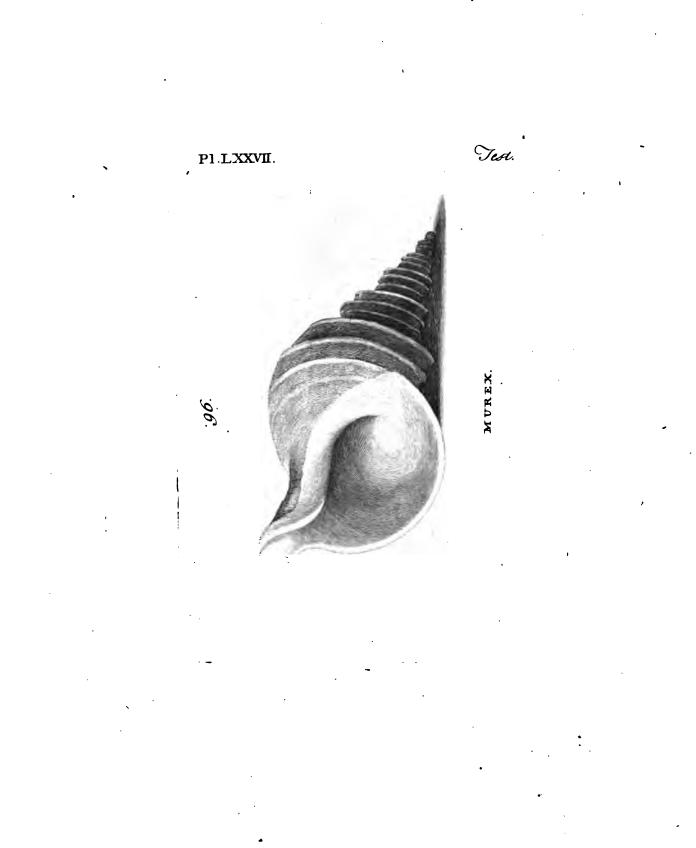
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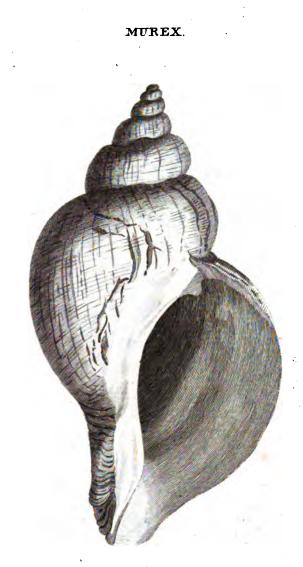
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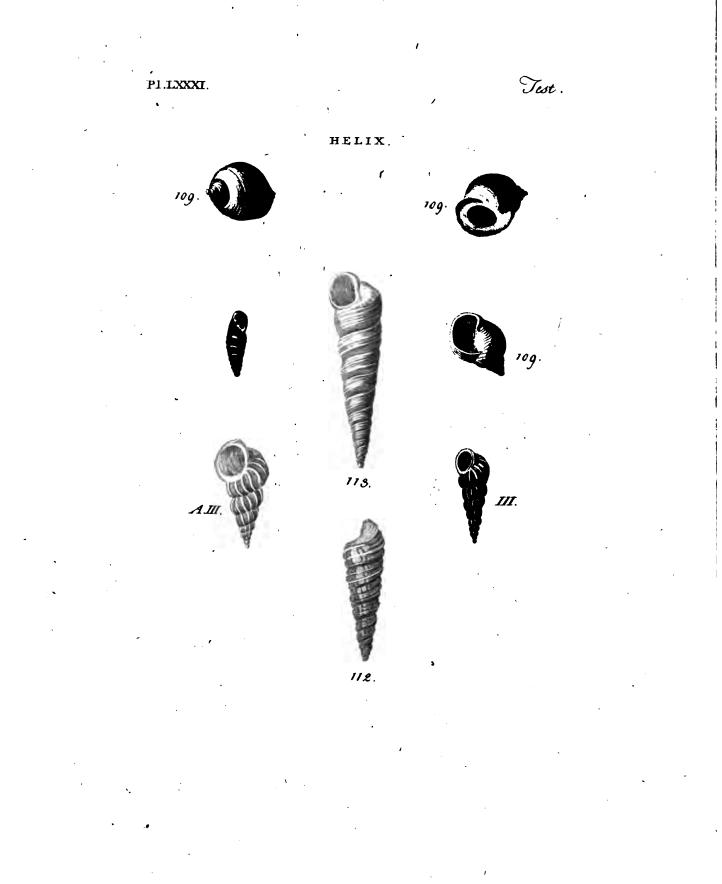
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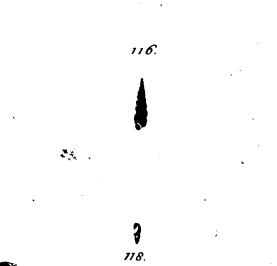
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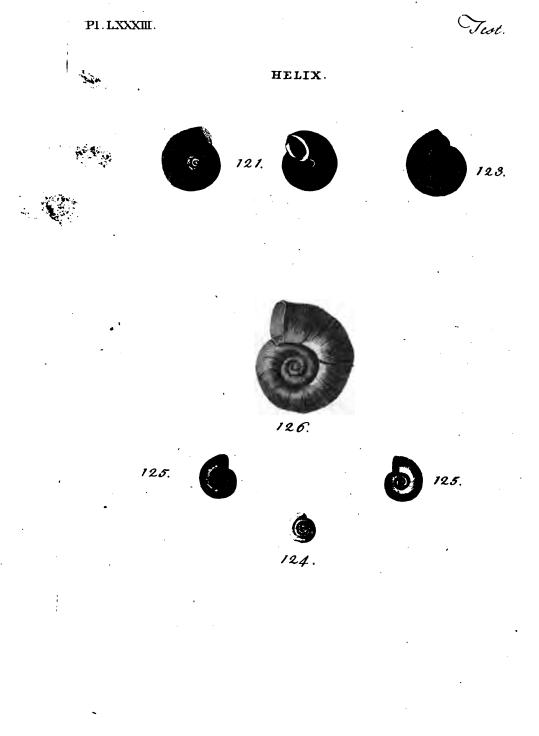






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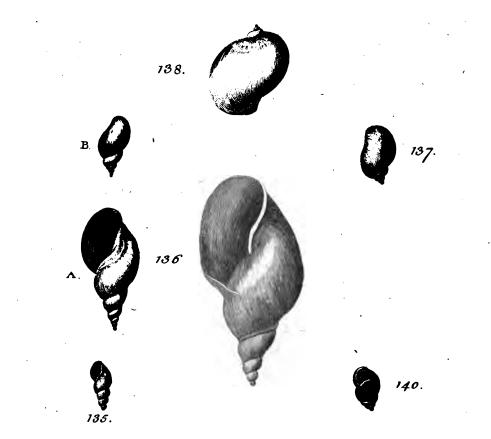
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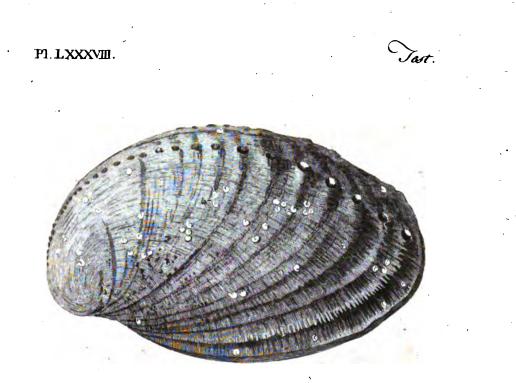
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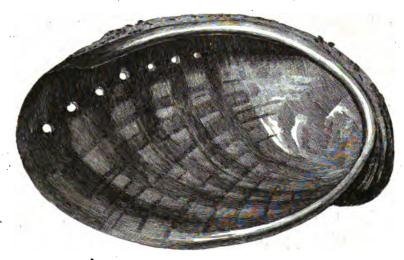
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### PATELLA.



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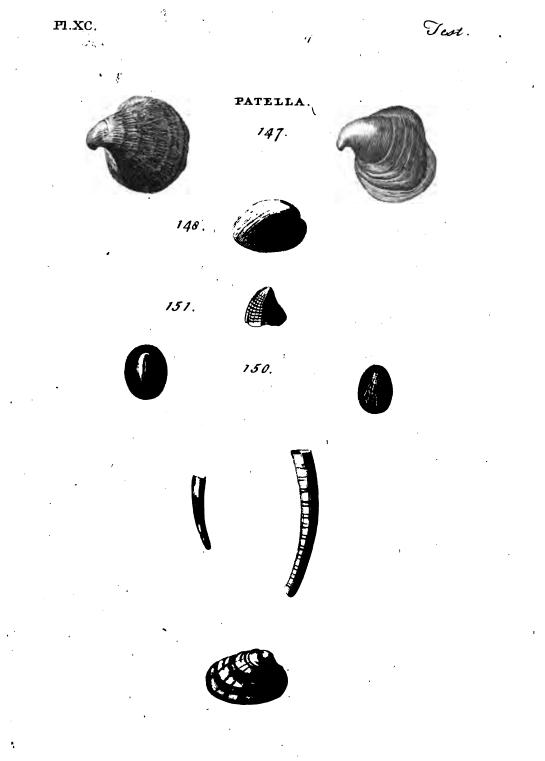
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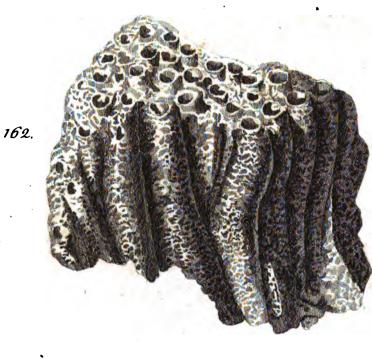
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