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BRITISH HYDROID ZOOPHYTES.

VOL. II.



A  
HISTORY  
OF THE  
BRITISH HYDROID ZOOPHYTES.

BY  
THOMAS HINCKS, B.A.

IN TWO VOLUMES.

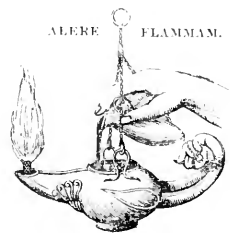
VOL. II.—PLATES.

LONDON:  
JOHN VAN VOORST, PATERNOSTER ROW.

MDCCCLXVIII.

“ Treasures the vulgar in their scorn reject.” — CRABBE.

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The magnified detail has in almost all cases been drawn by the Author with the Camera lucida, to the same scale.



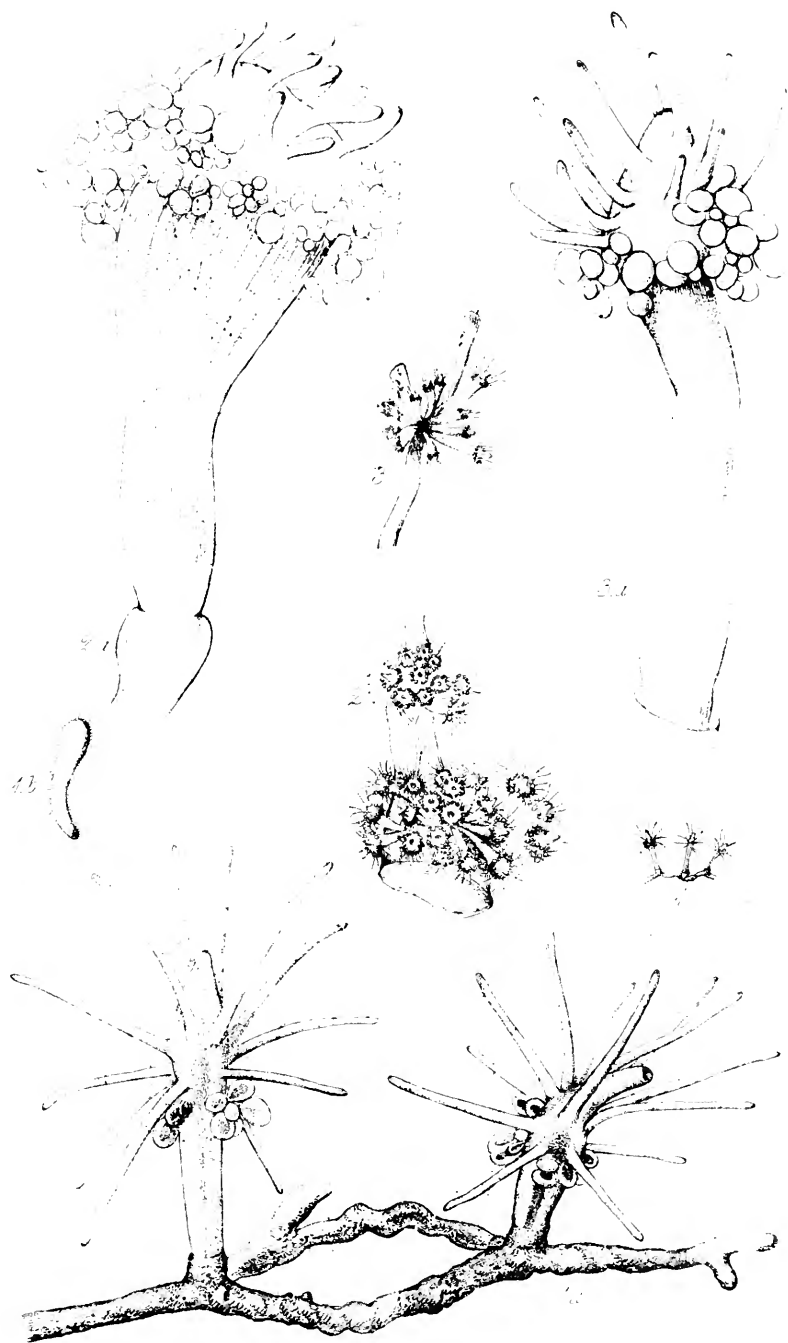


## PLATE 1.

[*The figures which are not credited to any one else are drawn by the Author.*]

FIG.

1. CLAVA MULTICORNIS, page 2, natural size.  
1 *a.* The same magnified.—1 *b.* The planule. From drawings by Mr. Alder.
2. CLAVA SQUAMATA, p. 4, nat. size.  
2 *a.* A polypite of the same, magnified.
3. CLAVA CORNEA, p. 5, nat. size.  
3 *a.* A polypite, magnified.



Tuffen West. sculp.

W. West. imp

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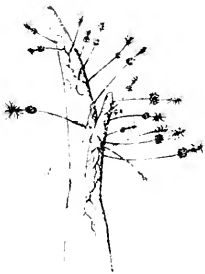
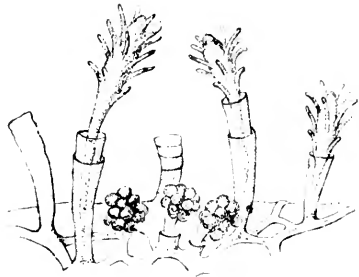
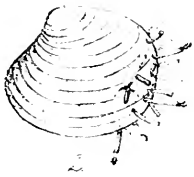


PLATE II.

FIG.

1. *CLAVA LEPTOSTYLA*, p. 6, a group, of the natural size.
- 1 *a*. The same, magnified. After Agassiz, 'Contributions to the Nat. Hist. of the U. S.' vol. iv. pl. xxi.
2. *TUBICLAVA CORNUCOPLÆ*, p. 11, nat. size.
- 2 *a*. The same, magnified. After Alder.





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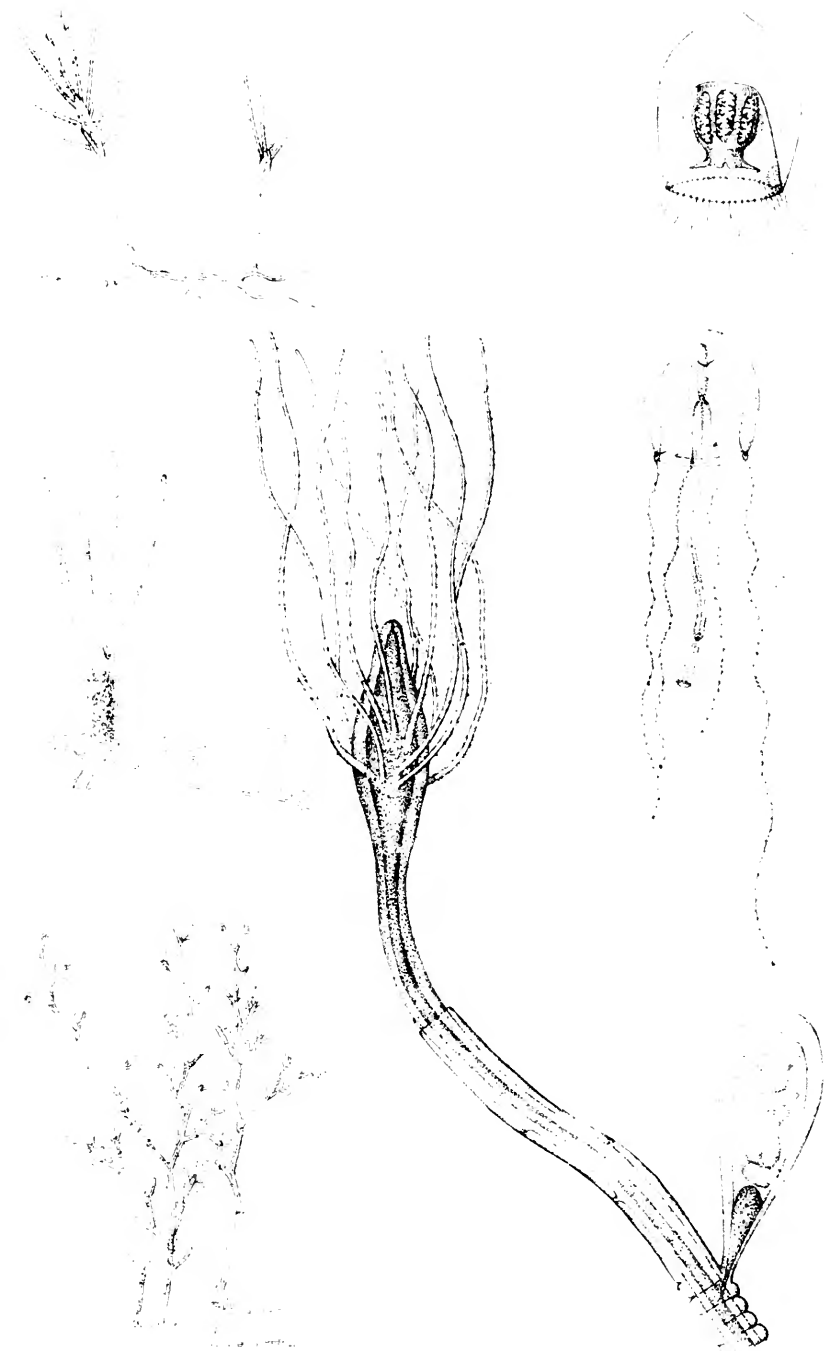




PLATE III.

FIG.

1. *TURRIS NEGLECTA*, p. 13, polypites, of the natural size.  
1 *a*. Polypites, magnified. After Wright.—1 *b*. A polypite in an earlier stage. After Gosse.—1 *c*. The medusiform zooid, magnified. After Forbes.
2. *CORDYLOPHORA LACUSTRIS*, p. 16, nat. size. After Allman.  
2 *a*. A polypite and a portion of the stem bearing a gonophore, magnified. The Author.
3. The gonozooid of *SYNCORYNE* (*SARSIA*), p. 49, magnified. The Author.



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W. West unsp.

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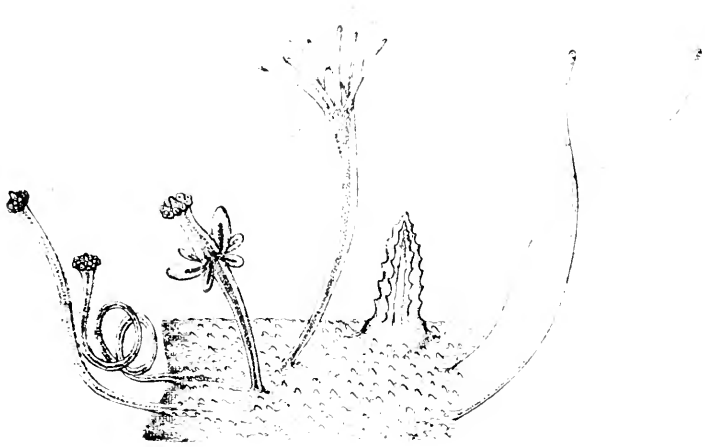


## PLATE IV.

FIG.

1. *HYDRACTINIA ECHINATA*, p. 23, nat. size.
2. A group of the same (female), magnified.
3. A portion of the crust (magnified), showing an alimentary and fertile polypite, a spine, and the spiral and tentacular appendages. This figure is diagrammatic.
4. A polypite bearing male gonophores.
5. A monstrous polypite formed by the union of a sterile and a fertile zooid.
6. A polypite in an early stage of growth. After Quatre-fages.





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PLATE V.

FIG.

*a.* *PODOCORYNE CARNEA*, p. 29, nat. size.

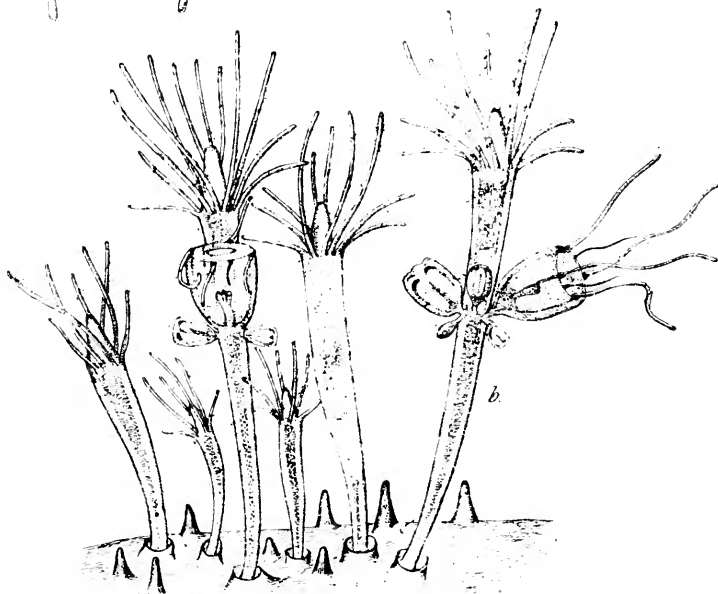
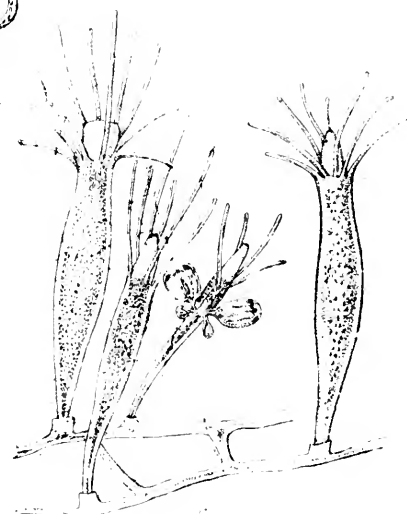
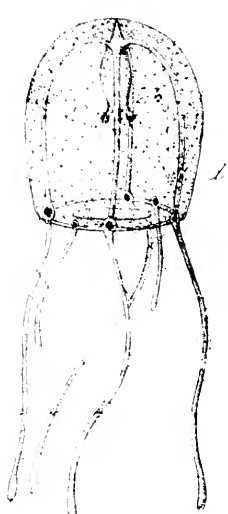
*b.* A portion of a colony, magnified, with the base consolidated into a crust.

*c.* A portion of a colony, with a simple retiform base.

*d.* The gonozoid, magnified.

*e.* A polypite from the edge of the shell, with three of the spiral appendages.

*e'*. One of the spiral appendages.



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PLATE VI.

FIG.

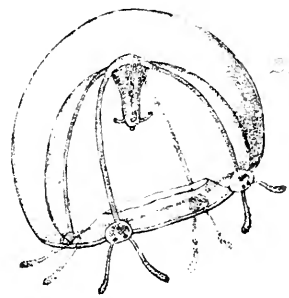
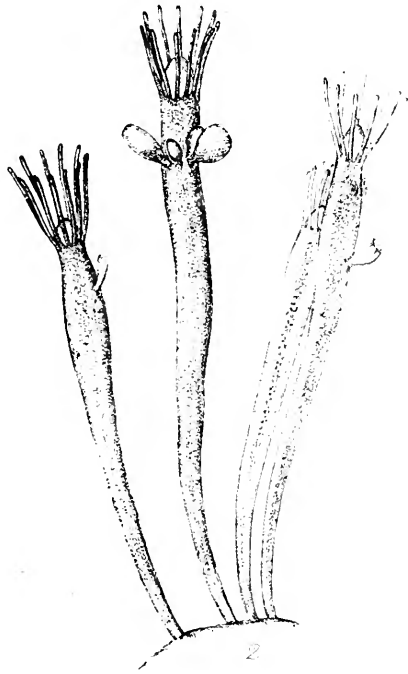
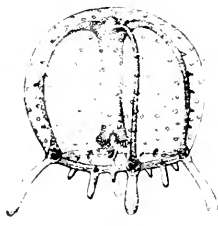
1. *PODOCORYNE AREOLATA*, p. 32, on *Natica Alderi*, nat. size.

1 *a*. The same, highly magnified.—1 *b*. The gonozooid, magnified.—1 *c*. A portion of the spinous crust, magnified. After Alder.

2. *CORYNOPSIS ALDERI*, p. 34, polypites magnified.

2 *a*. The gonozooid.—2 *b*. The manubrium, showing the oral tentacles.—2 *c*. One of the bulbs, bearing the ocelli and marginal tentacles. After figures by G. Hodge, Esq.





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W. West imp





PLATE VII.

FIG.

1. *CORYNE PUSILLA*, p. 39, nat. size.

1 *a*. A polypite magnified.—1 *b*. A tentacle with the threads of the nematocysts exerted.

2. *CORYNE FRUTICOSA*, p. 44, nat. size.

2 *a* and 2 *b*. Polypites magnified.—2 *c*. A portion of the stem, magnified.

3. *SYNCORYNE SARSH*, p. 52, nat. size.

3 *a* and 3 *b*. Polypites, magnified.



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W. West imp.

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PLATE VIII.

FIG.

1. *CORYNE VAGINATA*, p. 41, nat. size.

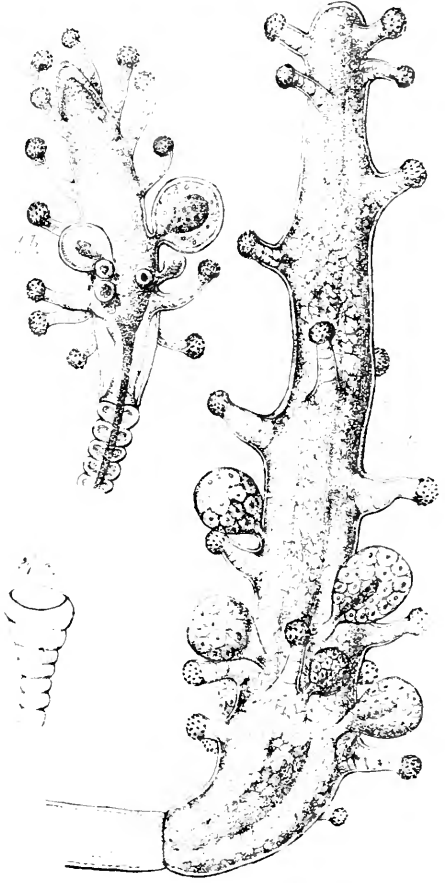
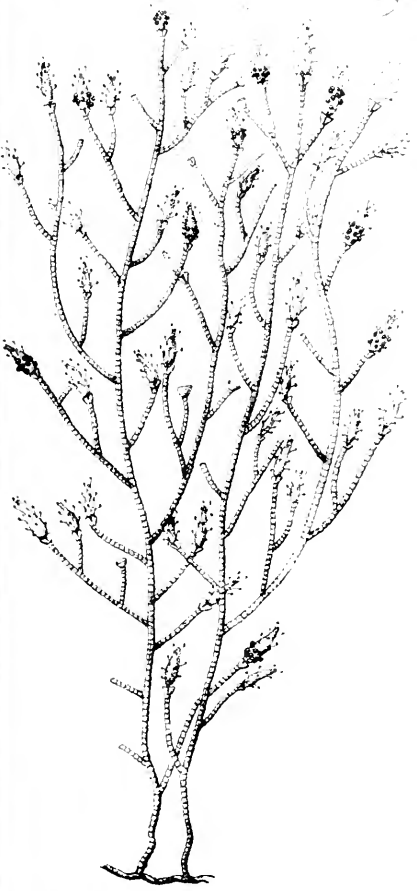
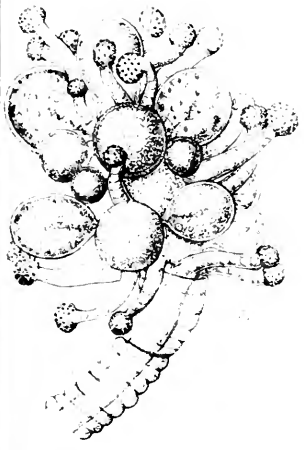
1 *a* and 1 *b*. Polypites, magnified.—1 *c*. The cup-like expansion of the polypary at the base of the polypite.

2. *CORYNE VERMICULARIS*, p. 42, nat. size.

2 *a*. A polypite, magnified\*.—2 *b*. A portion of the stem, magnified.

\* All the enlarged figures of *Coryne* are drawn to the same scale, so as to exhibit the comparative size.





Tuffen West sculp.

W. West imp.





PLATE IX.

FIG.

1. *CORYNE VAN-BENEDENII*, p. 45, nat. size.

1 *a* and 1 *b*. Polypites, magnified.—1 *c*. A gonophore, highly magnified to show the structure and the contained embryo.—1 *d*. A polypite with gonophores, magnified.

2. *SYNCORYNE EXIMIA*, p. 50, nat. size.

2 *a*, 2 *b*, 2 *c*. Polypites, magnified.—2 *d*. A portion of a stem and branch.—2 *e*. A gonophore, magnified.—2 *f*. Annulated space at the base of the stem.

3. *ZANCLEA IMPLEXA*, p. 59, nat. size.

3 *a*. A polypite, magnified.—3 *b*. A portion of the stem, magnified to show the structure of the polypary.—3 *c*. The gonozoid. After Alder.—3 *d*. One of the tentacles of *Zanclaea costata*. After Gegenbaur.



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W. West. imp.





PLATE X.

FIG.

1. SYNCORYNE GRAVATA, p. 53, nat. size.

1 *a*. The same, magnified.—1 *b*. A single polypite, more highly magnified.—1 *c*. A polypite partially atrophied.—1 *d*. A polypite wholly atrophied, bearing two imperfect gonozoids (T. H.).—1 *e*. A gonozoid almost fully developed.—1 *f*. A female gonozoid, as it appears late in the breeding-season, laden with ova. All the figures of *S. gravata*, with the exception of 1 *d*, are after Agassiz, 'Contrib. to the N. H. U. S.' vol. iii. pl. xvii.

2. SYNCORYNE DECIPIENS, p. 56, polypites, magnified.  
From a drawing by Mr. Alder.





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PLATE XI.

FIG.

*a.* CLADONEMA RADIATUM, p. 62, nat. size.

*b.* A polypite, highly magnified.—*c.* The gonozoid, nat. size.—*c'*. Ditto, magnified.—*d.* Ditto, as seen from below.—*e.* One of the tentacles of the gonozoid.—*f.* The manubrium, showing the oral lobes. From drawings by E. W. H. Holdsworth, Esq.



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W. West imp.

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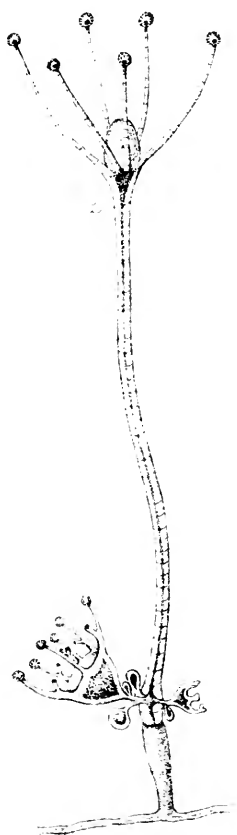


PLATE XII.

FIG.

1. STAURIDIUM PRODUCTUM, p. 68, a polypite, highly magnified.—1 *a*. The gonozooid.
2. CLAVATELLA PROLIFERA, p. 73, a polypite, highly magnified, bearing clusters of gonozooids.  
2 *a*. The ambulatory gonozooid, magnified.
3. MYRIOTHELA PHRYGIA, p. 77, a little above nat. size.—  
3'. The same, partially contracted, nat. size.  
3 *a*. The embryo, magnified. After Alder.—3 *b* and 3 *d*. The gonophore, magnified.—3 *c*. A tentacle, magnified.





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W. West imp.





PLATE XIII.

FIG.

*a.* EUDENDRIUM RAMOSUM, p. 82, nat. size.

*b.* A portion, magnified.

*c.* Ditto, more highly magnified.

From drawings by Mr. Tuffen West.



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PLATE XIV.

FIG.

1. EUDENDRIUM ARBUSCULA, p. 84, nat. size.

1 *a*. Male gonophore, magnified. This figure is after Wright.

2. EUDENDRIUM CAPILLARE, p. 84, nat. size.

3. EUDENDRIUM INSIGNE, p. 86, nat. size.

3 *a*. A polypite, highly magnified.

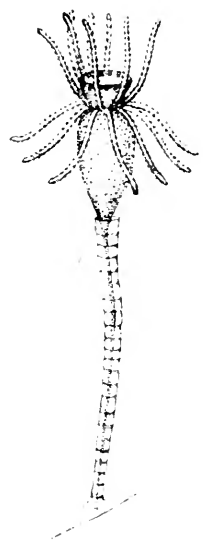
3 *b*. A polypite with male gonophores.

4. GARVEIA NUTANS, p. 102, nat. size.

4 *a*. A polypite, magnified.

4 *b*. Gonophore, magnified.





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PLATE XV.

FIG.

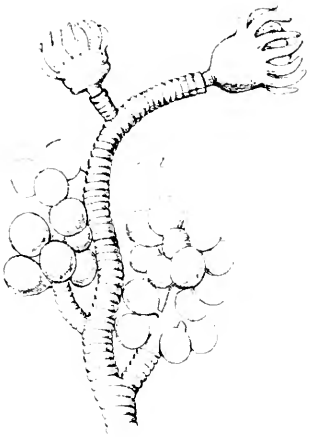
1. *EUDENDRIUM ANNULATUM*, p. 83, nat. size.

1 *a*. The extremity of a branch, magnified.—1 *b*. A portion of one of the larger stems. These figures are after Alder.

2. *BIMERIA VESTITA*, p. 103, nat. size.

2 *a*. A portion bearing a gonophore, magnified.—2 *b*. A tentacle, magnified to show the membranous sheath. After Wright.

3. *SYNCORYNE PULCHELLA*, p. 57, and Appendix, p. 319, magnified.—3 *a*. A tentacle, magnified. From drawings by the Author.



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PLATE XVI.

FIG.

1. *ATRACTYLIS ARENOSA*, p. 88, nat. size.

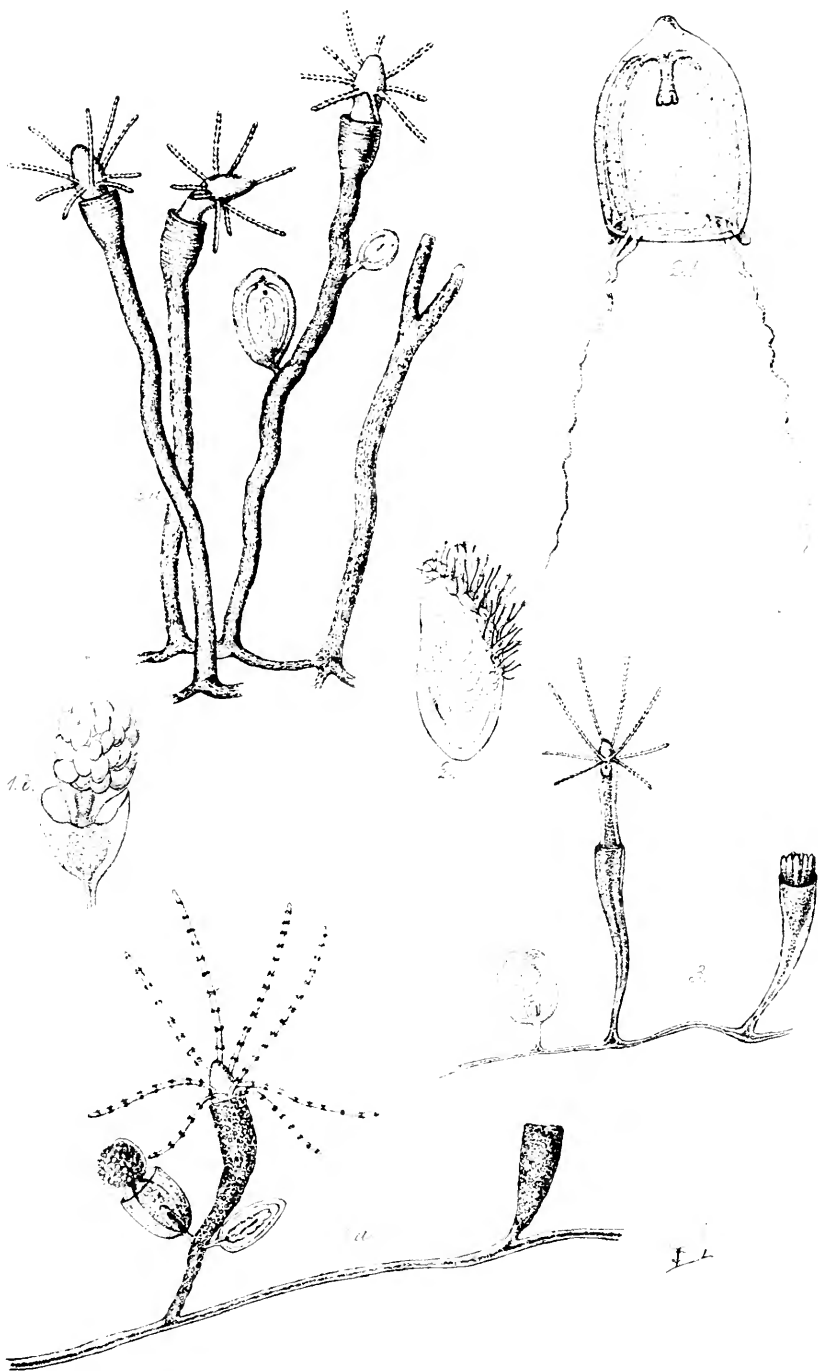
1 *a*. Ditto, magnified.—1 *b*. The ovary after the rupture of the gonophore. From drawings by the Author.

2. *PERIGONIMUS REPENS*, p. 90, on an operculum, nat. size.

2 *a*. Polypites, magnified.—2 *b*. The gonozoid, magnified. From drawings by Mr. Alder.

3. *PERIGONIMUS SERPENS*, p. 95, highly magnified. From a drawing by the Author.





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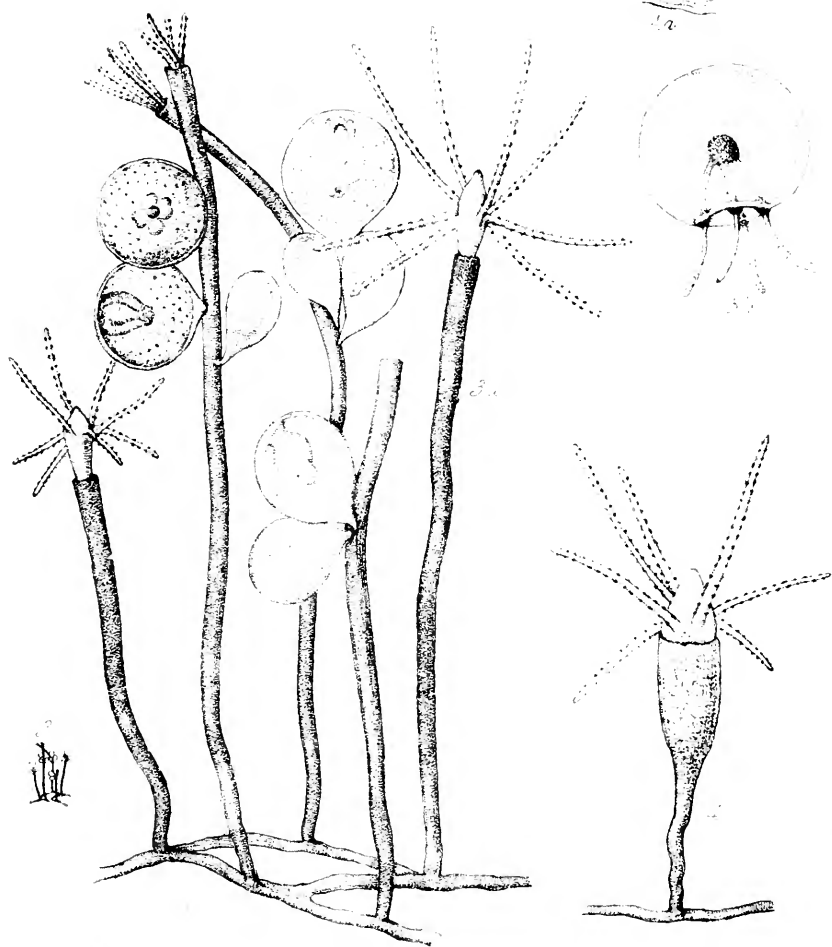
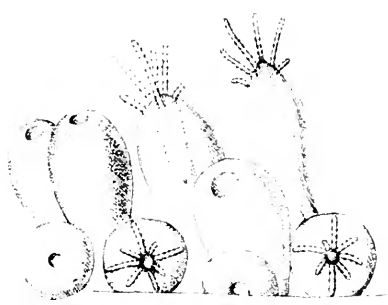




PLATE XVII.

FIG.

1. *PERIGONIMUS SESSILIS*, p. 93, magnified.  
1 *a*. A single polypite, more highly magnified. After Dr. Strethill Wright.
2. *PERIGONIMUS PALLIATUS*, p. 93, magnified. After Dr. Strethill Wright.
3. *PERIGONIMUS* (?) *LINEARIS*, p. 96, nat. size.  
3 *a*. The same, magnified.—3 *b*. The gonozoid. After Alder.
4. *PERIGONIMUS REPENS* (young), p. 90, magnified. From a drawing by Mr. Alder.



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W. West imp.





PLATE XVIII.

FIG.

1. DICORYNE CONFERTA, p. 105, nat. size.

1 *a*. The same, magnified.—1 *b*. The gonozoid (female), magnified. After Alder.

2. HETEROCORDYLE CONYBEAREI, p. 107, a colony, of the nat. size, on shell.

2 *a*. A portion, magnified.—2 *b*. The gonophore, magnified. After Allman.





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## PLATE XIX.

FIG.

1. *HYDRANTHEA MARGARICA*, p. 100, magnified.
  - 1 *a*. One of the tentacles bearing a cluster of thread-cells, magnified.—1 *b*. One of the branched vessels of the sporosac.—1 *c*. Bean-shaped thread-cells, magnified. From drawings by the Author.
  
2. *BOUGAINVILLIA RAMOSA*, p. 109, nat. size. From a drawing by Mr. Tuffen West.
  - 2 *a*. A branchlet, magnified, to show the cup-like expansion of the polypary around the polypite (T. H.).—2 *b*. A branchlet, bearing a gonophore, magnified (T. H.).—2 *c*. The gonozoid, at the time of detachment, highly magnified. After Van Beneden.
  
3. *BOUGAINVILLIA* ? species, p. 112, nat. size.
  - 3 *a*. The same, magnified. From drawings by the Author.



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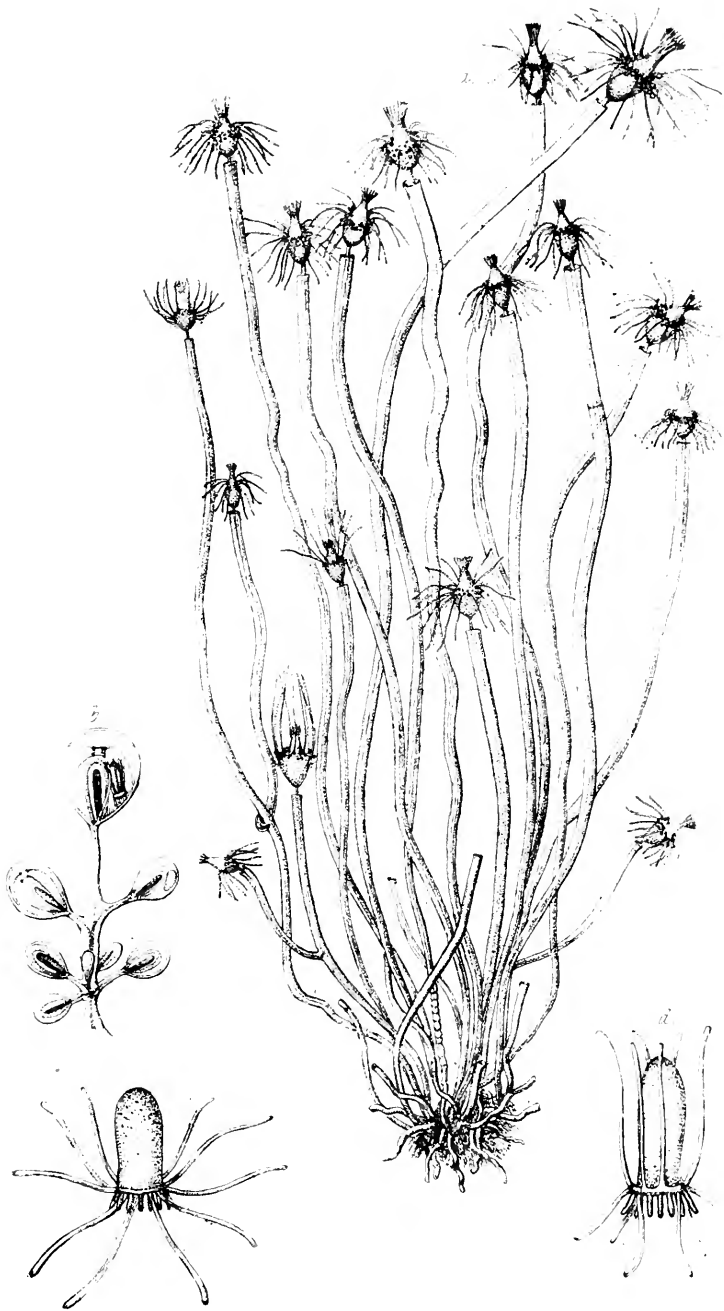
PLATE XX.

FIG.

TUBULARIA INDIVISA, p. 115.

- a.* Nat. size.—*b.* A cluster of gonophores, magnified.—  
*c, d.* The embryo shortly after its exclusion.





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PLATE XXI.

FIG.

1. TUBULARIA LARYNX, p. 118, nat. size. The Author.

1 *a*. A polypite, magnified. From a drawing by Mr. Alder.

2. TUBULARIA CORONATA, p. 119, nat. size.

2 *a*. A cluster of gonophores, magnified. The Author.

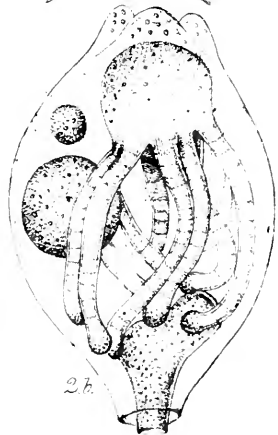
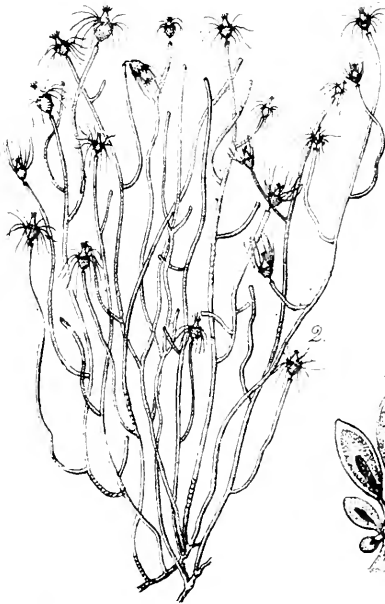
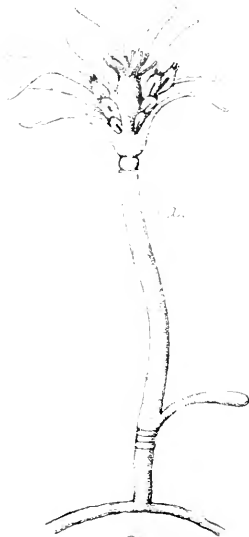
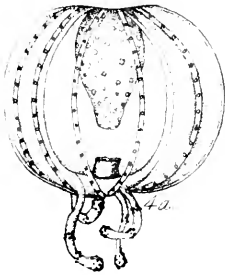
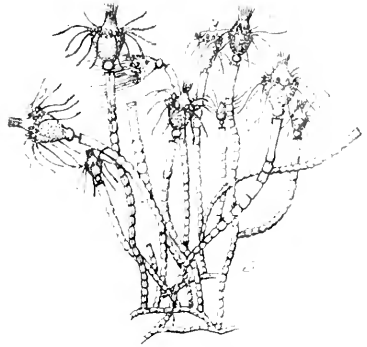
2 *b*. A single gonophore, highly magnified, to show the contained embryo. After Van Beneden.

3. TUBULARIA BELLIS, p. 122, nat. size.

3 *a*. A cluster of gonophores, magnified. The Author.

4. ECTOPLEURA DUMORTIERII, p. 124, nat. size. The Author.

4 *a*. The gonozooid, magnified. After Van Beneden.



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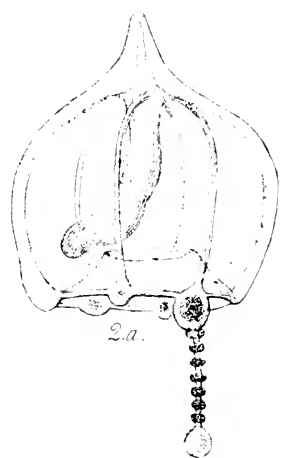
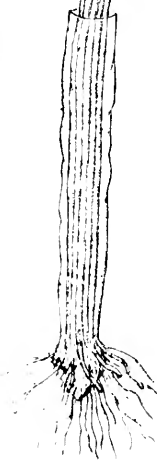
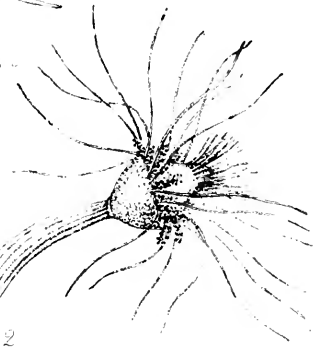
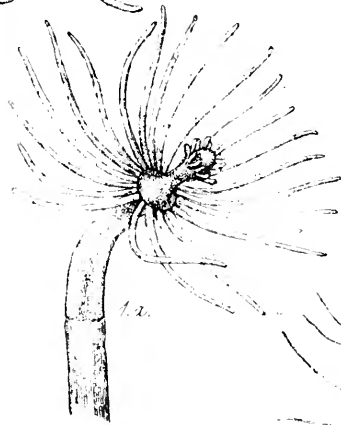
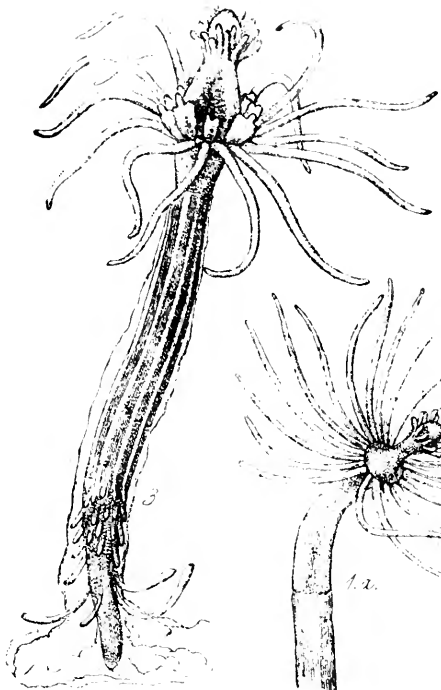


PLATE XXII.

FIG.

1. *TUBULARIA SIMPLEX*, p. 121, nat. size.
  - 1 *a*. The polypite, magnified. After Alder.
2. *CORYMORPHA NUTANS*, p. 127, nat. size. From a drawing by the Author.
  - 2 *a*. The gonozooid, magnified. After Hodge.
3. *CORYMORPHA NANA*, p. 130, magnified.
  - 3 *a*. The gonozooid after liberation, magnified.—3 *b*. A group of gonozooids before liberation.—3 *c*. Another group, differently shaped. After Alder.





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W West. imp.

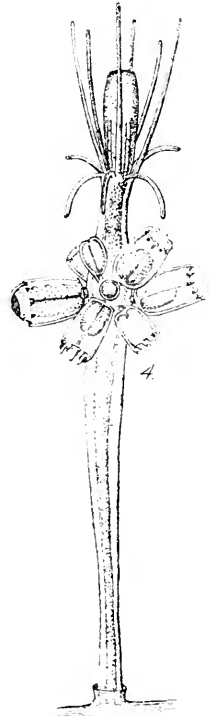
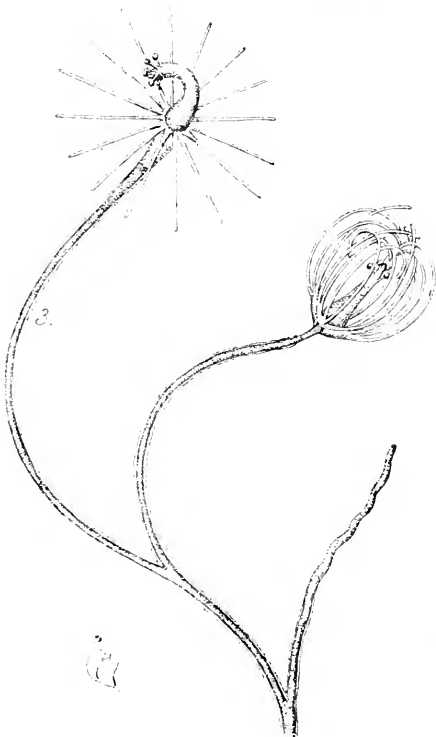
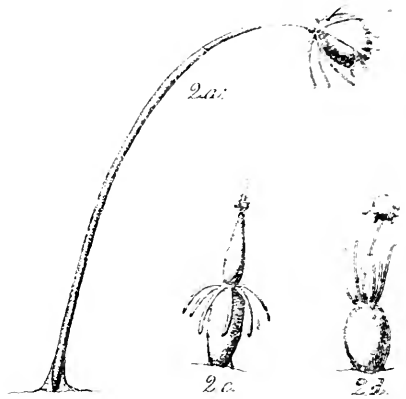
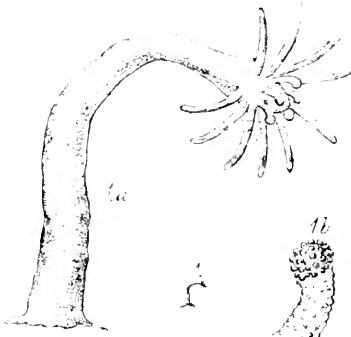




PLATE XXIII.

FIG.

1. VORTICLAVA HUMILIS, p. 132, nat. size.  
1 *a*. The same, magnified.—1 *b*. One of the capitate tentacles, much enlarged. After Alder.
2. VORTICLAVA PROTEUS, p. 133, contracted.  
2 *a*, 2 *b*, 2 *c*, 2 *d*. The same, in different states.—2 *e*. Diagram of the tissues of the polypite. After Dr. Strethill Wright.
3. ACHARADRIA LARYNX, p. 134, magnified.  
3 *a*. An immature polypite. After Dr. Wright.
4. PODOCORYNE PROBOSCIDEA, p. 317 (Appendix), highly magnified.  
4 *a*. A gonophore.—4 *b*. The oral extremity of the proboscis of the polypite.—4 *c*. A tentacle when contracted.—4 *d*. One of the marginal tentacles of the gonozooid: all magnified. From drawings by the Author.



Tuffien West sculp.

W. West imp.



PLATE XXIV.

FIG.

1. *CLYTIA JOHNSTONI*, p. 143, magnified.

1 *a*. The gonozoid.

2. *CAMPANULARIA VOLUBILIS*, p. 160, magnified.

3. *CAMPANULARIA HINCKSI*, p. 162, magnified.

3 *a*. Ditto, with the capsule, magnified.







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W. West. imp.

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PLATE XXV.

FIG.

1. *OBELIA GENICULATA*, p. 149, nat. size.

1 *a.* A shoot, magnified.

2. *GONOTHYRÆA LOVÉNI*, p. 181, nat. size.

2 *a.* A shoot, magnified, bearing female gonophores.

2 *b.* A capsule, with male gonophores, magnified.



Tuffen West sculp.

W. West imp.

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PLATE XXVI.

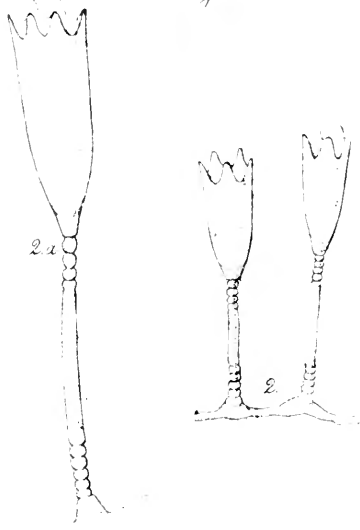
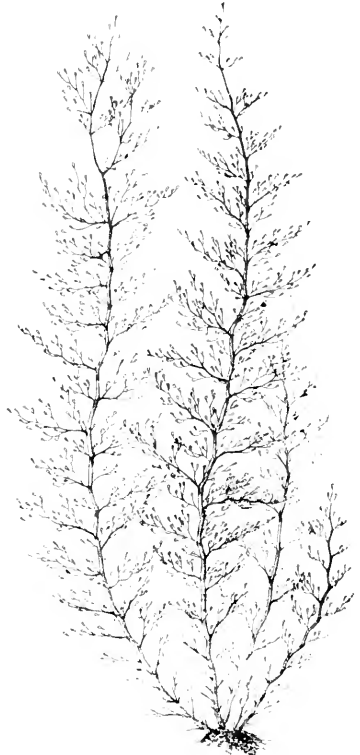
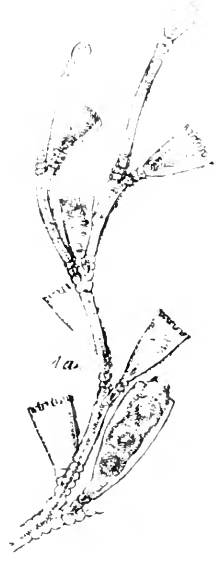
FIG.

1, 1'. *OBELIA GELATINOSA*, p. 151, nat. size.

1 *a*. A portion, magnified. From drawings by Mr. Tuffen  
West.

2, 2 *a*. *CAMPANULARIA RARIDENTATA*, p. 176, magnified.  
From drawings by Mr. Alder.





Tuffen West sculp.

W. West imp





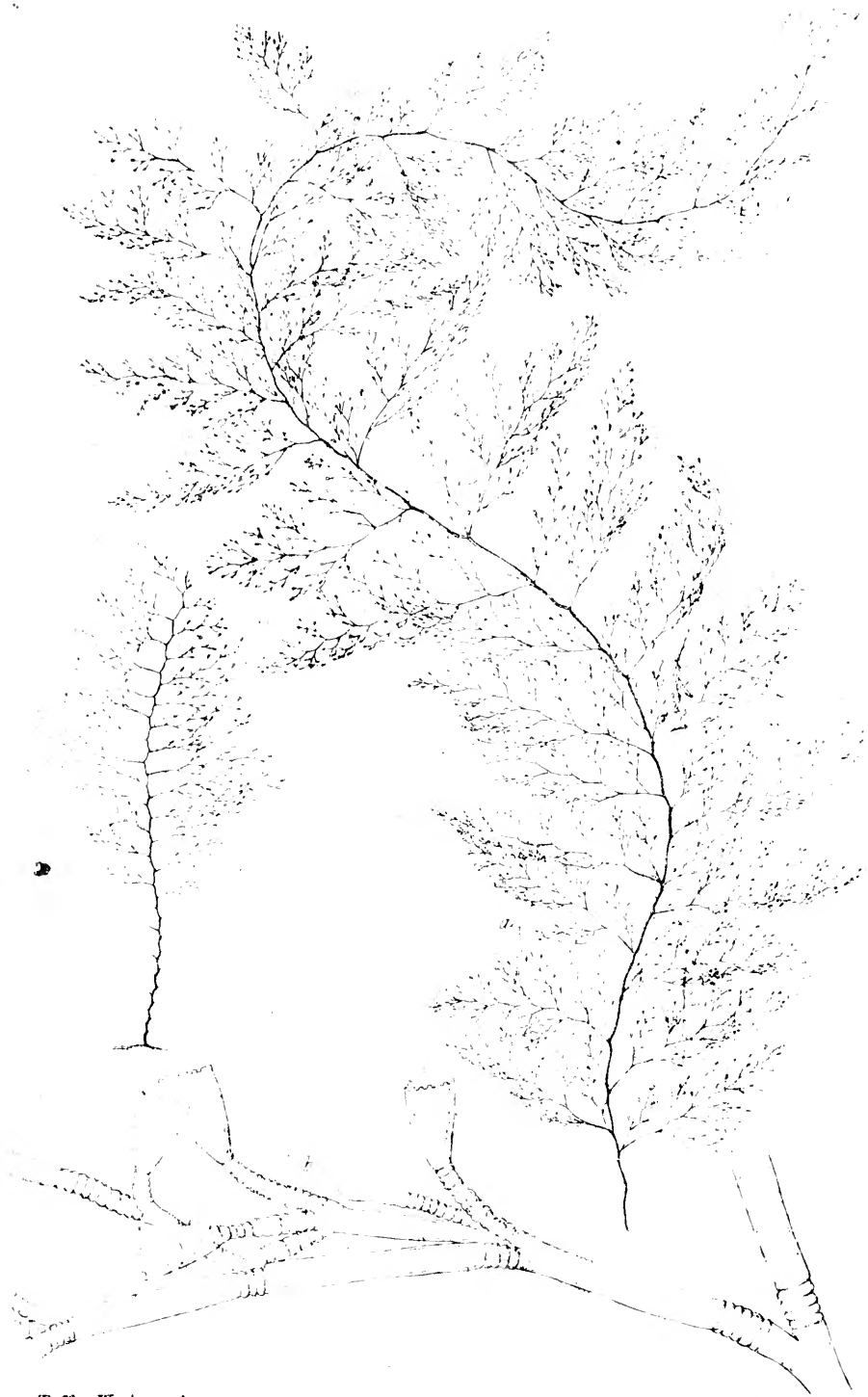
PLATE XXVII.

FIG.

OBELIA LONGISSIMA, p. 154.

*a.* Nat. size. From a drawing by Mr. T. West.

*b.* A portion enlarged (T. H.).



Tuffen West. sculp.

W. West imp.

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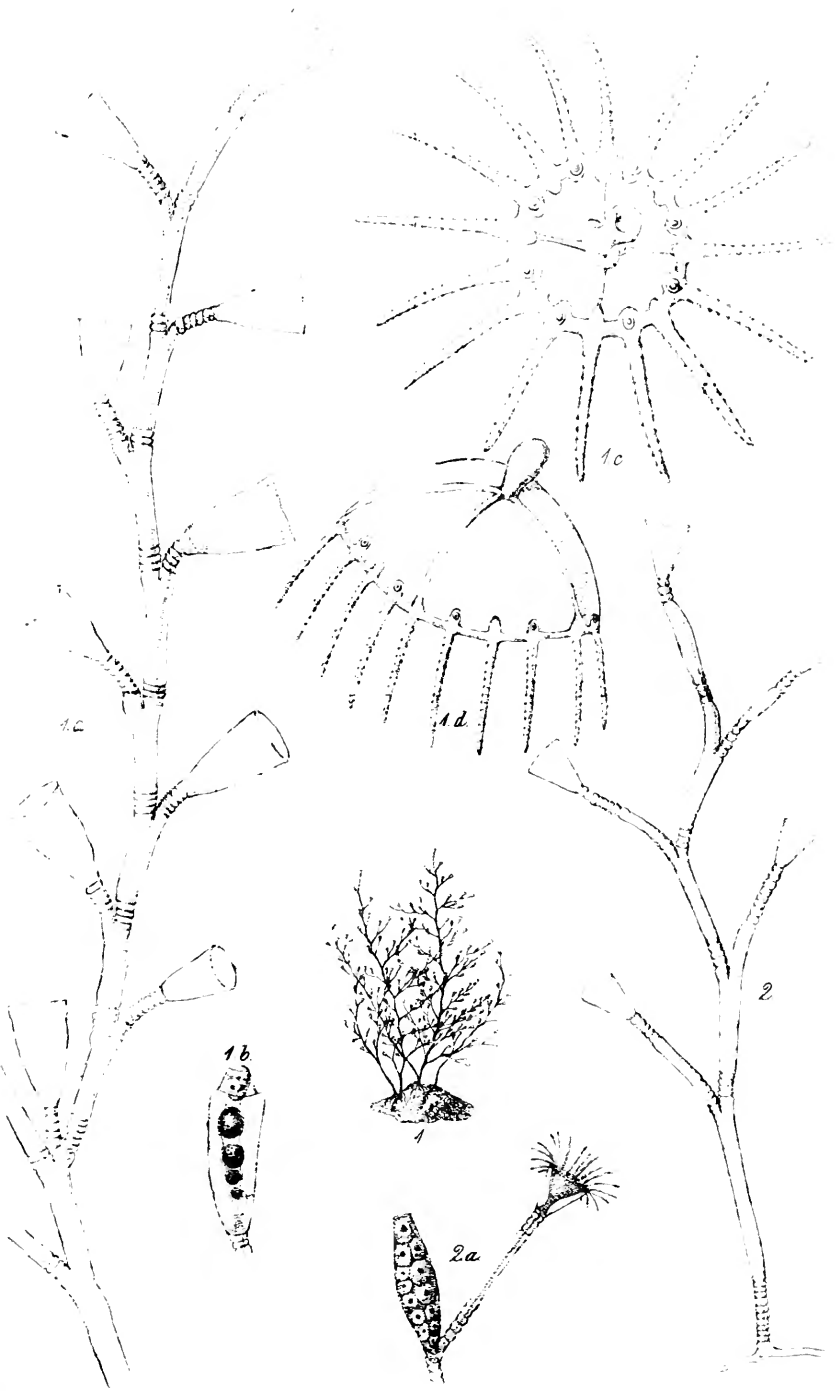


PLATE XXVIII.

FIG.

1. *OBELIA DICHOTOMA*, p. 156, nat. size. From a drawing by Mr. T. West.
  - 1 *a*. A shoot, magnified (T. H.).—1 *b*. A capsule, magnified (T. H.).—1 *c*, 1 *d*. The gonozoid. From drawings by Mr. Alder.
2. *CAMPANULARIA EXIGUA*, p. 172, a shoot, magnified (T. H.).
  - 2 *a*. The gonotheca. After Gegenbaur.





ffen West sculp.

W. West imp.





PLATE XXIX.

FIG.

OBELIA FLABELLATA, p. 157.

*a, b.* Nat. size. From drawings by Mr. Tuffen West.

*c.* A shoot, magnified (T. II.).



Tuffen West. sculp.

W. West. imp.

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PLATE XXX.

FIG.

1. *OBELIA FLICATA*, p. 159, nat. size. From a drawing by Mr. Tuffen West.

1 *a*. A shoot, magnified (T. H.).

2. *CAMPANULARIA NEGLECTA*, p. 171, a single calycle, magnified.

2 *a*. A portion, magnified, showing the polypite. From drawings by Mr. Alder.—2 *b*, 2 *c*. The gonotheca, magnified (T. H.).—2 *d*. The same, with extracapsular marsupium (T. H.).





Tuffen West. sculp.

W. West sculp.

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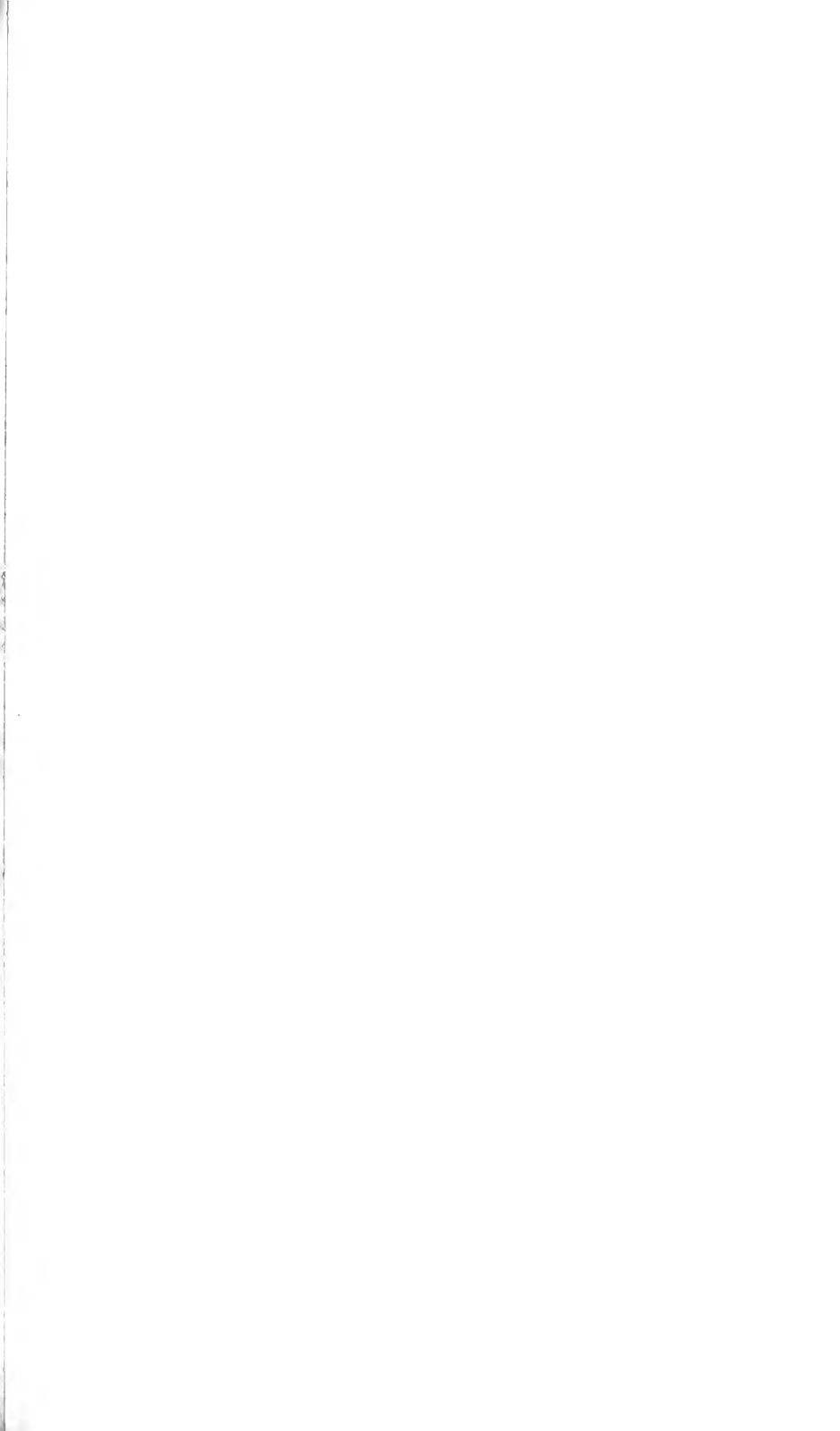
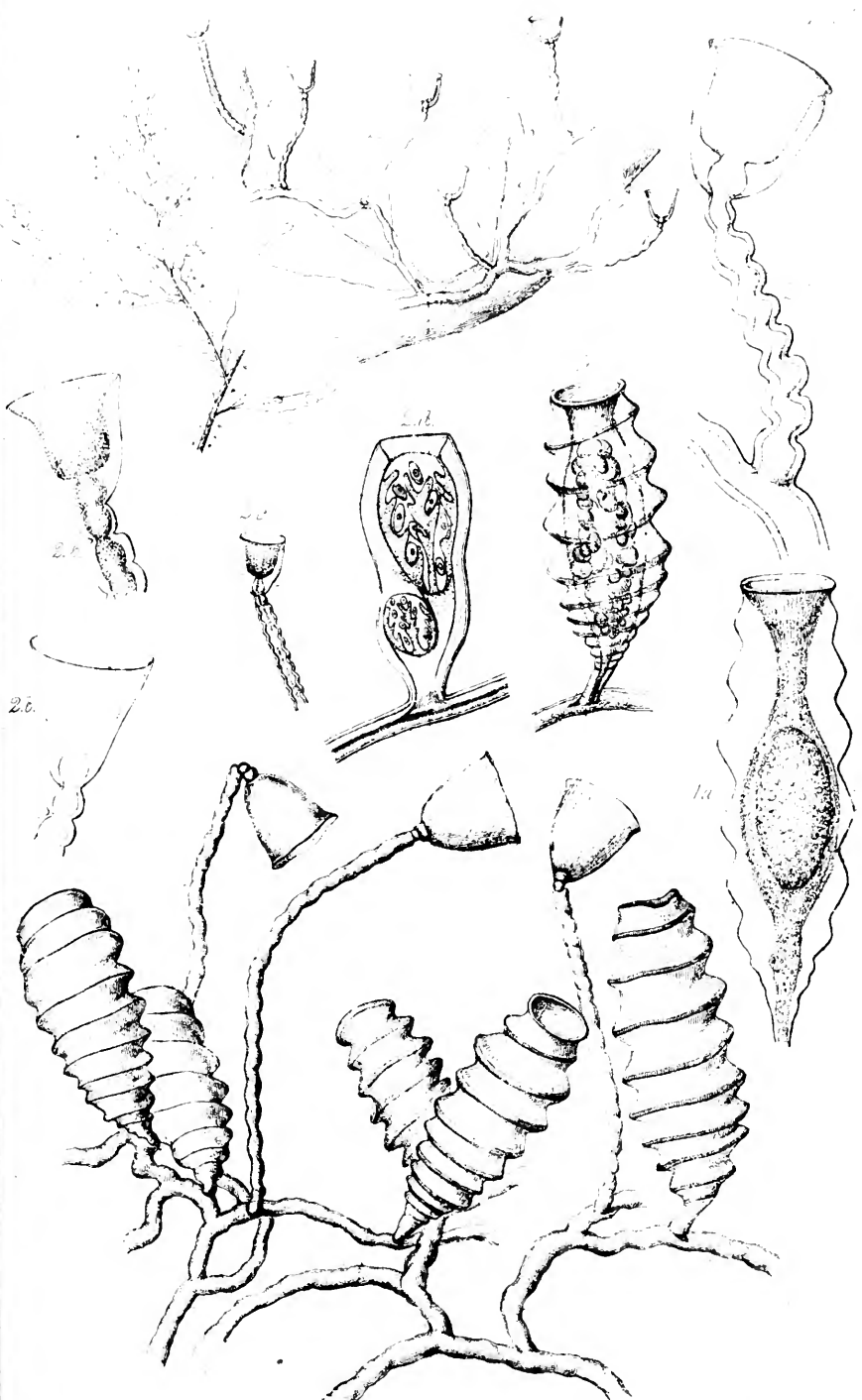


PLATE XXXI.

FIG.

1. *CAMPANULARIA INTEGRATA*, p. 163, magnified. After Tuffen West.  
*1 a, 1 b.* The gonotheca, magnified to show the internal structure (T. II.).
  
2. *CAMPANULARIA CALICULATA*, p. 164, on red weed, nat. size.  
*2 a.* The same, magnified.—*2 b.* Calyces, highly magnified to show the structure and differences in shape. After Tuffen West.—*2 c.* A calycle, drawn to the Author's scale for comparison with other species (T. II.).—*2 d.* The gonotheca, magnified. After Allman.



Tuffen. West sculp.

W. West imp.

London. John Van Voorst MDCCCLXIX



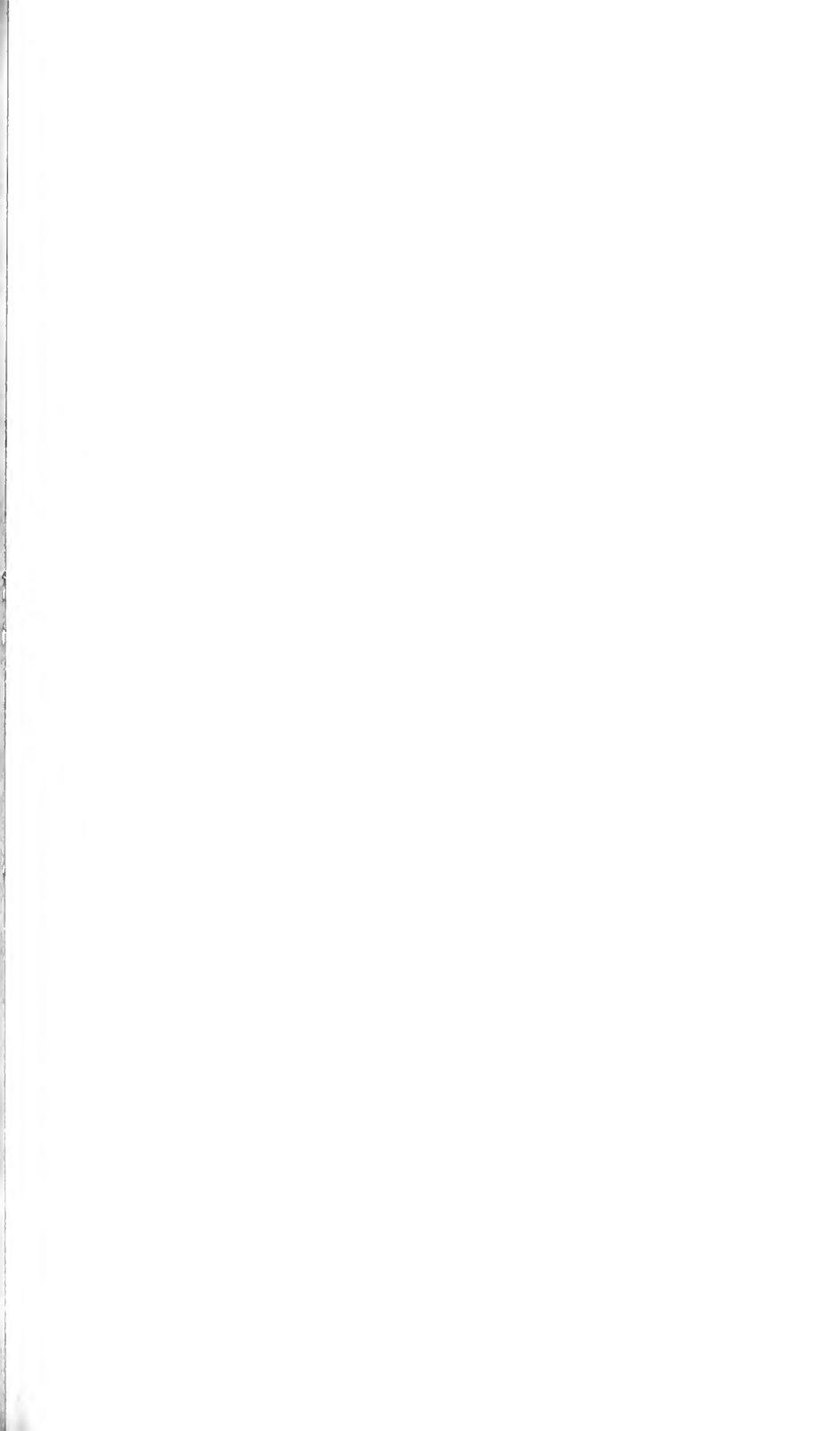
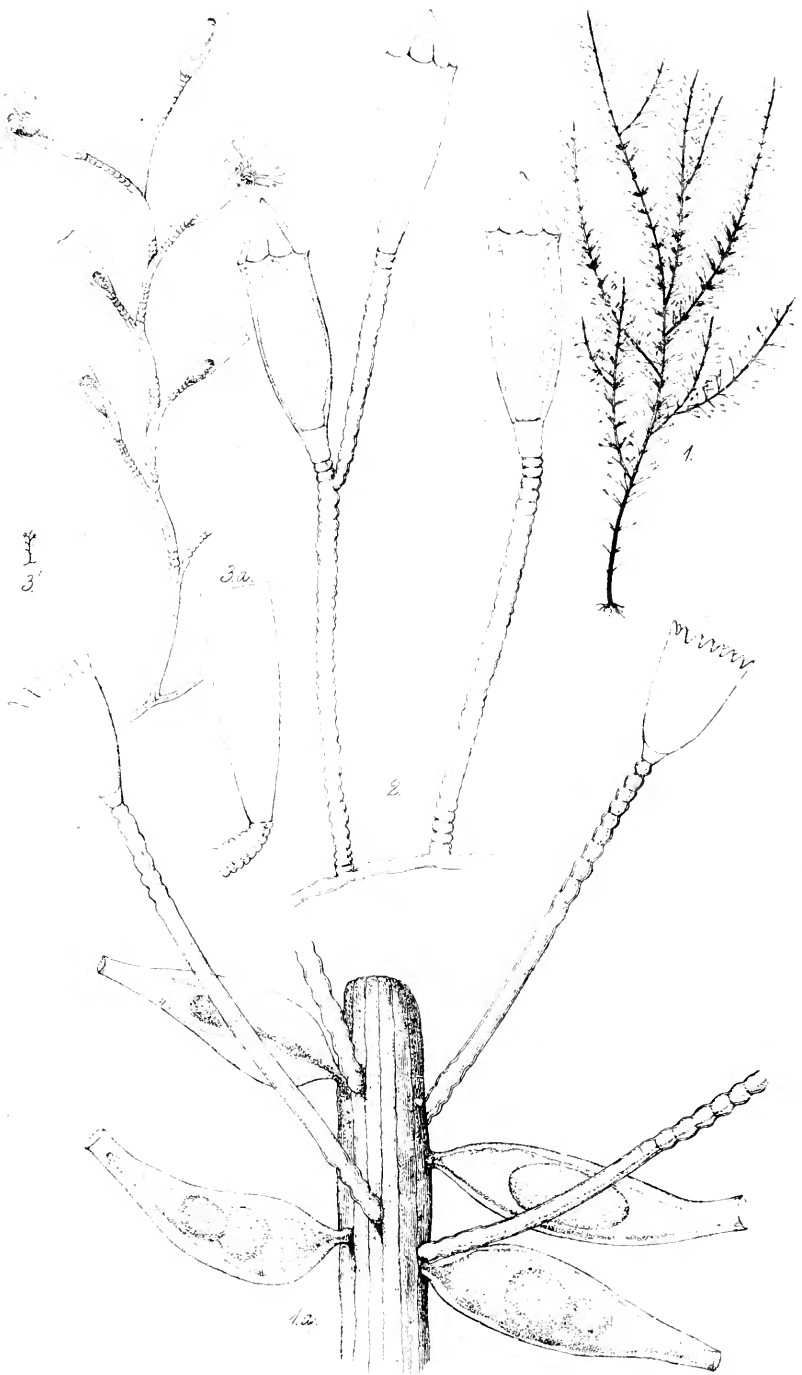


PLATE XXXII.

FIG.

1. *CAMPANULARIA VERTICILLATA*, p. 167, nat. size. From a drawing by Mr. Tuffen West.  
1 *a*. The same, magnified (T. H.).
2. *LOVENELLA CLAUSA*, p. 177, magnified. From a drawing by the Author.
3. *CAMPANULARIA?* *FRAGILIS*, p. 175, nat. size.  
3 *a*. A shoot of the same, magnified.—3 *b*. A single caly-  
cle, more highly magnified. From drawings by  
the Author.





Tuffen West sculp.

W. West imp.

London. John Van Voorst. MDCCCLXIX.



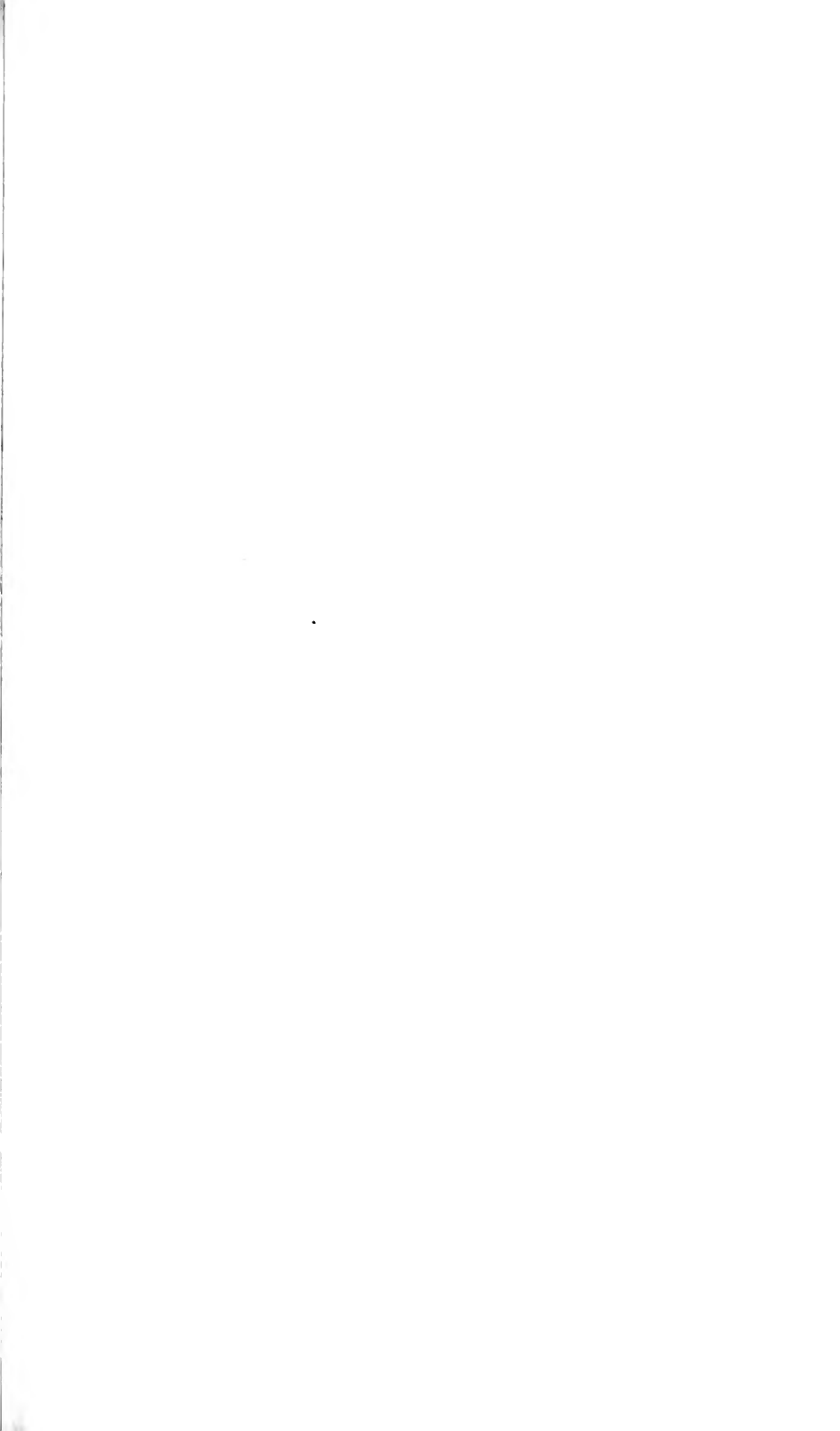


PLATE XXXIII.

FIG.

CAMPANULARIA FLEXUOSA, p. 168.

- a.* Natural size.
- b.* A shoot, magnified, bearing male capsules.
- c.* A shoot with female capsules.



ffen West. sculp.

W West. imp.

London, John Van Voorst MDCCLXIX





PLATE XXXIV.

FIG.

1. *CAMPANULARIA ANGULATA*, p. 170, nat. size.  
1 *a*. A portion, magnified. After Tuffen West.

2. *LEPTOSCYPHUS TENUIS*, p. 197, magnified. From a  
drawing by Prof. Allman.





Tuffen West. sculp.

W. West imp.

London. John Van Voorst. MDCCCLXIX.





PLATE XXXV.

FIG.

1. *CAMPANULARIA?* *GIGANTEA*, p. 174, nat. size.

1 *a*, 1 *b*. Calyces magnified. These two figures are drawn to the same scale.

2. *GONOTHYREA?* *HYALINA*, p. 184, nat. size.

2*a*. A shoot, magnified.



2

2a

2b

Tuffen West sculp.

W West imp



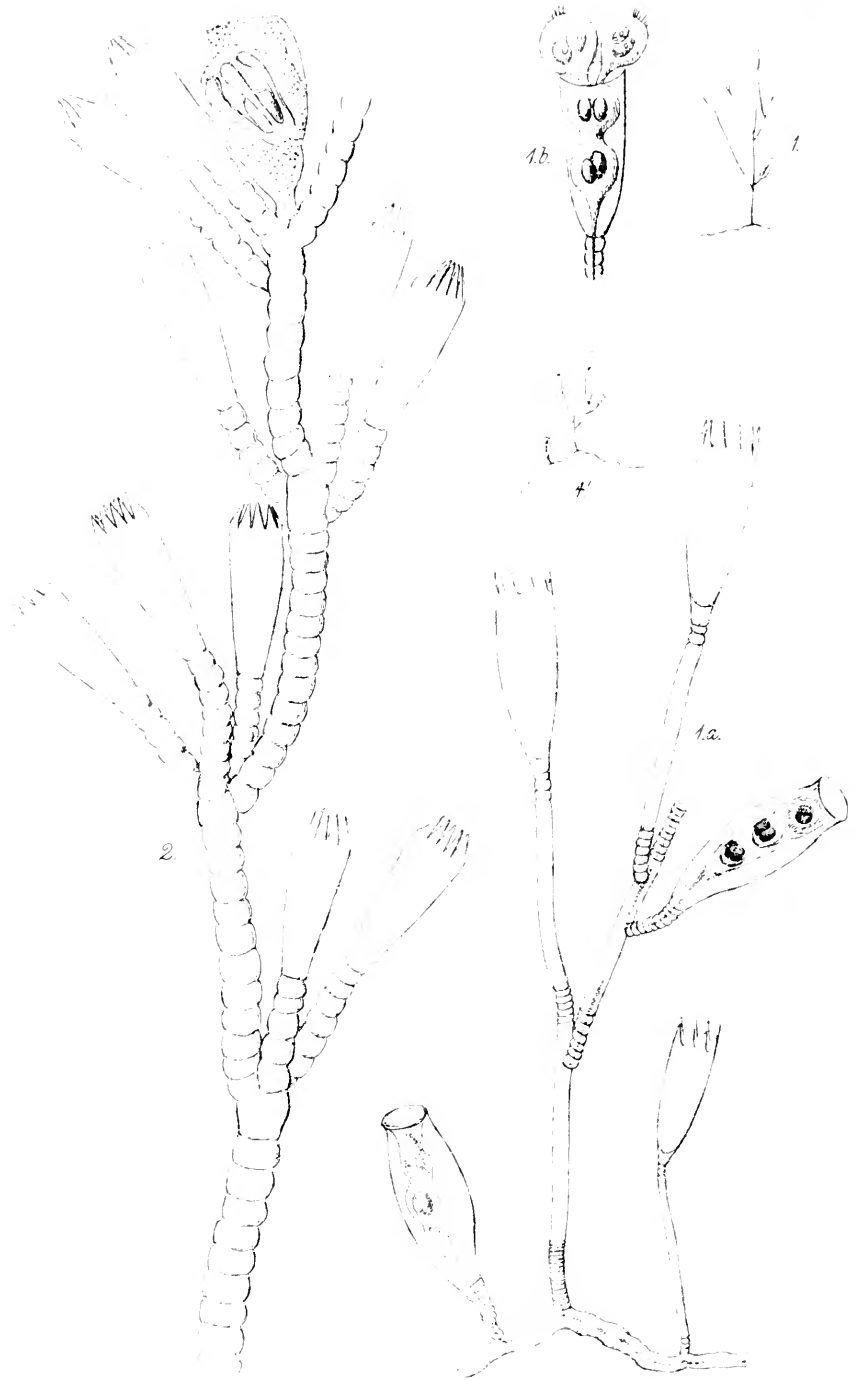


PLATE XXXVI.

FIG.

1. *GONOTHYRÆA GRACILIS*, p. 183, nat. size.
  - 1 *a*. The same, magnified. From drawings by the Author.
  - 1'. *G. GRACILIS*, nat. size. After Sars.—1 *b*. The gonotheca (female). After Sars.
2. *CAMPANULINA TURRITA*, p. 190, magnified. From a drawing by Prof. Wyville Thomson.





Tuffen West. sculp.

W. West imp

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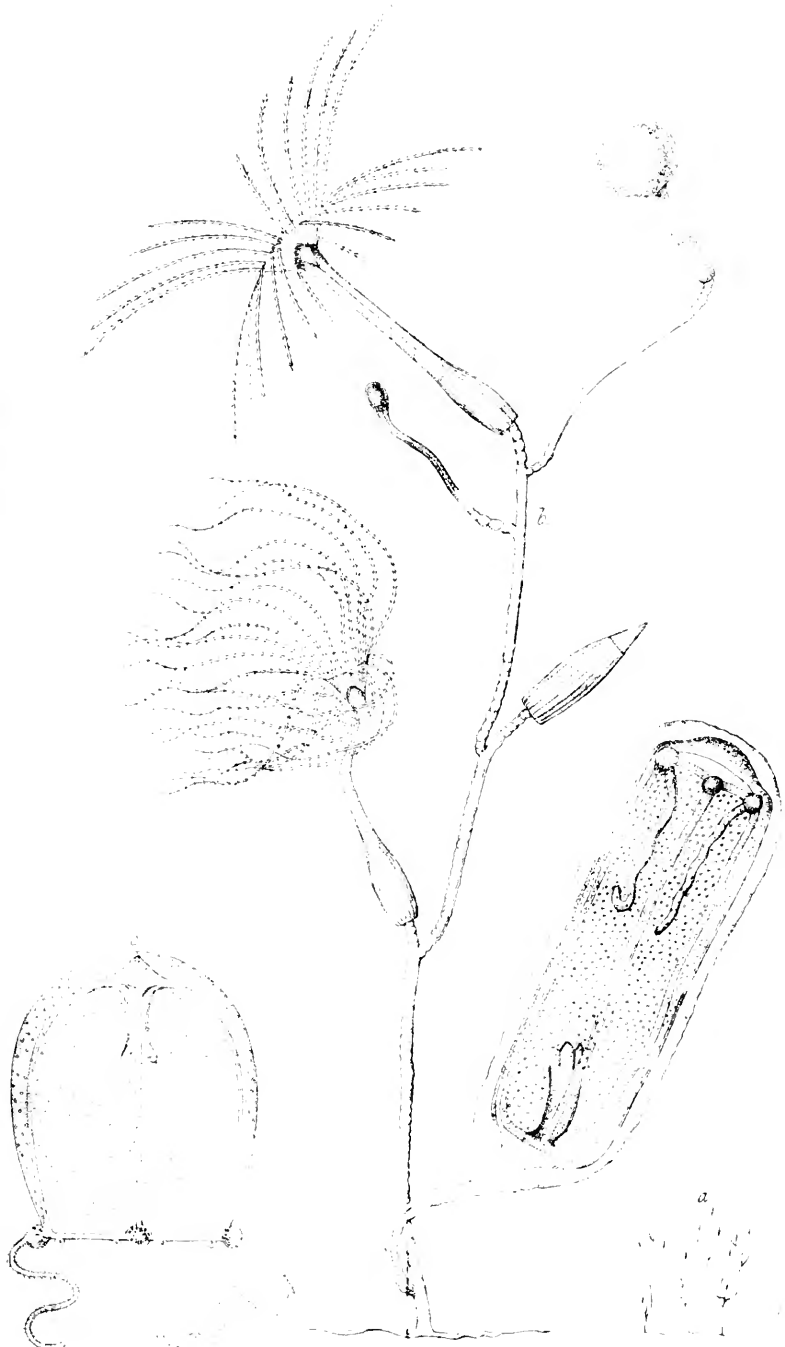


PLATE XXXVII.

FIG.

CAMPANULINA ACUMINATA, p. 187.

*a.* Nat. size.—*b.* A shoot, magnified.—*c.* The gonozoid.  
After Dr. Strethill Wright.



Tuffen West. sculp.

W. West imp.

London. John Van Voorst MDCCCLXIX.



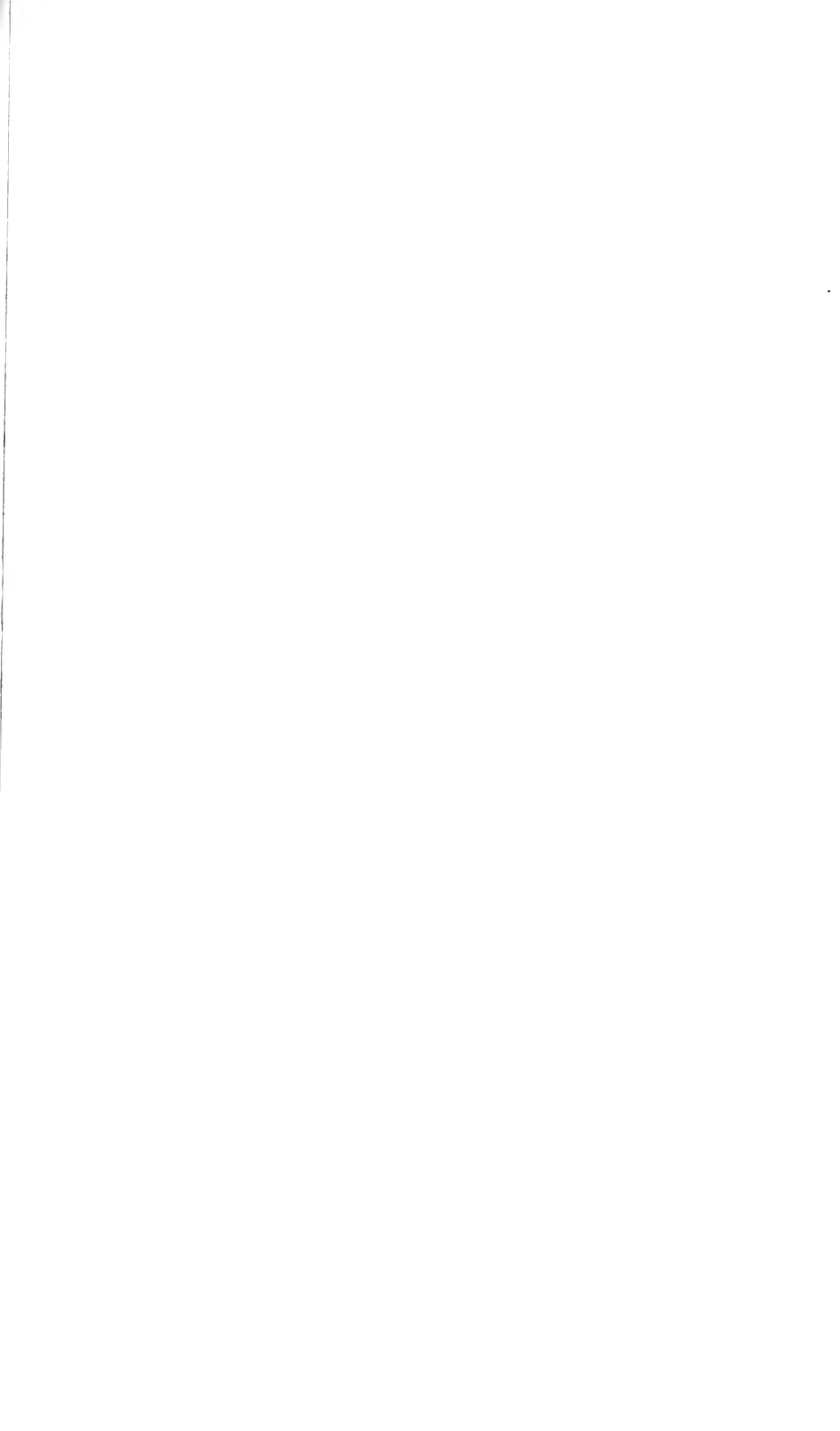


PLATE XXXVIII.

FIG.

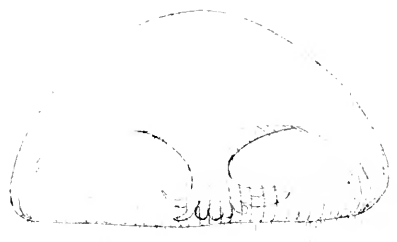
1. *CAMPANULINA REPENS*, p. 189, magnified.

1 *a*. The gonozooid. From drawings by Prof. Allman.

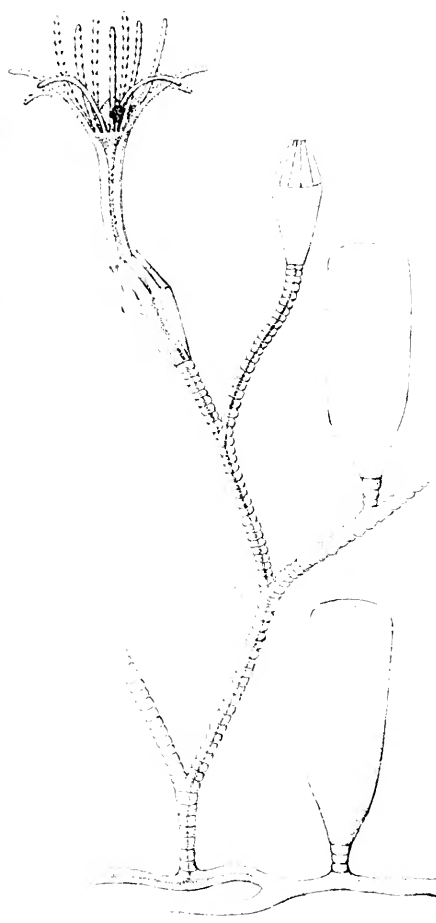
2. *ZYGODACTYLA VITRINA*, p. 192, the polypites, magnified.  
After Wright.

2 *a*. The gonozooid. After Gosse.—2 *b*. The oral extremity of the manubrium, magnified, showing the fimbriated lips. After Gosse.





2a



Tuffen West. sculp.

W. West. imp.



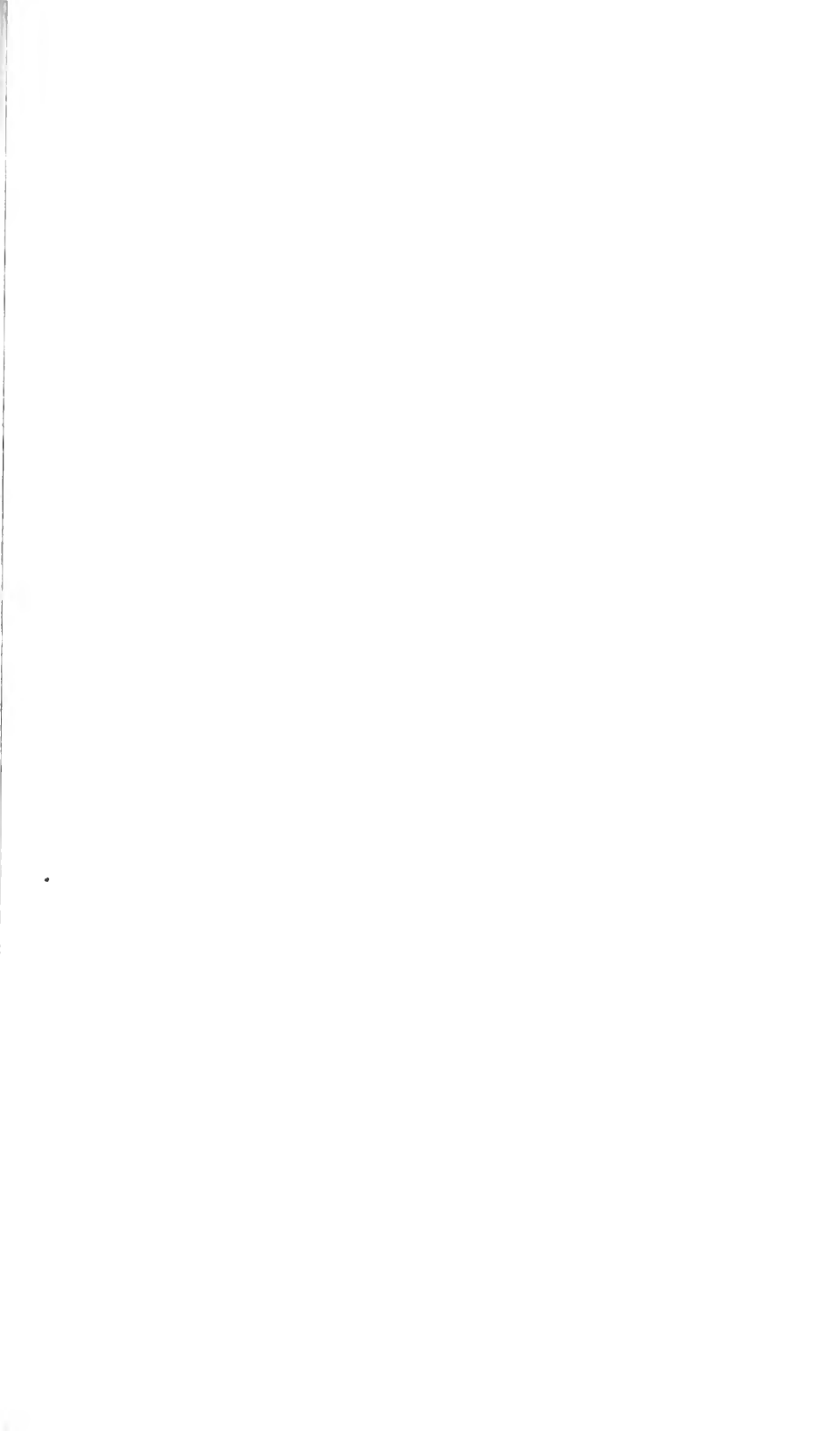
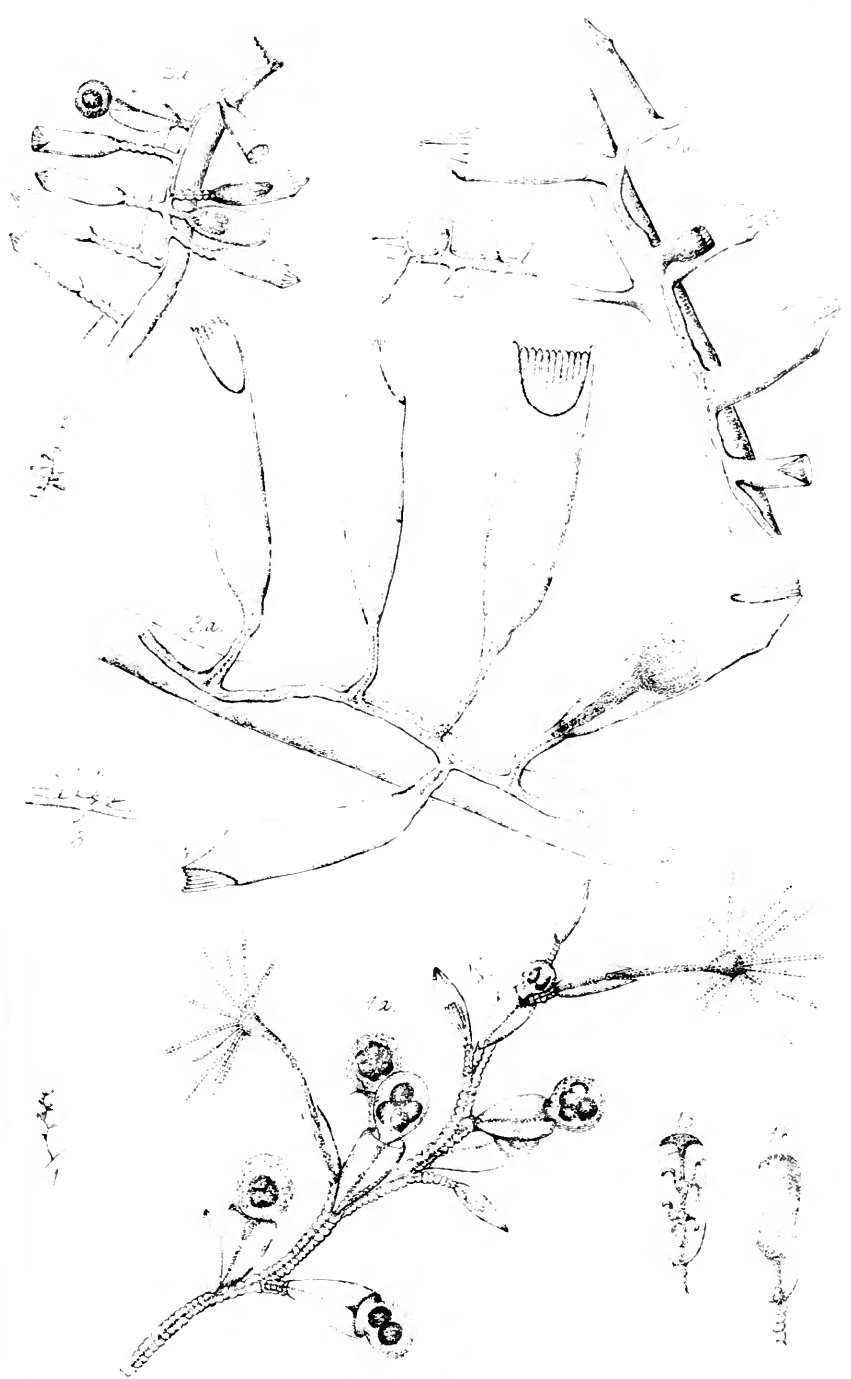


PLATE XXXIX.

FIG.

1. OPERCULARELLA LACERATA, p. 194, nat. size.  
1*a*. A shoot, magnified. The Author.—1*b*, 1*c*. The male capsules. After Wright.
2. CALYCELLA SYRINGA, p. 206, nat. size.  
2*a*. The same, magnified.
3. CALYCELLA FASTIGIATA, p. 208, nat. size.  
3*a*. The same, magnified.
4. CUSPIDELLA HUMILIS, p. 209, magnified to the same scale as the preceding.  
4*a*. The same, more highly magnified.



Tuffen West sculp.

W. West imp.





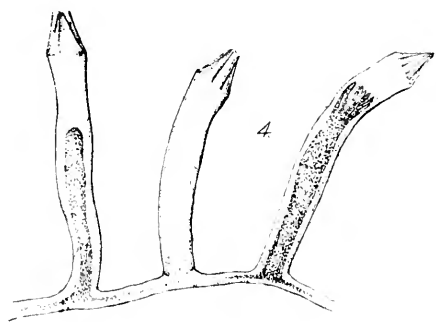
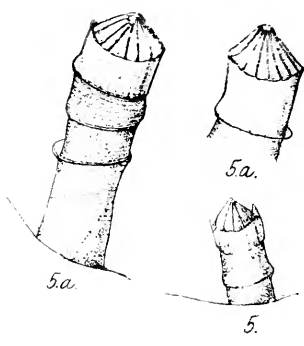
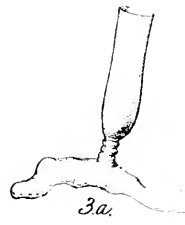
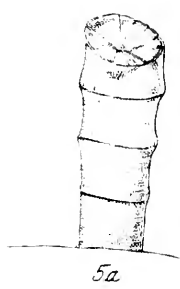
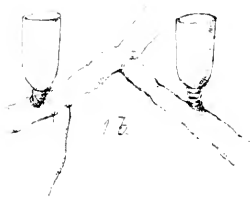
PLATE XL.

FIG.

1. LAFOËA PARVULA, p. 203, nat. size.  
1 *a*, 1 *b*. The same, magnified. After Tuffen West.
2. LAFOËA POCILLUM, p. 204, magnified.—2 *a*, 2 *b*, 2 *c*. The same, more highly magnified.
3. LAFOËA PYGMÆA, p. 205, magnified.  
3 *a*, 3 *b*. The same, more highly magnified.
4. CUSPIDELLA GRANDIS, p. 210, highly magnified\*.
5. CUSPIDELLA COSTATA, p. 210, drawn to the same scale as CUSPIDELLA GRANDIS.  
5 *a*. The same, more highly magnified.

\* This figure is drawn to the same scale as the larger figure (4 *a*) of CUSPIDELLA HUMILIS on Plate XXXIX.





Tuffen West sculp.

W. West imp

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PLATE XLI.

FIG.

1. *LAFOEA DUMOSA*, p. 200, magnified.
  - 1 *a.* The same, a single calycle, more highly magnified (T. H.)
2. *LAFOËA FRUTICOSA*, p. 202, nat. size. After Alder.
  - 2 *a.* A portion, magnified (T. H.).—2 *b.* The northern form of *L. fruticosa*, magnified (T. H.).
3. *SALACIA ABRETINA*, p. 212, nat. size.
  - 3 *a.* The same, magnified.—3 *b.* A portion of the stem, more highly magnified. After Alder.
4. *FILELLUM SERPENS*, p. 214, magnified.
  - 4 *a.* A group of calycles. From drawings by Mr. Alder.—
  - 4 *b.* A single calycle. From a sketch by Mr. Busk.
5. *COPPINIA ARCTA*, p. 219, nat. size. From a drawing by the Author.



Tuffen West soulp.

W West imp

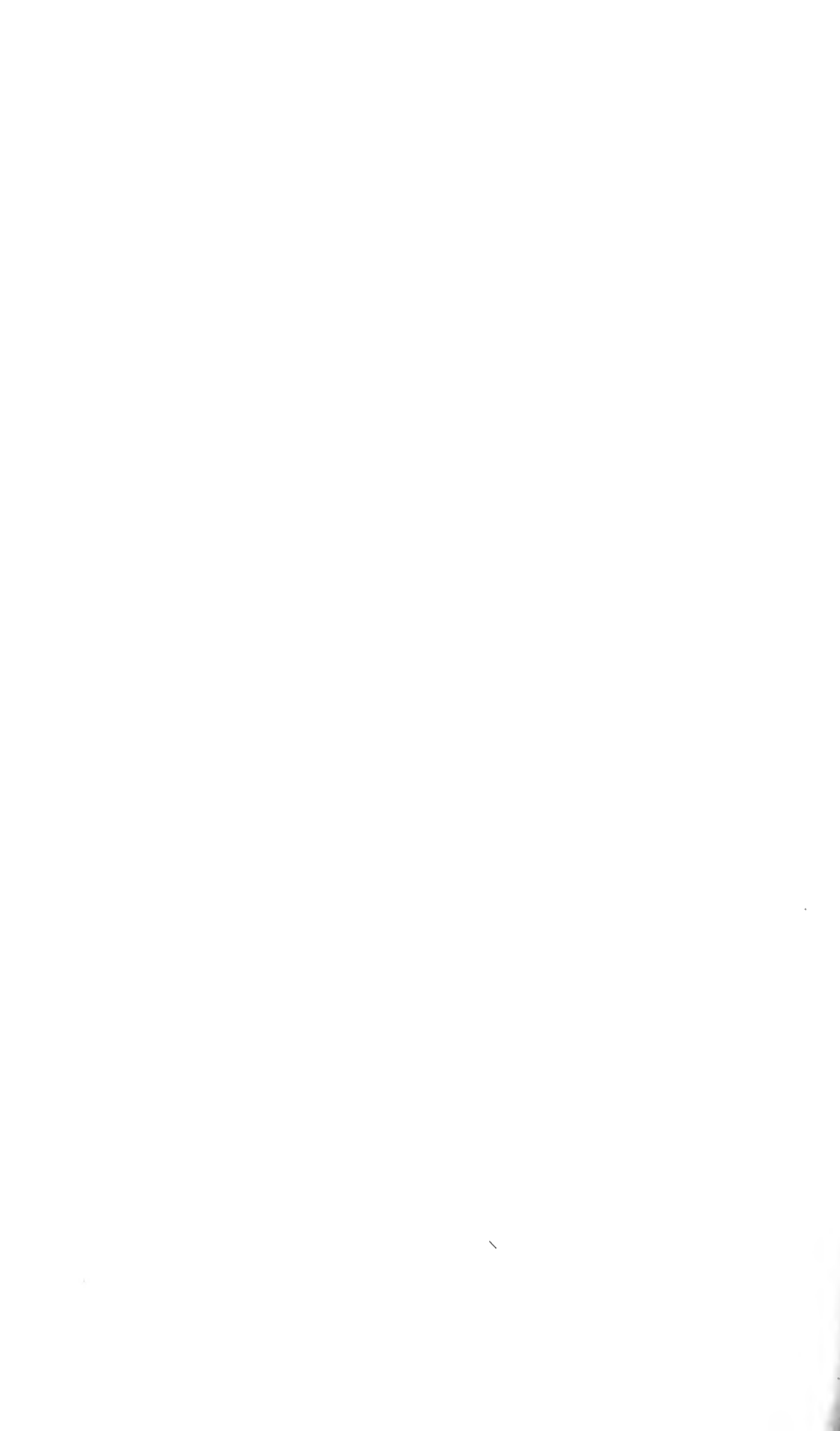




PLATE XLII.

FIG.

HALECIUM HALECINUM, p. 221.

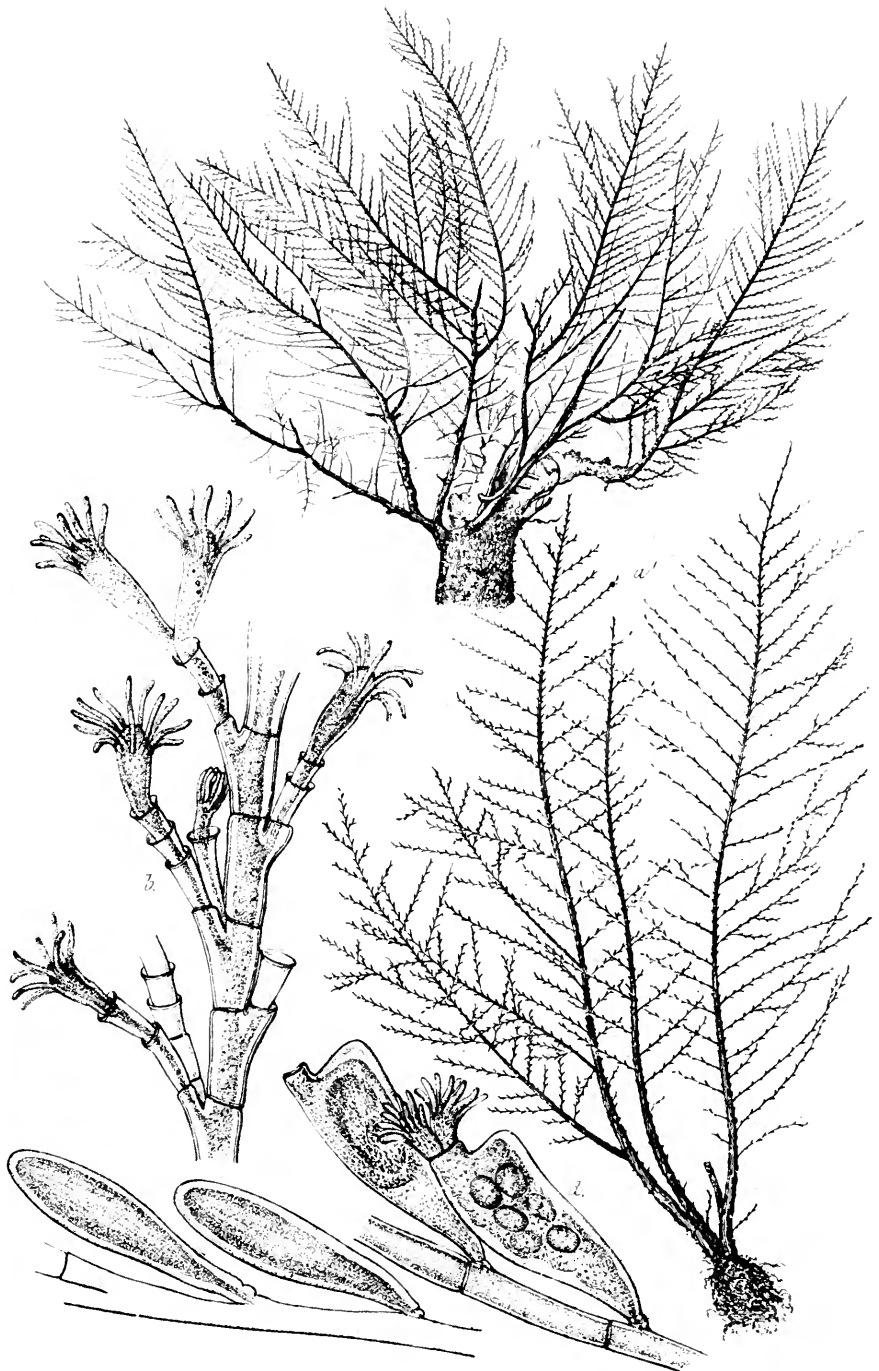
*a, a'*. Nat. size. From drawings by Mr. T. West.

*b*. A portion, magnified, showing the polypites.

*c*. Capsules with male gonophores.

*d*. Capsules with female gonophores. From drawings by  
the Author.





Tuffen West. sculp.

W. West. imp.

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PLATE XLIII.

FIG.

1. *HALECIUM MURICATUM*, p. 223, nat. size. From a drawing by Mr. T. West.  
*1 a.* Portions, magnified (T. H.).—*1 b.* Gonotheca (T. West).
2. *HALECIUM BEANII*, p. 224, nat. size. From a drawing by Mr. Tuffen West.  
*2 a.* Portions, magnified.—*2 b.* A branch with male capsules.—*2 c.* A branch with female capsules. From drawings by the Author.



Tuffen West. sculp

W. West imp.





PLATE XLIV.

FIG.

1. *HALECIUM LABROSUM*, p. 225, nat. size.

1 *a*. A portion, magnified, with male capsules. After Alder.

2. *HALECIUM SESSILE*, p. 229, nat. size.

2 *a*. A portion, magnified, showing the great length of the polypite. From drawings by Mr. Alder.

3. *HALECIUM BEANII* (?), p. 324 (Appendix), nat. size.

3 *a*. A portion of the stem, enlarged.—3 *b*. A capsule.—

3 *c*. A single calycle, more highly magnified. From drawings by the Author.





Tuffen West. sculp.

W. West. imp.





PLATE XLV.

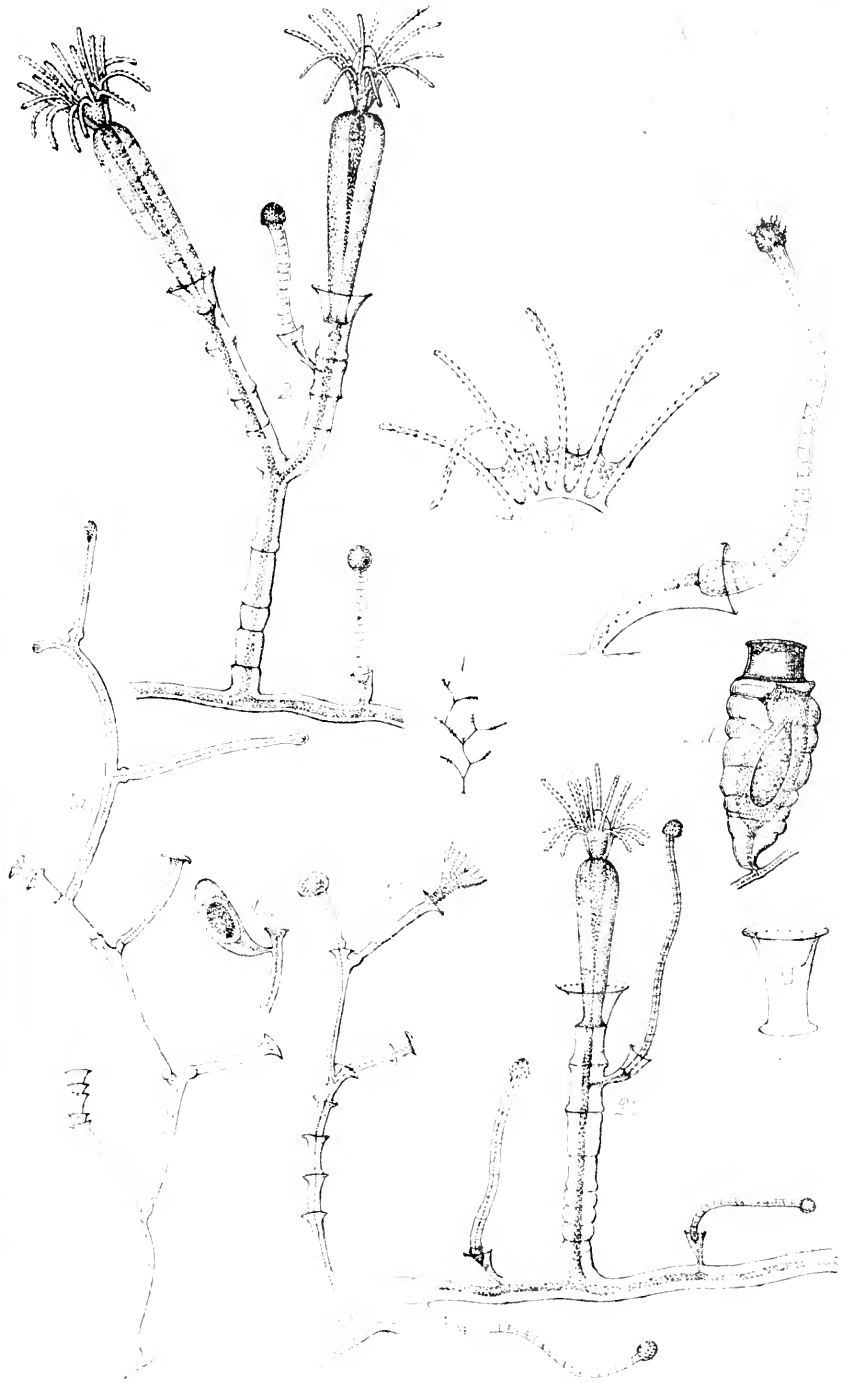
FIG.

1. *HALECIUM TENELLUM*, p. 226, nat. size.

1 *a*, 1 *b*. Portions, magnified.—1 *c*. The gonotheca.

2, 2'. *OPHIODES MIRABILIS*, p. 231, magnified.

2 *a*. One of the snake-like appendages.—2 *b*. A portion of the intertentacular web, with clusters of thread-cells between the arms.—2 *c*. A calycle, magnified, showing the diaphragm on which the polypite rests.—2 *d*. The gonotheca.



Tuffen West sculp.

W. West imp.

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PLATE XLVI.

FIG.

1. SERTULARELLA POLYZONIAS, p. 235, nat. size. From a drawing by Mr. T. West.

1 *a*. A portion, magnified (T. H.).—1 *b*. The gonotheca (T. H.).

2. SERTULARELLA GAYI, p. 237, nat. size.

2 *a*. A portion, enlarged. From drawings by Mr. Alder.





Tuffen West sculp.

W. West imp.

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PLATE XLVII.

FIG.

1. SERTULARELLA TRICUSPIDATA, p. 239, nat. size.

1 *a*. The same, enlarged. After Alder.

2. SERTULARELLA RUGOSA, p. 241, nat. size.

2 *a*. The same, magnified.—2 *b*. A portion, more highly magnified. From drawings by Mr. Tuffen West.

3. SERTULARELLA TENELLA, p. 242, nat. size.

3 *a*. The same, magnified.—3 *b*. A single calycele, more highly magnified.—3 *c*. The gonotheca. After Alder.

4. SERTULARELLA FUSIFORMIS, p. 243, nat. size.

4 *a*. A portion, magnified.—4 *b*. The gonotheca. From drawings by the Author.



Tuffen West sculp.

W. West imp.

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PLATE XLVIII.

FIG.

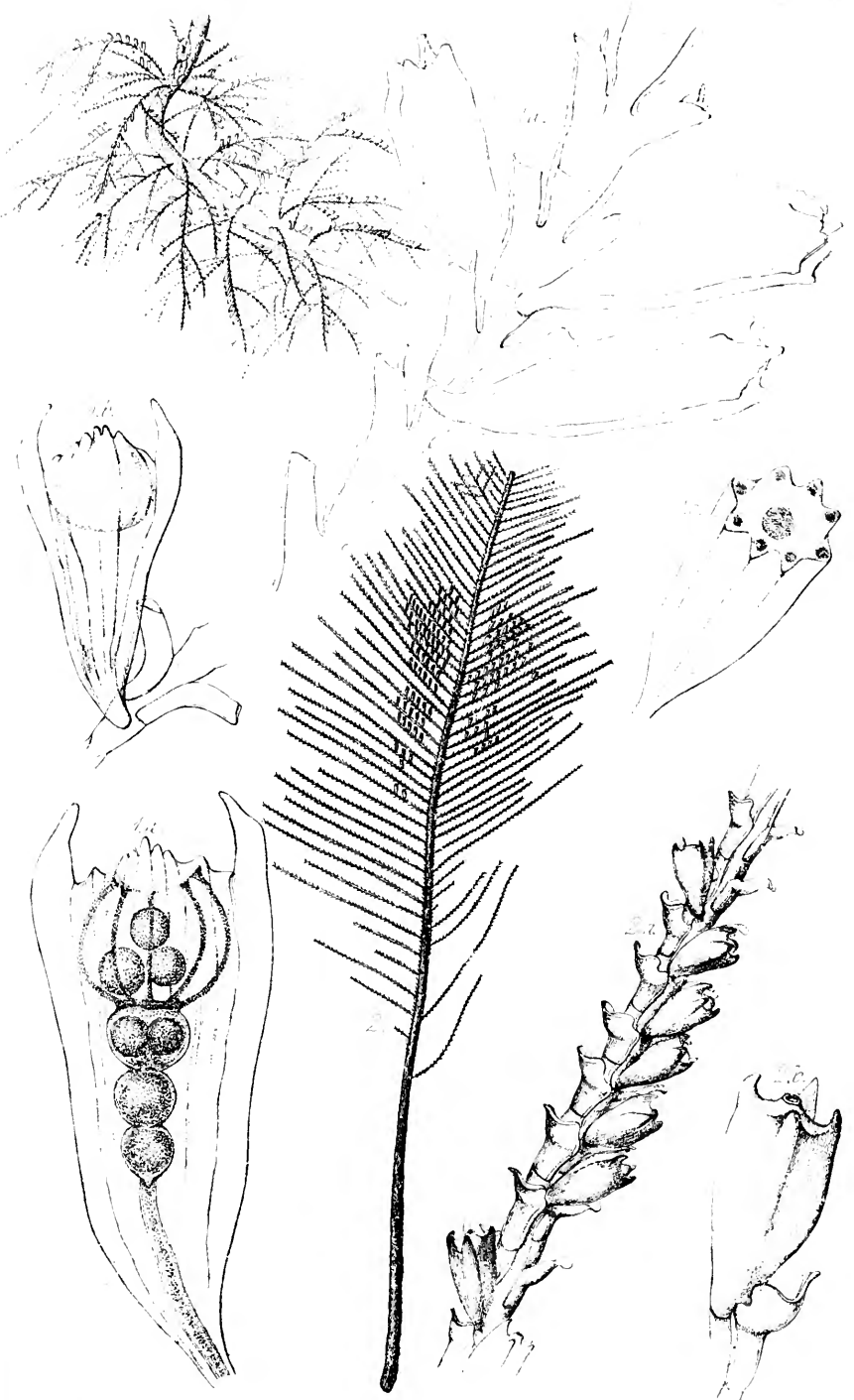
1. *DIPHASIA ROSACEA*, p. 245, nat. size.

1 *a*. A portion with male capsules, magnified. From drawings by Mr. Tuffen West.—1 *b*. Female capsule, magnified (T. H.). Ditto, more highly magnified to show the gonophores and internal marsupium (T. H.).—1 *c*. A capsule in an early stage of development (T. H.).

2. *DIPHASIA ALATA*, p. 258, nat. size.

2 *a*. A branch, magnified. — 2 *b*. The capsule (male).  
After Tuffen West.





Tuffen West sculp.

W. West imp.

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PLATE XLIX.

FIG.

1. *DIPHASIA ATTENUATA*, p. 247, nat. size.

1 *a.* Part of a branch, magnified.—1 *b.* The male capsule.  
1 *c.* The female capsule.—1 *d.* One of the tendril-  
like extremities of the shoots.

2. *DIPHASIA FALLAX*, p. 249, nat. size.

2 *a.* Part of a branch, magnified.—2 *b.* The capsule (female).



Tuffen West. sculp.

W. West mp





PLATE I.

FIG.

1. *DIPHASIA PINASTER*, p. 252, nat. size.

1 *a*. A portion bearing a male capsule, magnified.—1 *b*. The female capsule, magnified.

2. *SERTULARIA FUSCA*, p. 272, nat. size.

2 *a*. Calyces, magnified.—2 *b*. Gonothecæ. The last figure is after Johnston.





Tuffen West. sculp.

W West. imp

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PLATE LI.

FIG.

DIPHASIA TAMARISCA, p. 254.

- a.* Natural size.
- b.* Calyces, magnified.
- c.* A branch with male capsules.
- d.* A branch with female capsules.



Tuffen West sculp.

W. West imp.

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PLATE LII.

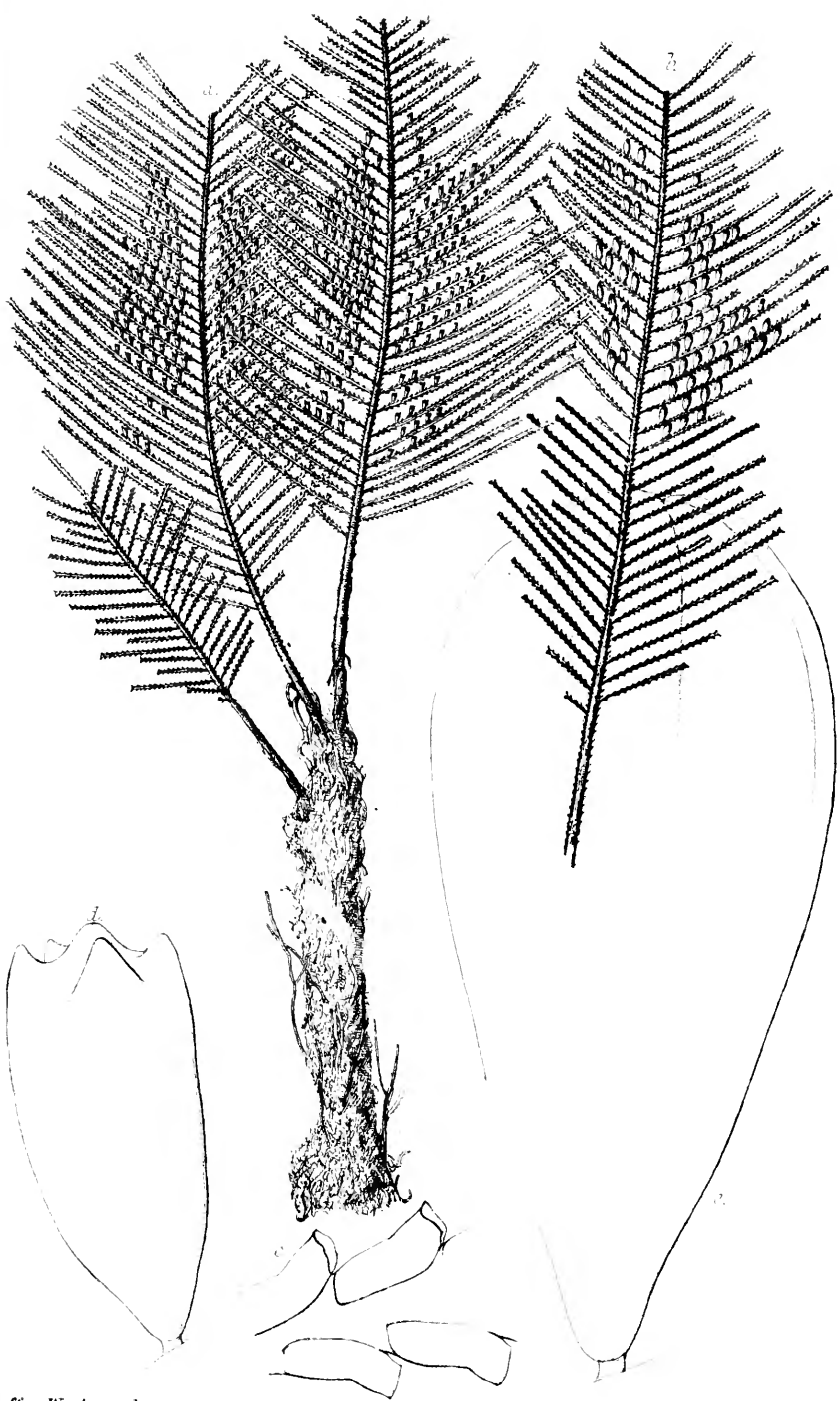
FIG.

DIPHASIA PINNATA, p. 255.

- a.* Natural size (male).
- b.* Ditto (female).
- c.* Calyces, magnified.
- d.* Male capsule.
- e.* Female capsule.

From drawings by Mr. Tuffen West.





Tuffen West. sculp.

W. West imp

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PLATE LIII.

FIG.

1. SERTULARIA PUMILA, p. 260, nat. size.

1 *a*. Portion, magnified.—1 *b*. The capsule, magnified.—  
1 *c*. The same, in a more advanced stage, with the  
external marsupium. After Lindström. The other  
figures are by the Author.

2. SERTULARIA GRACILIS, p. 262, nat. size.

2 *a*, 2 *a'*. Portions, enlarged.—2 *b*. The capsule. From  
drawings by the Author.

3. SERTULARIA FILICULA, p. 264, nat. size. From a draw-  
ing by Mr. T. West.

3 *a*. Portion, magnified (T. H.).—3 *b*. The capsule. After  
Ellis.



Tuffen West. sculp.

W. West imp.

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PLATE LIV.

FIG.

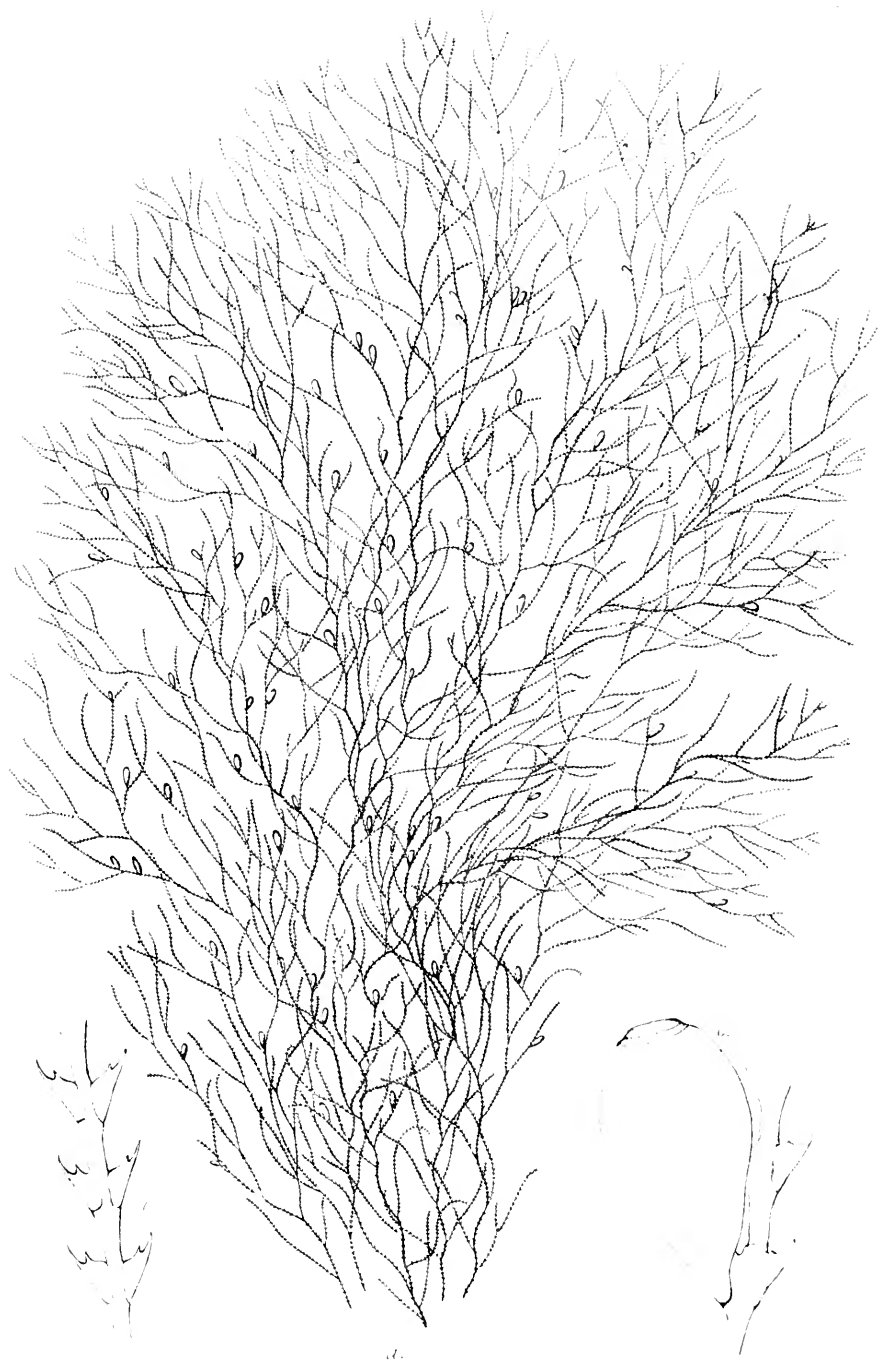
SERTULARIA OPERCULATA, p. 263.

*a.* Nat. size. From a drawing by Mr. Tuffen West.

*b.* Calyces, magnified (T. H.).

*c.* The capsule (T. H.).





11.

Tuffen West sculp.

W. West imp

London. John Van Voorst MDCCCLXIX





PLATE LV.

FIG.

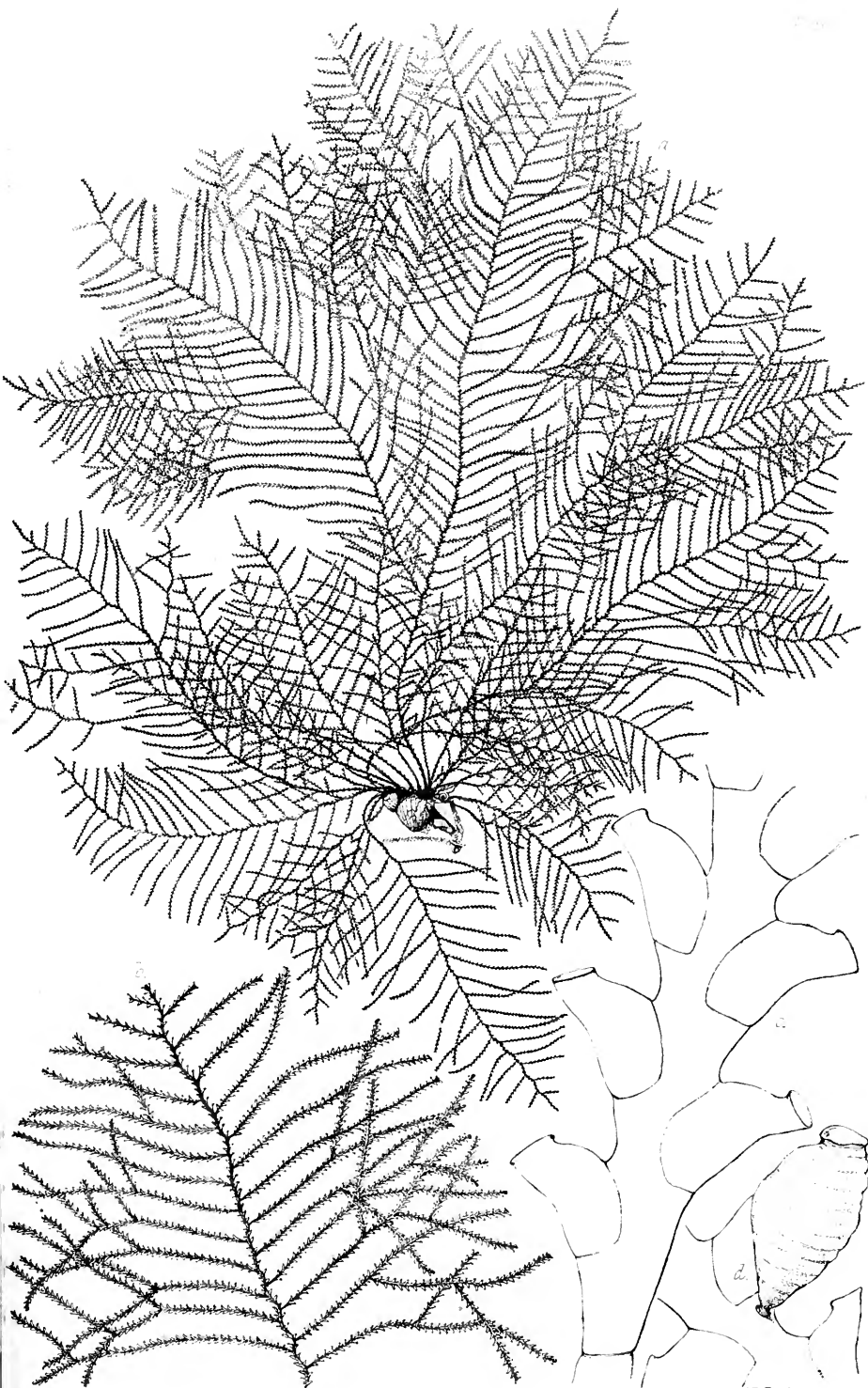
SERTULARIA ABIETINA, p. 266.

*a.* Nat. size.

*b.* A portion, somewhat enlarged. From drawings by Mr.  
Tuffen West.

*c.* Calyces, magnified (T. H.).

*d.* The capsule (T. H.).



Tuffen West sculp.

W. West imp.





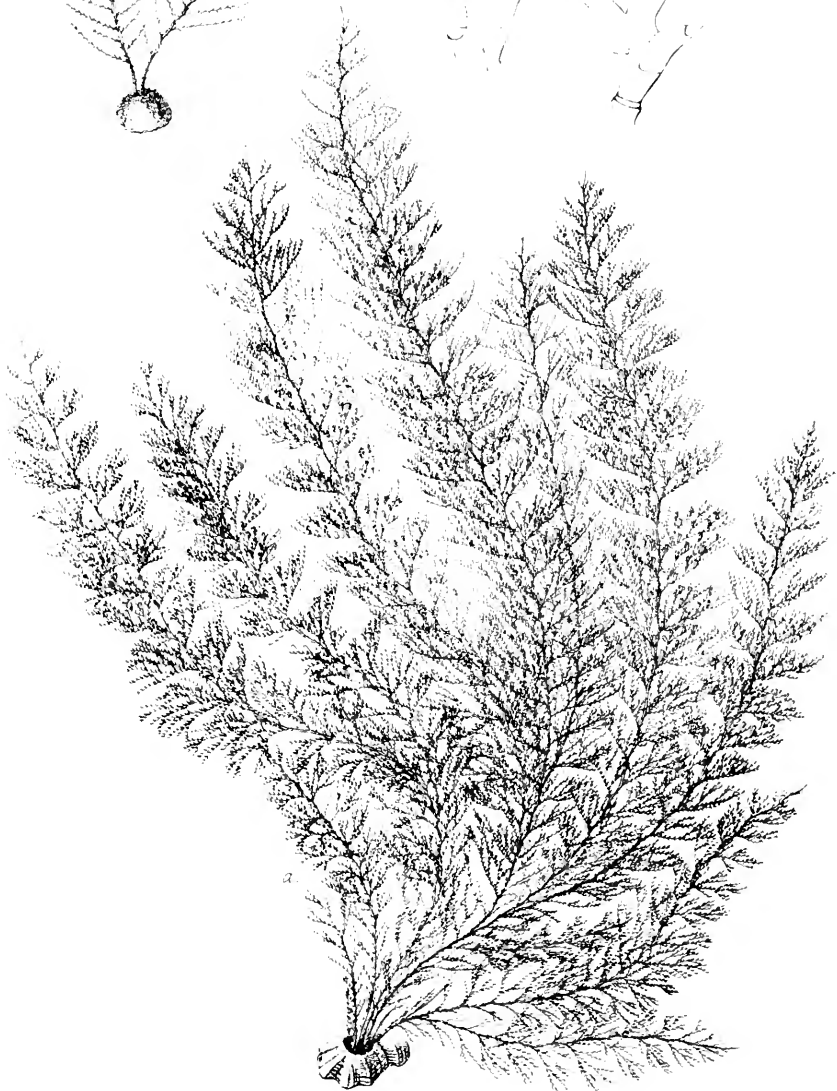
PLATE LVI.

FIG.

**SERTULARIA ARGENTEA**, p. 268.

- a.* Nat. size. From a drawing by Mr. Tuffen West.  
*b.* A young specimen.—*c, c'*. Calyces and capsule, magnified. From drawings by the Author.





Tuffen West. sculp.

W West. imp.

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PLATE LVII.

FIG.

SERTULARIA CUPRESSINA, p. 270.

*a.* Nat. size. From a drawing by Mr. T. West.

*b, b'.* Calyces and capsule, magnified (T. H.).



Tuffen West sculp

W West imp.

London. J. E. Van Voorst MDCCLXIX





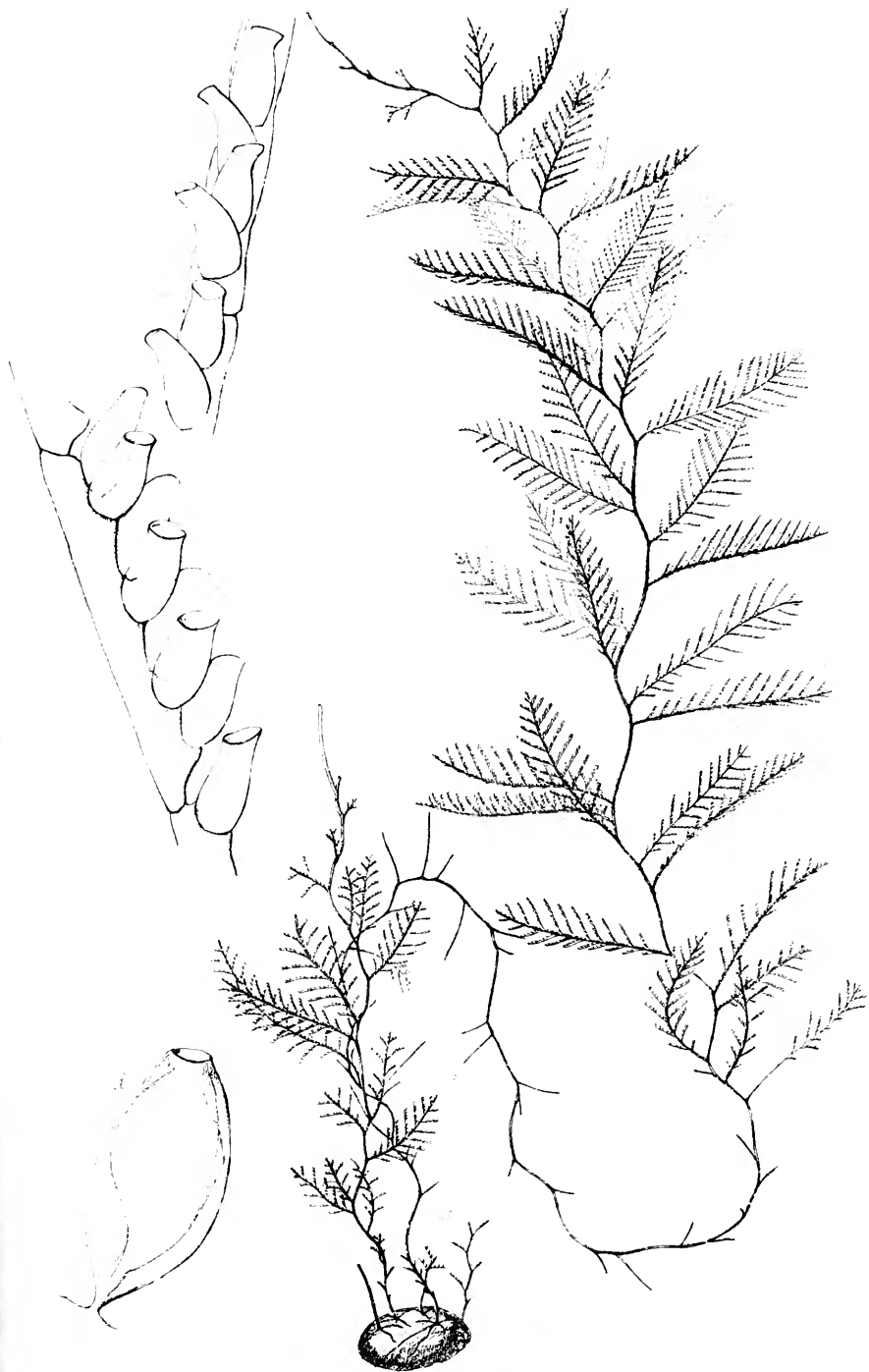
PLATE LVIII.

FIG.

HYDRALLMANIA FALCATA, p. 273.

- a.* Nat. size. From a drawing by Mr. T. West.  
*b.* Calyces, magnified.—*c.* Calyces from a young specimen.—*d.* The capsule. By the Author.





Tuften West: sculp.

W. West: mp.

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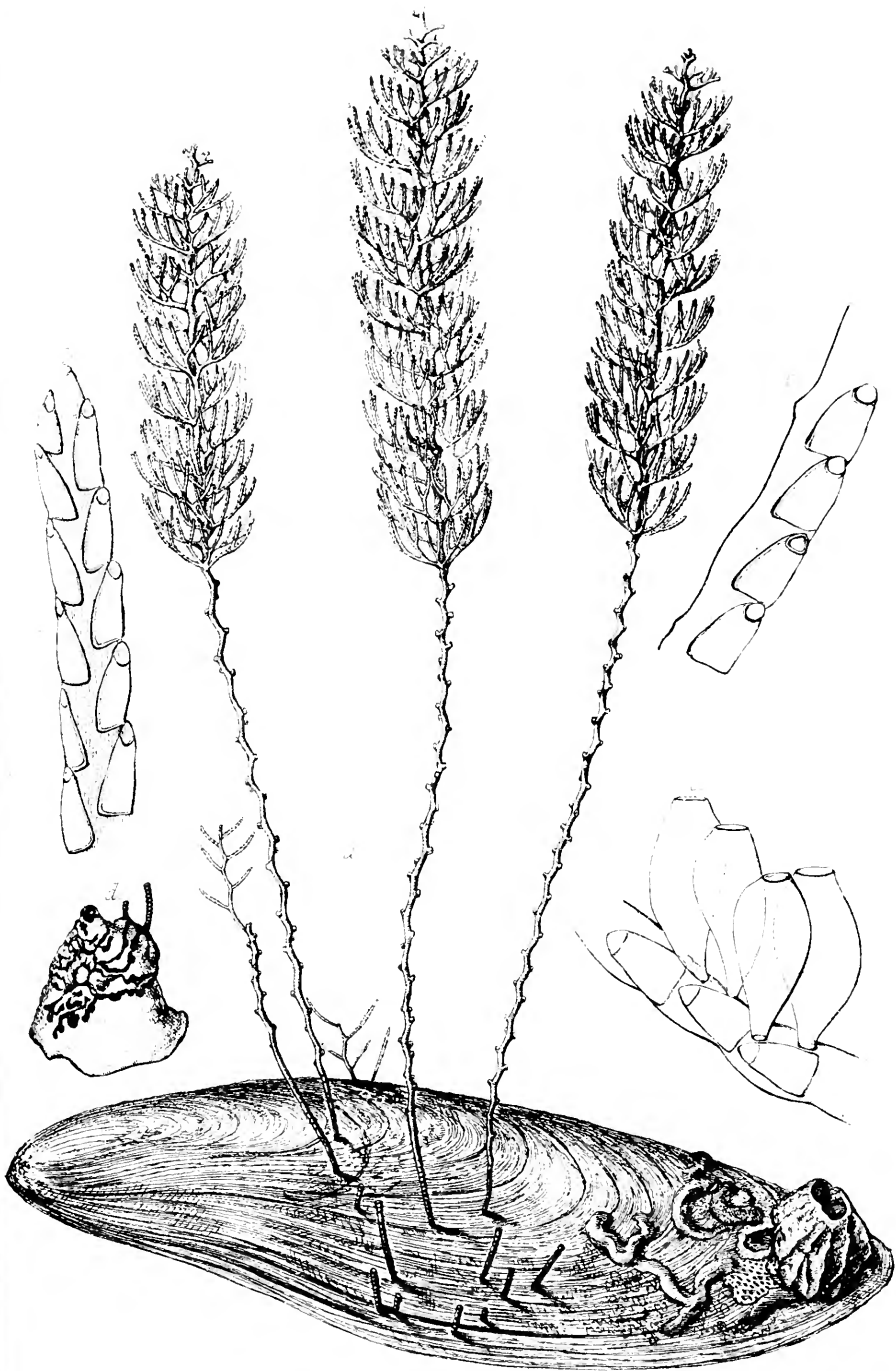


PLATE LIX.

FIG.

THUIARIA THUIA, p. 275.

- a.* Nat. size. From a drawing by Mr. Tuffen West.—*b, b'*. Calyces, enlarged (T. H.).—*c.* A group of capsules, magnified (T. H.).—*d.* The crust from which the shoot rises (T. W.).



Tuffen West. sculp.

W. West. imp.

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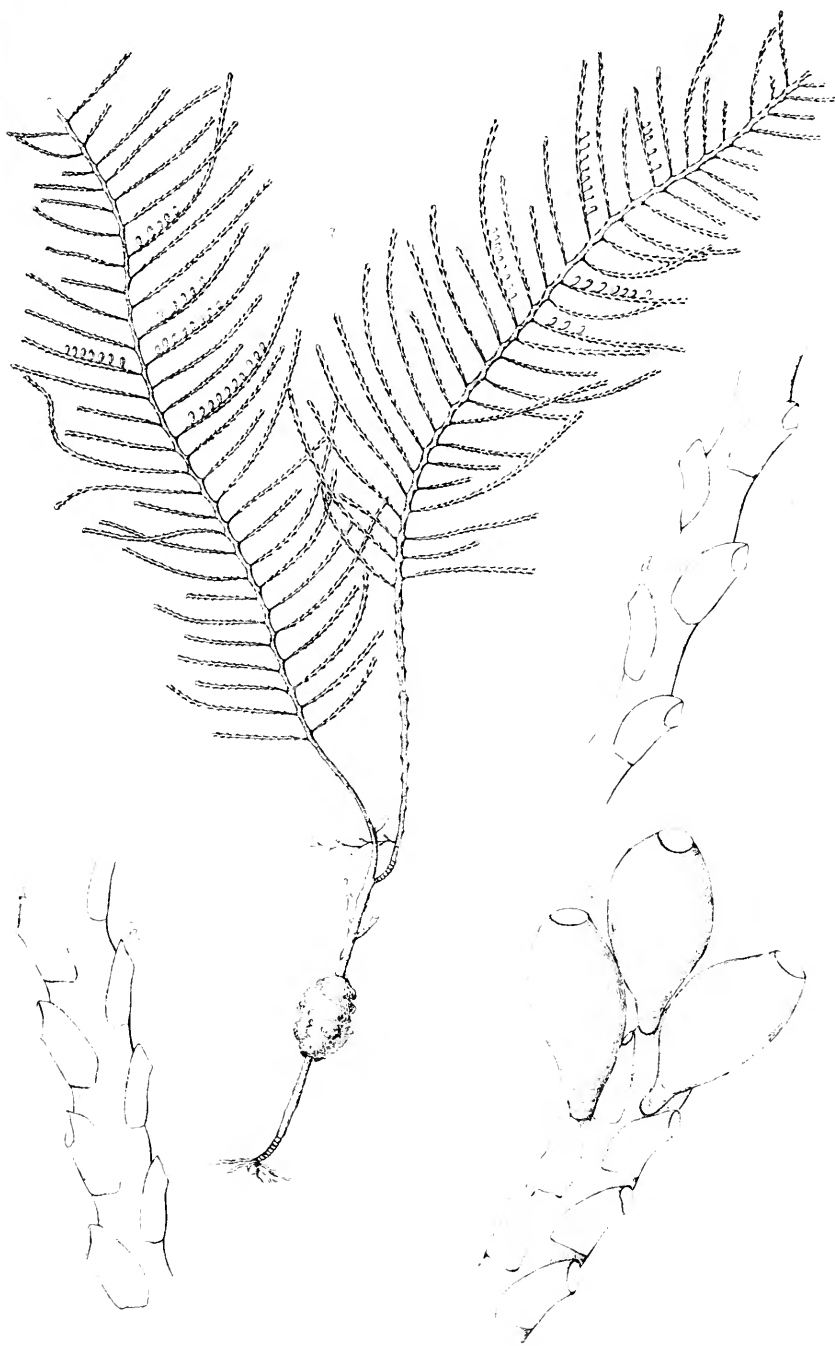
PLATE LX.

FIG.

THUIARIA ARTICULATA, p. 277.

*a.* Nat. size.—*b.* Calyces, magnified.—*c.* A group of capsules, magnified.—*d.* A portion of the stem of the Shetland variety. (*Vide* p. 278.)





Tuffen West sculp.

W. West imp.

London John Van Voorst MDCCCLXIX.



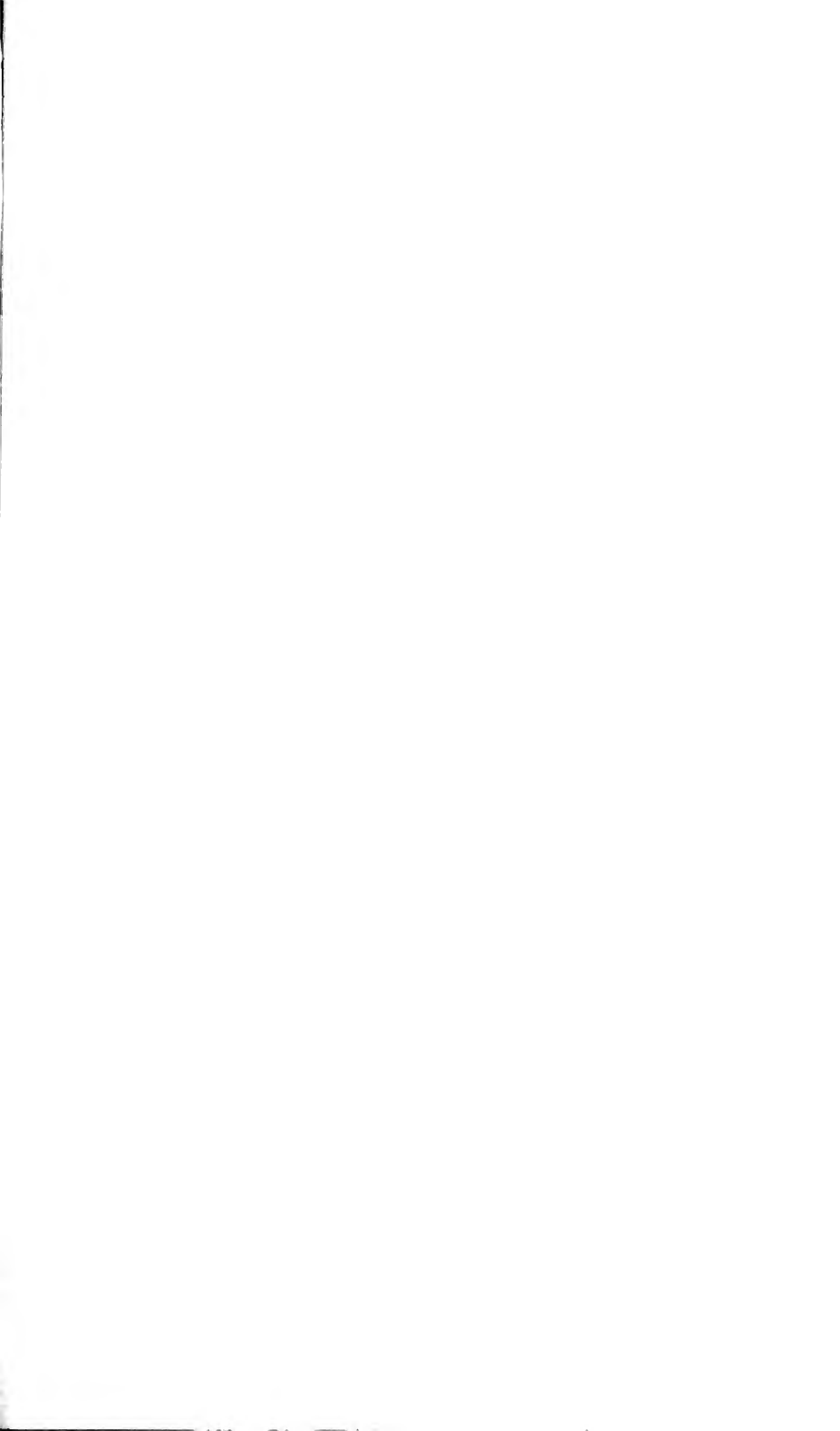
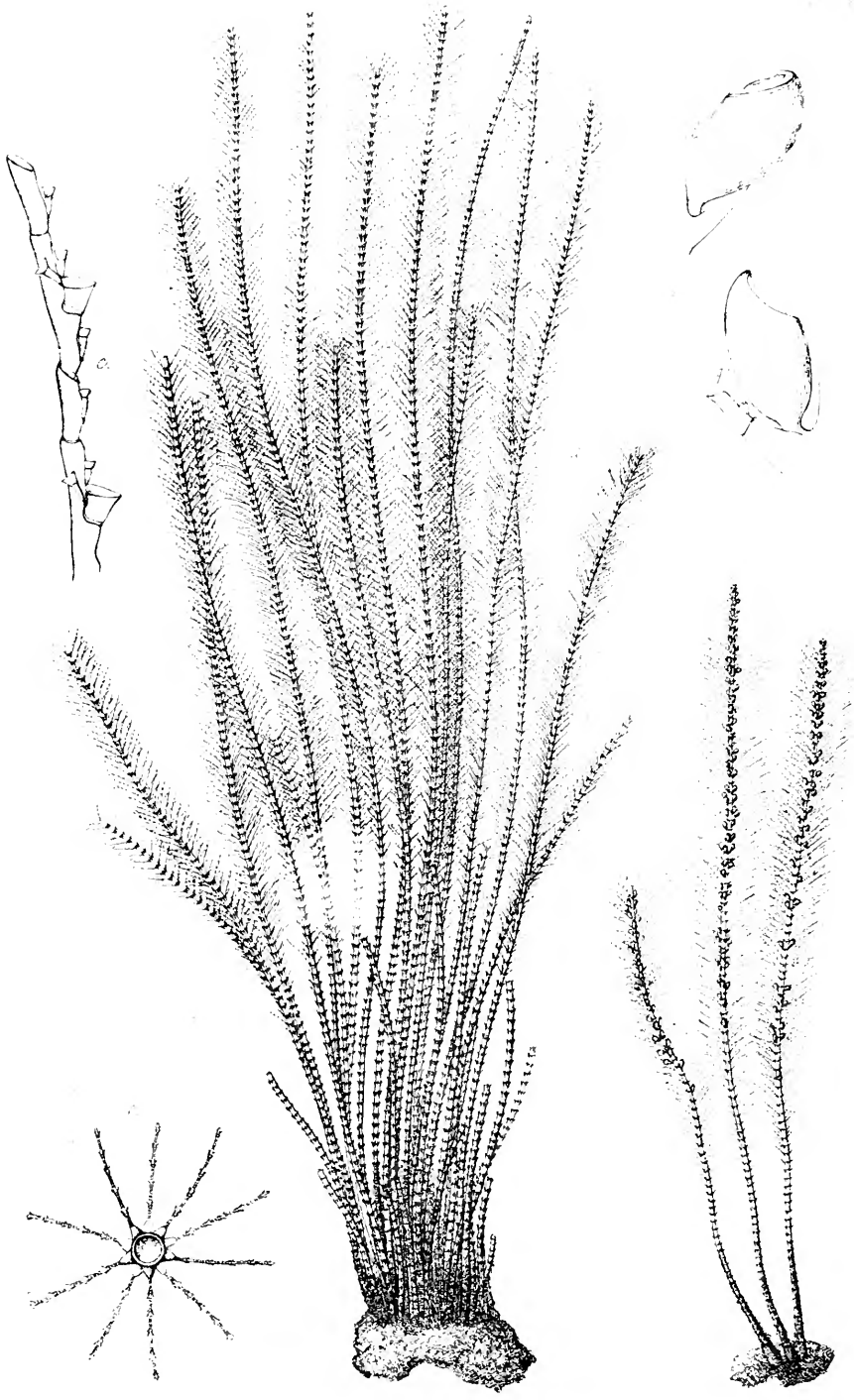


PLATE LXI.

FIG.

ANTENNULARIA ANTENNINA, p. 280.

*a, b.* Nat. size. From drawings by Mr. T. West.—*c.* A portion magnified to show the form of the calyces and arrangement of the nematophores (T. H.).—*d, d'.* The capsule (T. H.).—*e.* A section of the stem, showing the verticillate arrangement of the branchlets (T. W.).



Tuffen West. sculp.

W. West imp.

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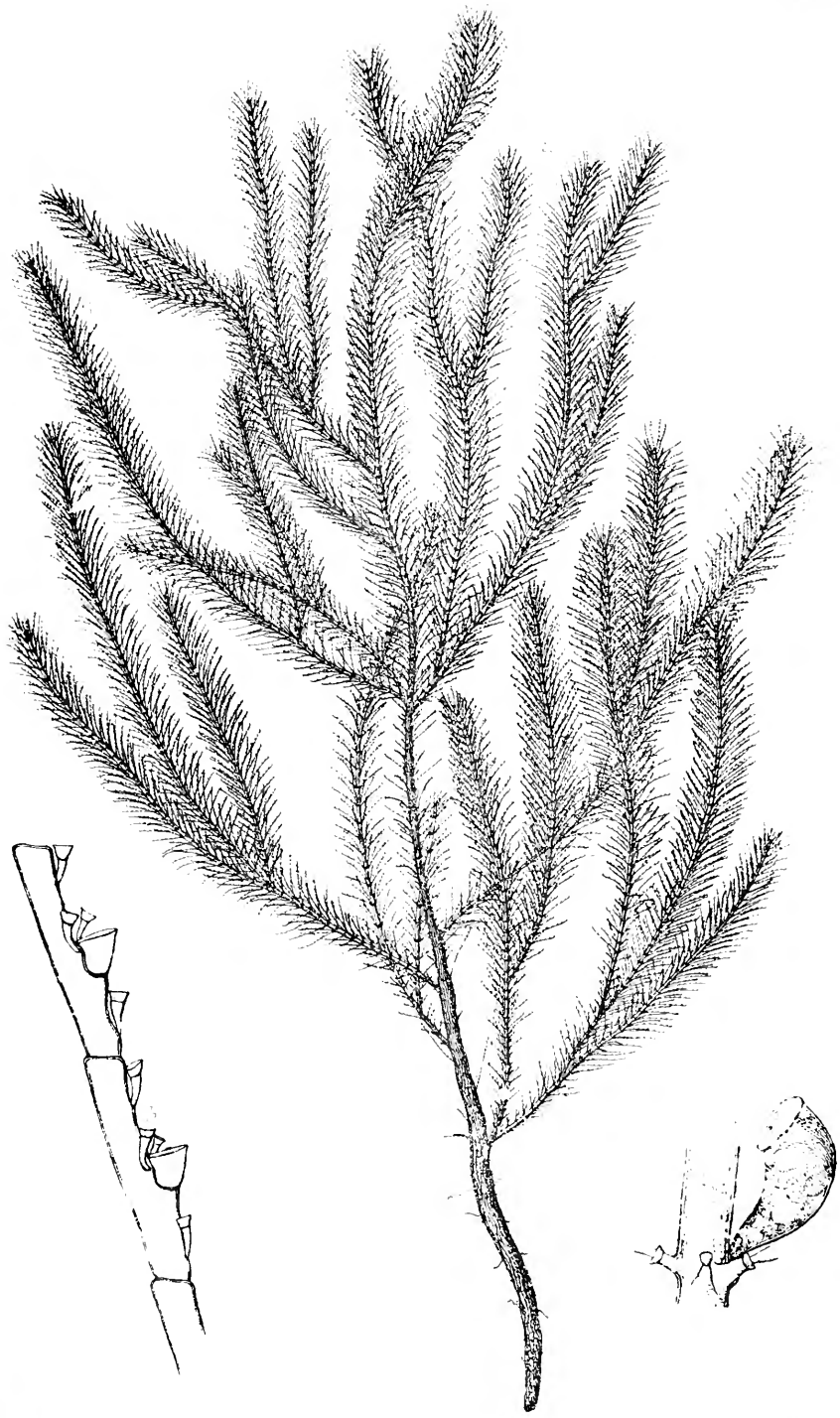
PLATE LXII.

FIG.

ANTENNULARIA RAMOSA, p. 282.

- a.* Nat. size. From a drawing by Mr. T. West.—*b.* Portion, magnified (T. H.).—*c.* The capsule (T. H.).





Tuffen West sculp.

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PLATE LXIII.

FIG.

1. *AGLAOPHENIA PLUMA*, p. 286, nat. size.
- 1 *a*. *AGLAOPHENIA PLUMA*, var.  $\beta$ , nat. size. From drawings by Mr. T. West.—1 *b*. A calycele, magnified (T. H.).
2. *AGLAOPHENIA TUBULIFERA*, p. 288, nat. size. From a drawing by the Author.
- 2 *a*, 2 *b*. Side and front views of the calycele (T. W.).
3. *AGLAOPHENIA PENNATULA*, p. 292, nat. size.
- 3 *a*. Calyceles, enlarged. From drawings by the Author.



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PLATE LXIV.

FIG.

1. *HALECIUM PLUMOSUM*, p. 227, nat. size.  
1 *a*. Portion, magnified.—1 *b*. A calycle, more highly magnified. From drawings by the Author.
2. *AGLAOPHENIA MYRIOPHYLLUM*, p. 290, nat. size. From a drawing by Mr. T. West.  
2 *a*. A single calycle, magnified (T. H.).
3. The *corbula* of *AGLAOPHENIA TUBULIFERA*, magnified. From a drawing by the Author.





of a nest sculp.

W. West. imp.

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PLATE LXV.

FIG.

1. PLUMULARIA PINNATA, p. 295, nat. size.

1 *a*. Portion of a pinna, magnified.—1 *b*. Capsules, magnified.

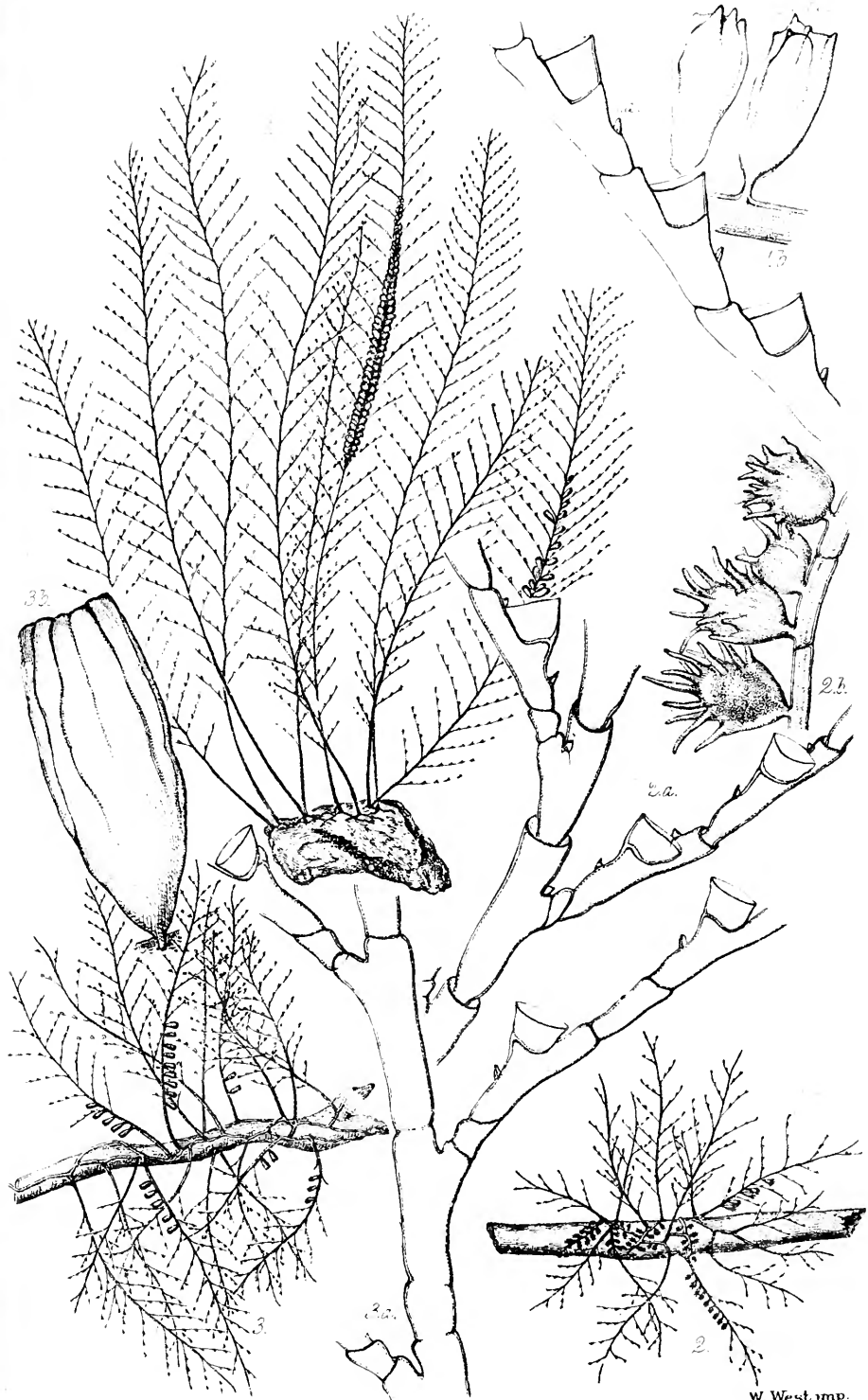
2. PLUMULARIA ECHINULATA, p. 302, nat. size.

2 *a*. Stem and pinnæ, magnified.—2 *b*. A piece of the creeping stolon with capsules, magnified.

3. PLUMULARIA SIMILIS, p. 303, nat. size.

3 *a*. Stem and pinnæ, magnified.—3 *b*. Capsule\*.

\* This figure is drawn to a larger scale than the rest.



Tuffen West sculp.

W West imp.

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PLATE LXVI.

FIG.

1. *PLUMULARIA SETACEA*, p. 297, nat. size.

1 *a.* A portion of the stem and pinnæ, magnified, showing the axillary position of the capsule.

2. *PLUMULARIA CATHARINA*, p. 299, nat. size.

2 *a.* Portion, magnified.—2 *b.* The capsule (female).





Tuffen West. sculp.

W West. imp

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PLATE LXVII.

FIG.

1. *PLUMULARIA OBLIQUA*, p. 304, nat. size.

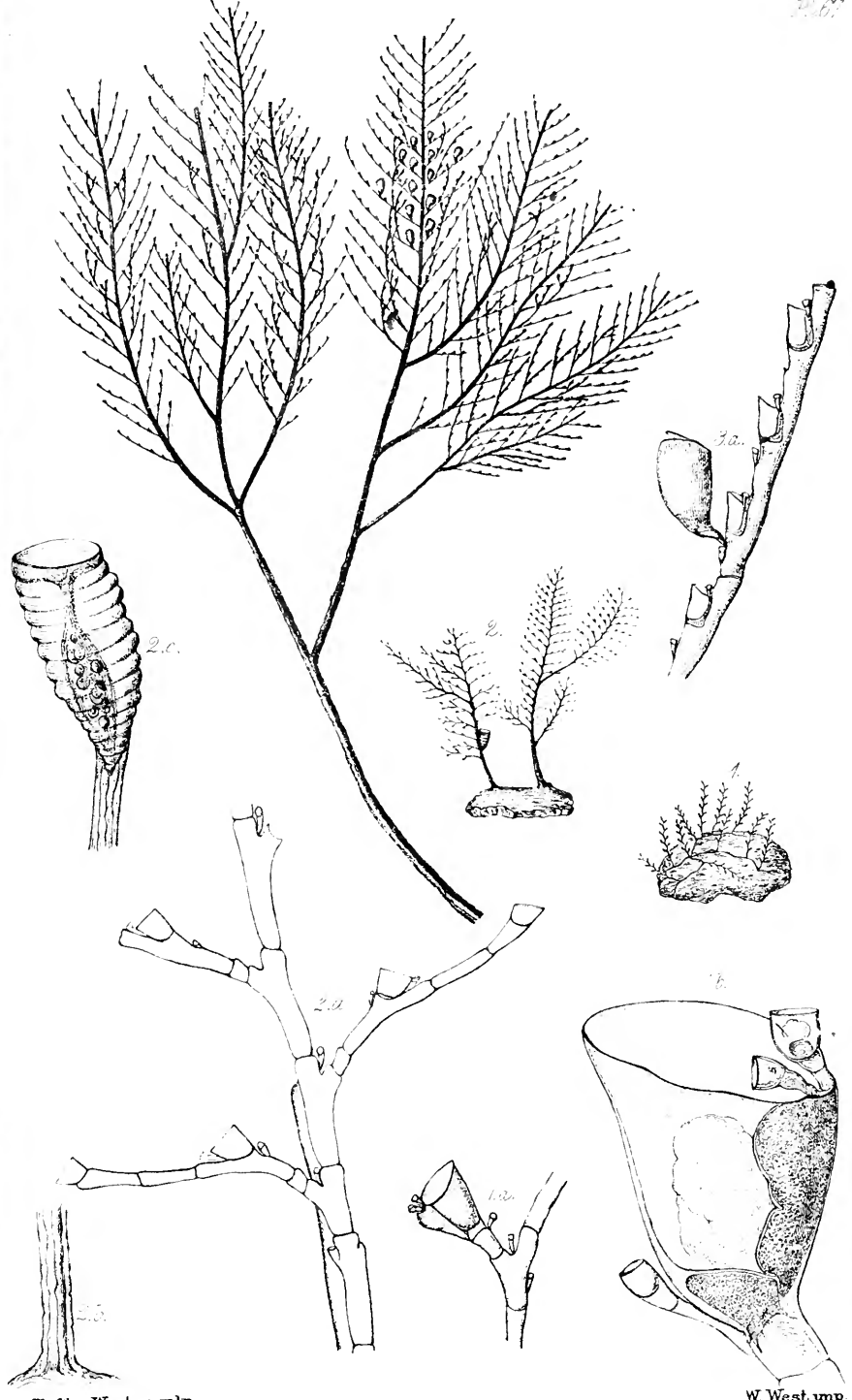
1 *a*. A portion of the stem, magnified, with a single pinna.  
—1 *b*. A calycle, more highly magnified. The last figure is from a drawing by Mr. Busk.

2. *PLUMULARIA HALECIOIDES*, p. 306, nat. size.

2 *a*. Stem and pinnæ, magnified.—2 *b*. A portion of the compound stem.—2 *c*. The capsule.

3. *PLUMULARIA FRUTESCENS*, p. 307, nat. size.

3 *a*. Pinna, magnified, with a capsule.



Tuffen West sculp.

W. West ump











