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BRITISH
FRESH-WATER ALGÆ.
VOL. II.

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BRITISH
FRESH-WATER ALGÆ.

EXCLUSIVE OF

DESMIDIEÆ AND DIATOMACEÆ.

BY

M. C. COOKE, M.A., LL.D., A.L.S.,

Author of "Handbook of British Fungi," "Mycographia," "Illustrations of British Fungi," &c., &c.

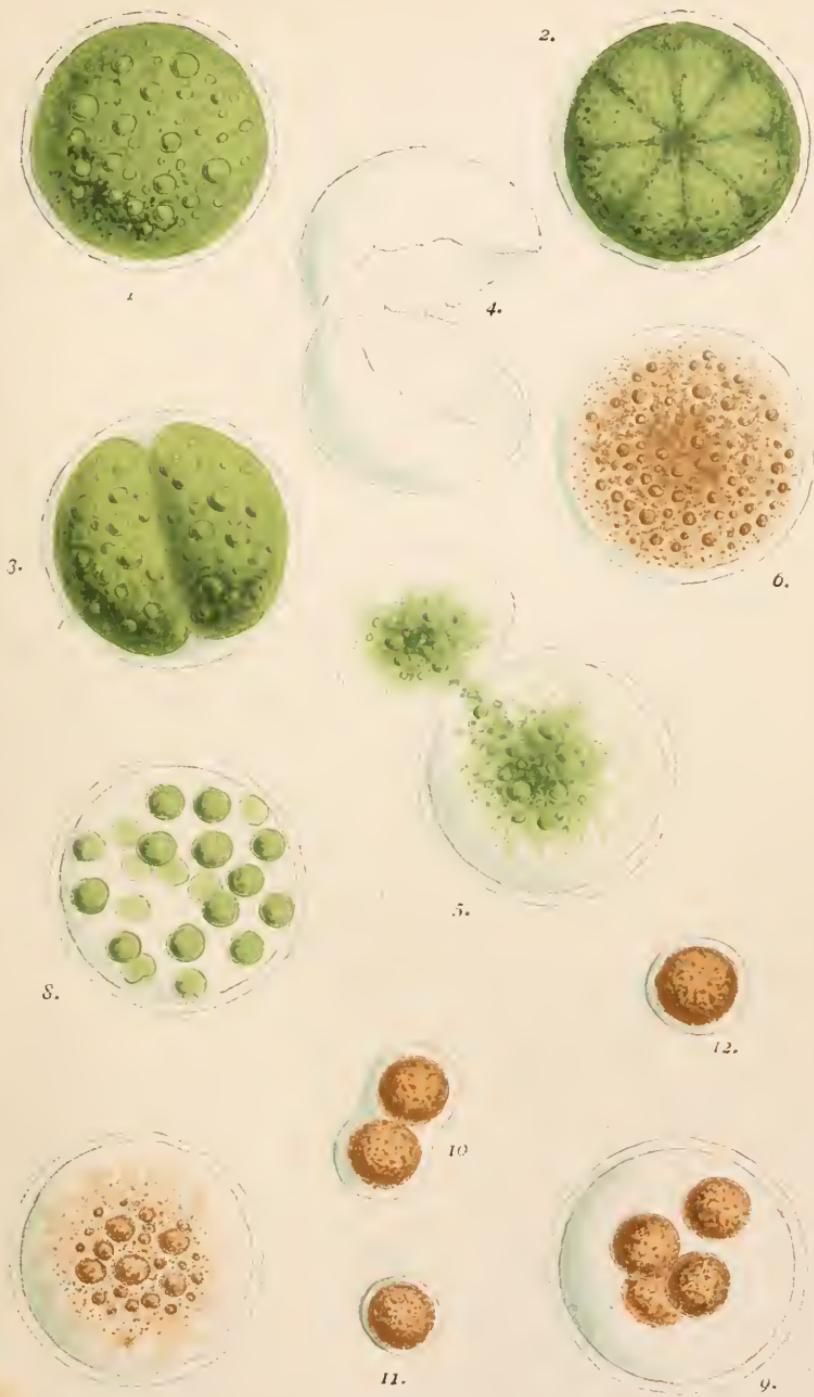
VOL. II. PLATES.

WILLIAMS AND NORGATE,
HENRIETTA STREET, COVENT GARDEN, LONDON;
SOUTH FREDERICK STREET, EDINBURGH.
LEIPZIC: F. A. BROCKHAUS. — NEW YORK: WESTERMANN & CO.

1882—1884.

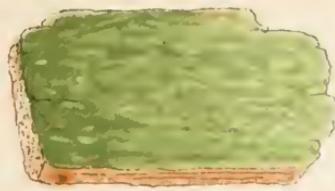
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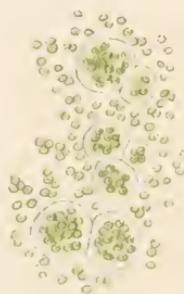
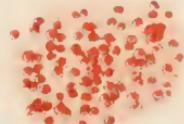


Eremosphaera viridis ⓂBy.





1. a. - n.s.

1. b. $\times 400$.2. $\times 400$.3. $\times 400$.4. $\times 400$.4. $\times 400$.5. $\times 400$.6. $\times 400$.

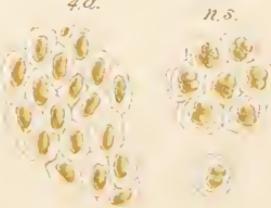
1. *Pleurococcus vulgaris*. Men.
2. *Pleurococcus angulosus*. Men.
3. *Pleurococcus mucosus*. Kutz.
4. *Pleurococcus Beigelii*. Kuch.
5. *Pleurococcus miniatus*. Kutz.
6. *Pleurococcus roseo-persicinus*. Kutz.



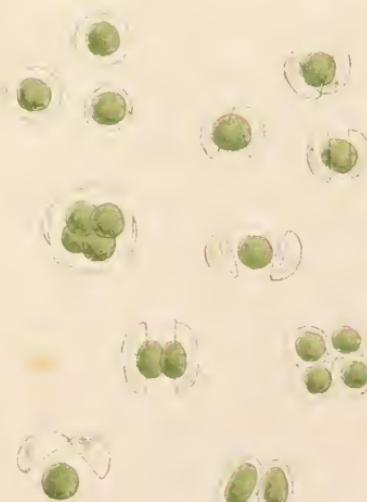
1. $\times 400.$ 2. $\times 400.$ 3. $\times 400.$ 

4a.

H.S.

4. b. $\times 400.$ 

5.

6. $\times 400.$ 5. $\times 400.$

1. *Glæocystis ampla*. Kutz.

2. *Glæocystis vesiculosa*. Nag.

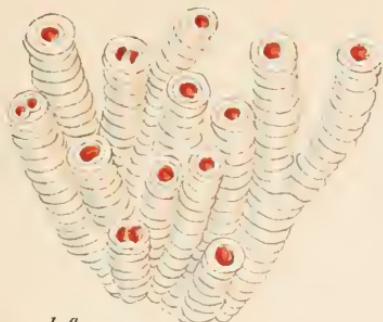
3. *Glæocystis botryoides*. Kutz.

4. *Glæocystis adnata*. Huds.

5. *Glæocystis Paroliniana*. Nag.

6. *Schizochlamys gelatinosa*. Br.

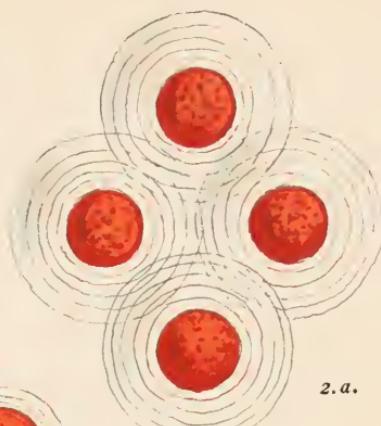




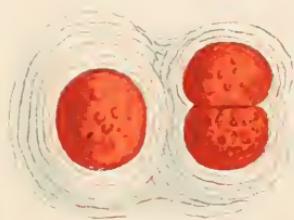
1. a.



1. b.



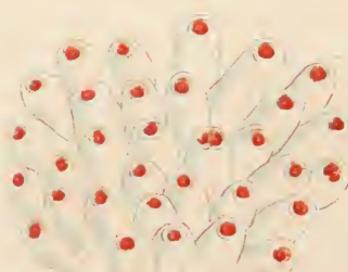
2. a.



2. b.



3. a.



4. a.



3. b.

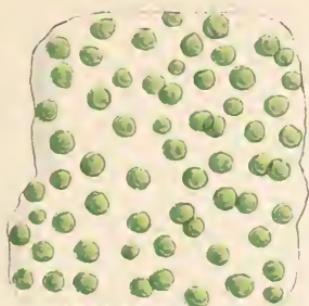
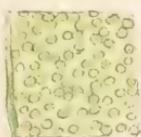


4. b.

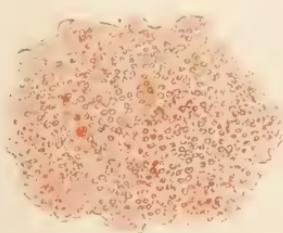
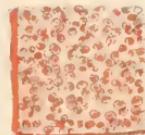
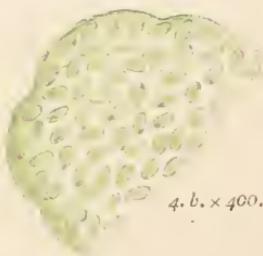
1. *Urococcus Hookerianus*, Hass.
2. *Urococcus insignis* Hass.

3. *Urococcus Allmanni* Hass.

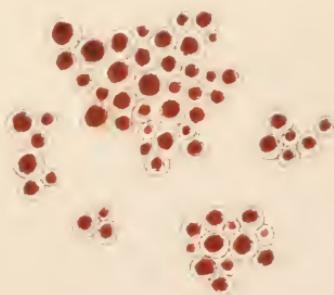
4. *Urococcus cryptophilus*, Hass.

1. $\times 400.$ 2. $\times 400.$ 3. a. $\times 400.$ 3. b. $\times 800.$ 

4. a. - n.s.

5. a. $\times 400.$ 5. b. $\times 800.$ 4. b. $\times 400.$ 

6. a. - n.s.

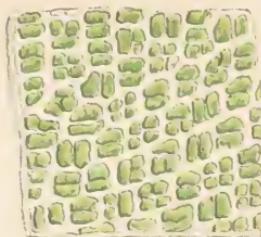
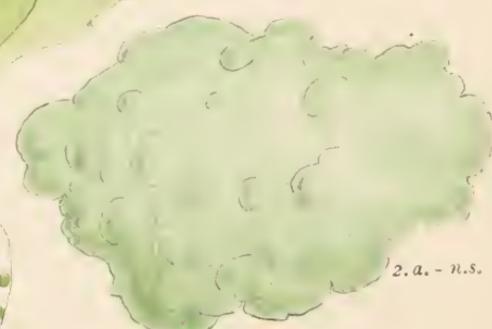
6. b. $\times 400.$

1. *Palmella mucosa*. Kutz.
2. *Palmella miniata*. v. *æqualis*. Nog.
3. *Palmella hyalina*. Breb.
4. *Palmella Mooreana*. Harv.
5. *Palmella prodigiosa*. Elor.
6. *Porphyridium cruentum*. Ag.





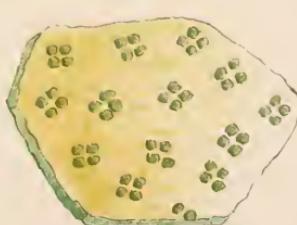
1. a. - n.s.

1. b. $\times 400$.

2. a. - n.s.

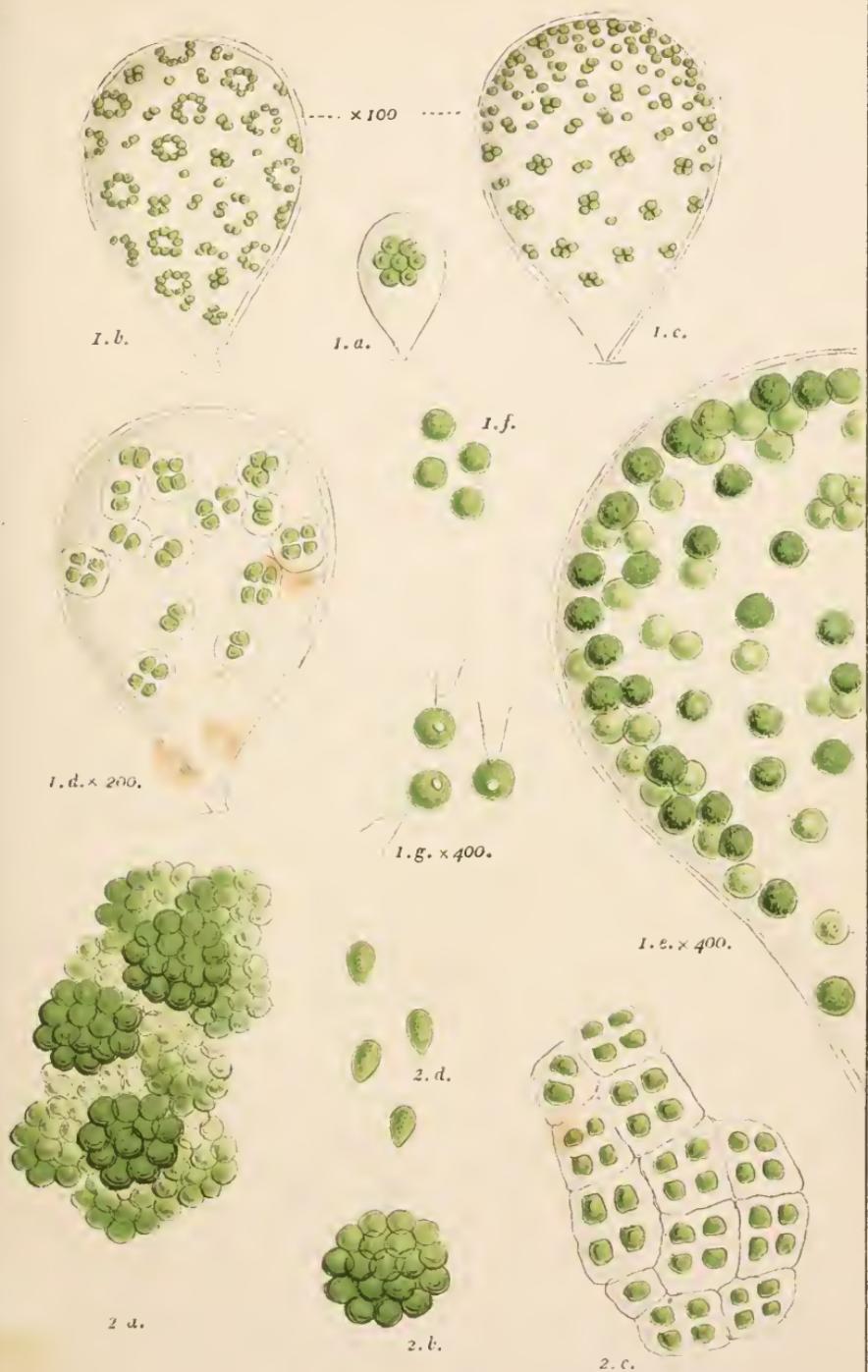
2. b. $\times 400$.

3. a. - n.s.

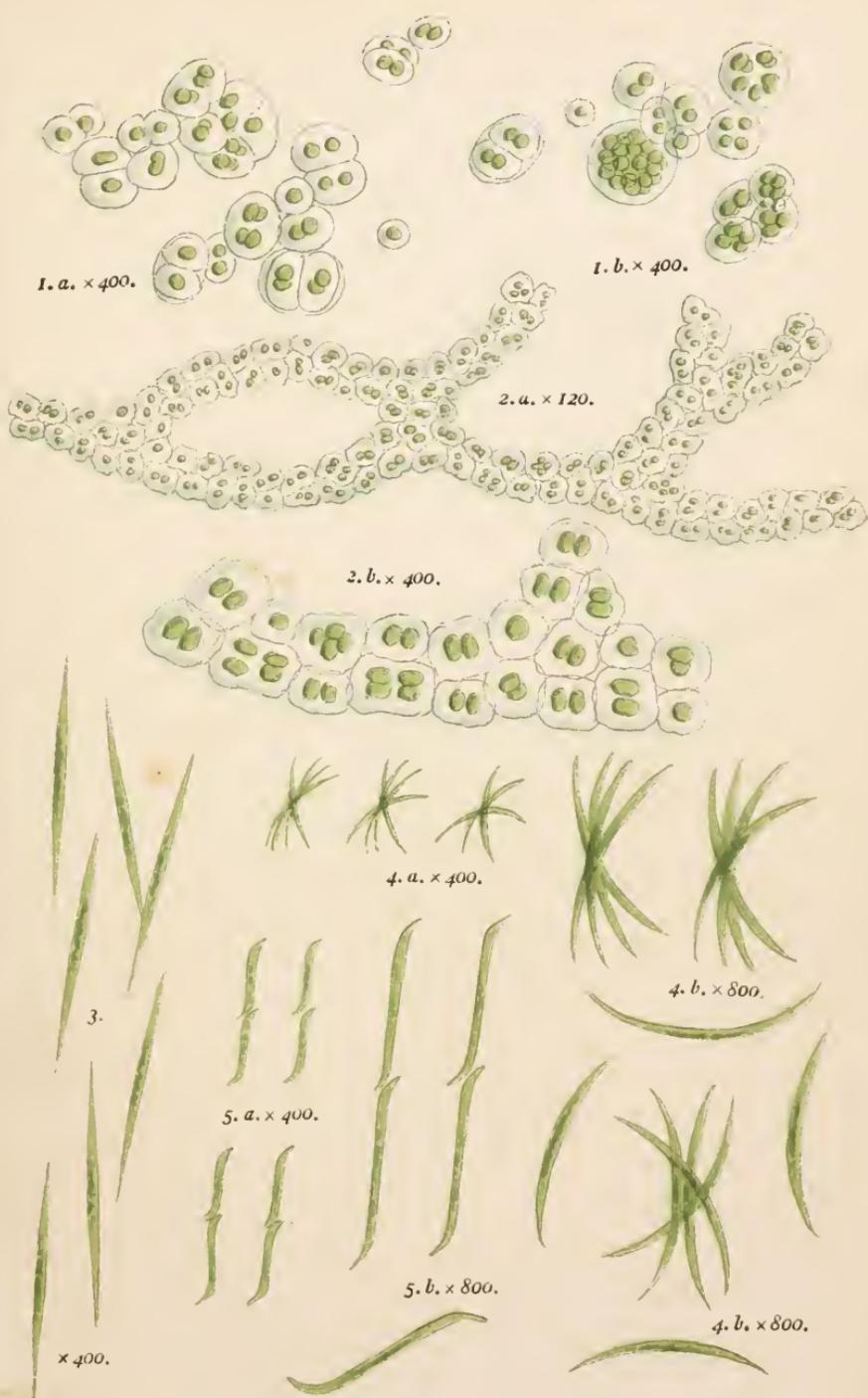
4. $\times 400$.

1. *Tetraspora bullosa* Ag. 2. *Tetraspora gelatinosa* Desv.
3. *Tetraspora lubrica* Ag. 4. *Tetraspora flava* Hass.

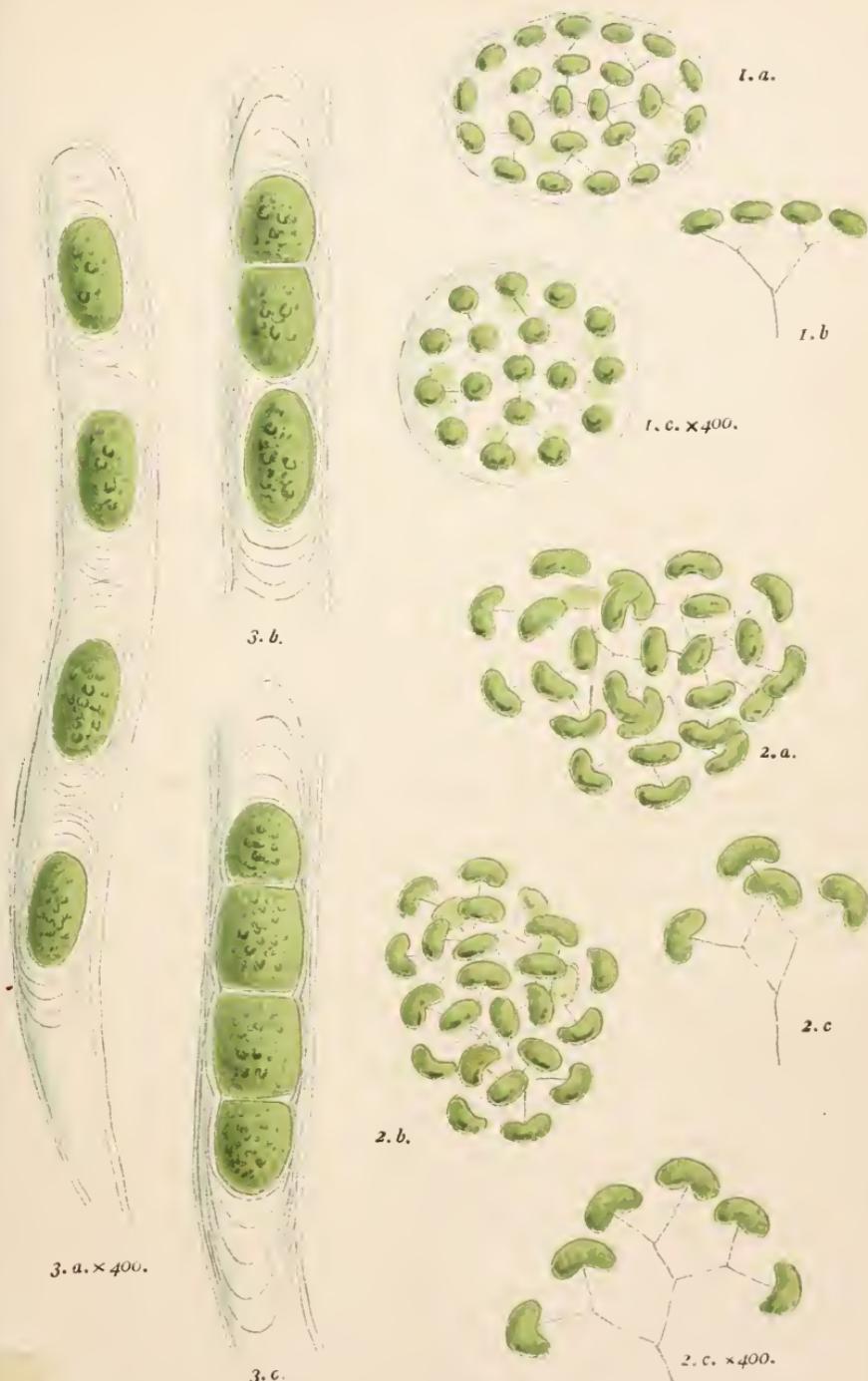


1. *Aprocystis Brauniiana*. Nag.2. *Hotryococcus Braunii*. Kutz.

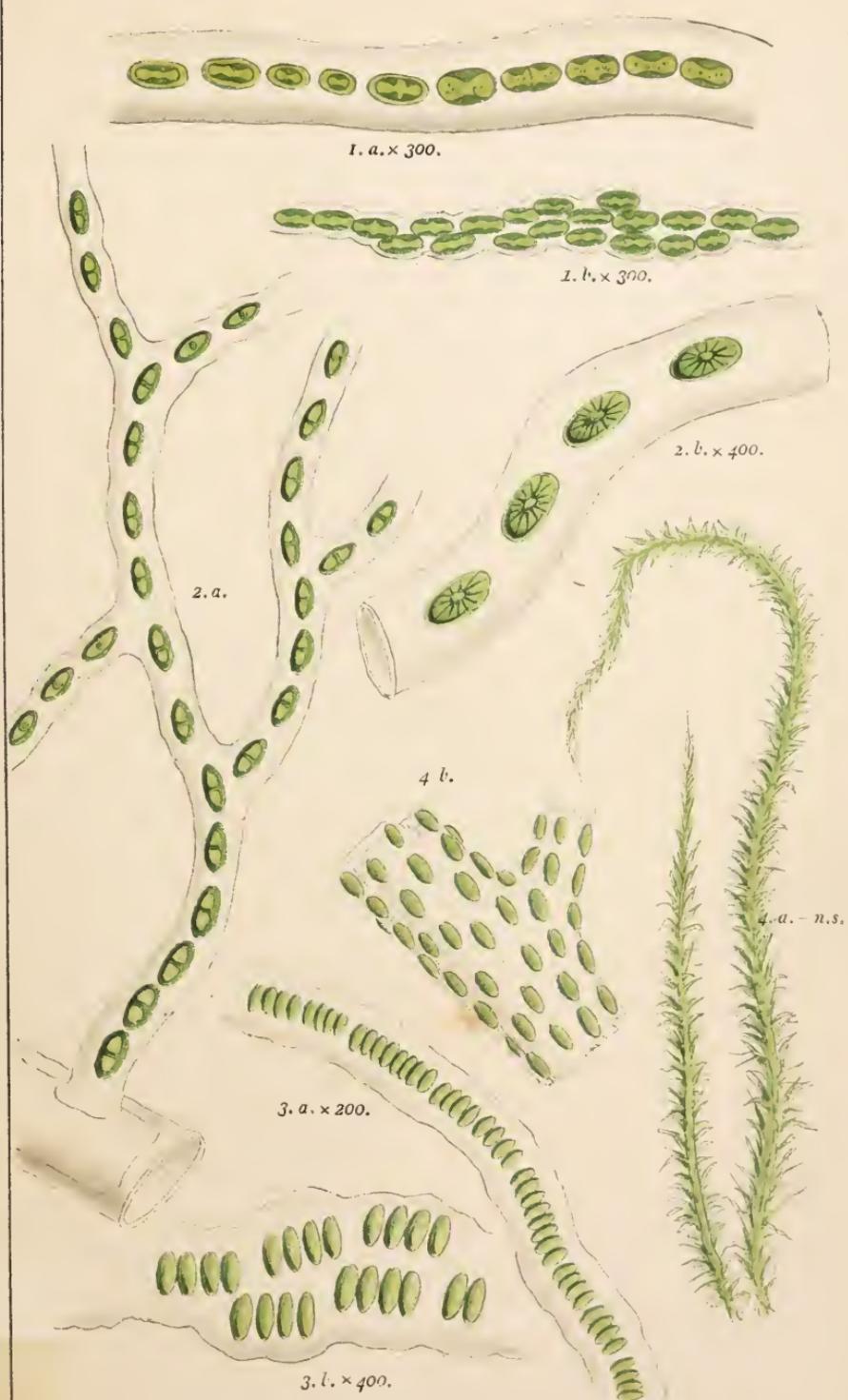


1. *Glæocystis rupestris*. Lyng.2. *Palmodictyon viride*. Kutz.3. *Rhaphidium aciculare* Br.4. *Rhaphidium falcatum*. Rabh.5. *Rhaphidium duplez*. Kutz.

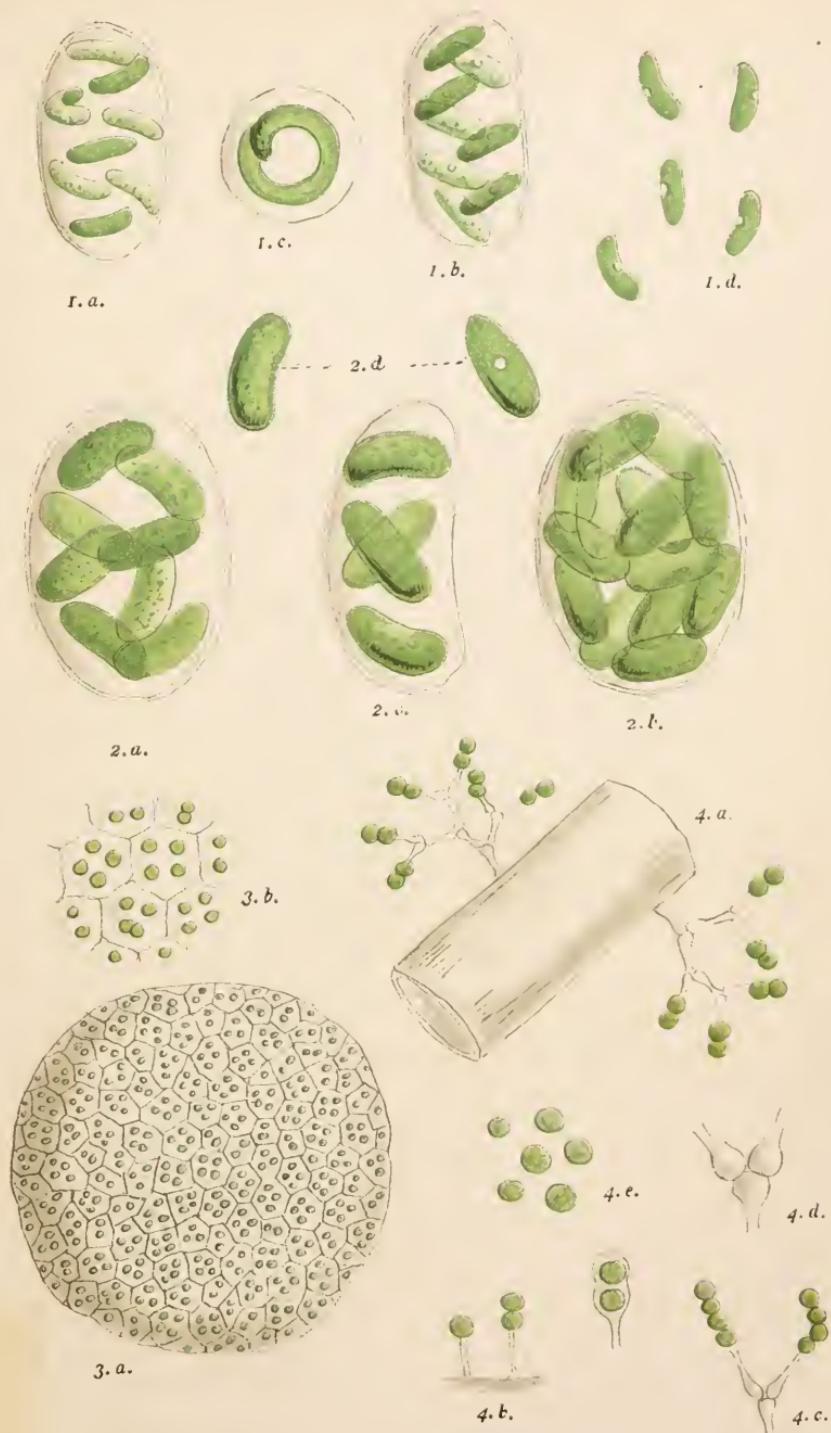


1. *Dictyosphaerium Ehrenbergianum*. Nag.2. *Dictyosphaerium reniforme*. Buln.3. *Cylindrocapsa involuta*. Reinsch.



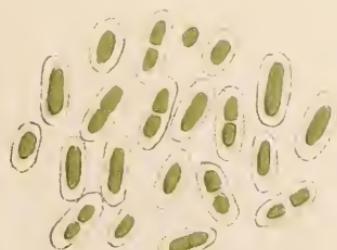
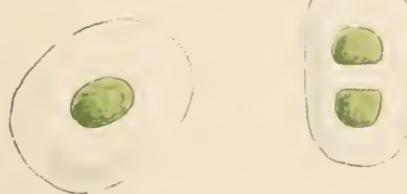
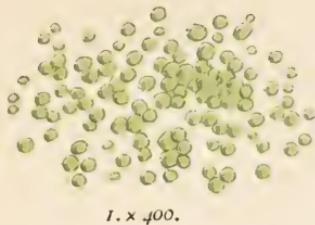
1. *Hormospora mutabilis.* Breb.3. *Hormospora transversalis.* Breb.2. *Hormospora ramosa.* Thw.4. *Hydrurus penicillatus.* f. g.





1. *Nephrocytium Agardhianum*. Nag.
3. *Botrydina vulgaris*. Breb.

2. *Nephrocytium Naegelii*. Gr.
4. *Mischococcus confervicola*. Nag.

1. *Protococcus viridis.* Ag.3. *Chlorococcum gigas.* Grun.2. *Chlorococcum frustulosum.* Carm.4. *Chlorococcum murorum.* Grev.5. *Chlorococcum humicola.* Nág.



1. a.

1. b. $\times 400.$ 

1. c.



2. a.



2. b.



2. c.



2. d.



3.



4.



4.

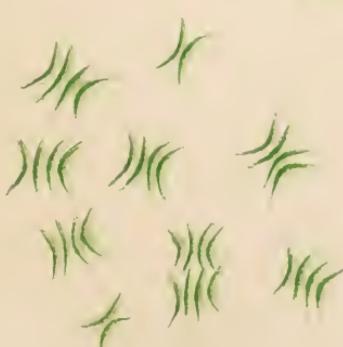


6. a.

6. b.



6. c.

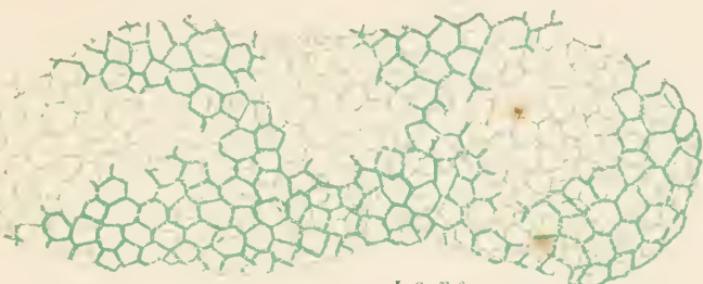


7.

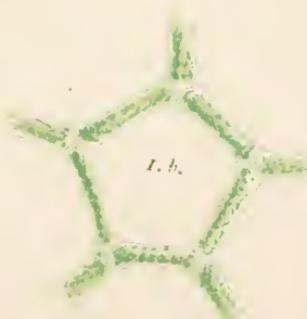


8.

1. *Polyedrium gigas.* Wittr.
2. *Polyedrium longispinum.* Perty.
3. *Polyedrium tetrahedricum.* Nag.
4. *Polyedrium enorme.* D'Barry.
5. *Scenedesmus obtusus.* Mey.
6. *Scenedesmus acutus.* Mey.
7. *Scenedesmus antennatus.* Breb.
8. *Scenedesmus quadridens.* Breb.



I. a. n.s.



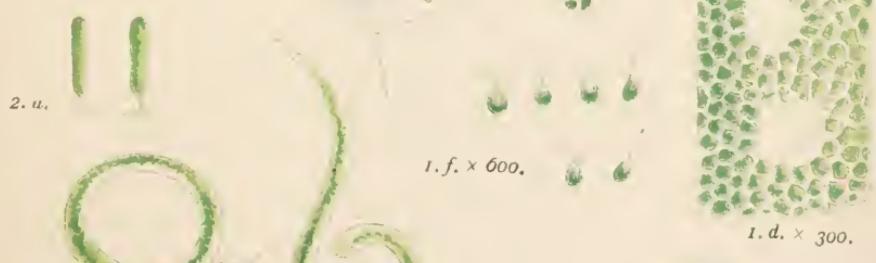
I. b.



I. c. x 300.



I. e.



I. f. x 600.

I. d. x 300.



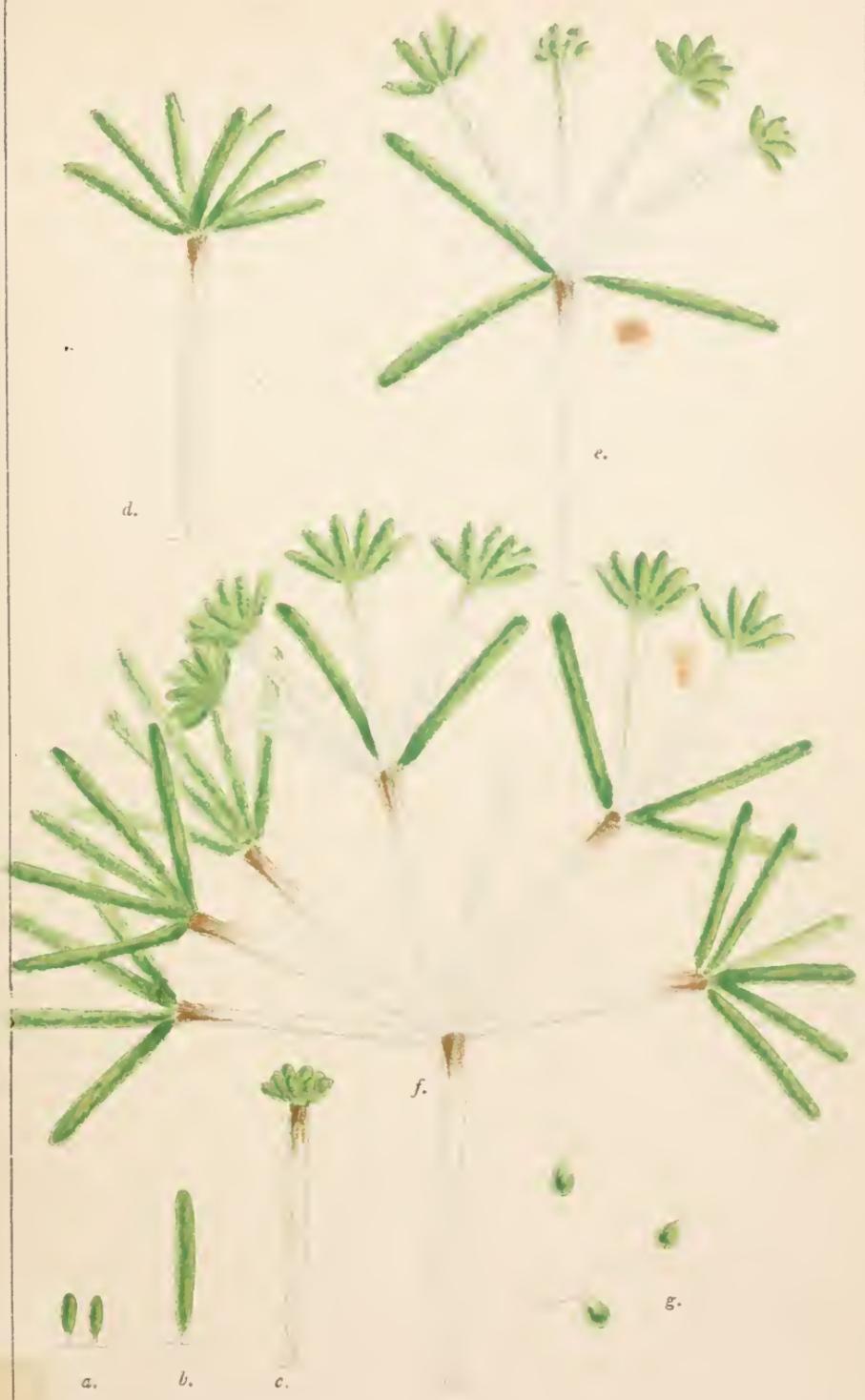
2. b.



2. c.

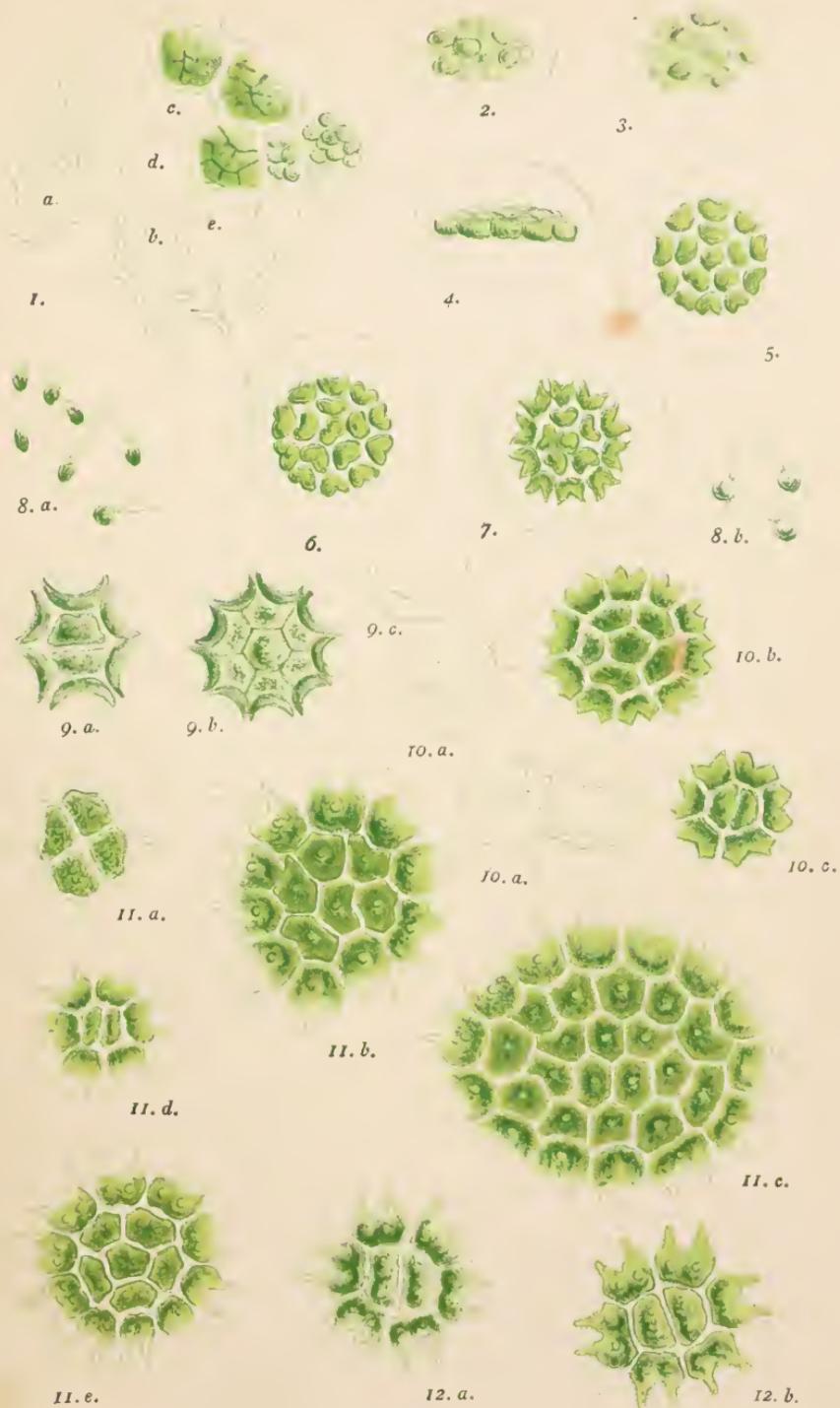
1. *Hydrodictyon utriculatum*. Roth.2. *Ophiocytium cochleare*. Eich.





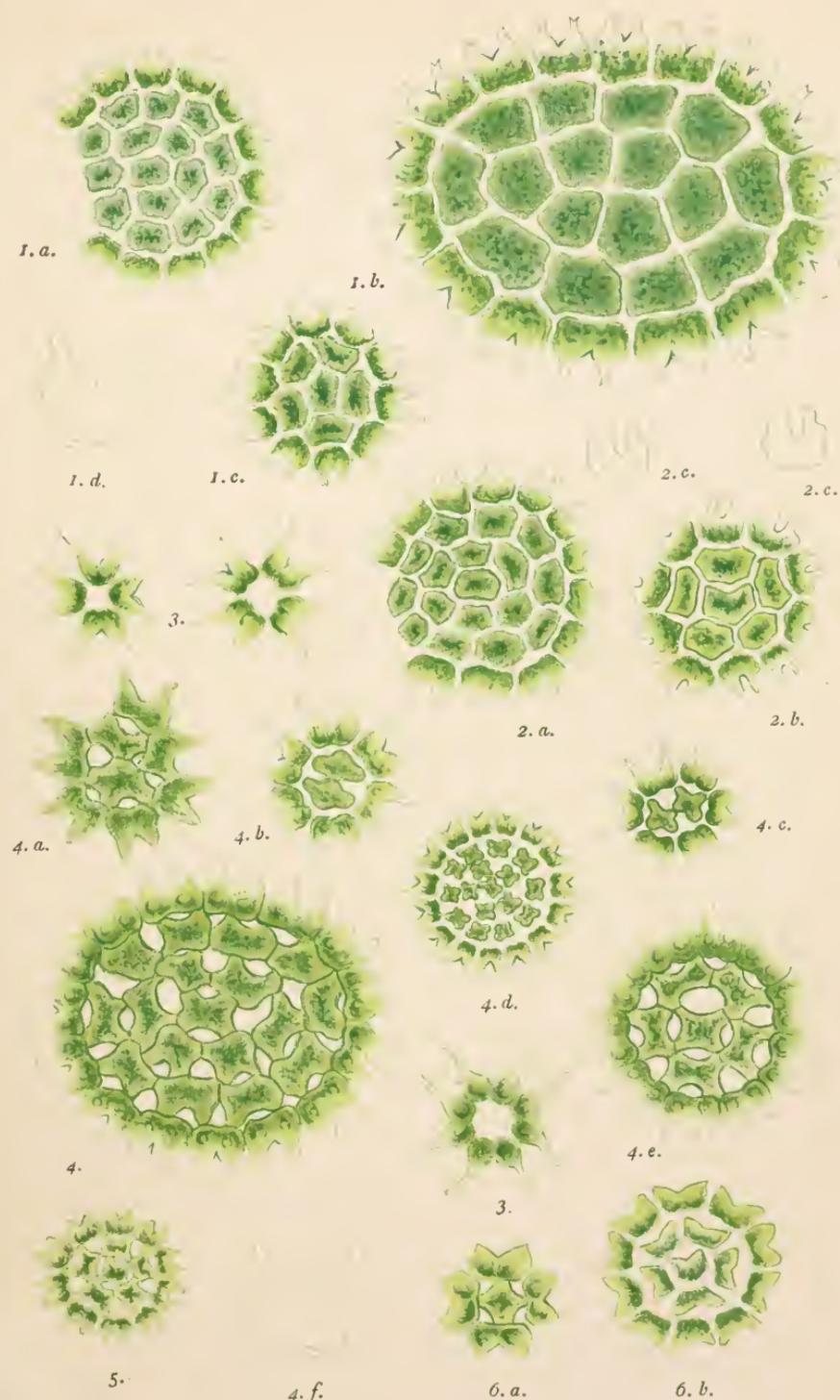
Sciadium arbuscula. Br.



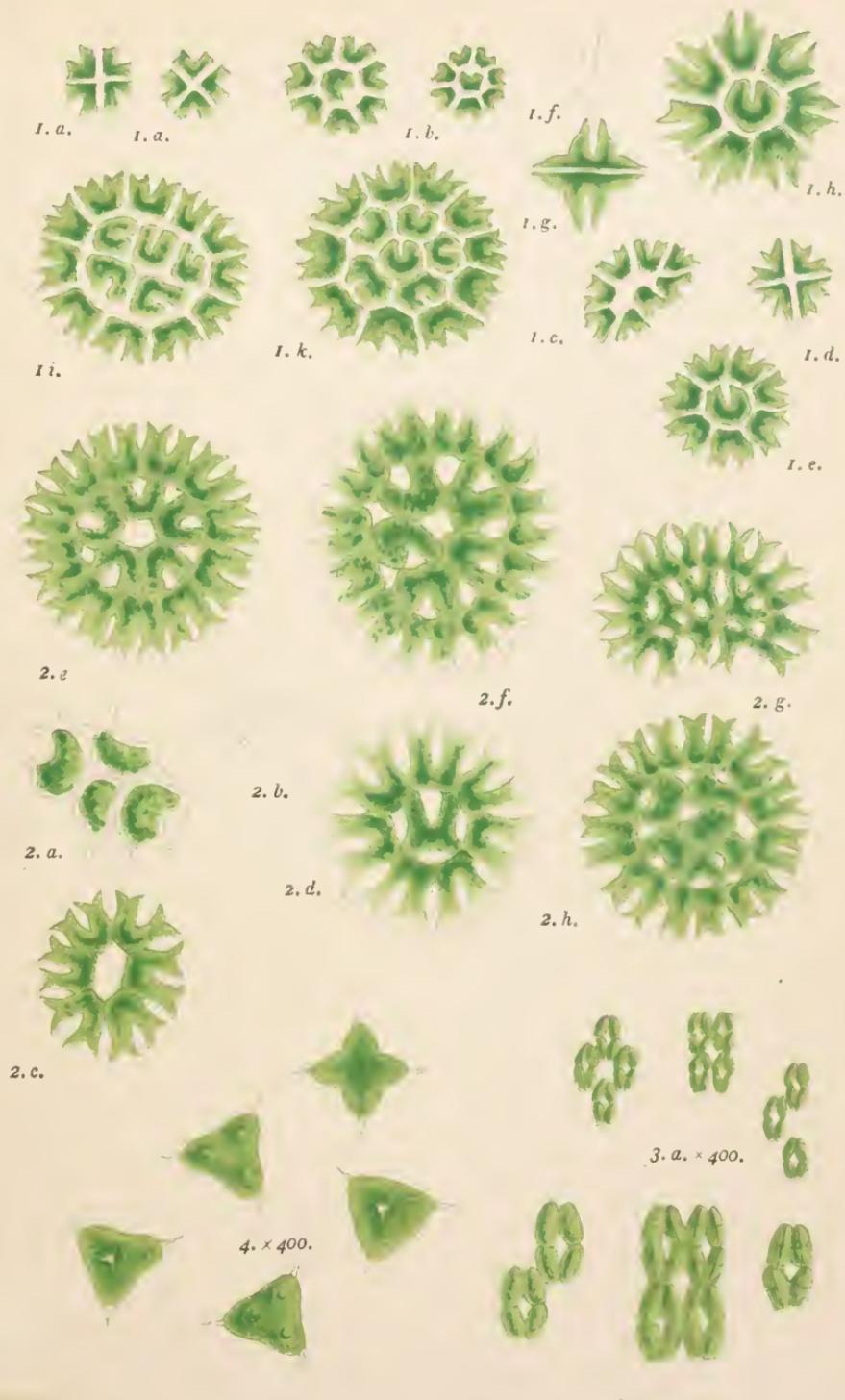
1-7. Stages of development in *Pediastrum Boryanum*. Turp.

9. *Pediastrum Selenaea*. Kutz. 10. *Pediastrum angulosum*. Ehrb.
 11. *Pediastrum Boryanum*. Turp. 12. var. *granulosum*. Br.

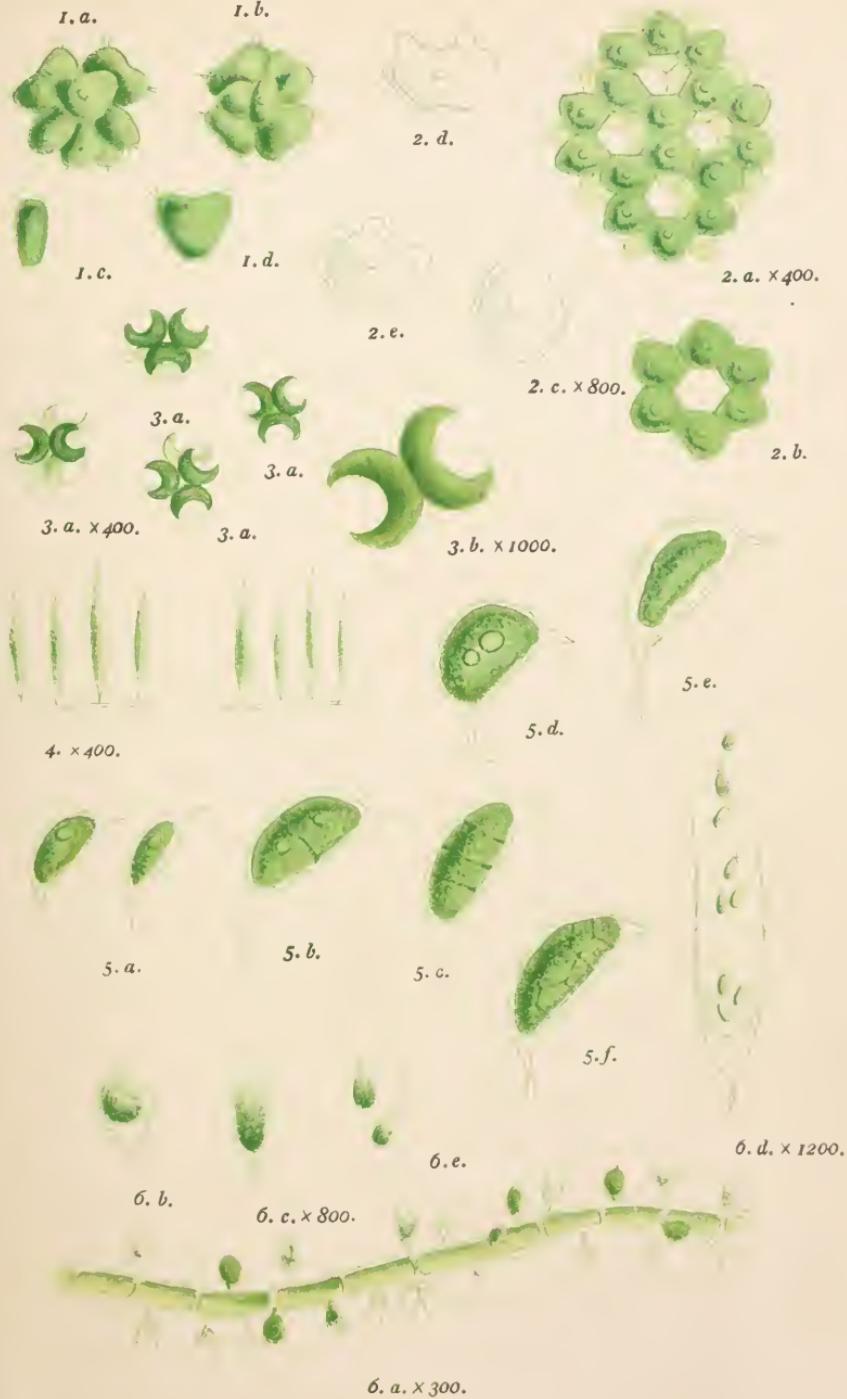




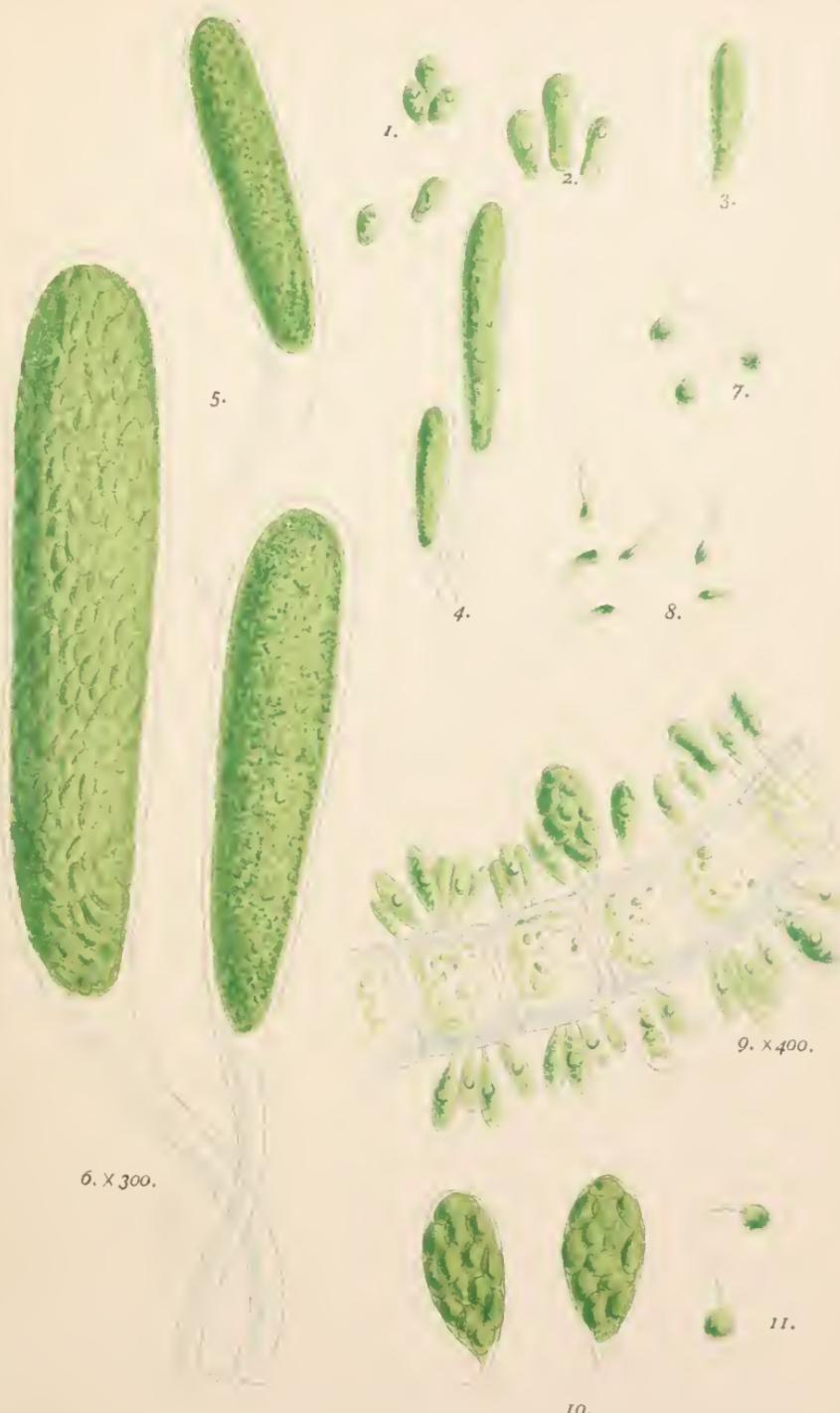
1. *Pediastrum bidentulum*. Br.
2. *Pediastrum constrictum*. Hass.
3. *Pediastrum gracile*. Br.
4. *Pediastrum pertusum* Kutz.
5. *P. pertusum v. clathratum* Br.
6. *P. pertusum v. brachylobum*. Br.



1. *Pediastrum Ehrenbergii*. Corda. 2. *Pediastrum rotula*. Ehrb.
 3. *Staurogenia rectangularis*. Nag. 4. *Polyedrium tetraedricum*. Nag.



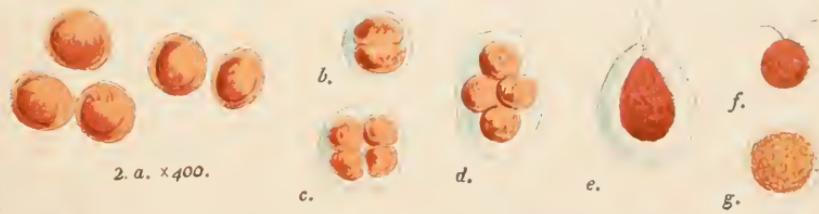
1. *Sorastrum spinulosum*. Nag.
2. *Cælastrum sphæricum*. Nag.
3. *Selenastrum Bibraianum*. Reinsch.
4. *Characium tenue*. Herm.
5. *Characium ornithocephalum*. Br.
6. *Hydrianum heteromorphum*. Reinsch.

1-8. *Codiolum gregarium*. Br.9-11. *Characium Sieboldi*. Br.

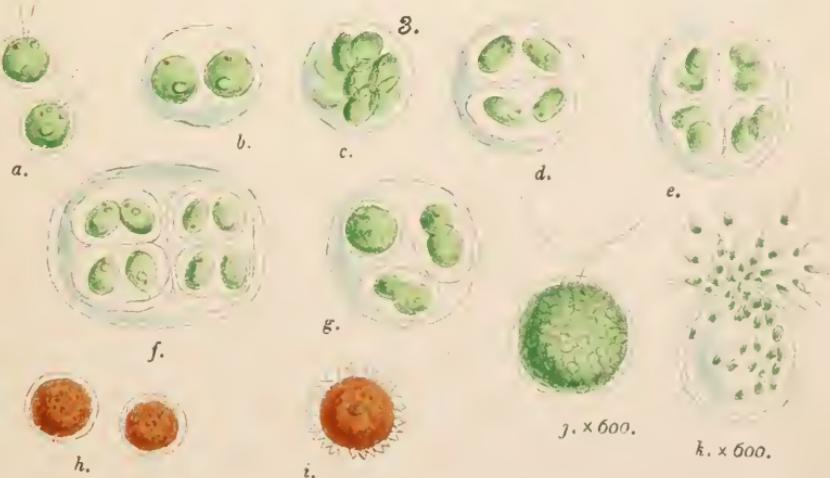
1.



2.

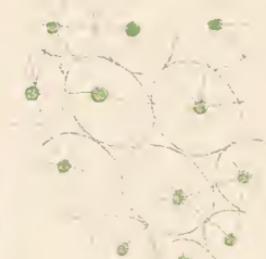
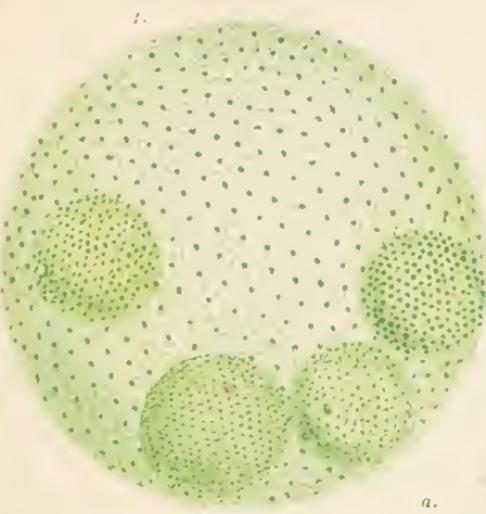


3.



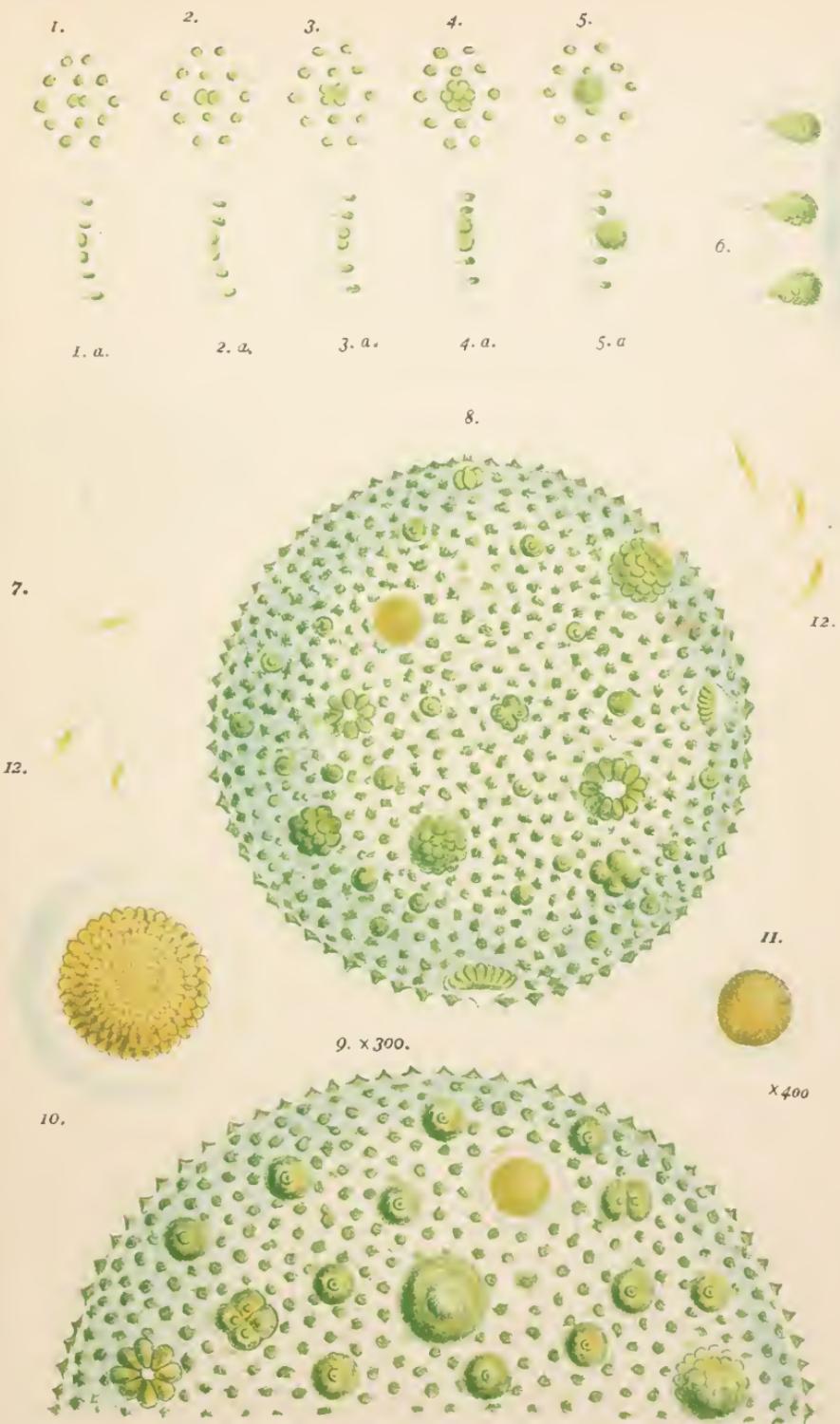
1. *Chlamydoecoccus pluvialis*. Br. 2. *Chlamydoecoccus nivalis*. Br.
3. *Chlamydomonas pulvrisculus*. Ehrb.

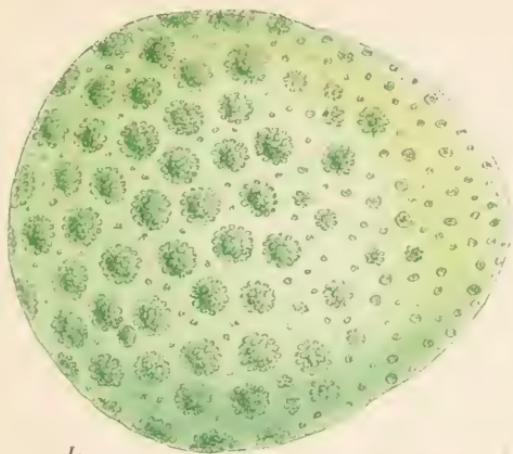


*a.**a.**b.**b.**3.**b.**a.**b.**a.**b.**5.*

Volvox globator. Ehrb.



*Volvox globator*. Ehr.



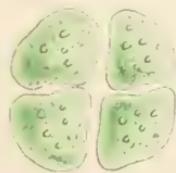
1.



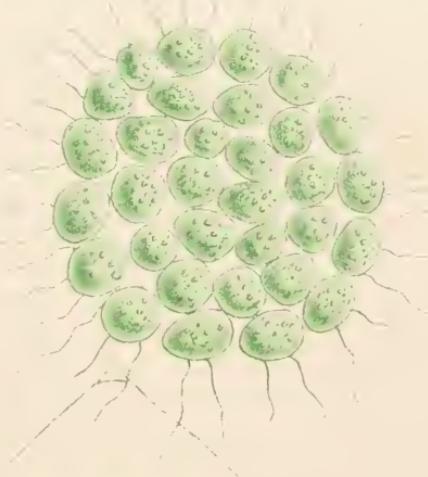
2.



3.



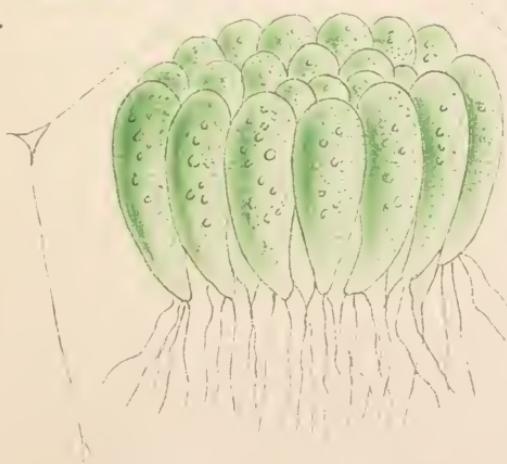
4.



5.



6.



7.

Volvox globator. ♂ (Sphaerosira volvox Ehr.)

6.



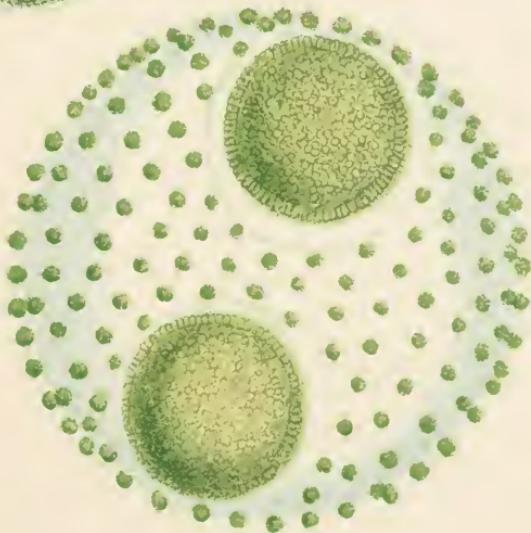
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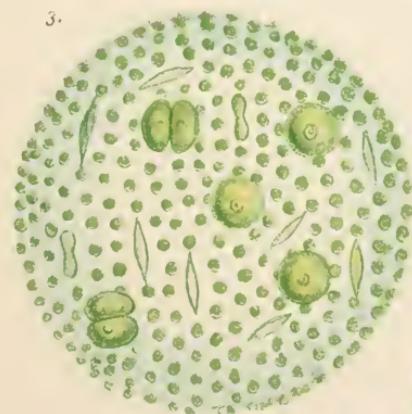
I.



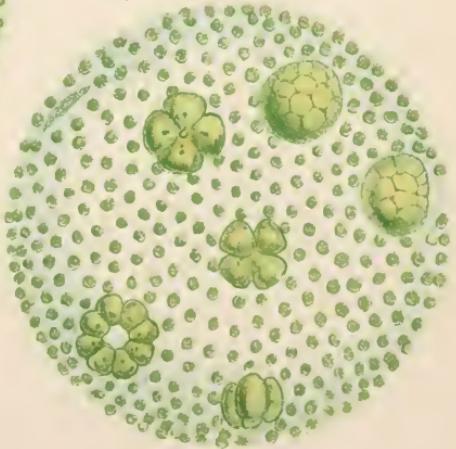
2.



8.



4.



5.



1.



2.



5.

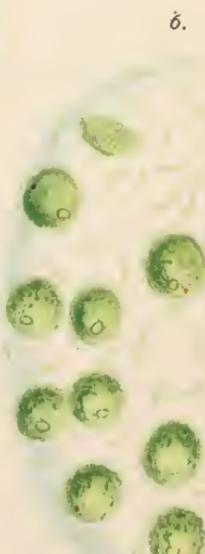


4. X 400.

7. X 400.



9. X 800.



8. X 800.



3.







1.a.

1. a.-c. $\times 400$ 

1. b.



1. c.

1. f.

1. d.



2.b.



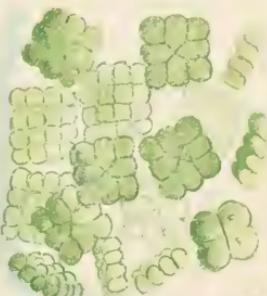
1. g.



2. a.



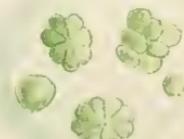
2. c.



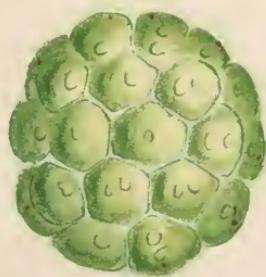
2.f.



2. h.



2. g.



2. d.



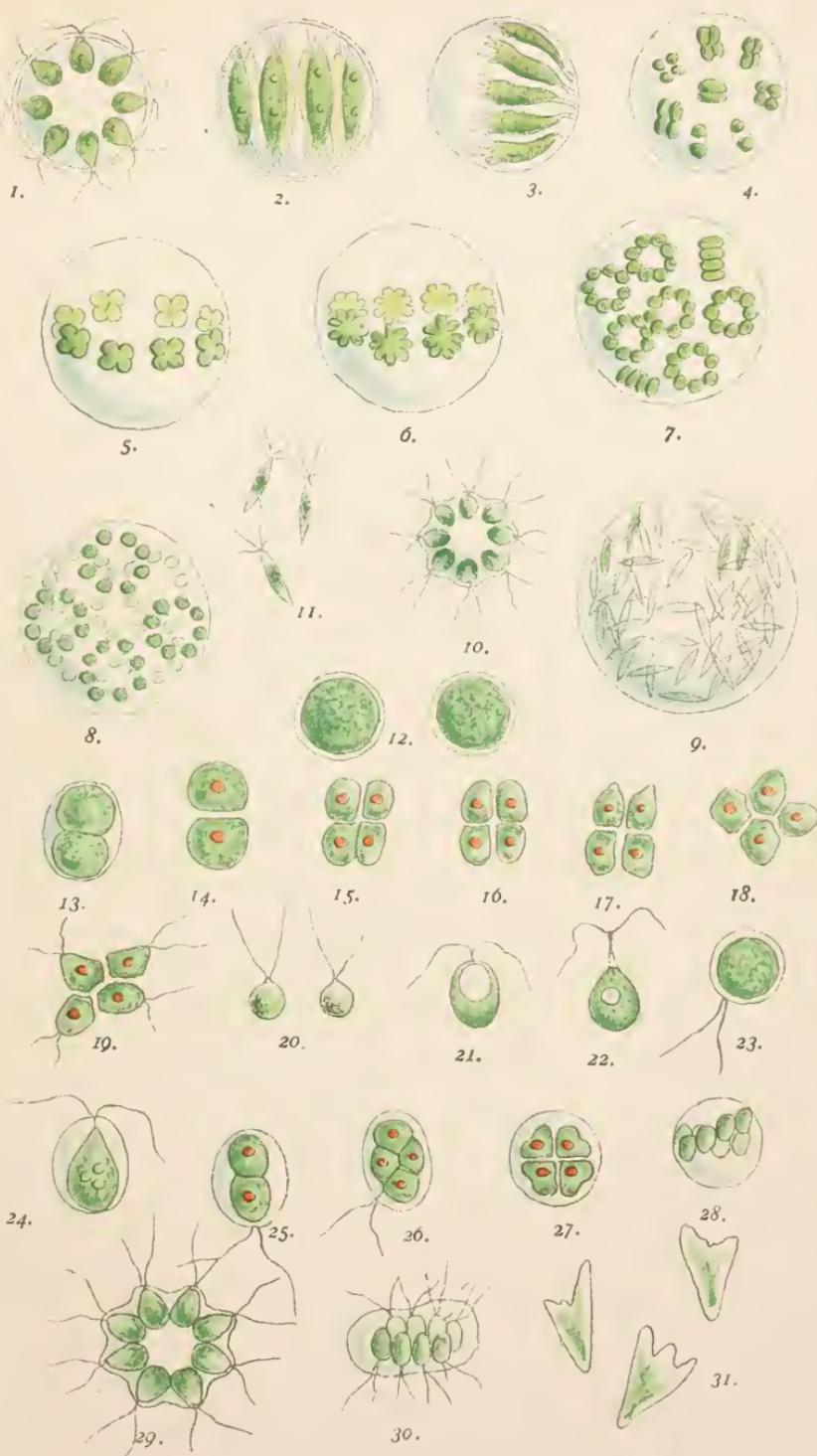
2. e.



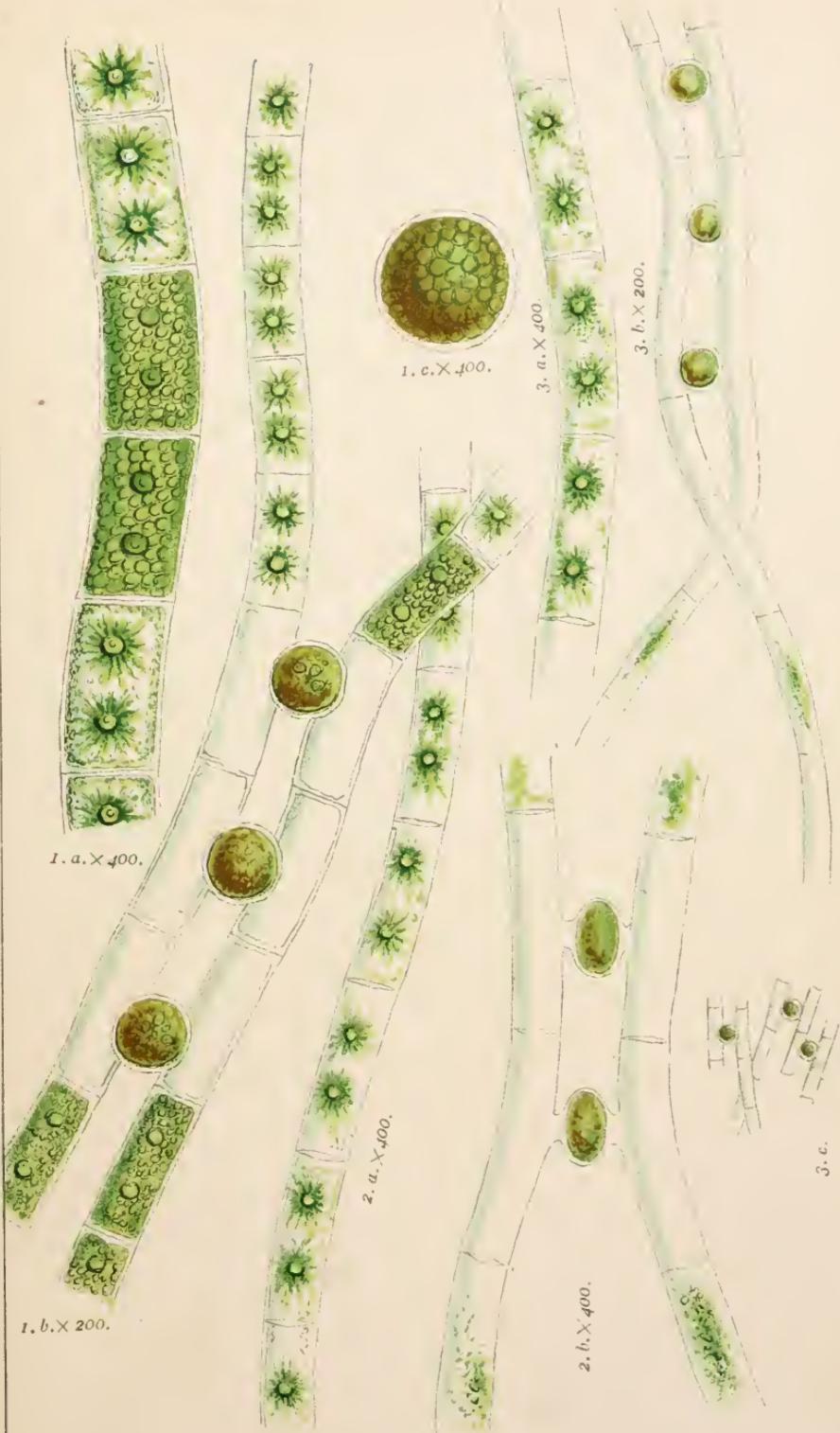
2. i.

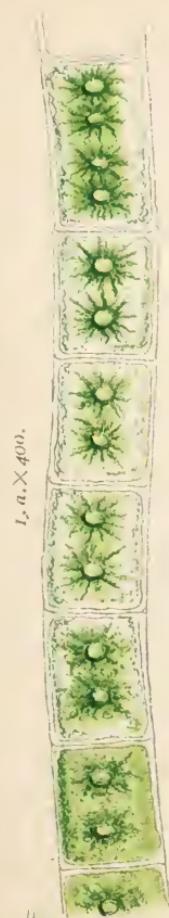
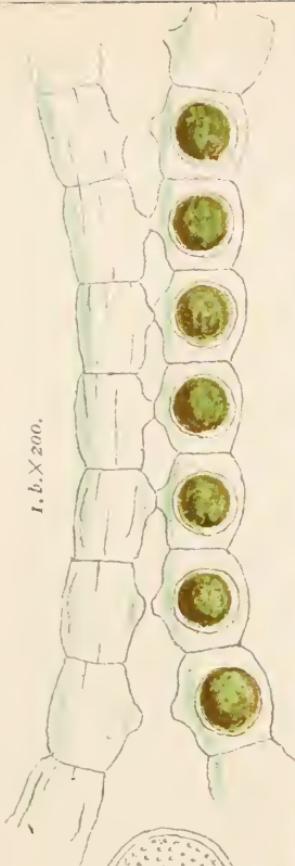
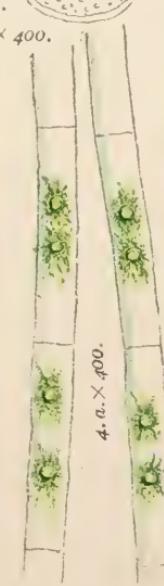
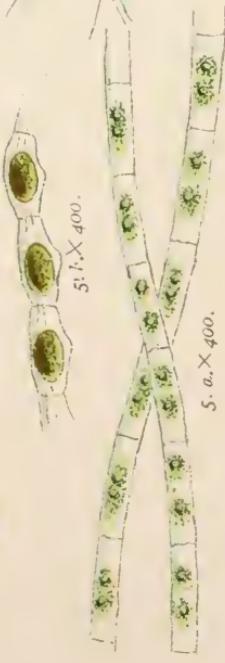
1. *Gonium pectorale*. Mull. 2. *Pandorina morum*. Bory.



*Stephanosphaera pluvialis. Cohn.*

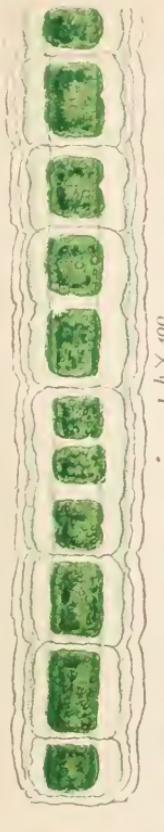
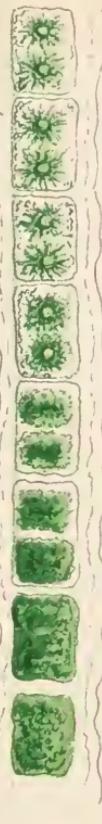
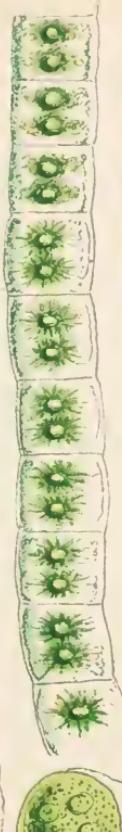
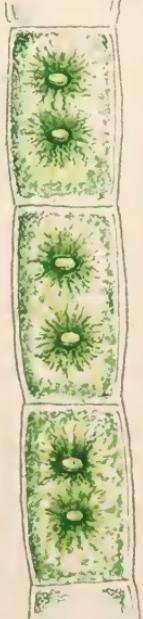
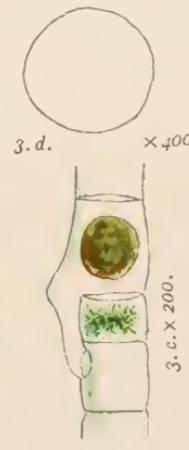


1. *Zygnema pectinatum* Ag. 2. *Zygnema Ralfsii* Hass.3. *Zygnema parvulum* Kutz.

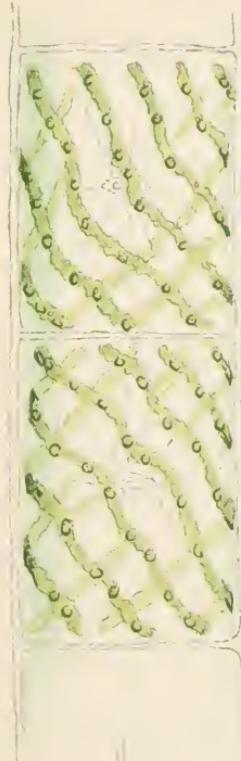
1. a. $\times 400.$ 1. b. $\times 200.$ 2. a. $\times 400.$ 2. b. $\times 400.$ 3. a. $\times 400.$ 3. b. $\times 400.$  $\times 400.$ 4. a. $\times 400.$ 4. b. $\times 400.$ 5. a. $\times 400.$

1. *Zygnuma cruciatum*. fig. 1. a. $\times 400.$
3. *Zygnuma Vaucheri*. fig. 3. a. $\times 400.$

2. *Zygnuma stellinum*. Vauch. 2. a. $\times 400.$
5. *var. stagnale*. 5. a. $\times 400.$

I. a. $\times 400.$ *I. b.* $\times 400.$ *I. c.* $\times 400.$ *2. a.* $\times 400.$ *2. b.* $\times 400.$ *2. d.* $\times 400.$ *I. d.* $\times 400.$ *3. a.* $\times 400.$ *3. h.* $\times 200.$ *3. d.* $\times 400$ *3. c.* $\times 200.$

1. *Zygnema anomalam*. Ralfs. 2. *Zygnema leiospermum*. Ⓛ.B.
3. *Zygnema instigne*. Kutz.

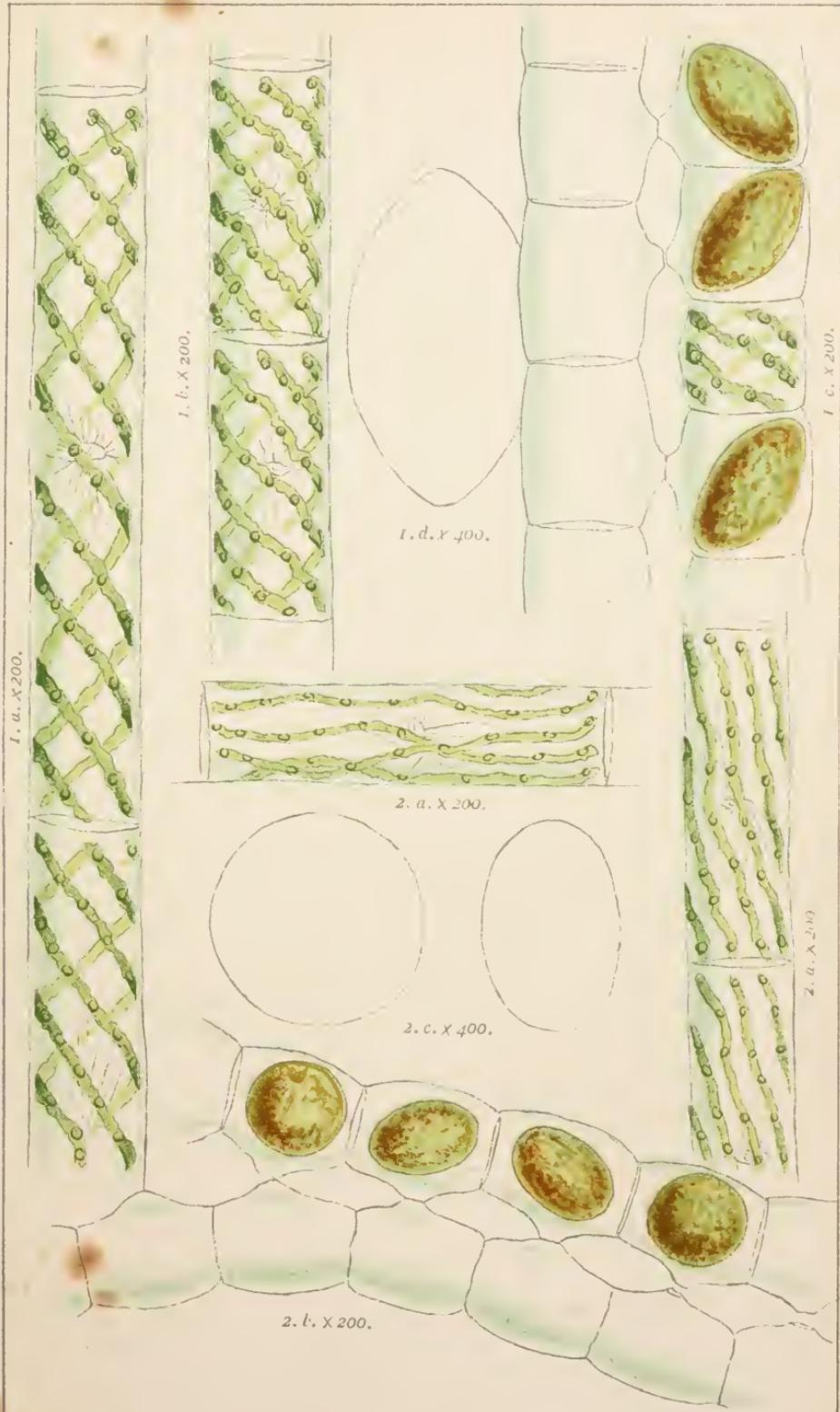


2. c. $\times 200.$

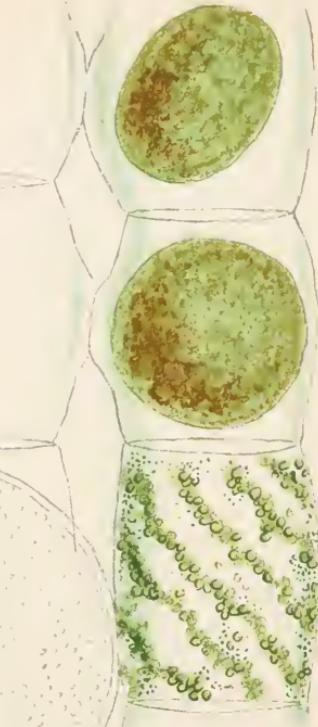
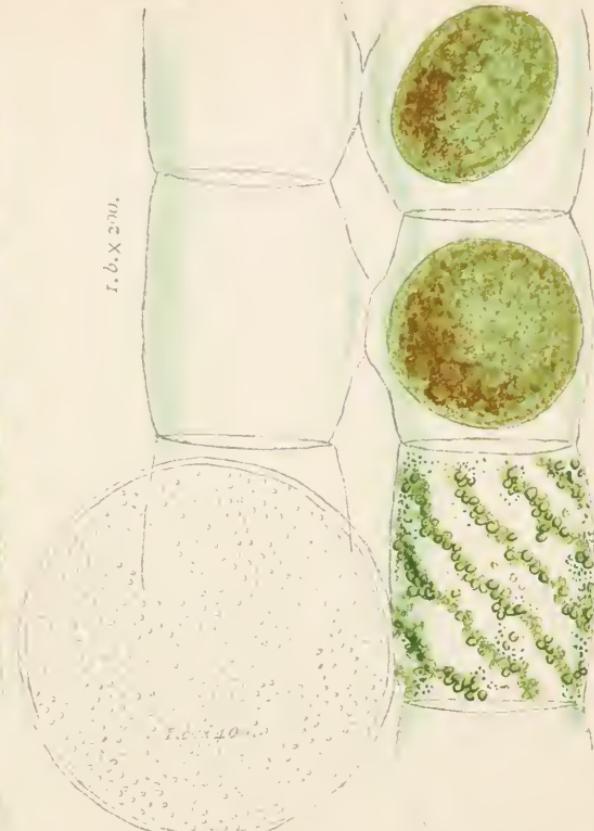
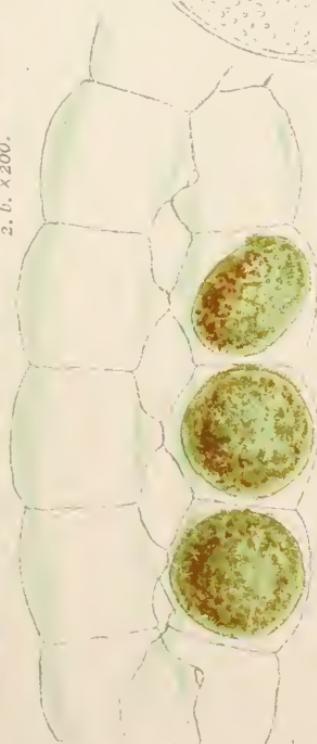
1. *Spirogyra crassa*, Kutz.

2. *Spirogyra juga'is*, Dillw.







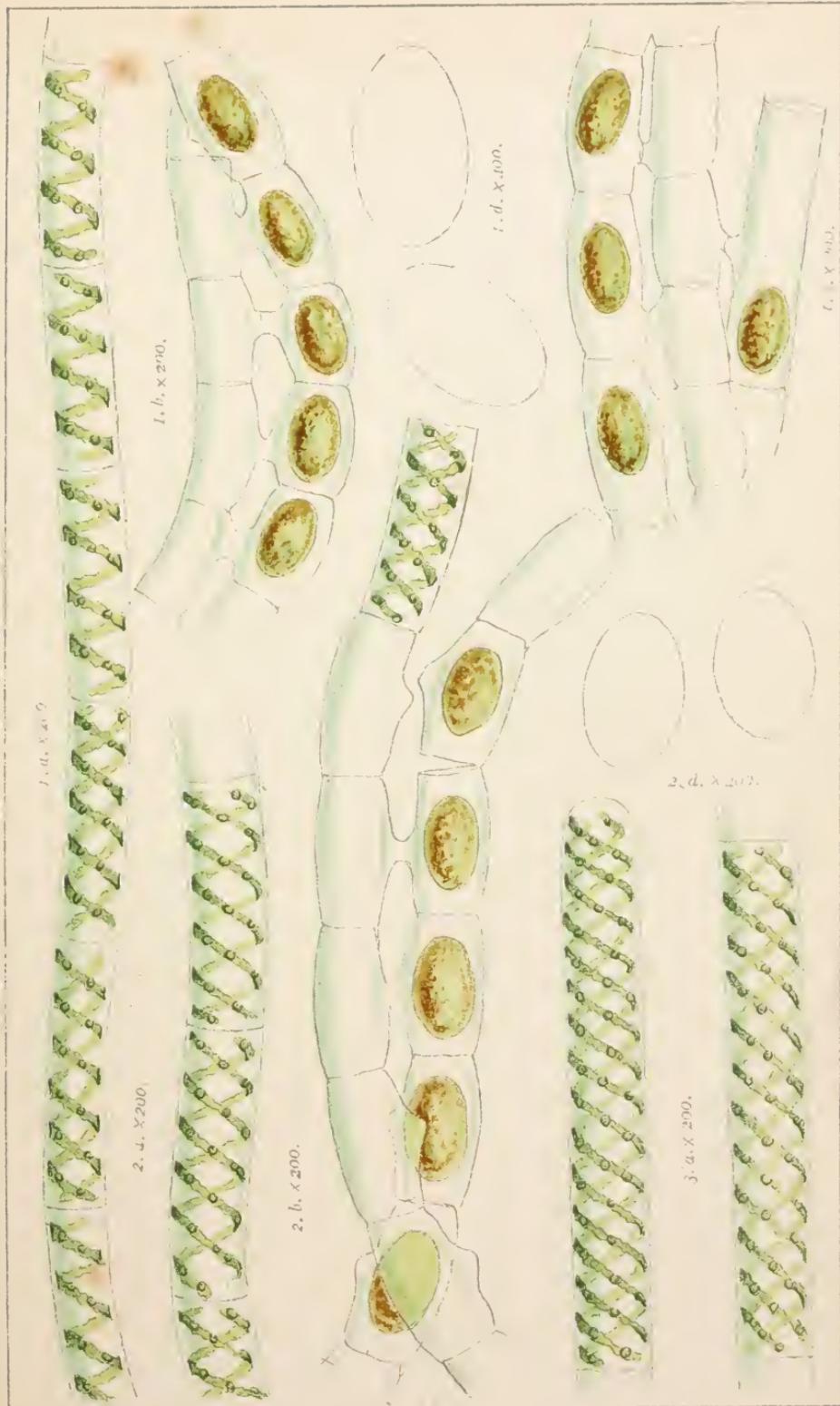


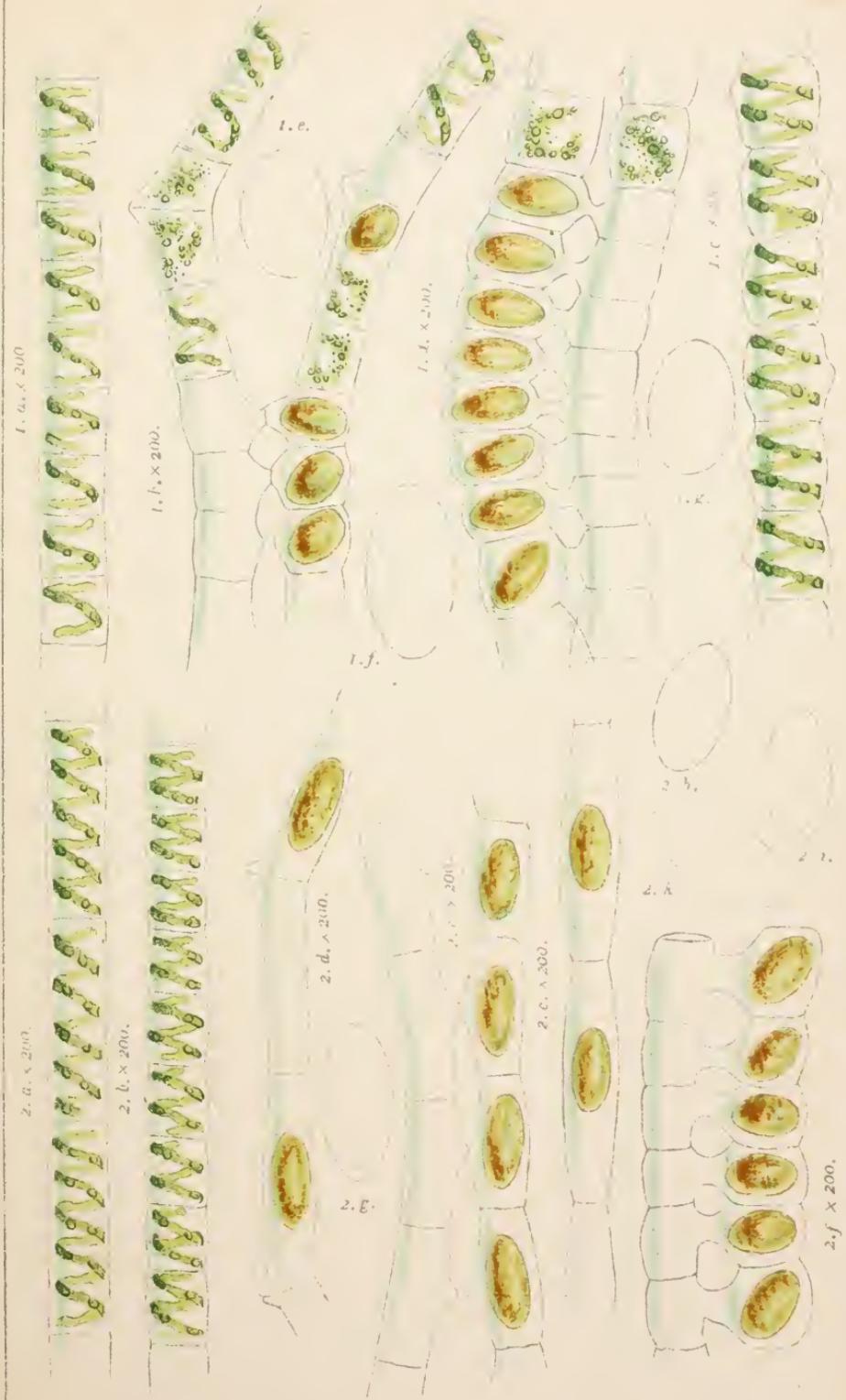
2. d. $\times 200$.

1. *Sphaerogena orbicularis* Blasch.

2. *Cladophora furcata* Hass.



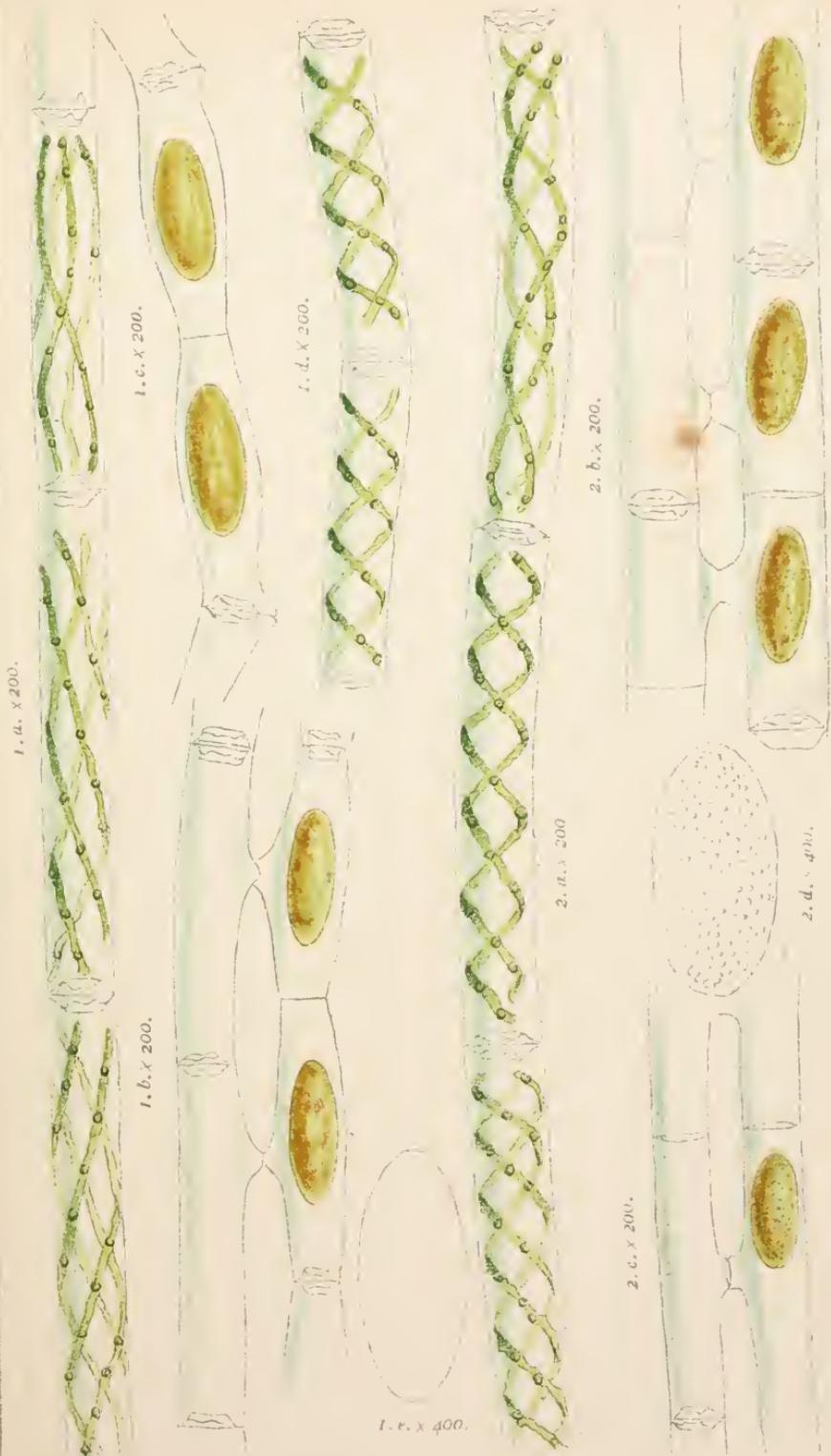
*Spirogyra porticalis* Vauch.1. *forma guinina.*2. *forma decimina.*3. *forma nivirris.*

1. *Spirogyra condensata* Vauch.2. *Spirogyra longata* Vauch.



*Sympogyr'i flavaescens*, Kutz.1. var. *gracilis*. 2. var. *flavaescens*. 3. var. *parva*



1. *Spiraea insignis*, H. & A.2. *Spiraea calceiformis*, Cleve



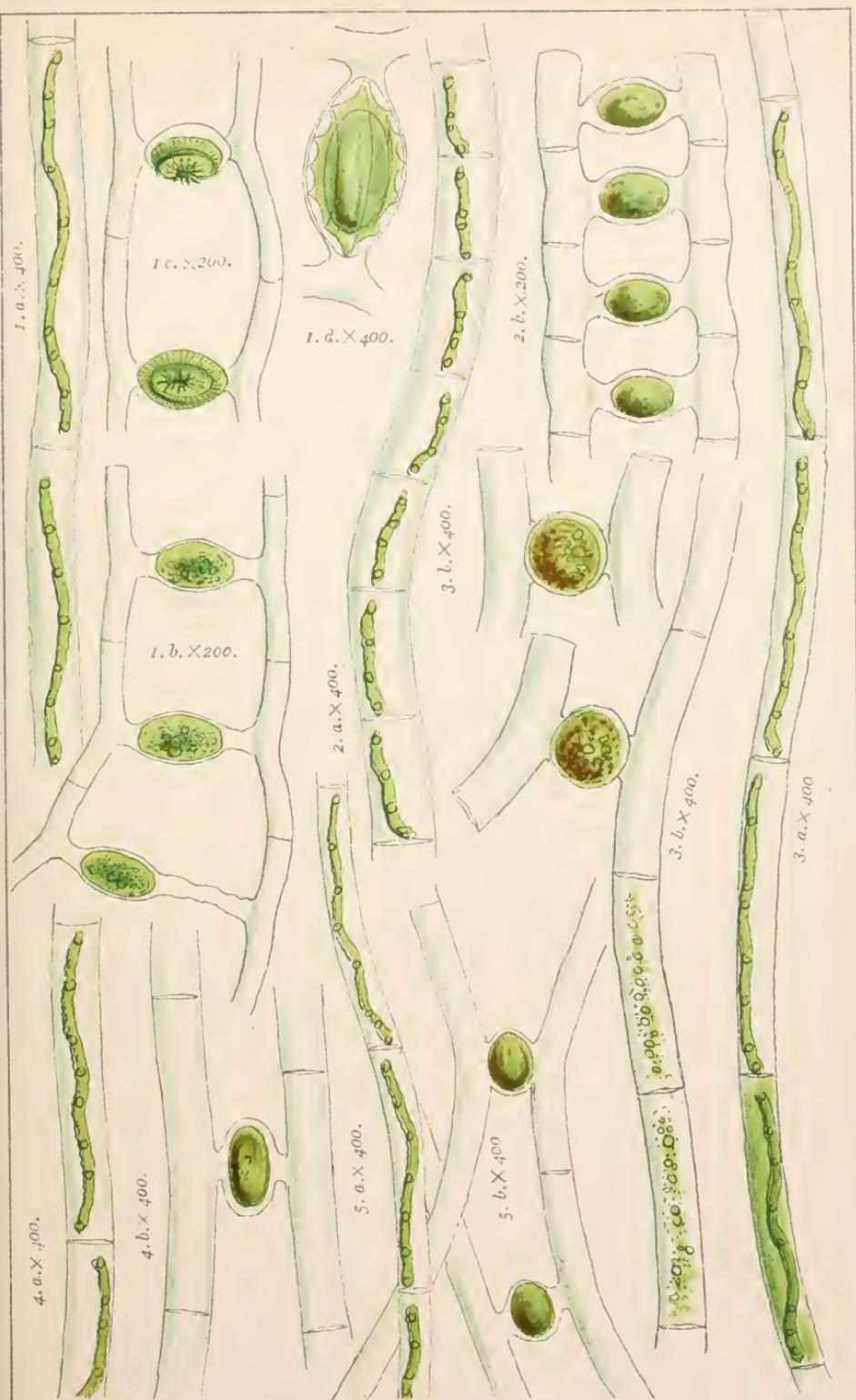
1. *Spirogyra quadrata*. Hass.2. *Spirogyra Weberi*. Kutz.3. *Spirogyra tenuiesima*. Hass.





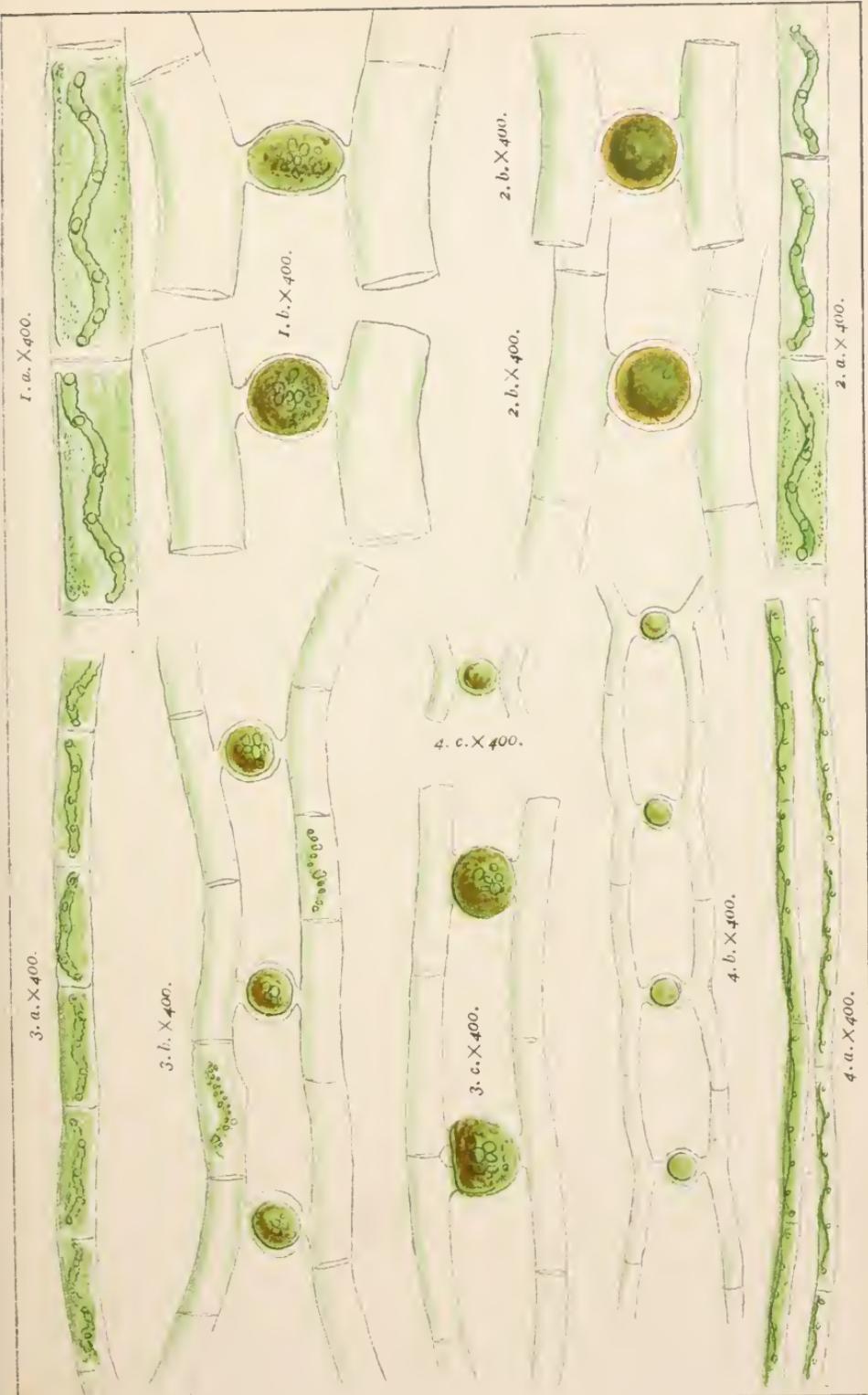
1. *Sirogonium sticticum*. Kutz. 2. *Zygomonium ericetorum*. Ⓛ. By.
3. *Z. ericetorum*, var. *aquaticum*. 4. *Zygomonium gracile*. Berk.





1. *Mougeotia glyptosperma*. *DBy.*
2. *Mougeotia lœvis*. *Archer.*
3. *Mesocarpus nummuloides*. *Hass.*
4. *Mesocarpus depressus*. *Hass.*
5. *Mesocarpus depressus*, var. *ovalis*.

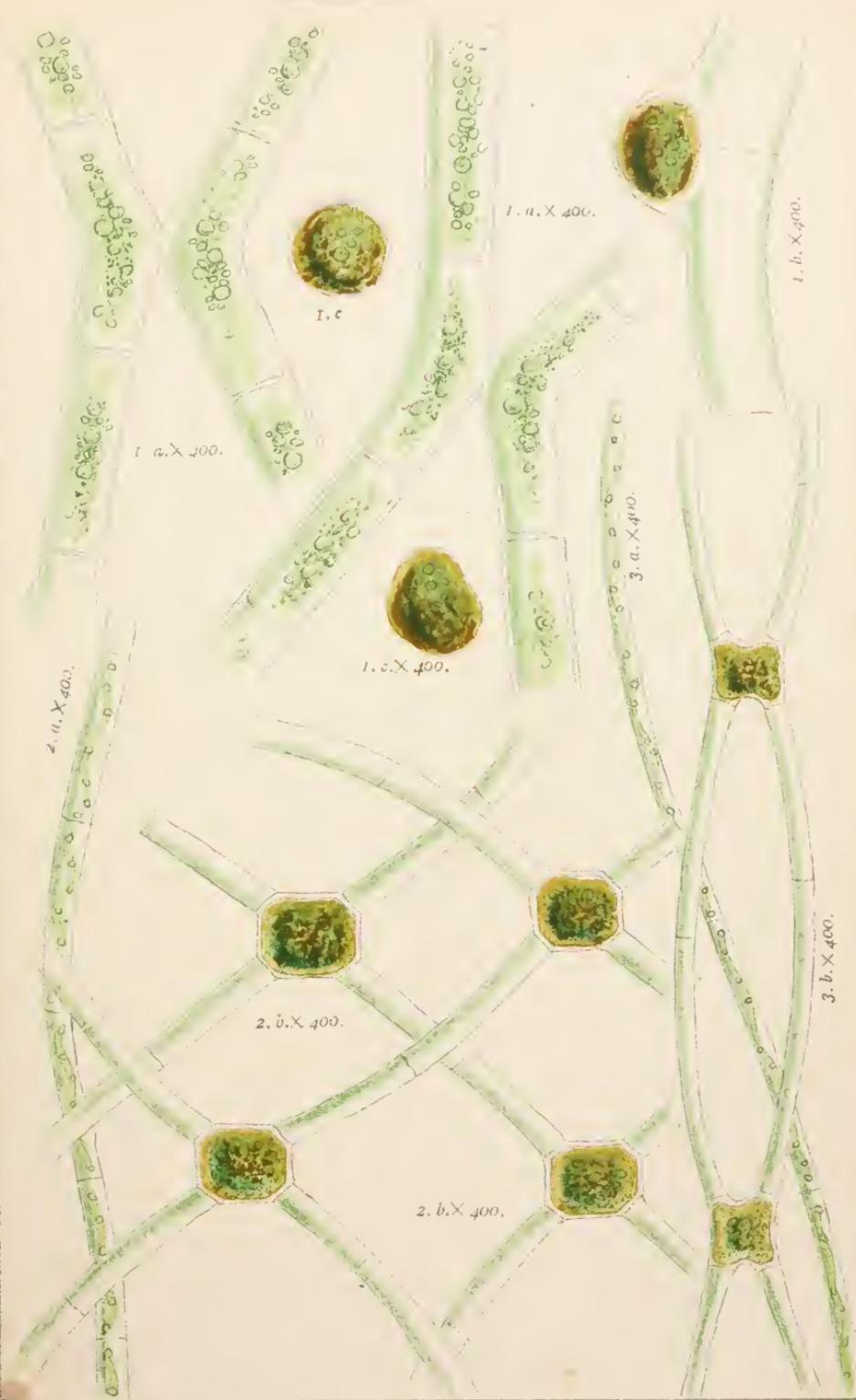




1. *Mesocarpus scalaris*. Hass.
3. *Mesocarpus parvulus*. Hass.

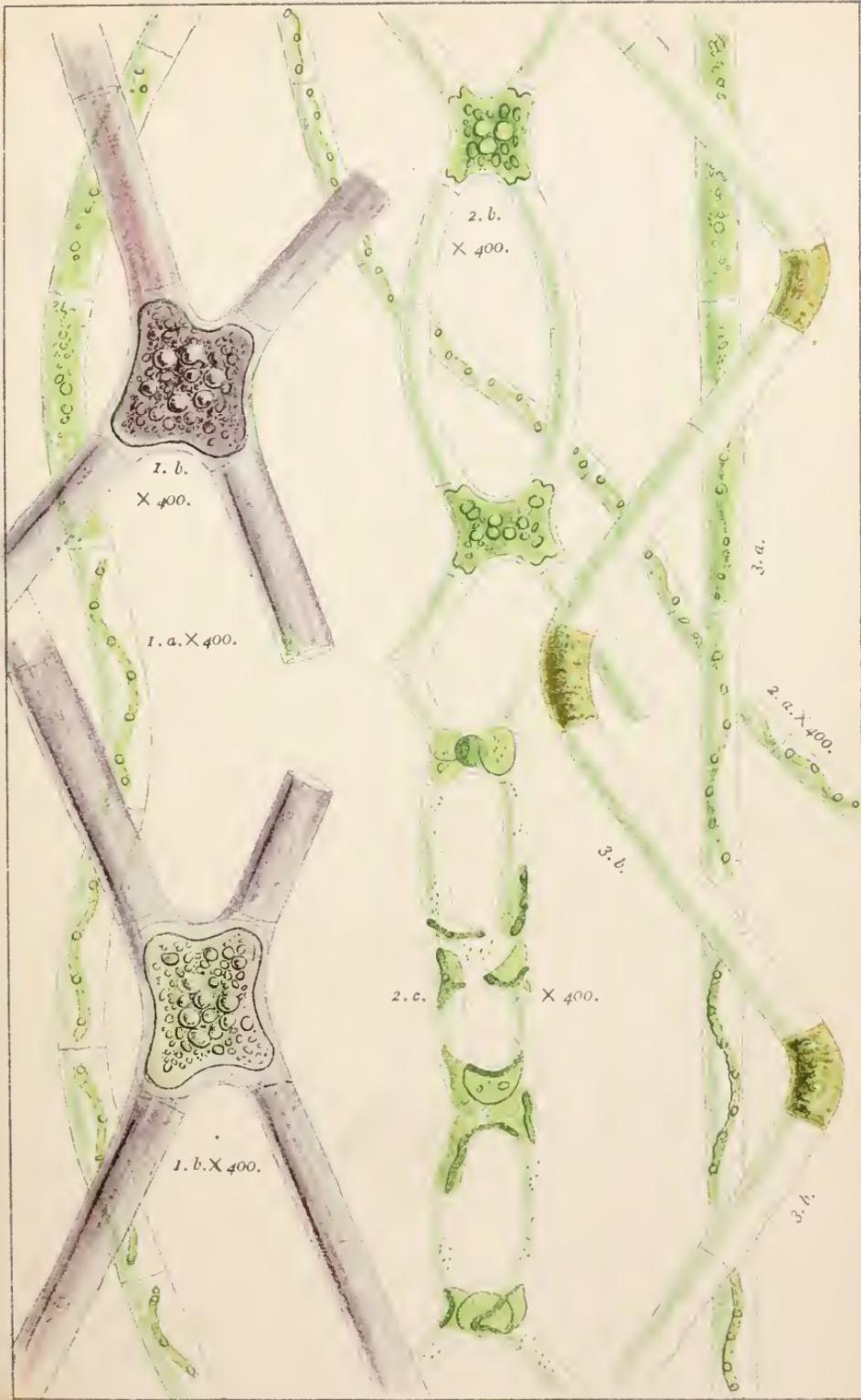
2. *Mesocarpus recurvus*. Hass.
4. *M. parvulus*, var. *angustus*. Hass.



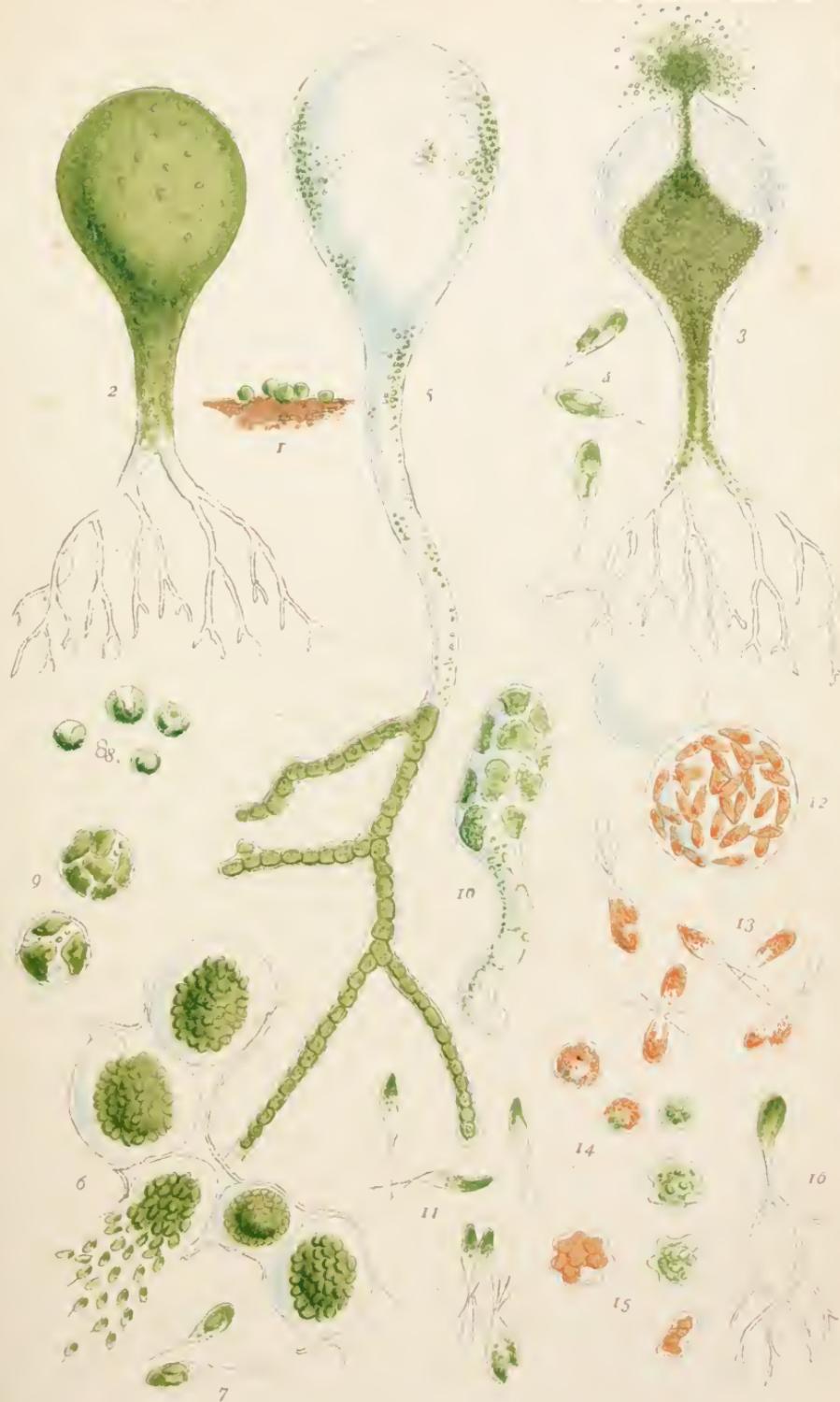


1. *Mesocarpus pleurocarpus*. (DBy.) 2. *Staurospermum quadratum*. Hass
 3. *Staurospermum gracillimum*. Hass.



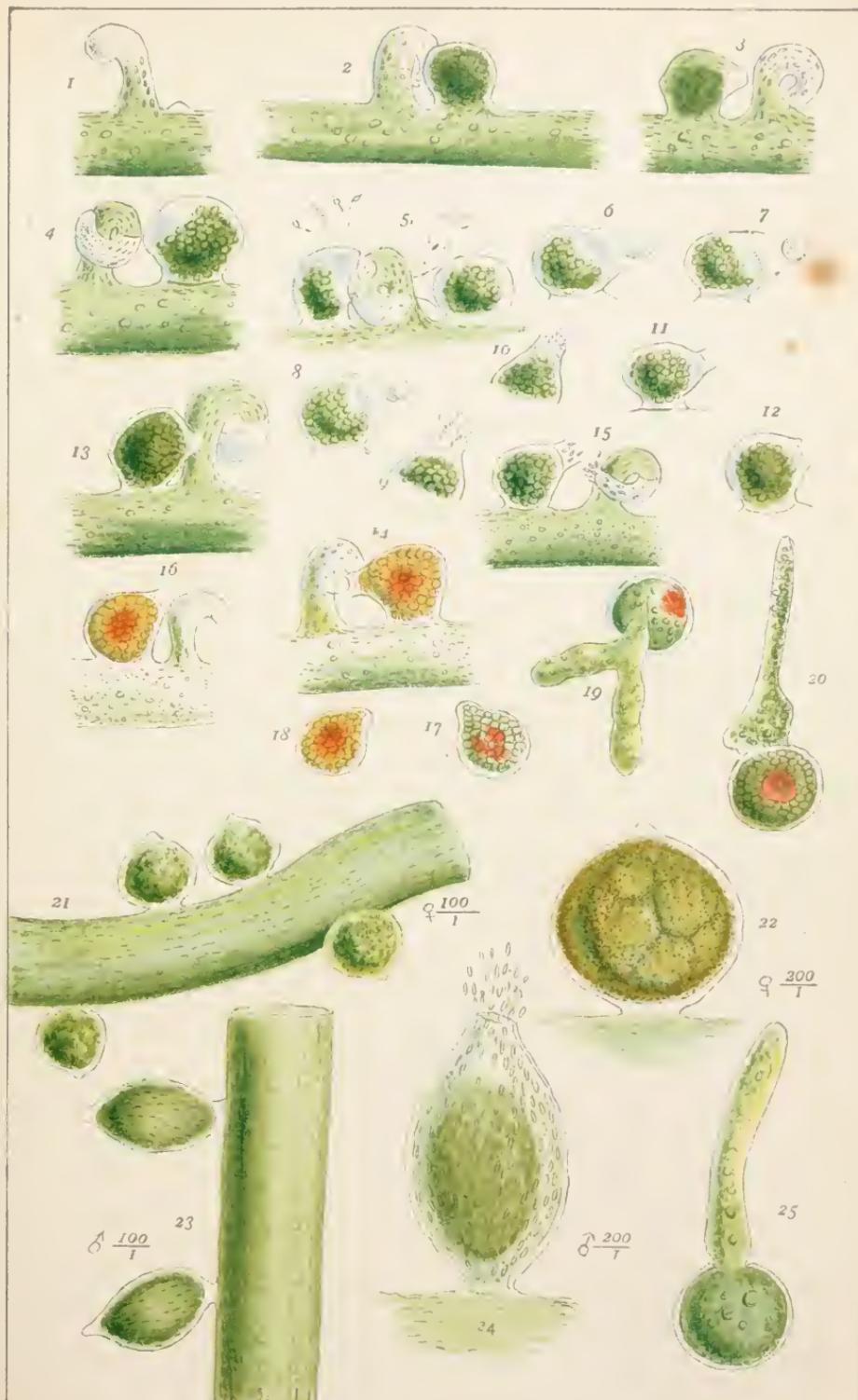
1. *Staurospermum capucinum*. Bory. 2. *Staurospermum viride*. Kutz.3. *Gonatonema mirabile*. Hass.





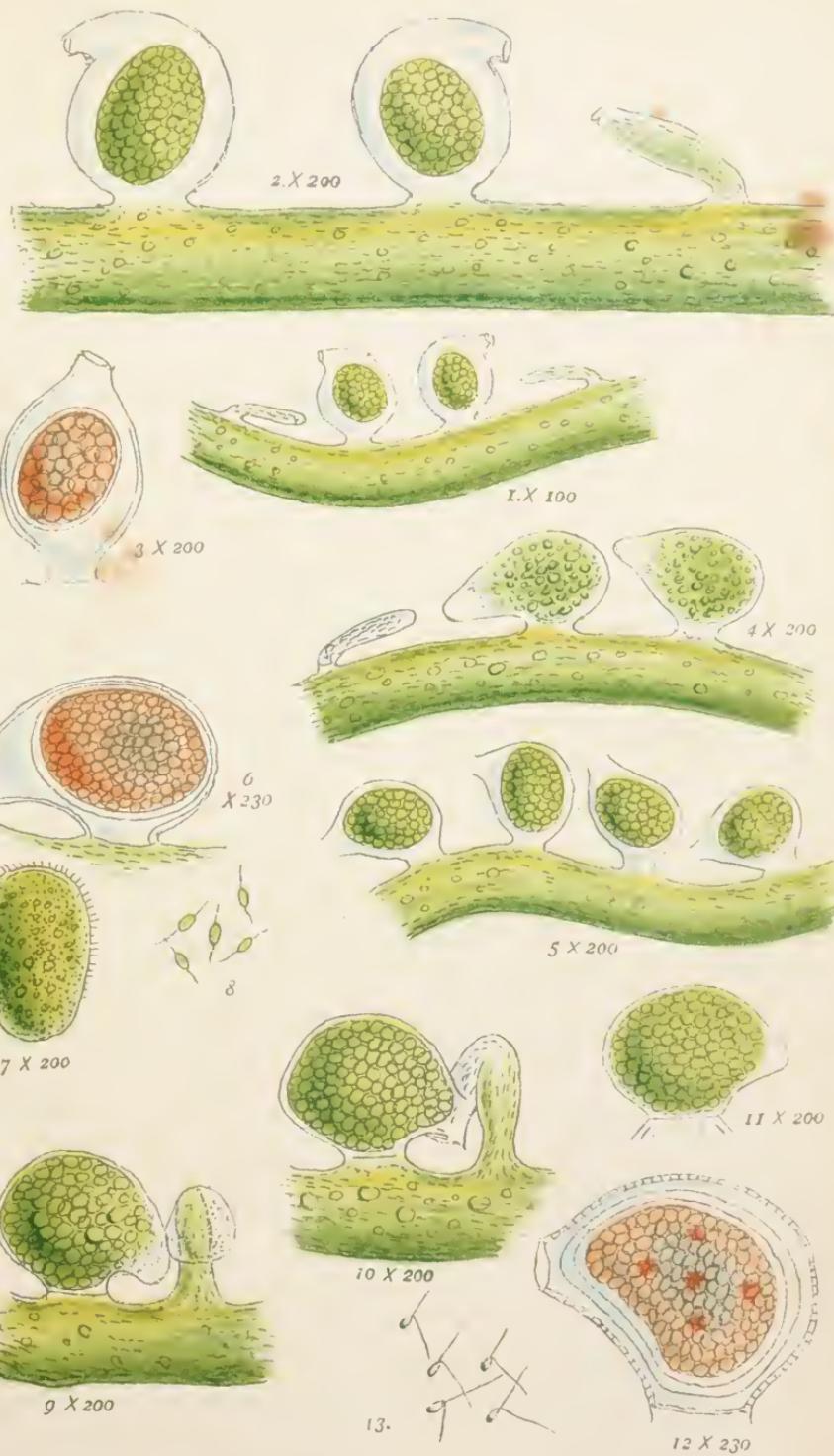
Botrydium granulatum, after Woronin.





1-20. Impregnation of *Vaucheria sessilis*. 21-25. *Vaucheria dichotoma*. Lyngb.



1-3 *Vaucheria aversa* Hass. 4.-8. *Vaucheria sericea*, Lyngb.9.-13. *Vaucheria Dillwynii* Ag.



1.-2. *Vaucheria sessilis*. Vanch. 3. *cæspitosa*. 4. *repens*. 5. sporangium.6.-9. *Vaucheria cespitosa*. D. C.10.-14. *Vaucheria hamata* Lyrgb.





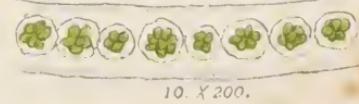
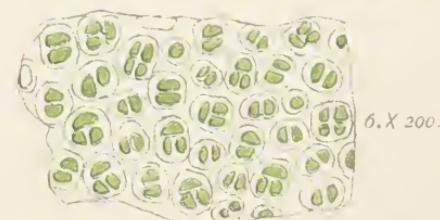
1-3 *Vaucheria terrestris*. Lyngb.
5-6. *Vaucheria submarina*. Berle.

4. *Vaucheria racemosa*. Huds.
7. *Vaucheria velutina*. J. G.

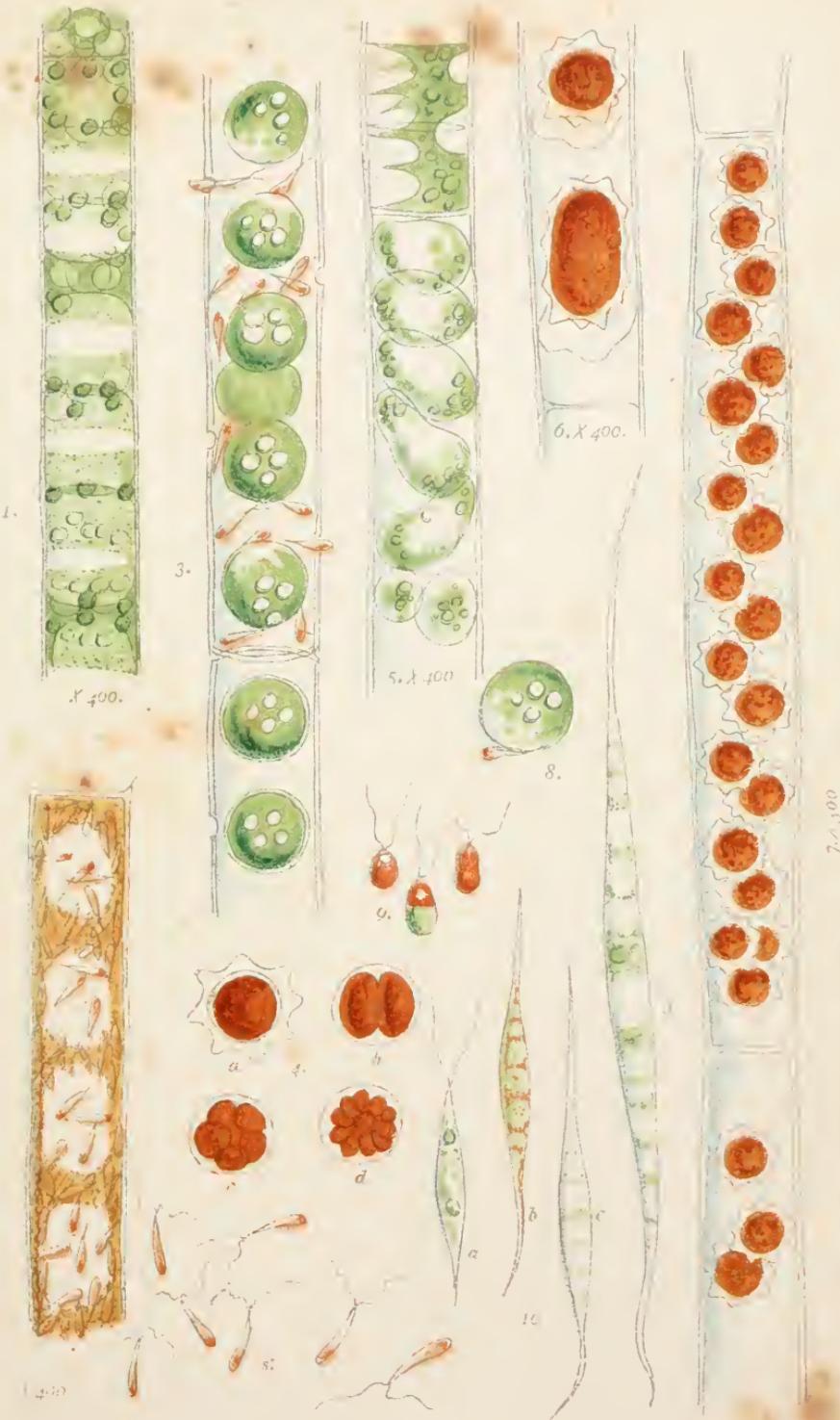


1.-2. *Prasiola crispa*. Kitz.5.-7. *Prasiola furfuracea*. Men.8.-4. *Prasiola calciphylla*. Carm.8.-11. *Prasiola stipitata*. Suhr.



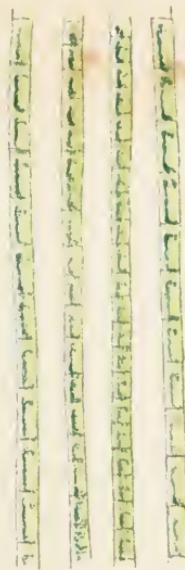
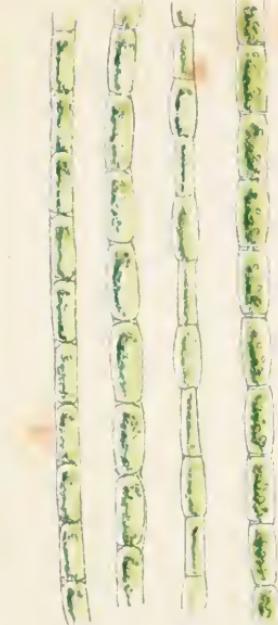
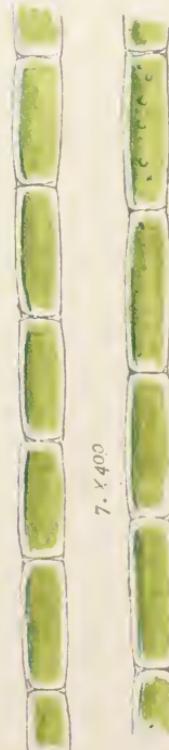
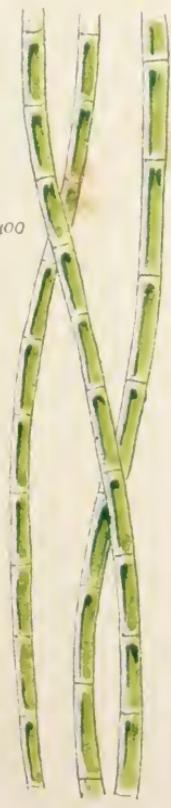
1.-5. *Enteromorpha intestinalis*. L.6.-7. *Monostroma laceratum*. Thur.8.-12. *Monostroma Wittrockii*. Born.



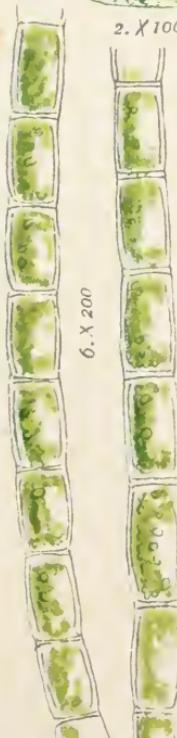
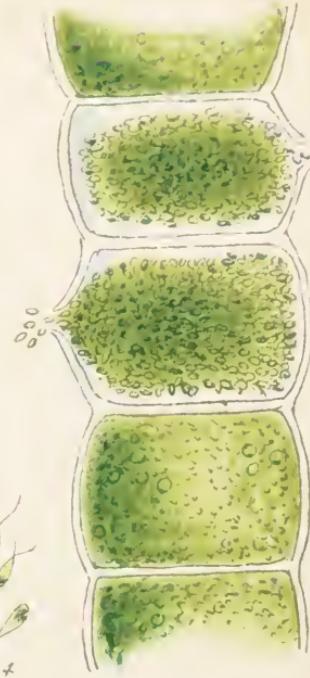
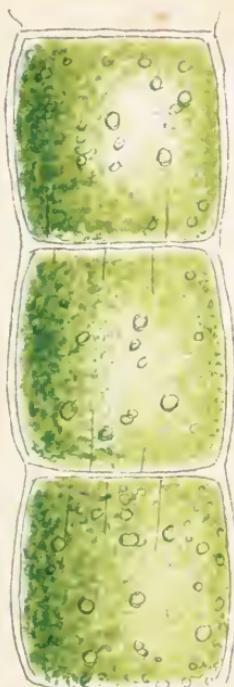
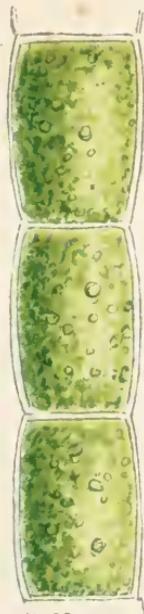


Sphaeroplea annulina figs. X 400.



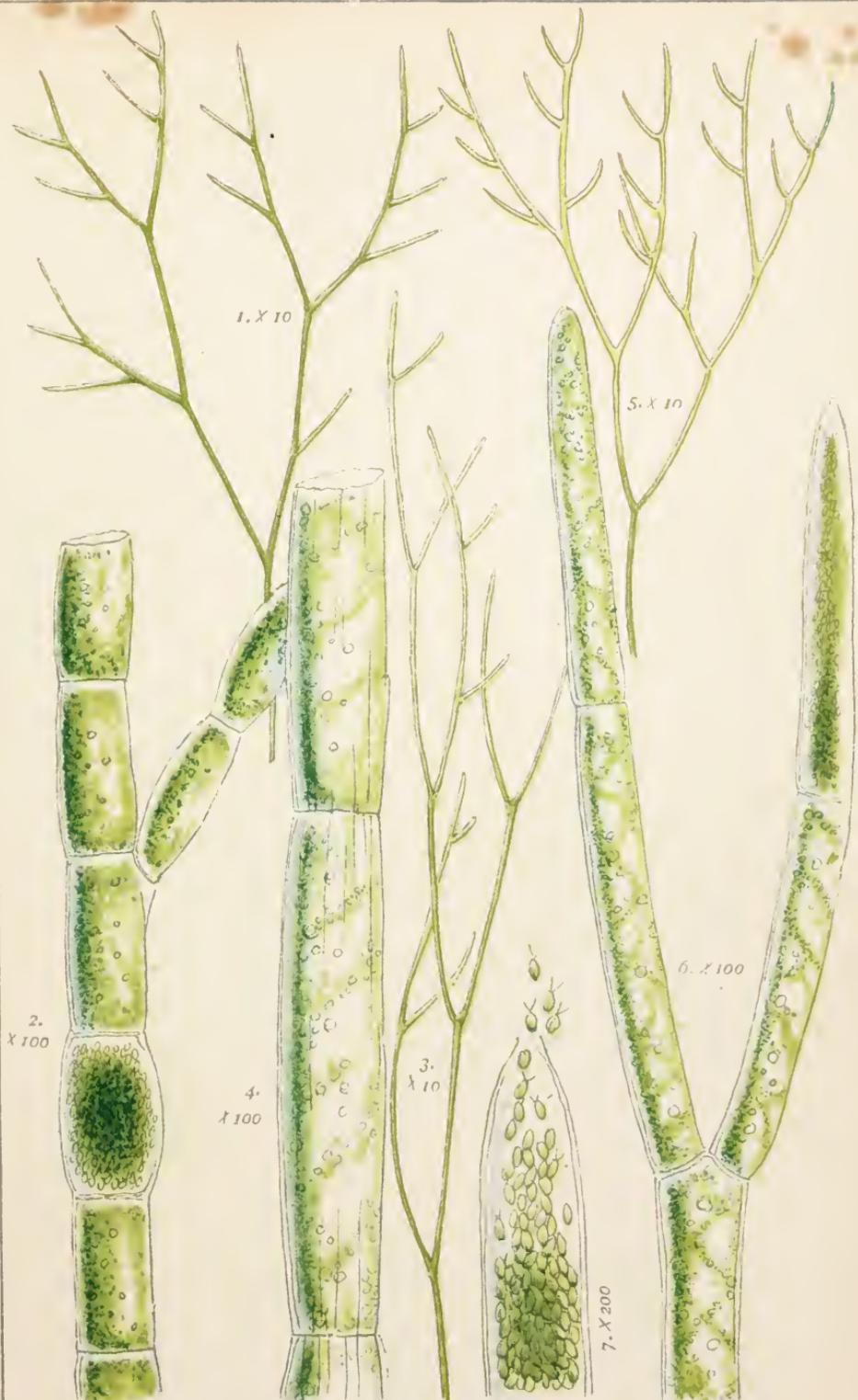
1. $\times 300$ 2. $\times 300$ 3. $\times 300$ 7. $\times 400$ 6. $\times 150$ 5. $\times 400$ 1. *Microspora fugacissima*. Thur.2. *Microspora vulgaris*, Rabb.3. *Microspora floccosa*. Thur.4. *Conferva bombycina*. Ag5. *Conferva tenerrima*. Kutz.6.-7. *Conferva fentinalis*. Berk.





1. *Chætomorpha litorea*. Harv.
5. *Chætomorpha sutoria*. Berk.
7. *Rhizoclonium Casparyi*. Harv.

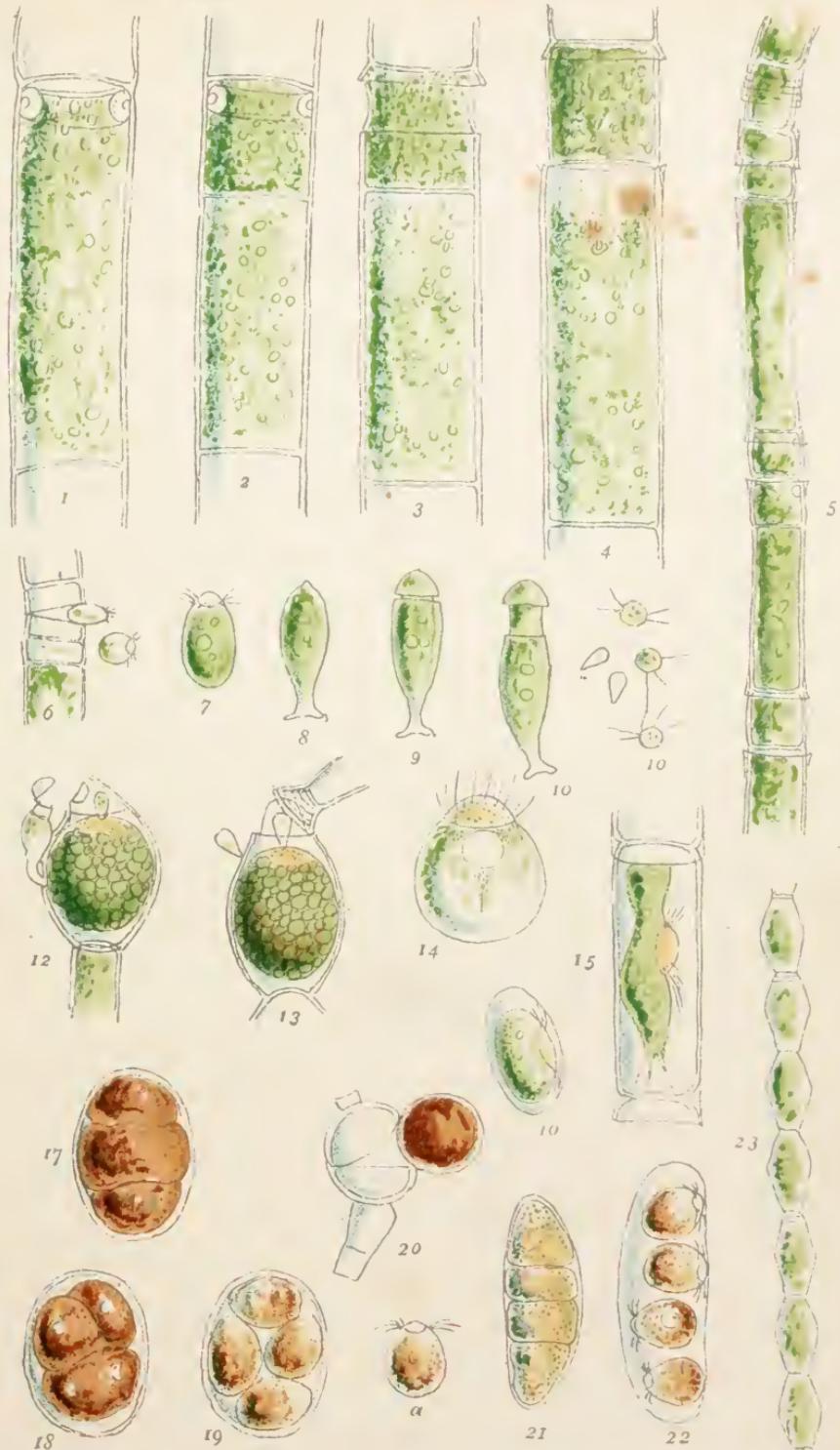
- 2.-4. *Chætomorpha linum*. K.
6. *Chætomorpha implexa*. Dillw.
8. *Rhizoclonium flavicans*. Jurg.

1.-2. *Cladophora fracta* K. 3.-4. *Cladophora crispata*. K.5. 7. *Cladophora flavescens*. Ag



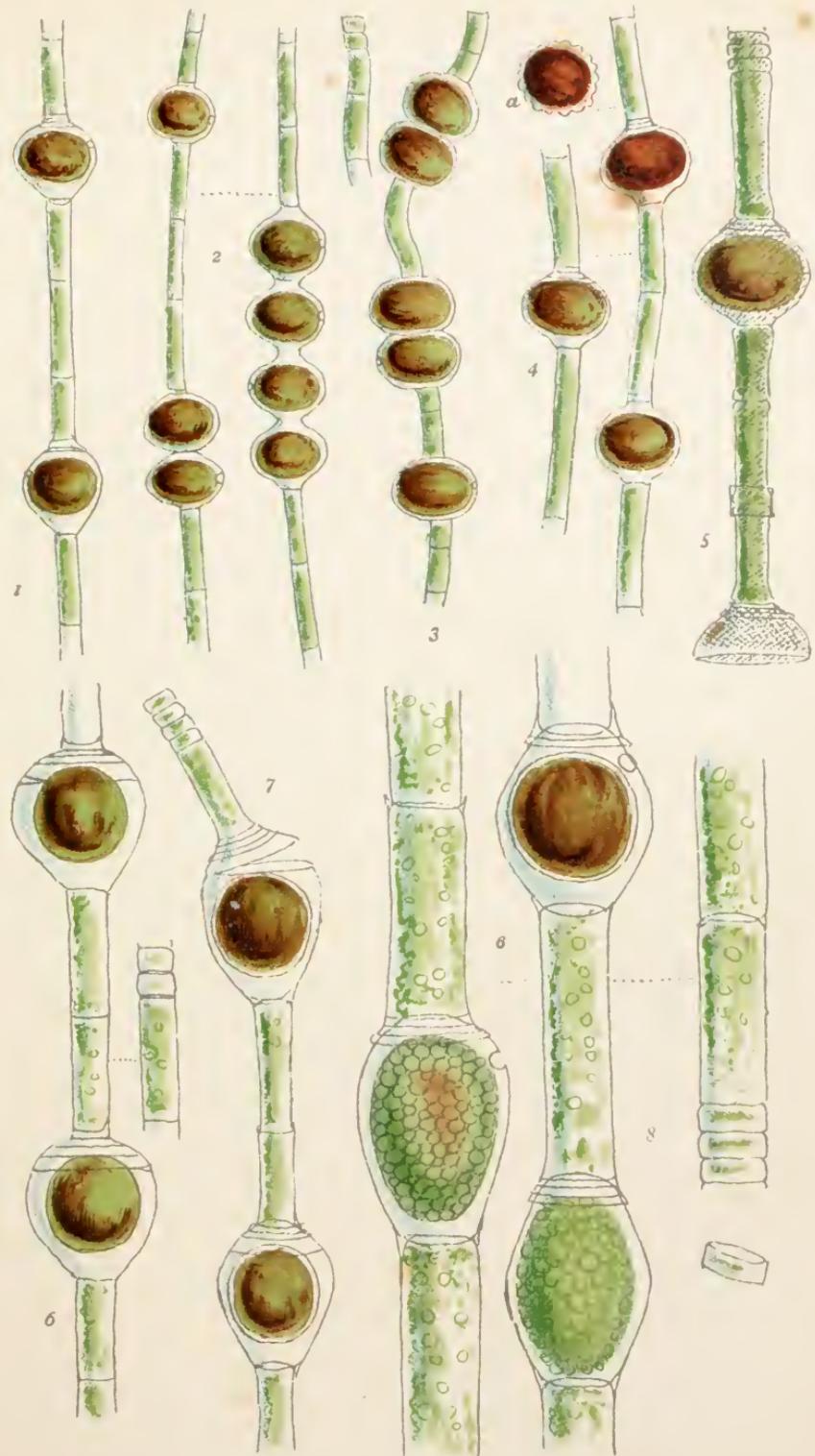
1.-4. *Cladophora glomerata* L.6.-7. *Cladophora aegagropila* L.5. *Cladophora canalicularis*.8.-11. *Pithophora kewensis*. Wi



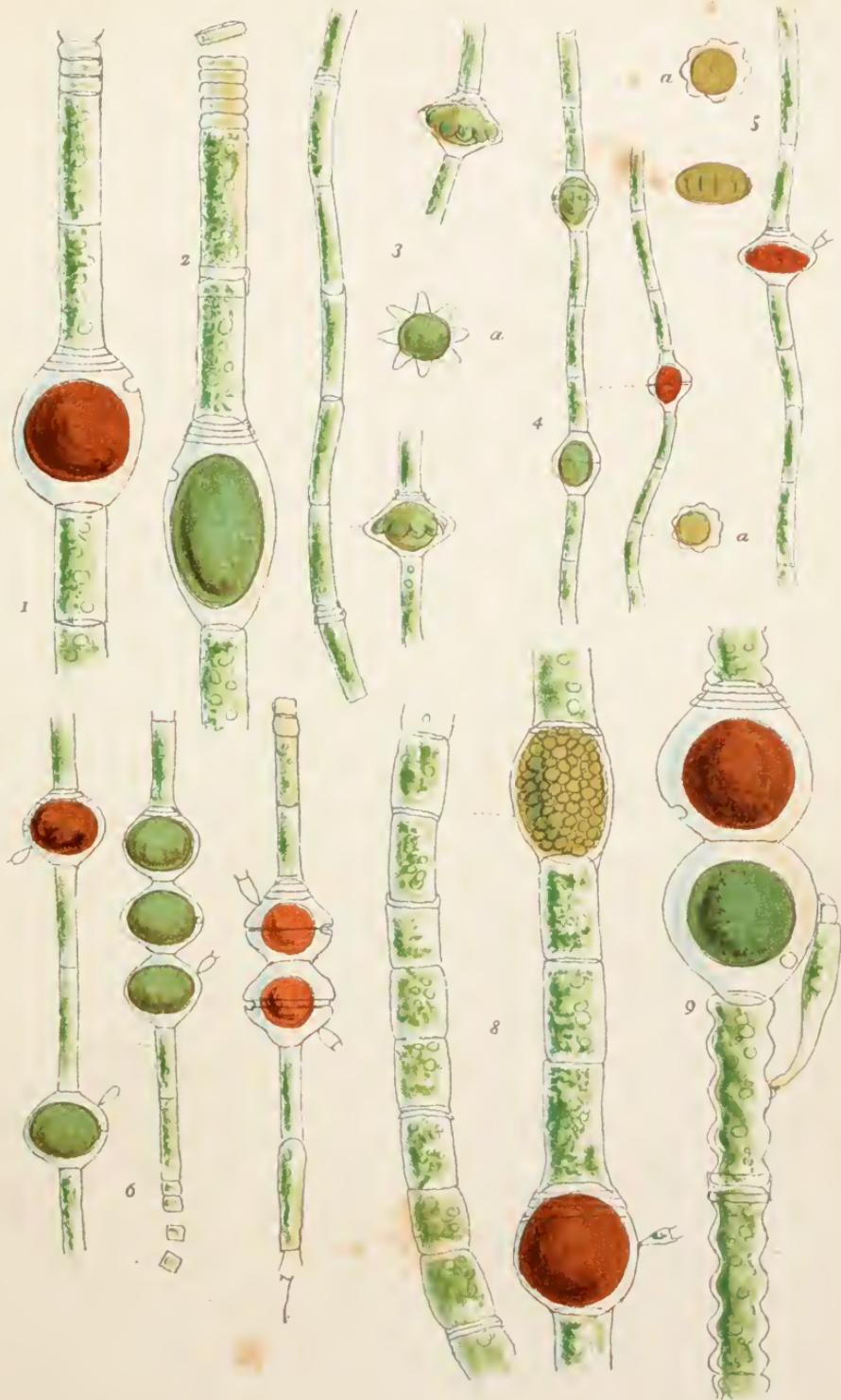


Oedogonium, and Bulbulaeace. X 400.



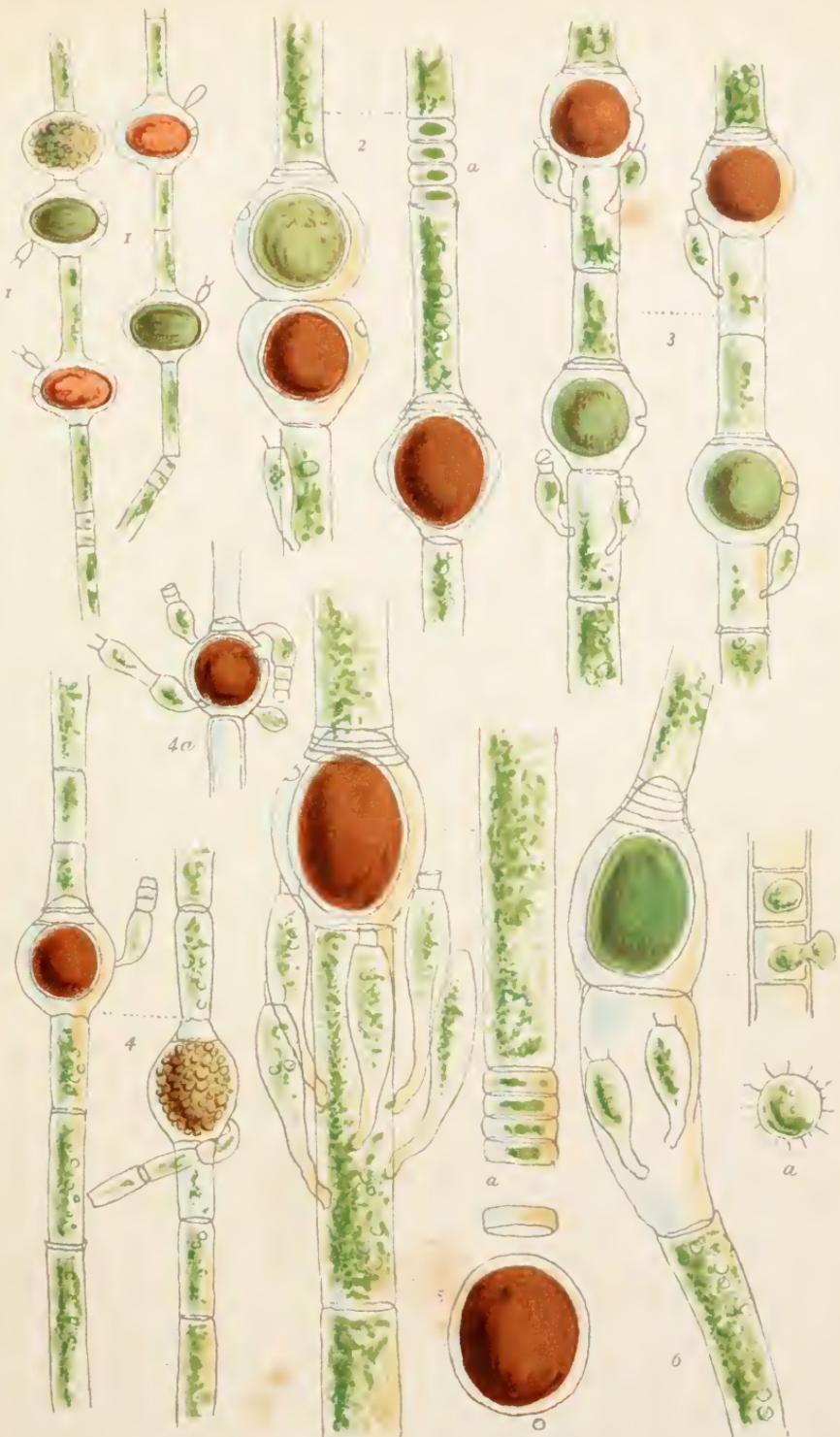
1. *Edogonium Petri*. W. 2 *Edog. cryptoporum*. W. 3 *Edog. curvum*. Pr.4. *Edog. cymatosporum*. W. 5. *Edog. minus* W. 6. *Edog. vernale*. Hass.7. *Edog. crispum*. Hass. 8. *Edog. Vaucherii*. Br.





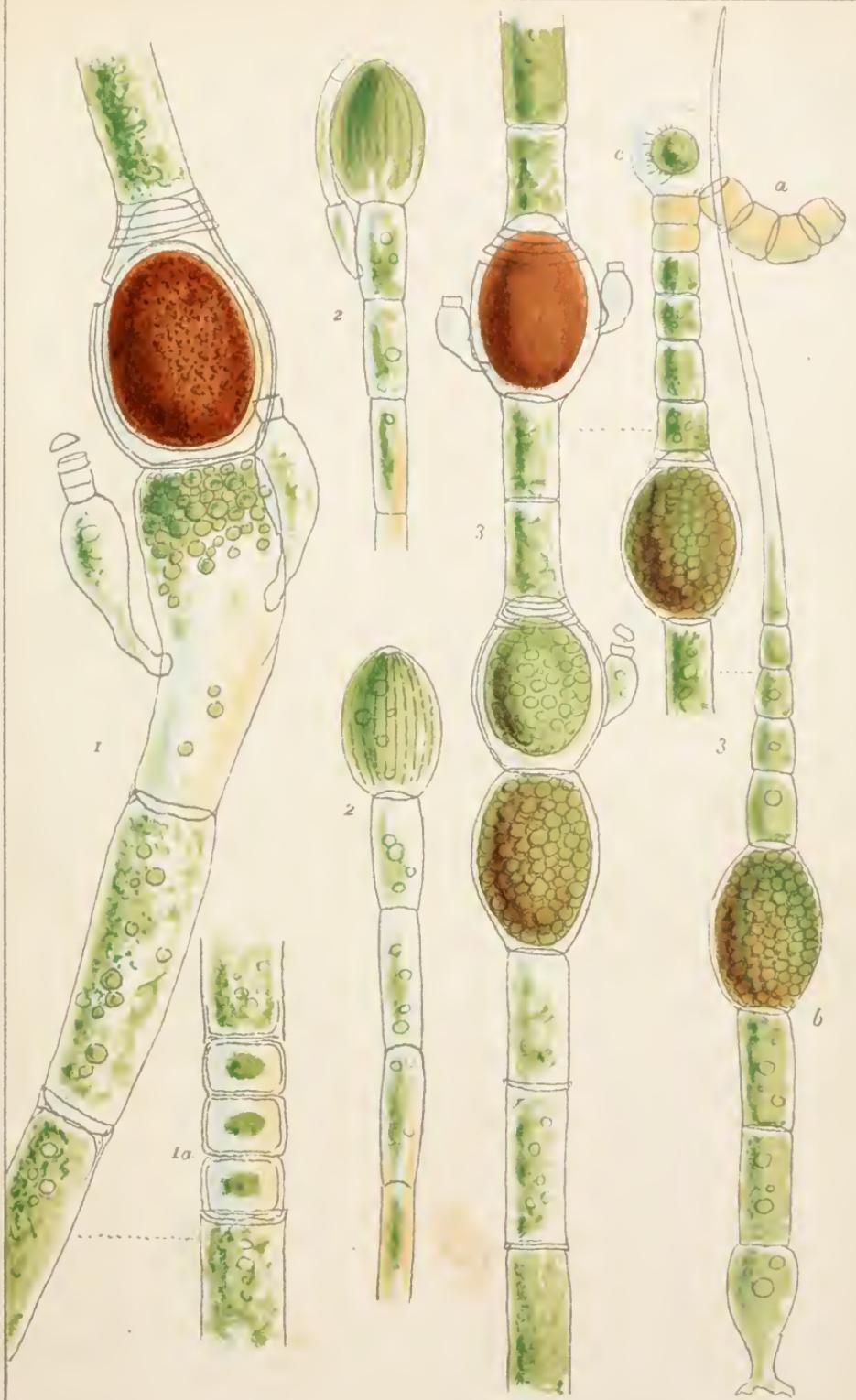
1. *Œdog. urbicum* W. 2. *Œdog. paludosum* Hass. 3. *Œdog. Itzigsohnii*. Ⓛ By
 4. *Œdog. excisum* W. 5. *Œdog. platygynum* W. 6. *Œdog. Rothii*. Ⓛ Pr.
 7. *Œdog. Areschougii* W. 8. *Œdog. pluviale* Nord. 9. *Œdog. undulatum* Breb.





1 *Oedog. depressum* Pr. 2 *Oedog. flavescentia* Hass. 3 *Oedog. Braunii* Kutz.
 4 *Oedog. macrandrum* W. E. *Oedog. crassiusculum* W. 6 *Oedog. Berisiatum* W.





Edog. cincatenatum, Hass. 2 *Edog. acrospermum*, D. Py. 3. *Edog. ciliatum*, Pr.



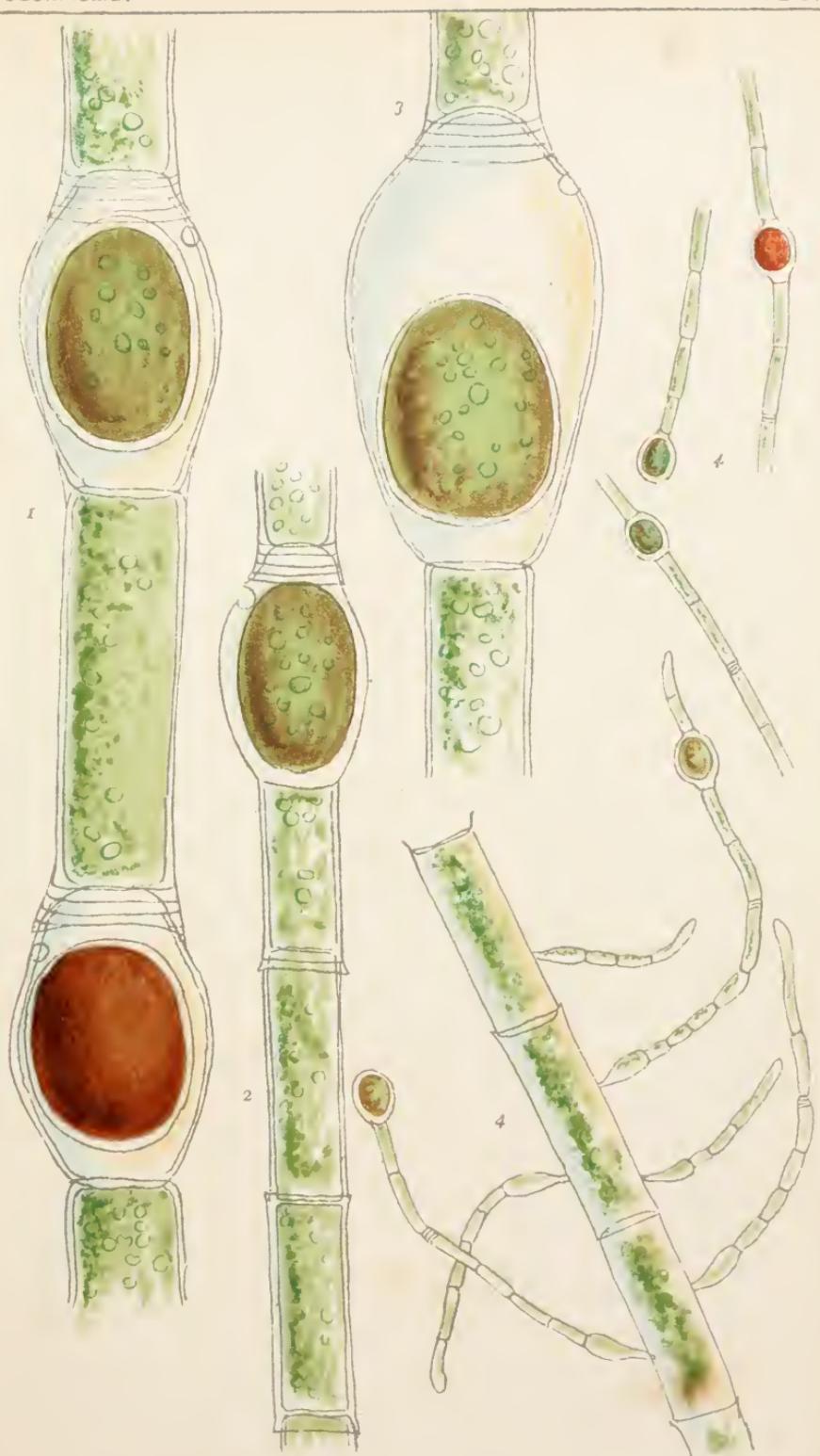
1 *Cédog. Cleveorum* W. 2 *Cédog. echinospermum*. 3 & 4 *Cédog. rapillare* (1)
4. *Cédog. curvatum* W. 5 *Cédog. carducium* (2).





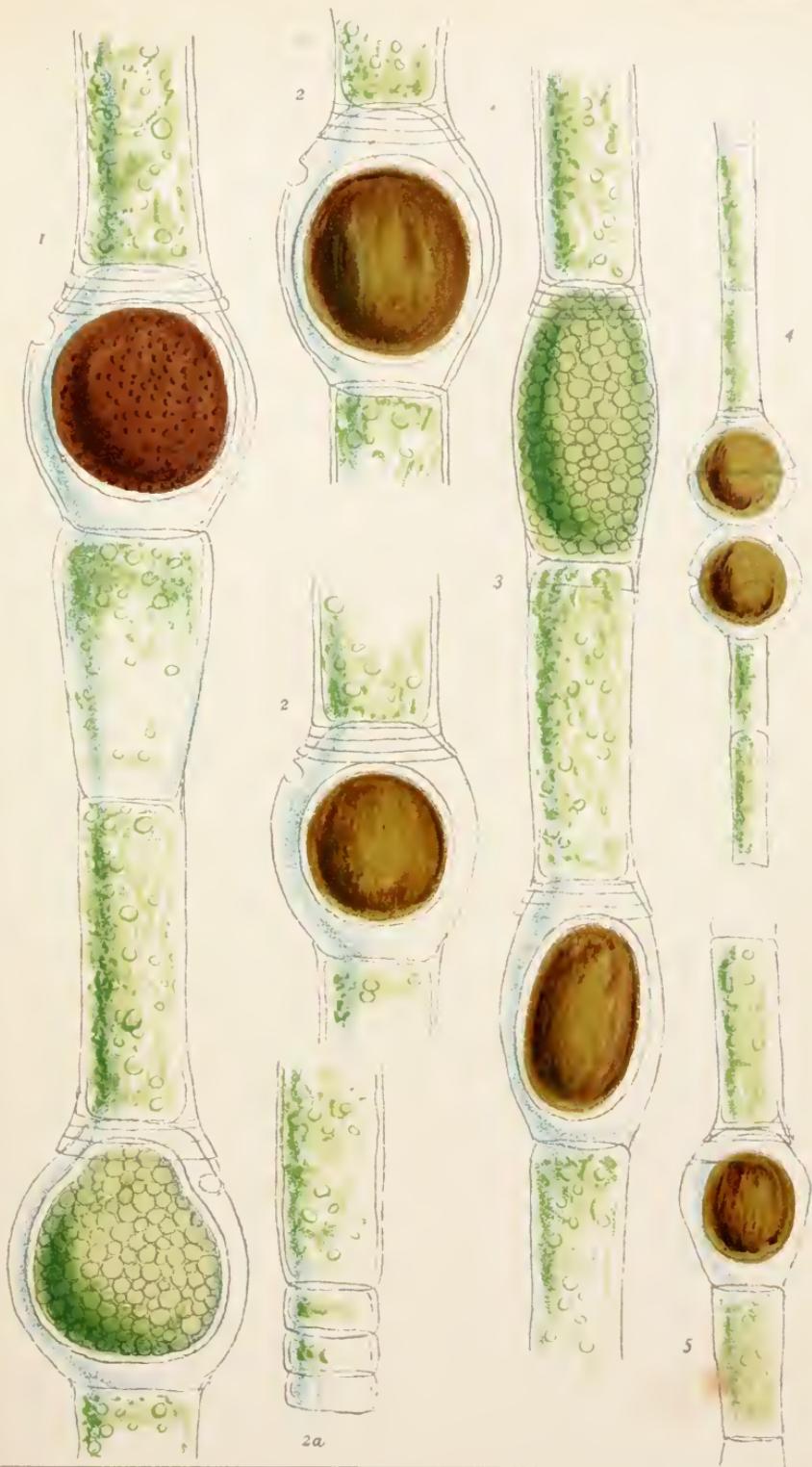
1. *Edog. carbonicum*. W. 2. *Edog. Pringsheimii*. W. 3. *Edog. punctato-striatum*. @By. 4 *Edog. Boscii*. W. 5. *Edog. tumidulum*. Kutz.



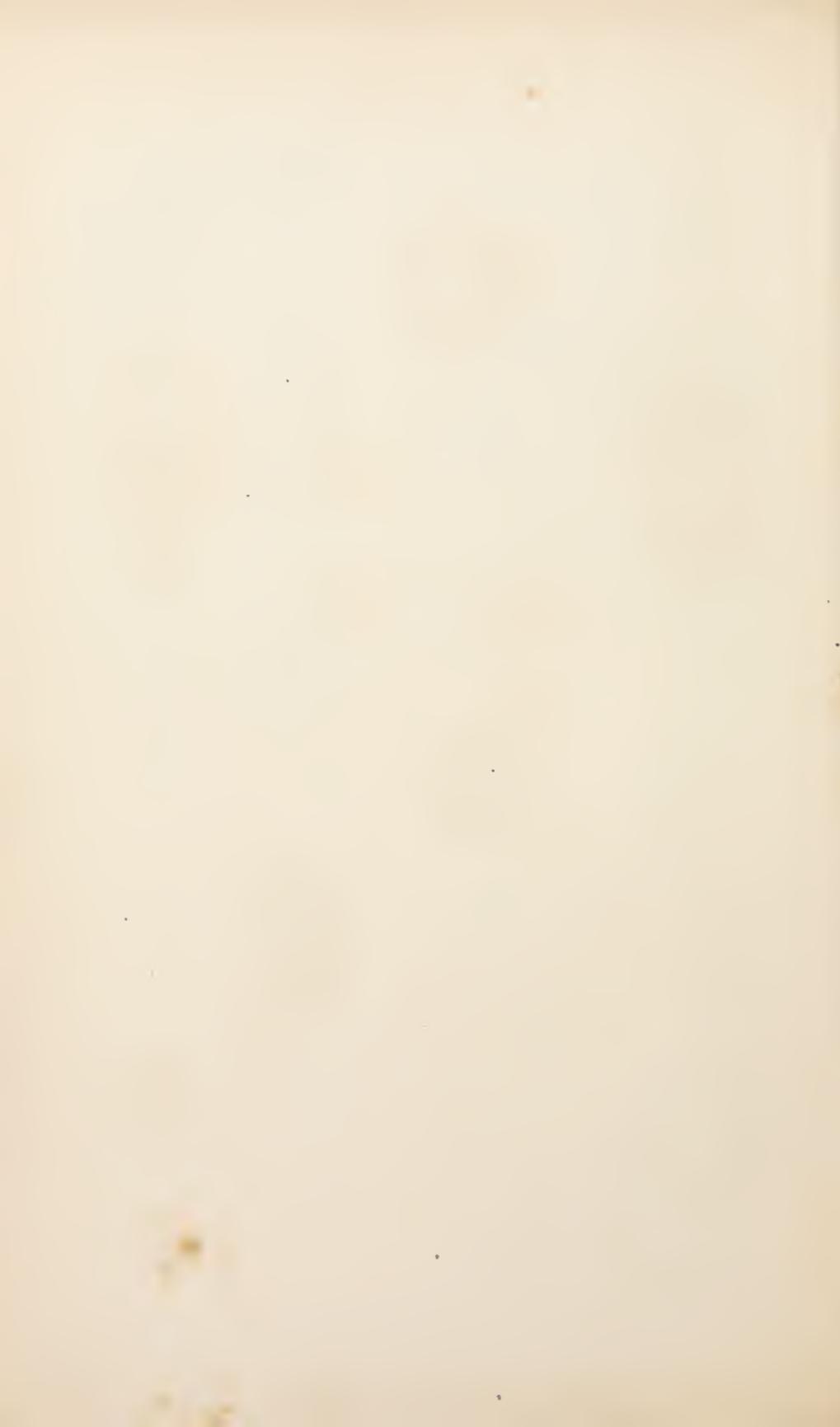


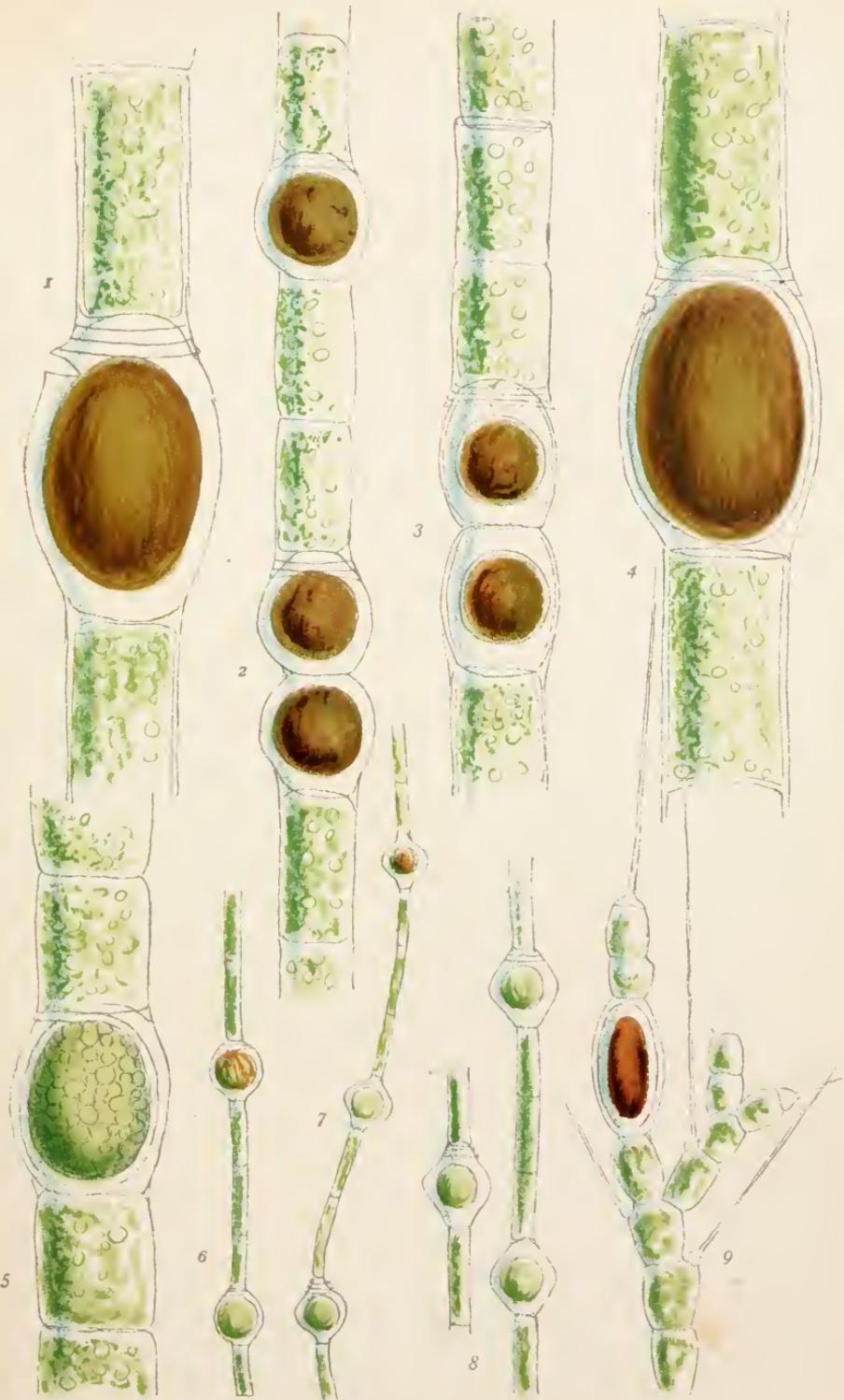
1. *Œdog. Landsboroughii* Hass 2 variety *g. melliparum*. Pr.
2. *Œdog. rivulare*. Br. 4 *Œdog. longatum* Kutz.





1. *Cédog. Hutchinsiae* W. 2. *Cédog. princeps* Hass. 3. *Cédog. giganteum* Kutz.
4. *Cédog. Londinense* W. 5. *Cédog. vesicatum* Lyngb.



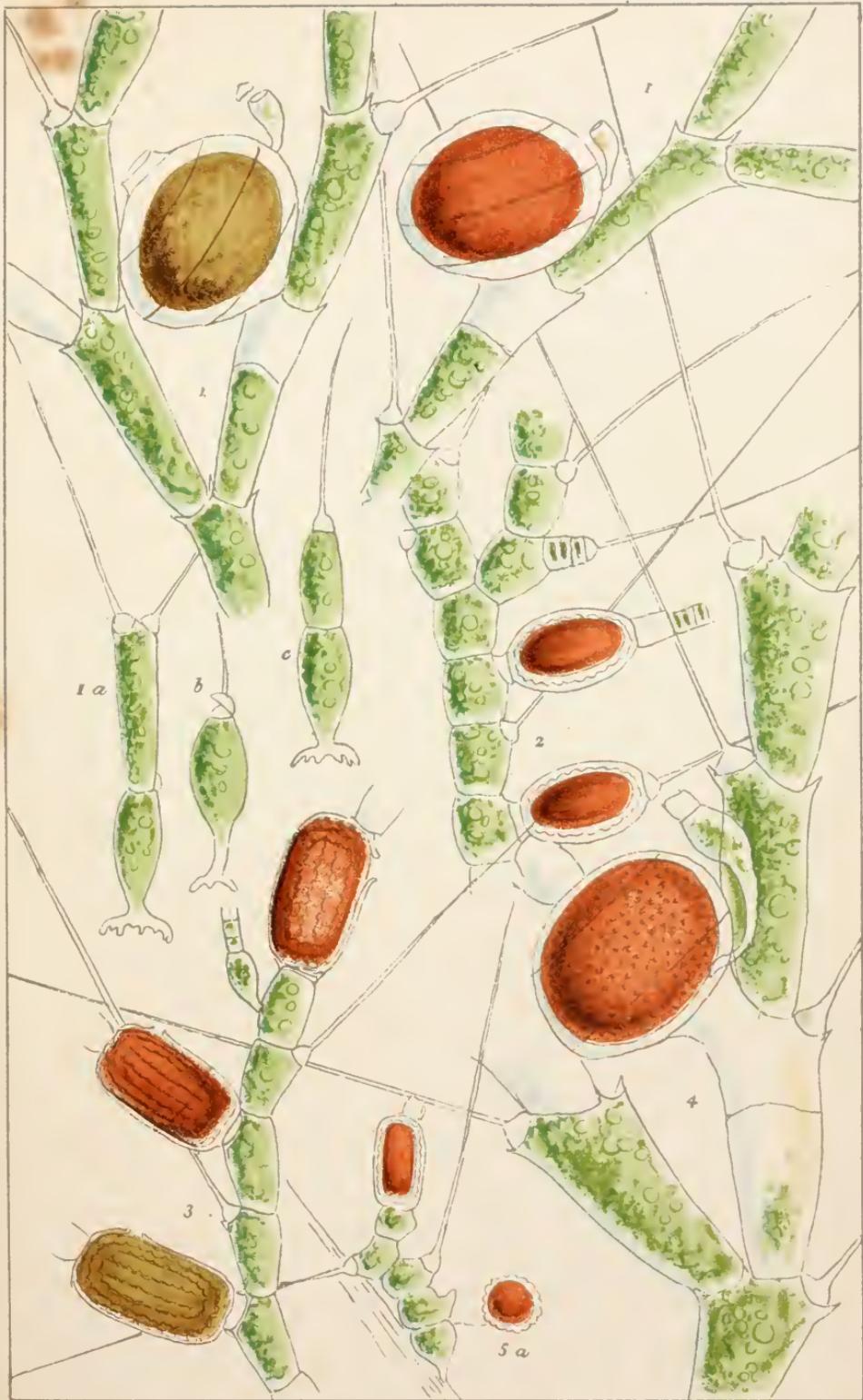
1. *Edog. crassum* Hass. 2. *Edog. fasciatum* K. 3. *Edog. capillaceum* K.4. *Edog. grande* K. 5. *Edog. subsetaceum* K. 6. *Edog. tenellum* K.7. *Edog. delicatulum* K. 8. *Edog. hexagonum* L. 9. *Bulbochæte gracilis* Pr.





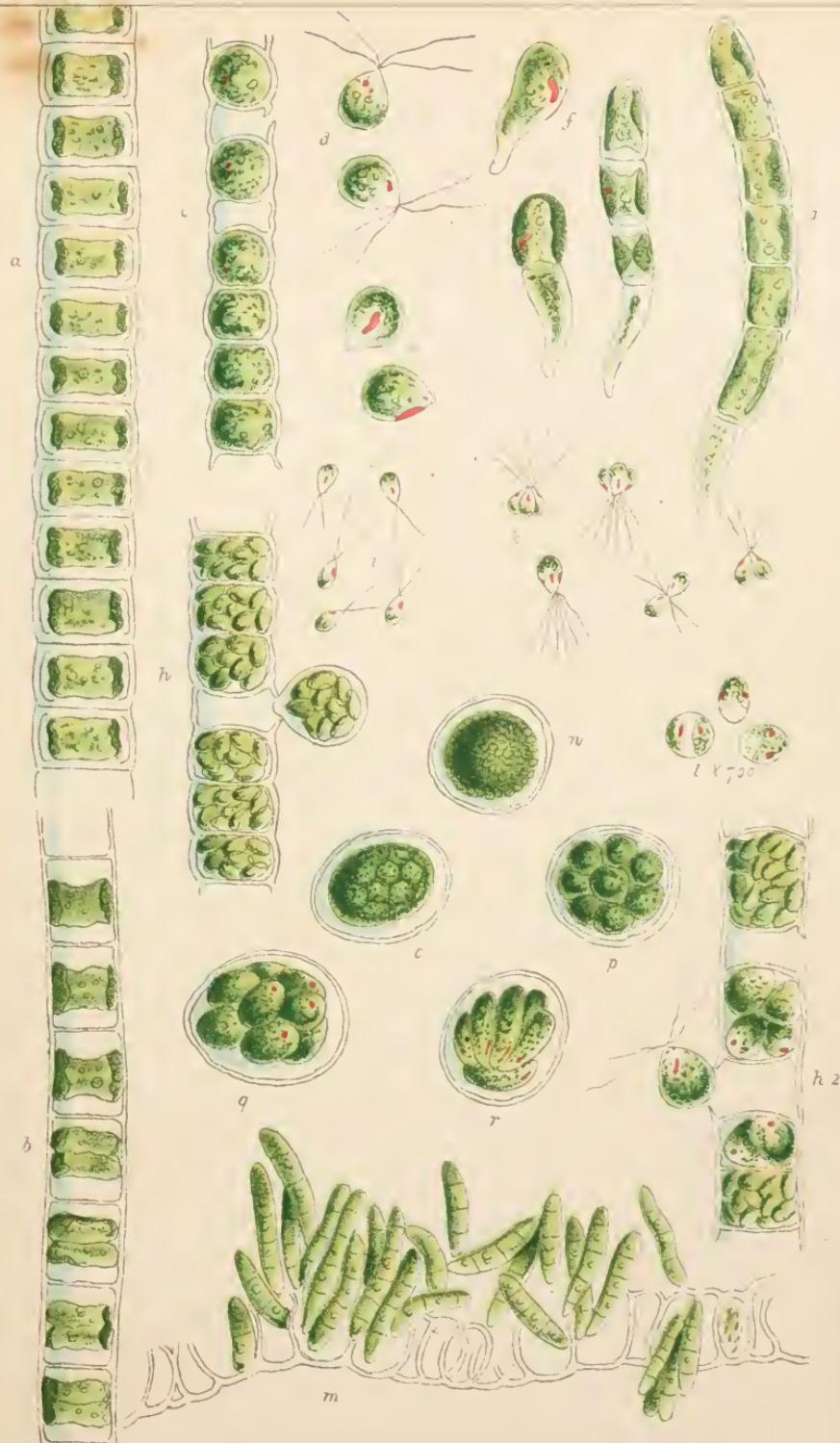
1. *Bulbochæte intermedia*. Ⓛ. Hy. 2. *Bulbochæte polyandra*. Cleve. 3. *Bulbochæte Brebissonii*. Kutz. 4. *Bulbochæte insignis*. Pr.



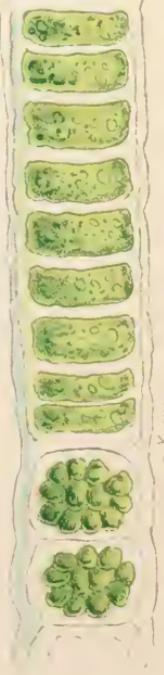
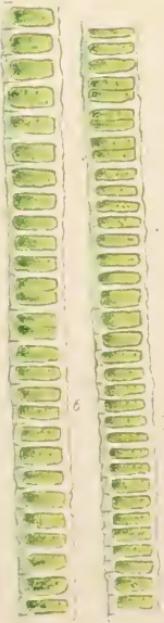
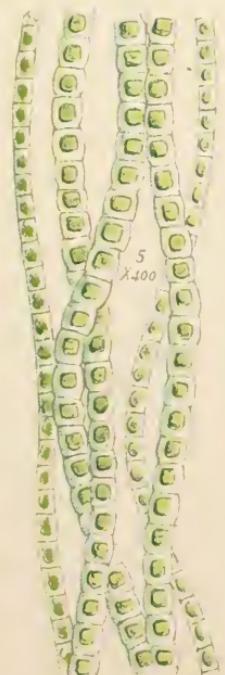
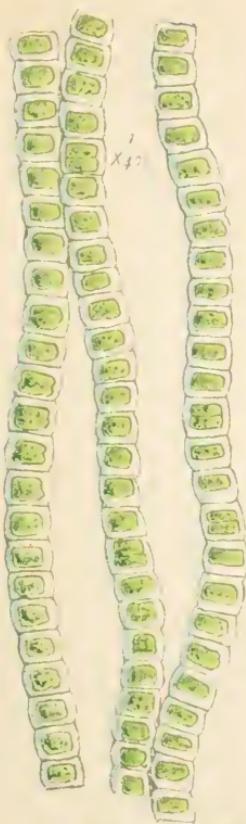


1. *Bulbochæte setigera* Ag. 2 *Bulbochæte mirabilis*. W 3. *Bulbochæte rectangularis*.
4. *Bulbochæte gigantea* Pr. 5. *Bulbochæte pygmæa* Pr.



*Hormiscia zonata* (W. & M.) $\times 400$.

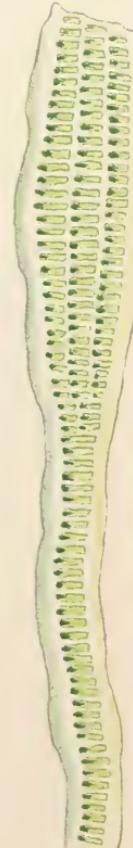
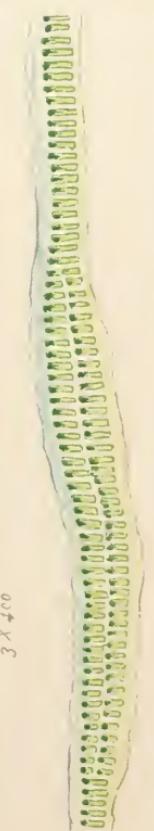
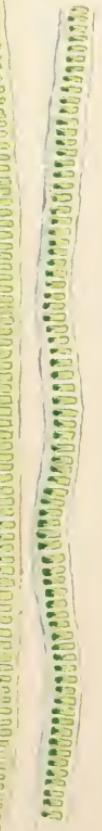
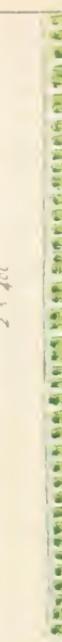
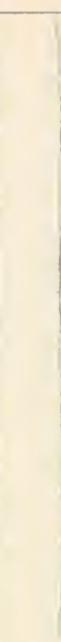




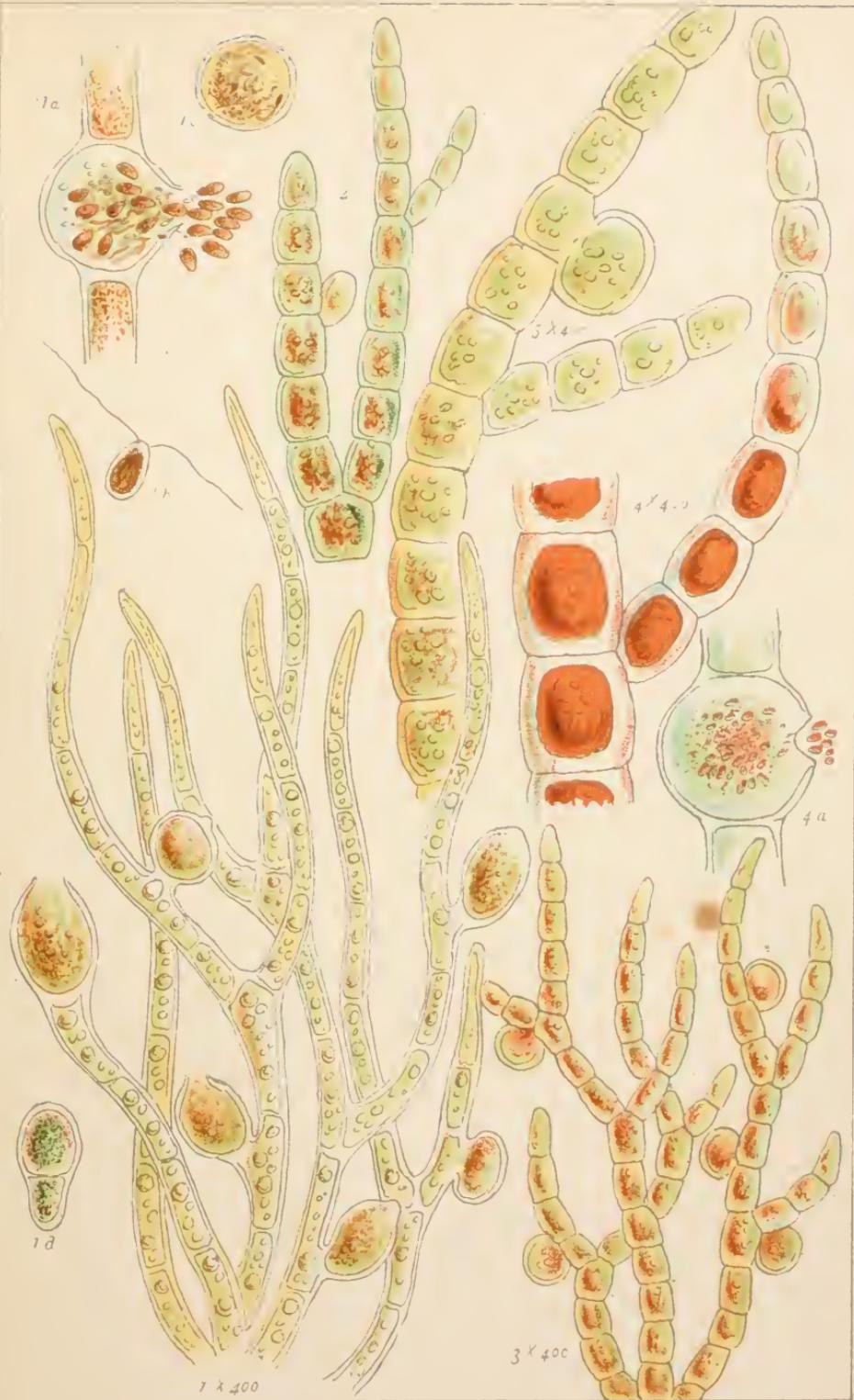
1. *Hormisca moniliformis* Kutz. 2. *Hormisca cateniformis* Kutz.

3. *Hormisca sparsa* Kutz. 4. *Ulothrix viridis* Kutz.

5. *Ulothrix guerrima* Kutz. 6. *Ulothrix tenuis* Kutz. 7. *Hormisca multiciliaris* E. B.

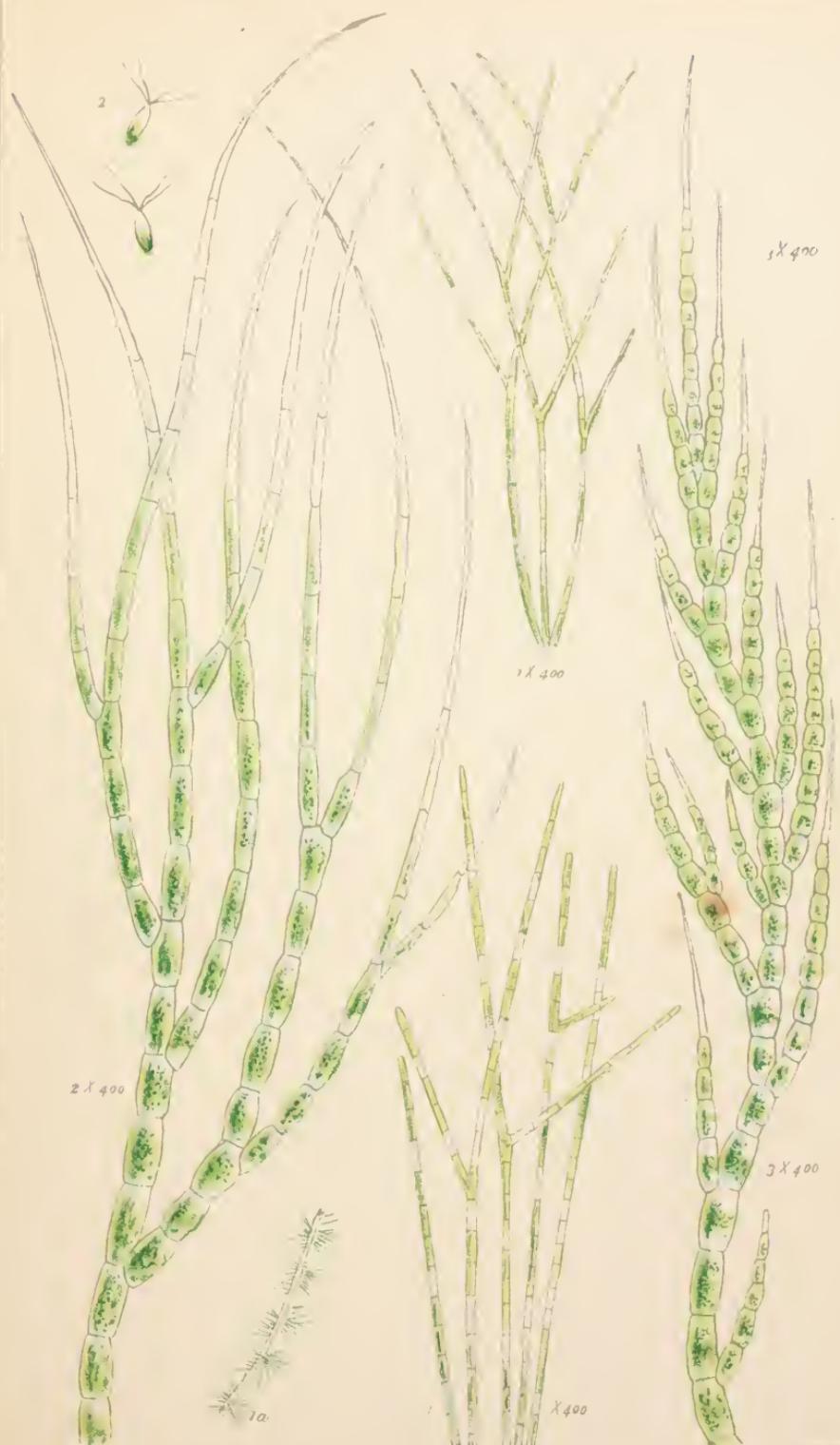
1. *Ulothrix radicans*, Kutz.2. *Ulothrix parvitina*, Kutz.3. *Schizogonium murale*, Kutz.





1. *Chroolepus aureum*, Linn. 2. *Chroolepus odoratum*, Ag. 3. *Chroolepus abietinum* var. *lichenicolum*. 4. *Chroolepus iolithus*, Linn. 5. *Chroolepus ilicicolum*, H.

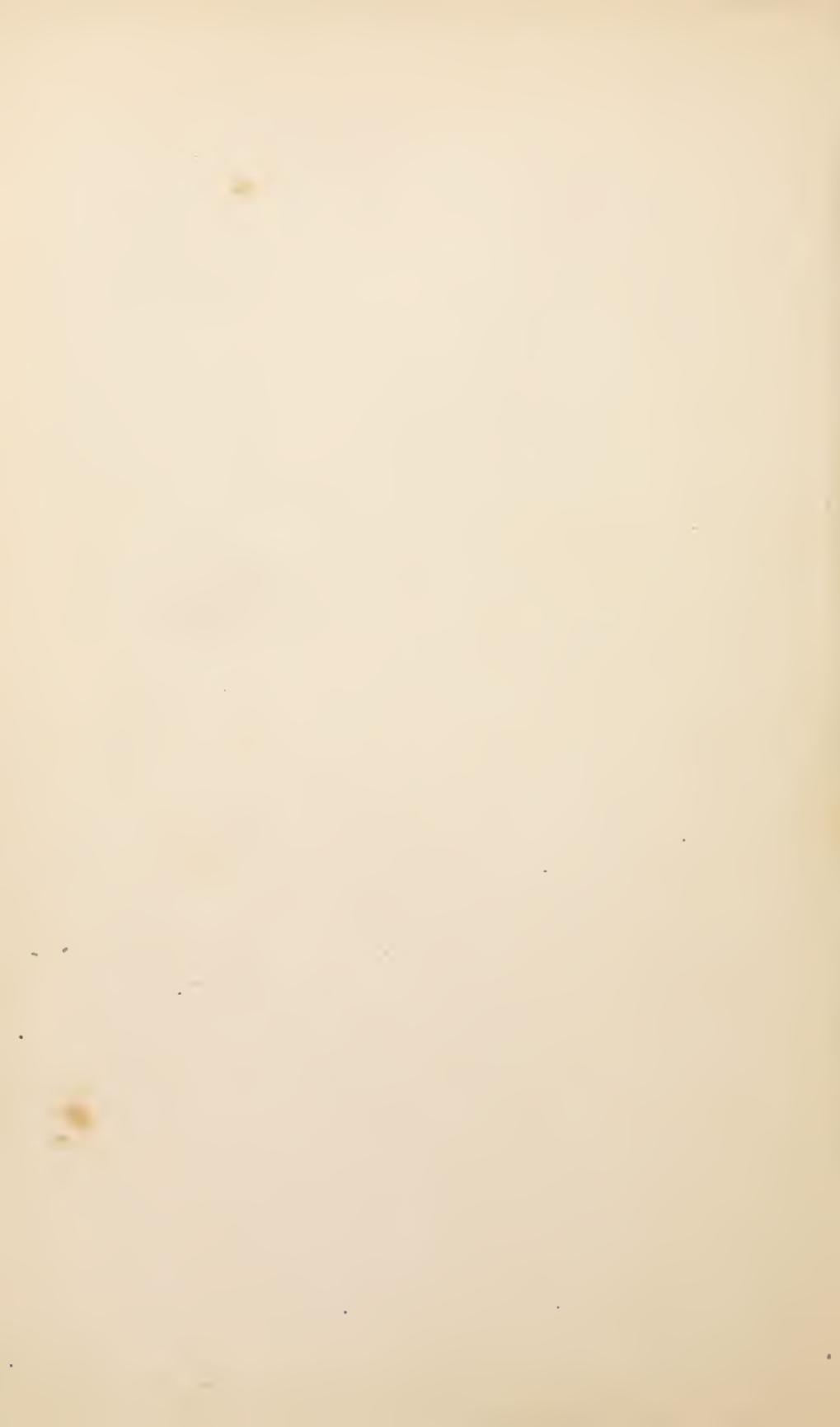




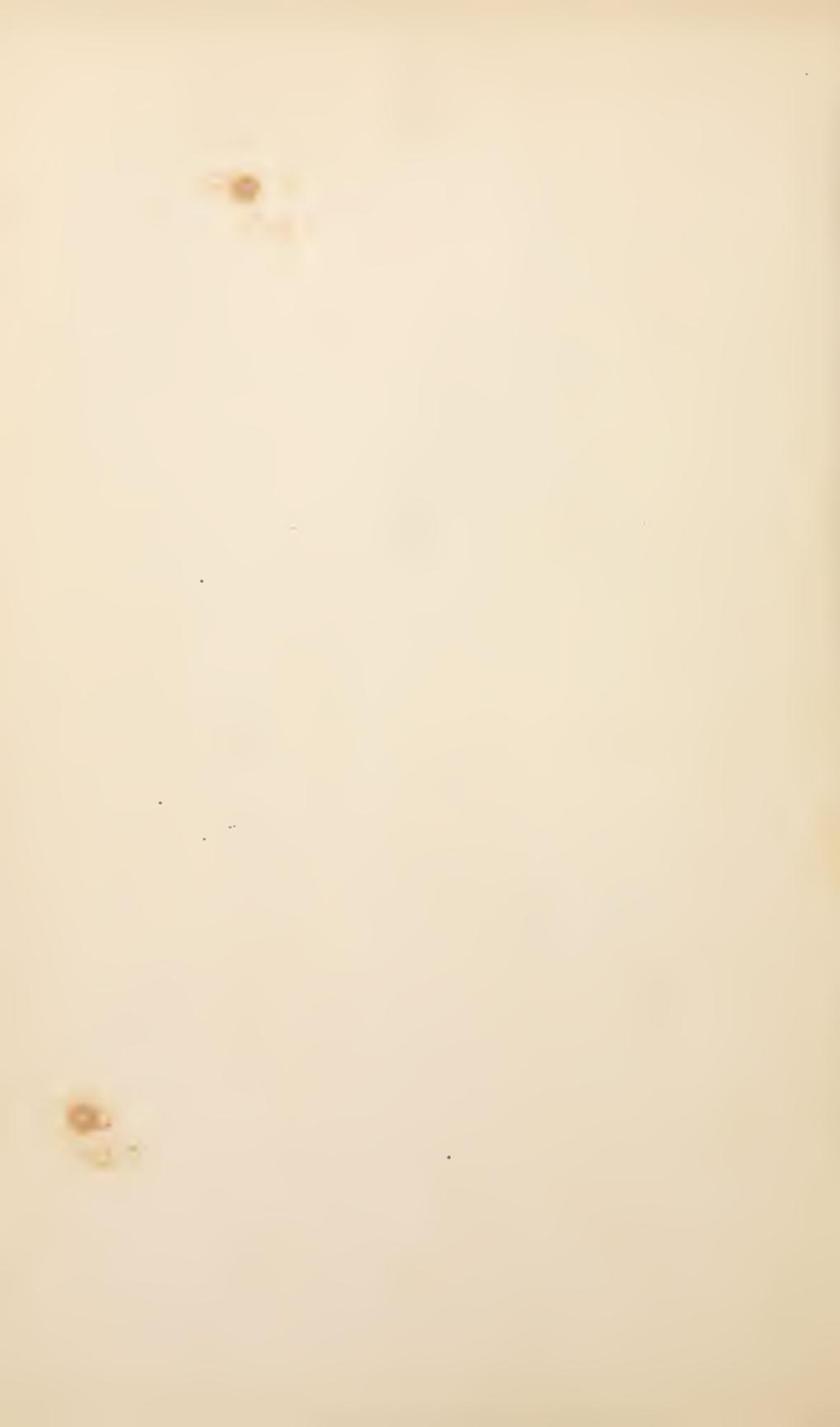
1. *Microthamnion vexator*. Cooke. 2 *Stigeoclonium thermale*. Br.
3 *Stigeoclonium tenuum*. Ag.



1. *Stigeoclonium protensum*, Kutz.2. *Stigeoclonium nanum* Kutz.3. *Stigeoclonium fastigiatum*, Kutz.



1. *Draparnaldia glomerata* Ag. 2 variety *distans*, Kutz.



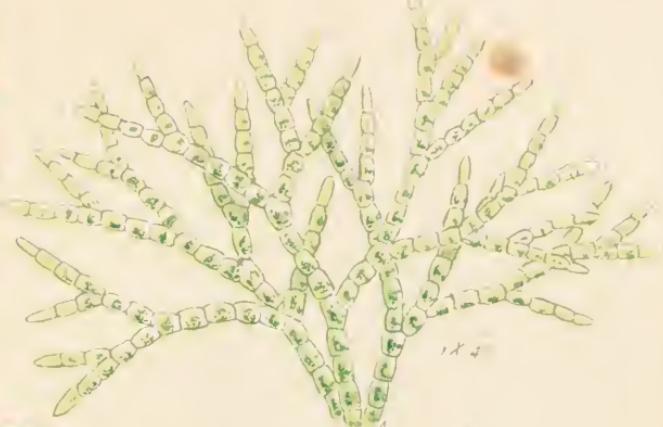


1. *Draparnaldia plumosa*. Ag. 2 variety *pulchella*. Kutz.

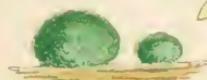




1. n.s.



1 X 4



2 c X 400

2 a

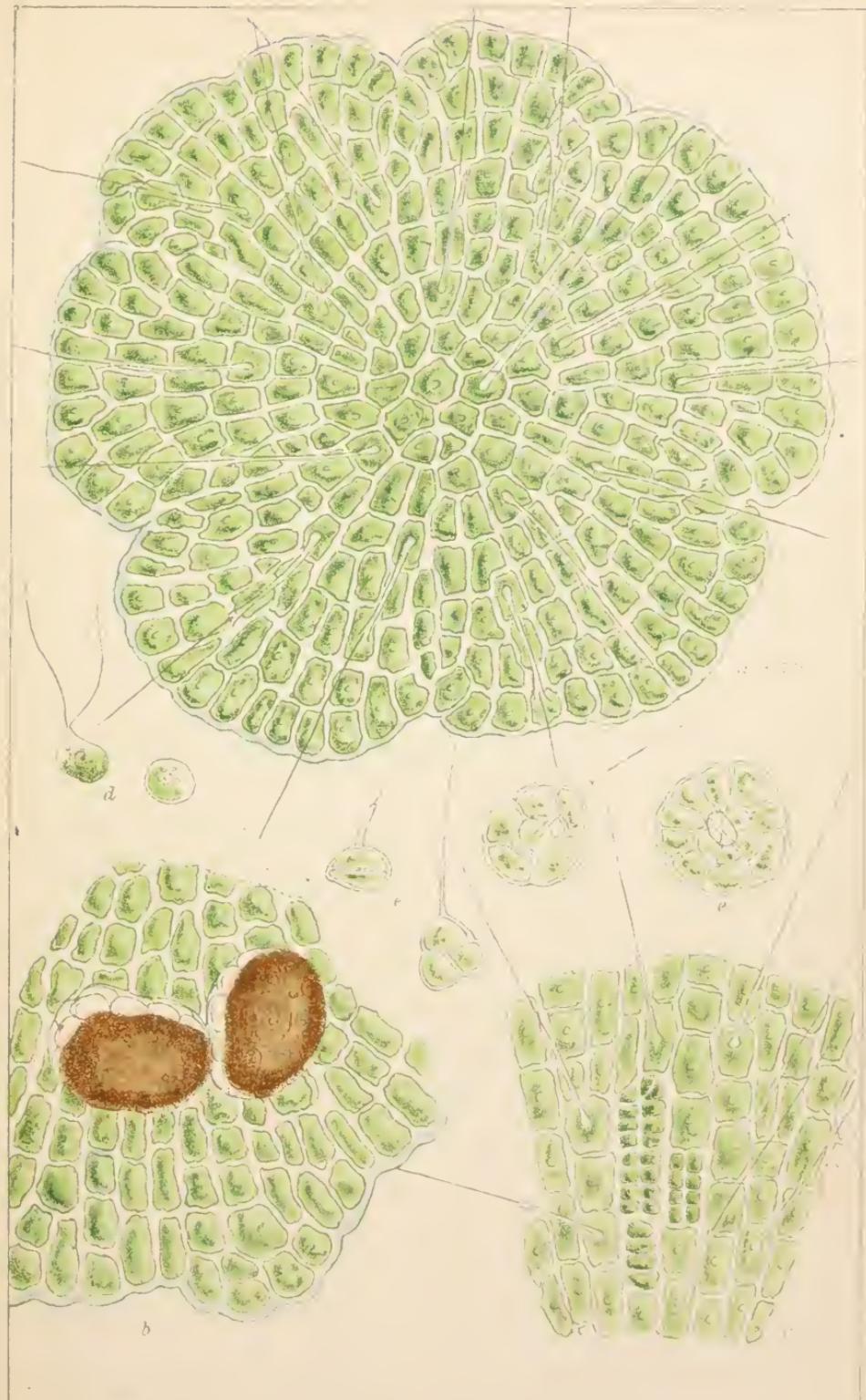
n.s.

2 b

1. *Chætophora pisiformis*. Ag. 2 *Chætophora elegans*. Ag

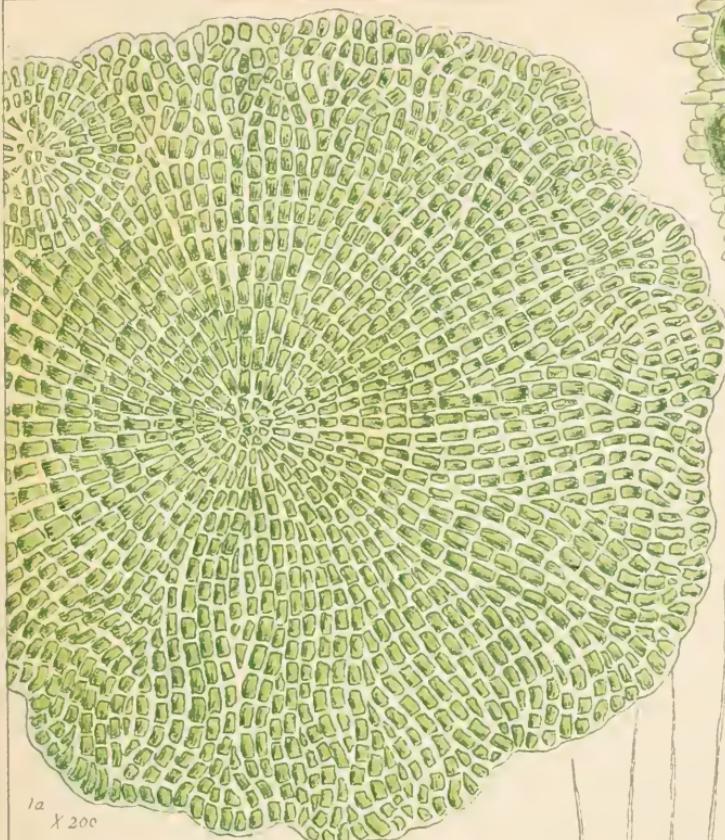
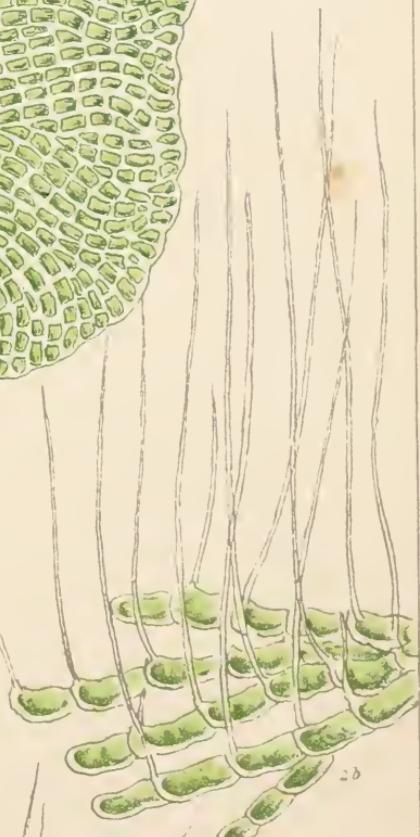


1. *Chaetophora tuberculosa* Ag.3. *Colevchæte soluta* Prings.2. *Chaetophora endiraeifolia* Ag.

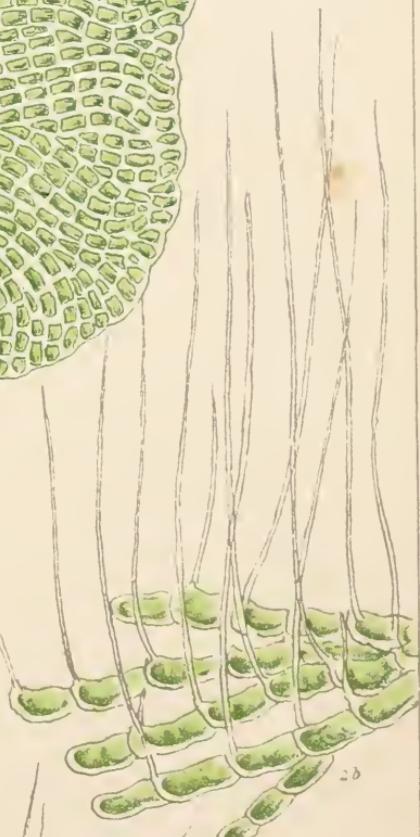


Coleochæte scutata, Brb.

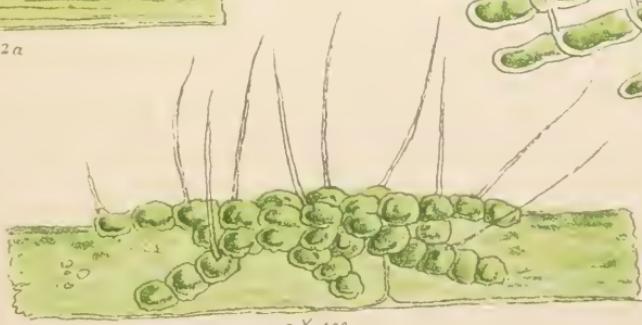


1a
 $\times 200$ 1b.
 $\times 250$ 

2a

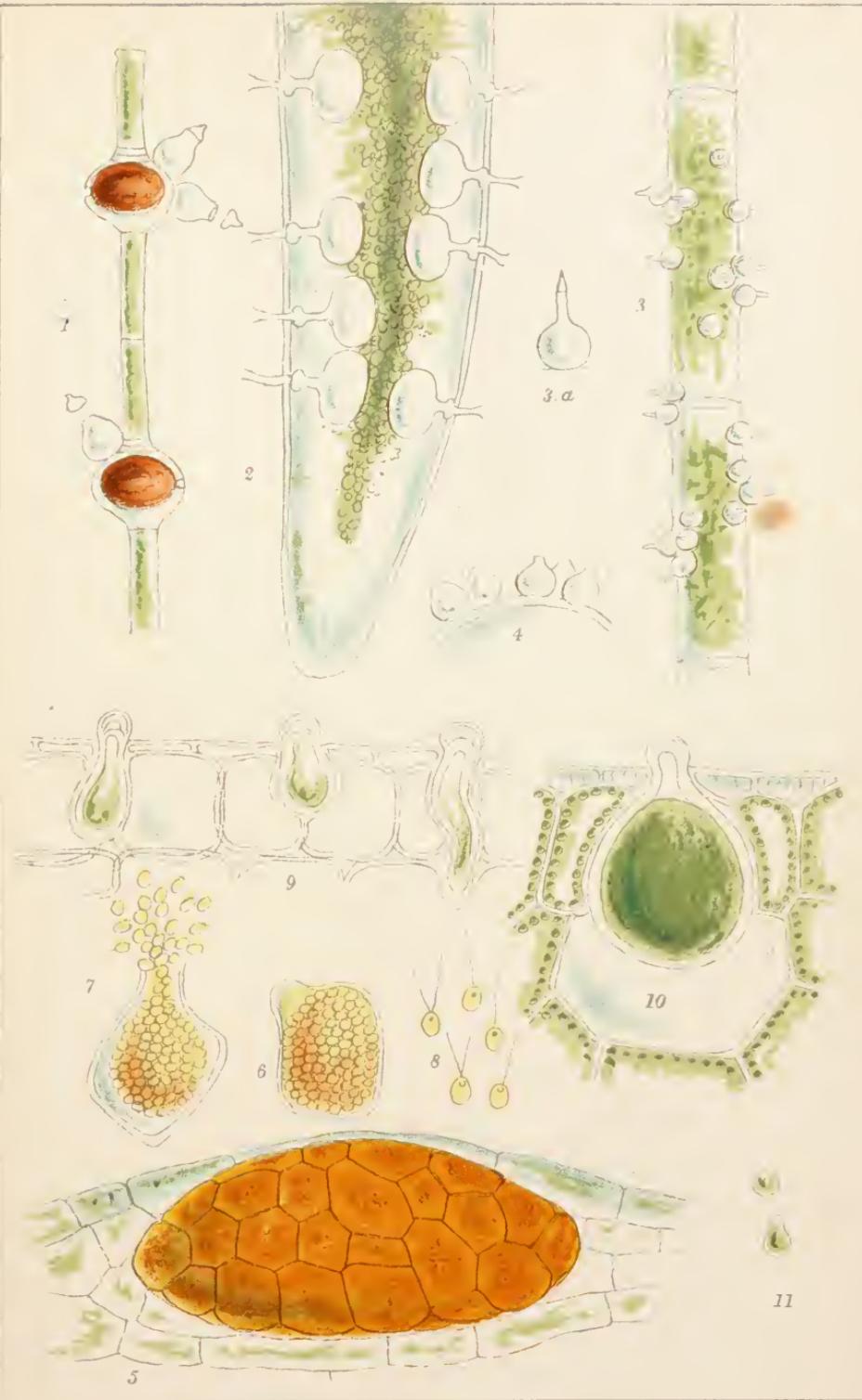


2b

3
 $\times 400$

1. *Coleochæte orbicularis*. Prings. 2. *Aphanochæte hystrix*. Thw.
3. *Aphanochæte repens*. Br.





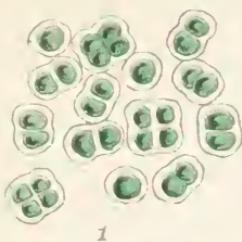
1. *Chytridium acuminatum*. 2. *Olpidium endogenum*. 3. *O. ampullaceum*. 4. allied species.
 5-8. *Synchitrium Taraxaci*. 9-11. *Chlorochytrium Lemnæ*.



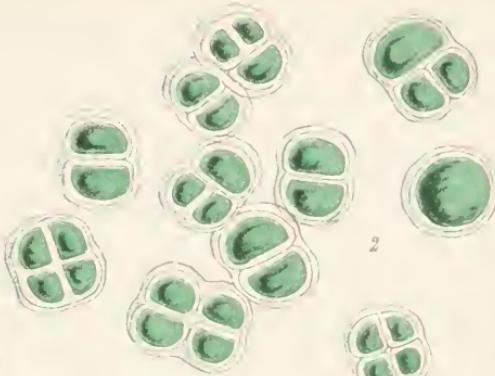


1-6. *Synchitrium Mercurialis*, Fckl. 7-9. *Synchitrium Anemones*, Wor.

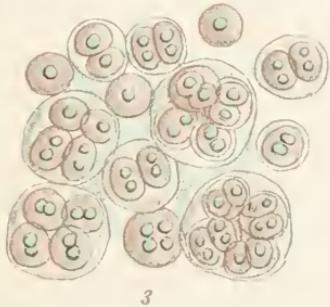




1



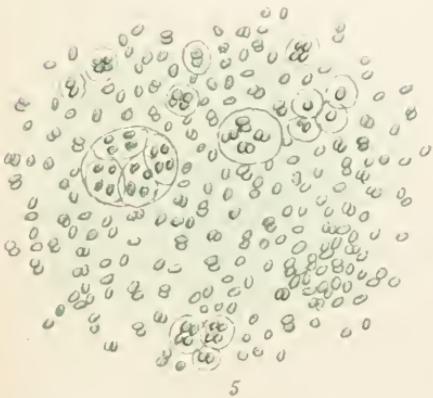
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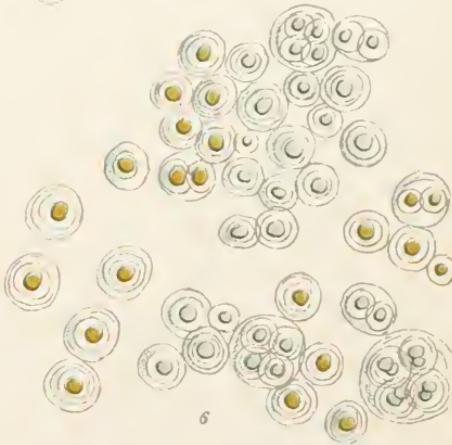
3



4



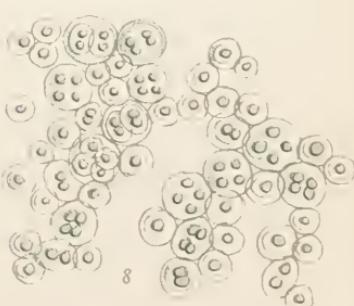
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6



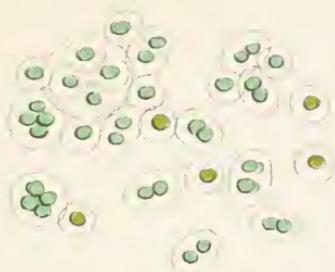
7



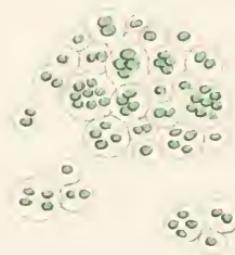
8

1. *Chroococcus coherens*, Nag. 2. *Chroococcus turgidus*, Nag. 3. *Glæocapsa coracina*, Kutz.
 4. *Glæocapsa atrata*, Rabh. 5. *Glæocapsa livido*, Kutz. 6. *Glæocapsa caldarium*, Rabh.
 7. *Glæocapsa polydermatica*, Kutz. 8. *Glæocapsa quaternata*, Breb.





1



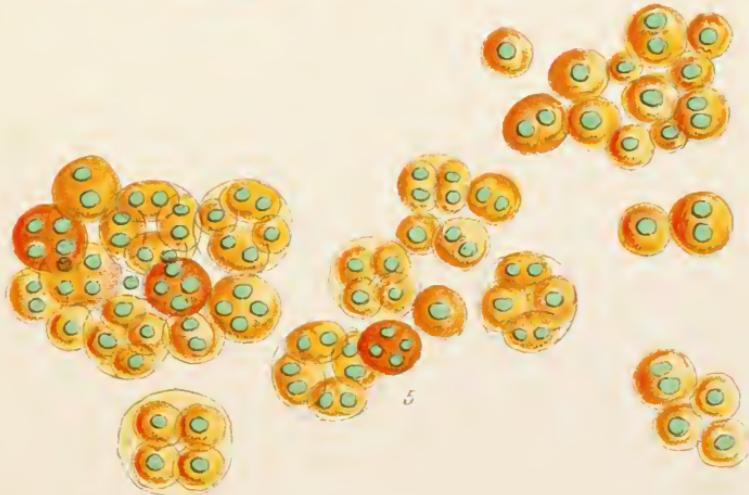
2



3



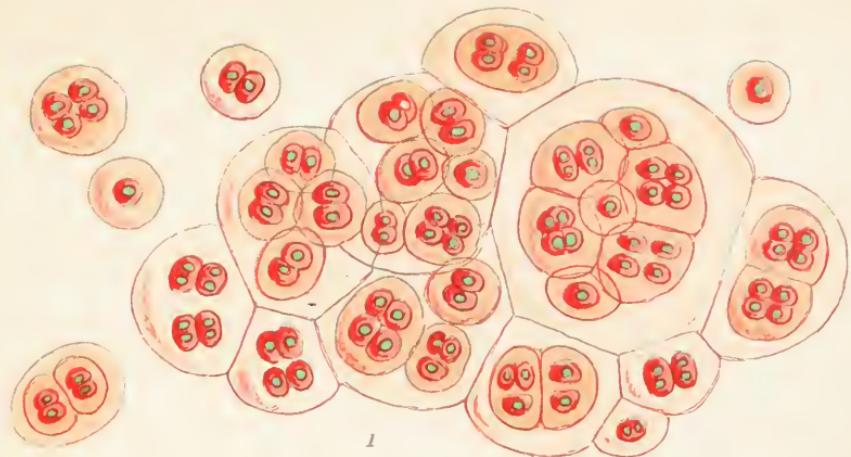
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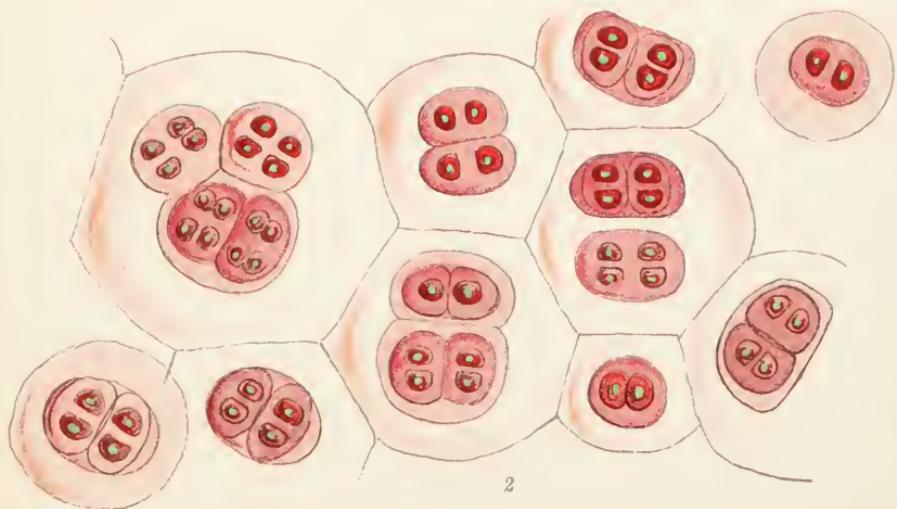
5

1. *Gloccapsa arenaria*, Rabh. 2. *Gloccapsa aer tigris*, Kutz. 3. *Gloccapsa Magna*, Kutz.
4. *Gloccapsa rupicola*, Kutz. 5. *Gloccapsa rupestris*, Kutz.

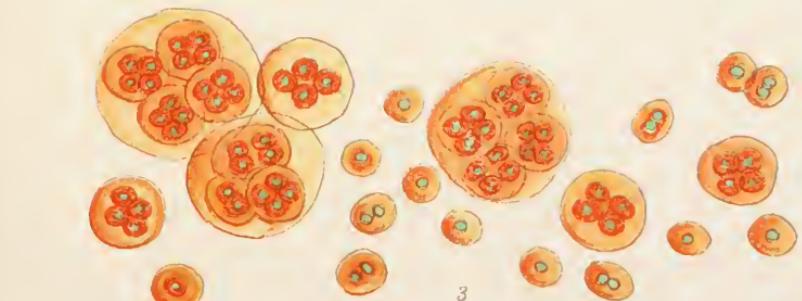




1



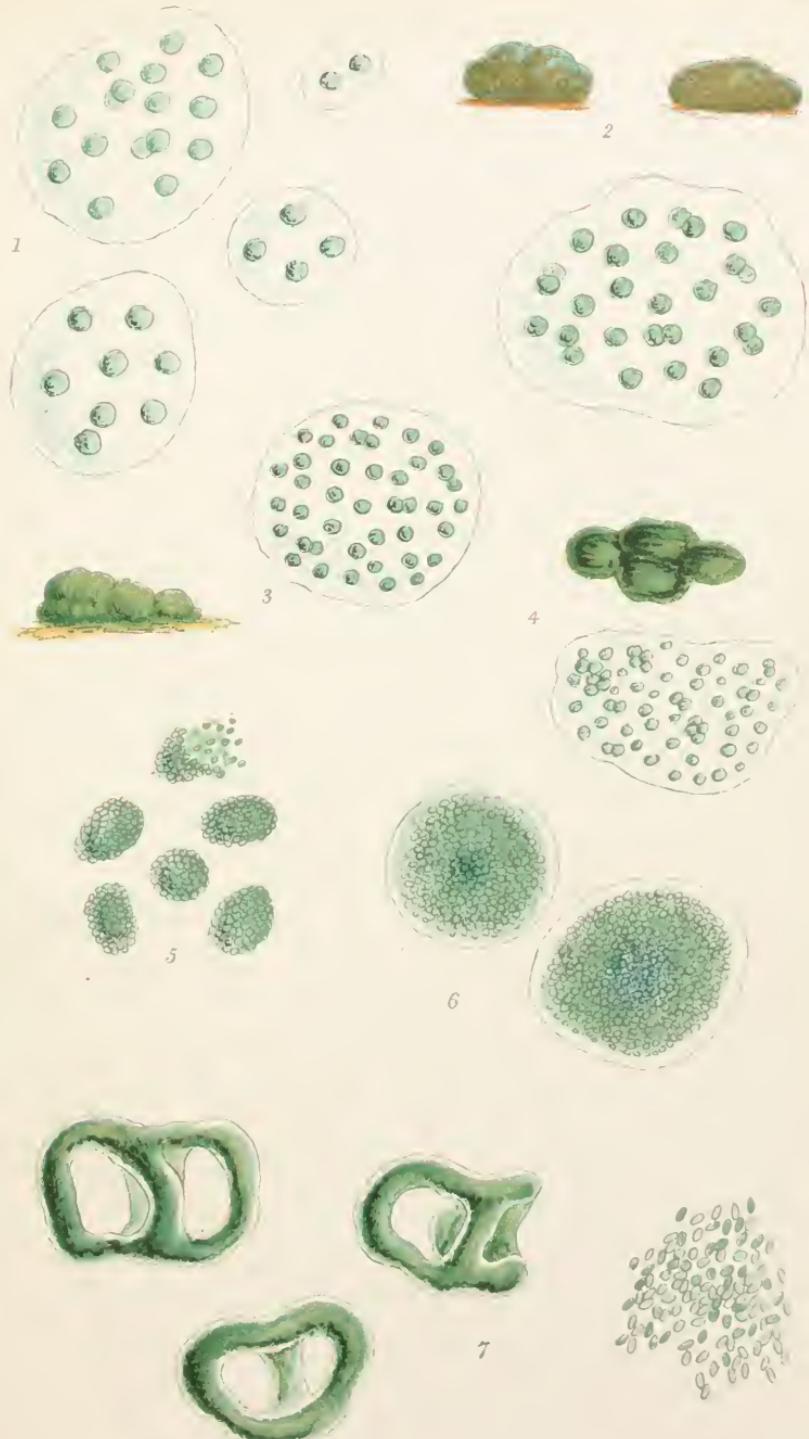
2



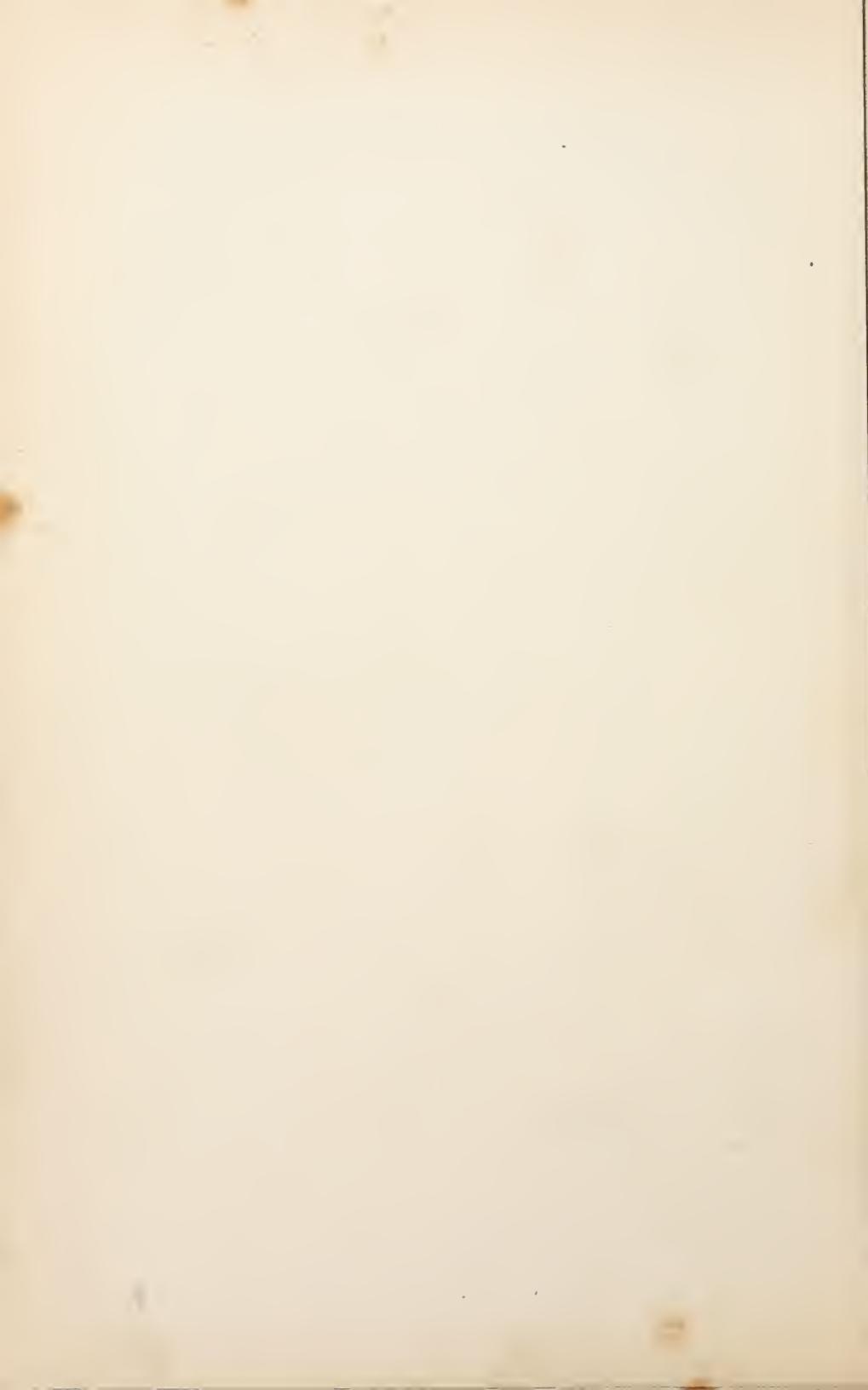
3

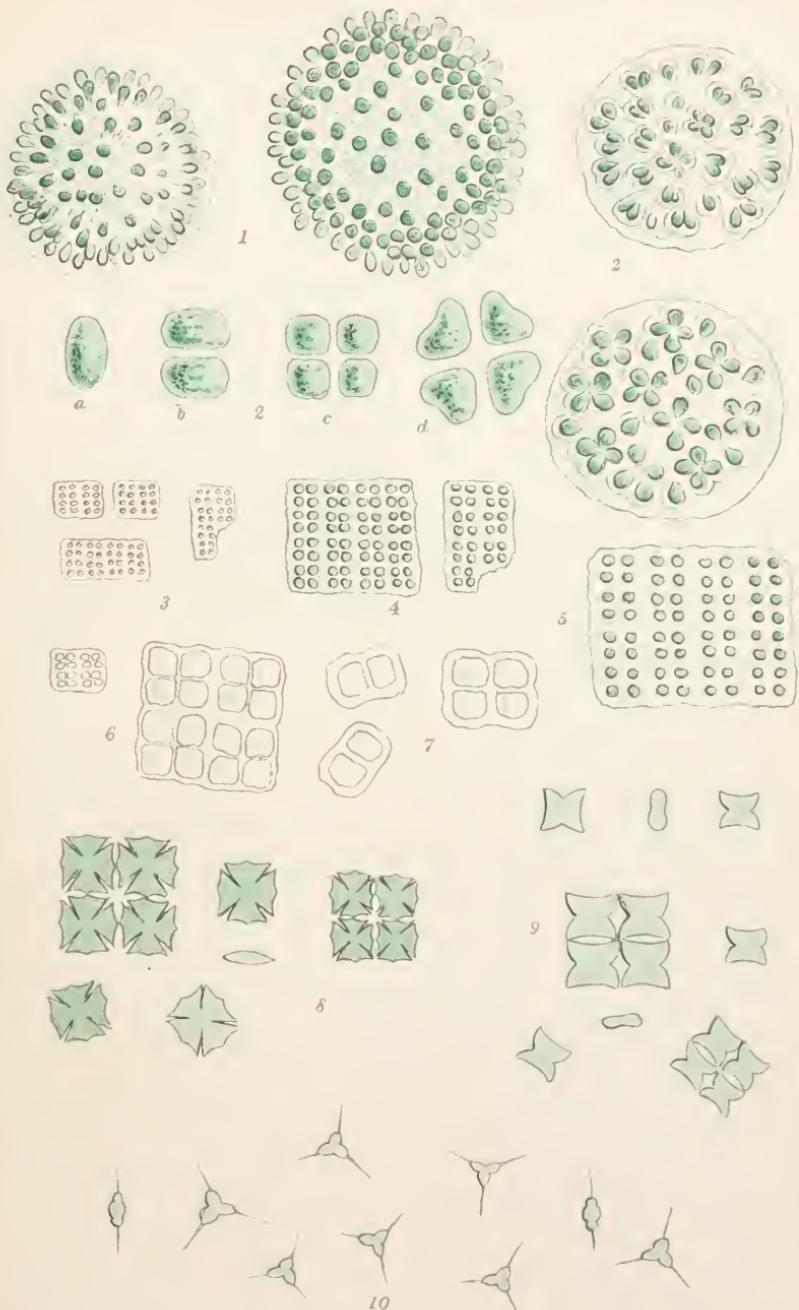
1. *Gloeocapsa sanguinea*. Kutz. 2. *Gloeocapsa Ralfsiana*. Kutz.
3. *Gloeocapsa Shuttleworthiana*. Kutz.





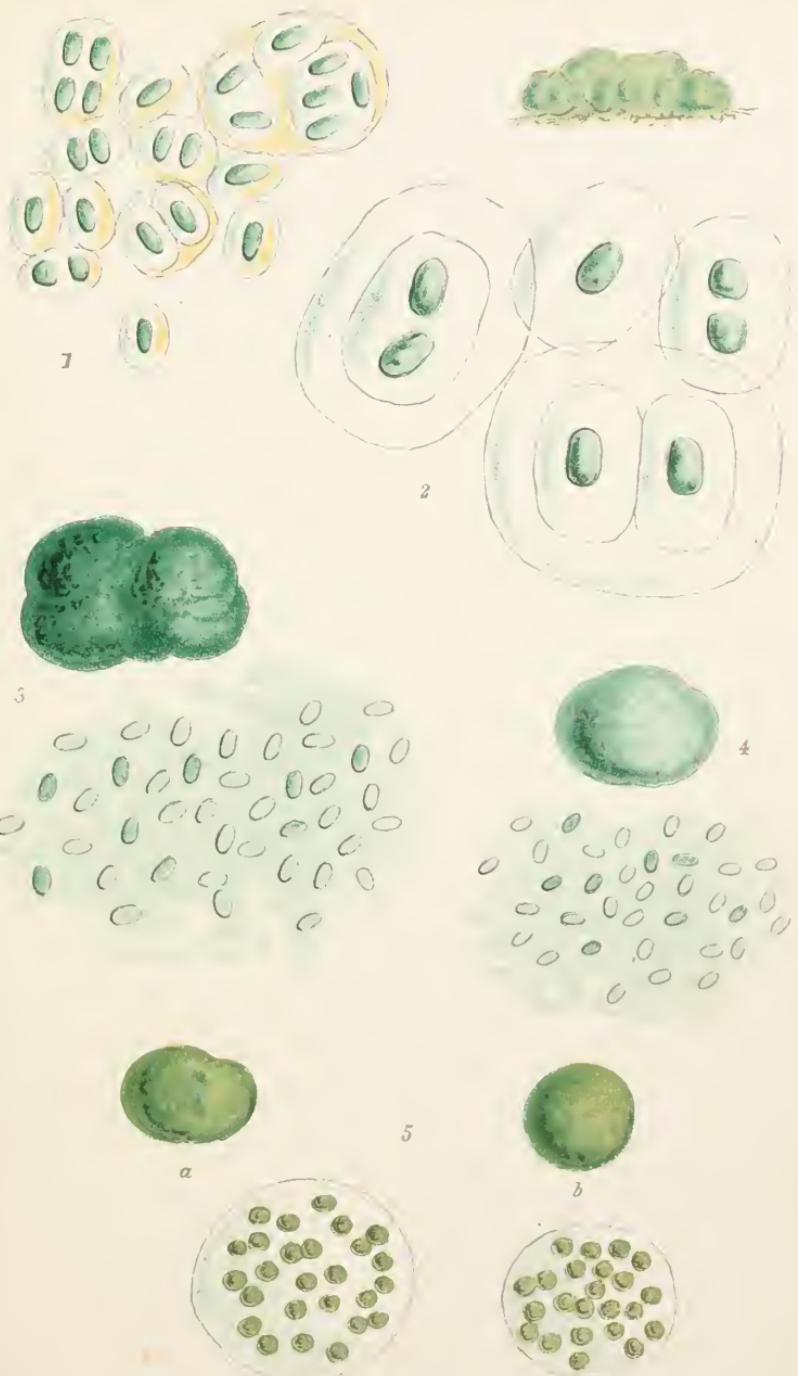
1. *Aphanocapsa virescens*. Rabh. 2. *Aphanocapsa rivularis*. Rabh. 3. *Aphanocapsa Grenvillei*. Rabh.
 4. *Aphanocapsa depressa*. Rabh. 5. *Microcystis protogenita*. Rabh. 6. *Microcystis marginata*. Men.
 7. *Clathrocystis aeruginosa*. Henfr.





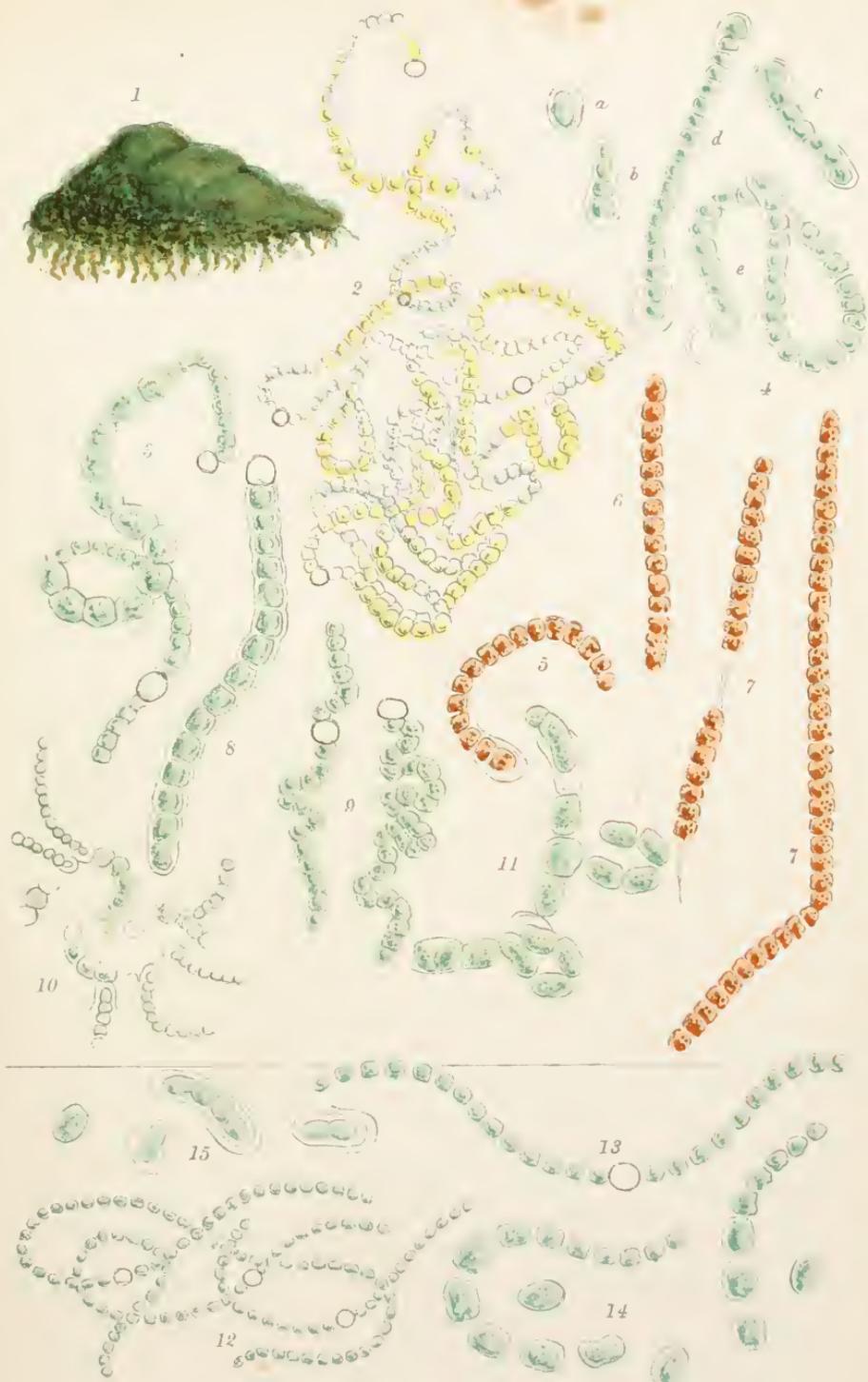
1. *Cœlosphaerium Kutzningianum*, Nag. 2. *Gomphosphaerium aponina*, Kutz. 3. *Merismopedia violacea*, Kutz.
 4. *Merismopedia glauca*, Nag. 5. *M. punctata*, Mey. 6. *Merismopedia ventriculi*, Rob. 7. *M. venosa*, Rabh
 8. *Tetrapedia Crux-Michaëli*, R. 9. *Tetrapedia Reinschiana*, Ar. 10. *Tetrapedia setigera*, Ar.



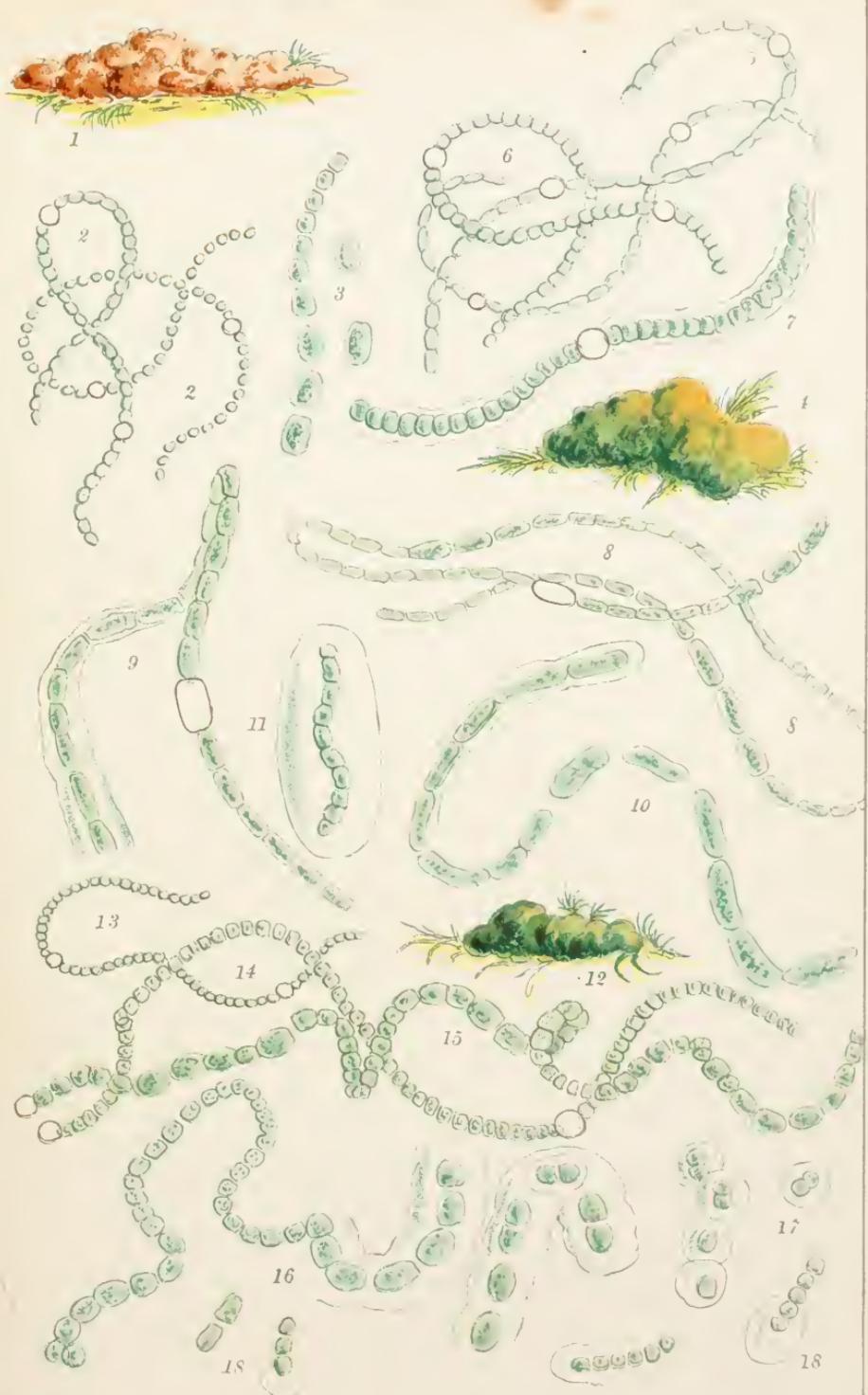


1. *Gloiothece cystifera*, Rabh. 2. *Gloiothece granosa*, Rabh. 3. *Aphanothecce prasina*, Br.
4. *Aphanothecce stagnina*, Br. 5. *Homalococcus Hassallii*, Kutz.



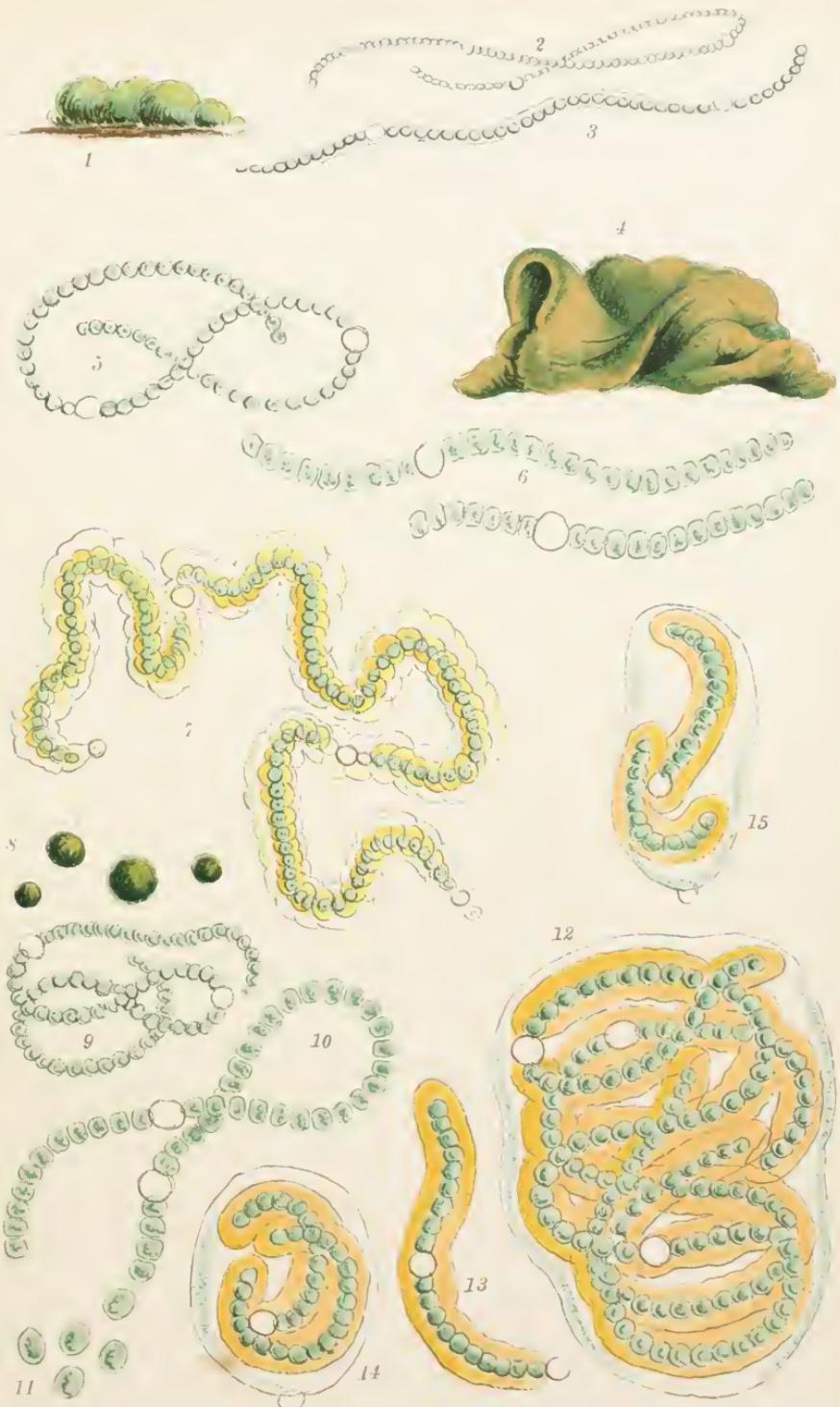
1—11. *Nostoc Linearia*. Born. 12—15. *Nostoc piscinale*. Kutz.





1-3. *Nostoc carneum*, Ag. 4-7. *Nostoc spongiaefforme*, Ag.
8-11. *Nostoc elliposporum*, Desm. 12-18. *Nostoc muscorum*, Ag.

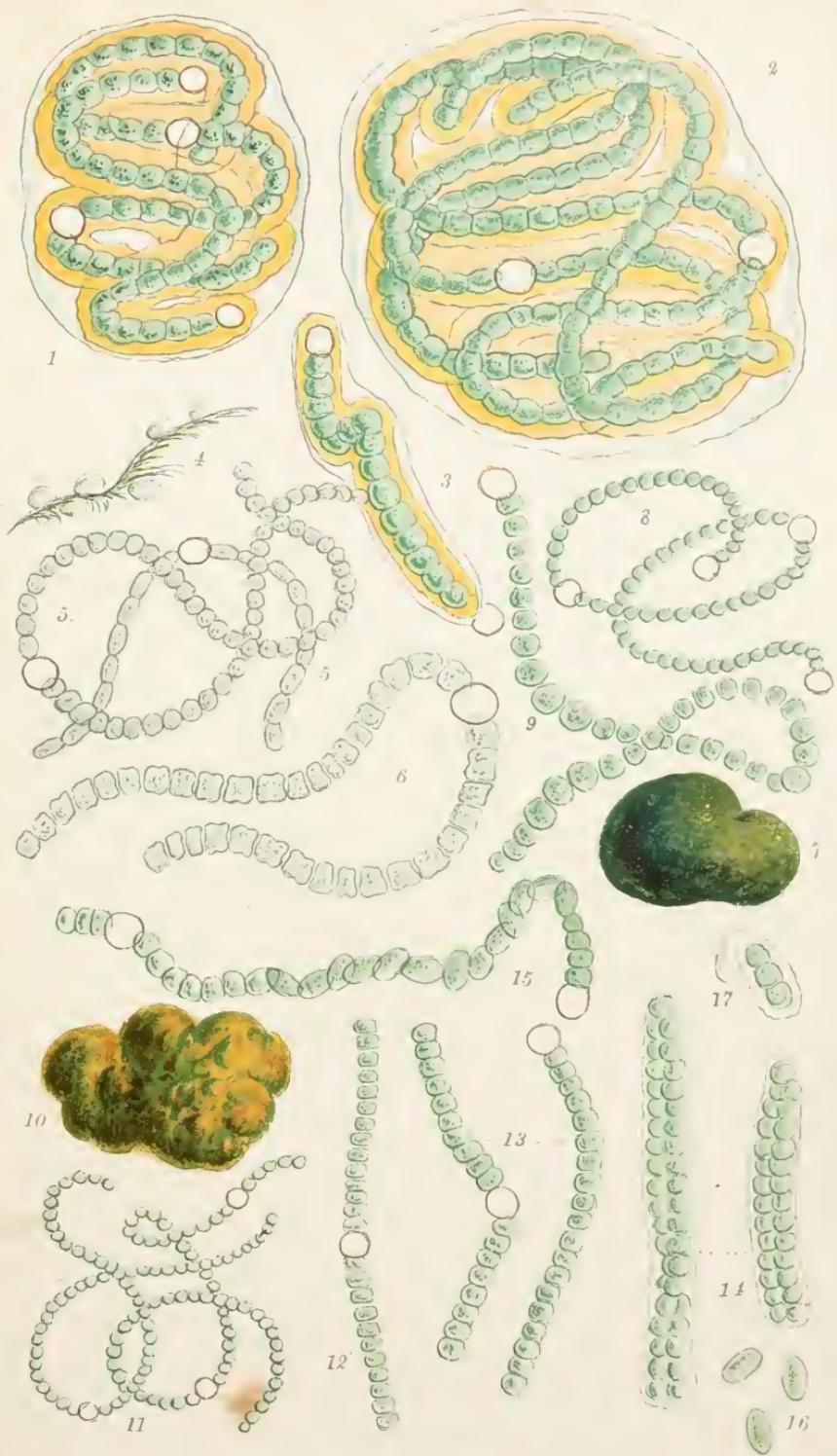




1–3. *Nostoc humifusum*. Carm.
8–11. *Nostoc sphaericum*. Vauch.

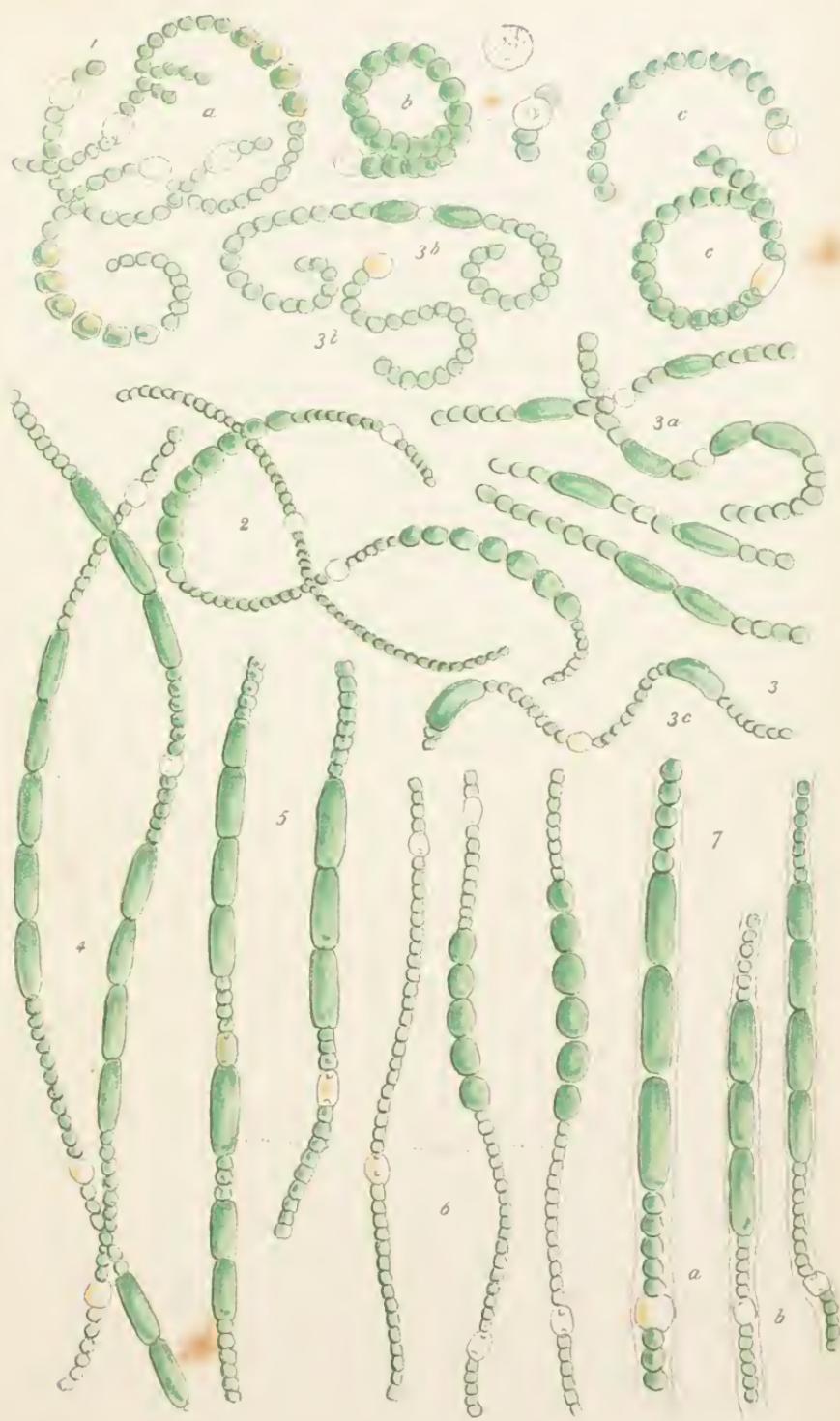
4–7. *Nostoc commune*. Vauch.
12–15. *Nostoc rupestre*. Kutz.





1-3. *Nostoc macrosporum*. Men. 4-6. *Nostoc caeruleum*. Lyngh. 7-9. *Nostoc pruniforme*. Ag. 10-17. *Nostoc verrucosum*. Vauch.





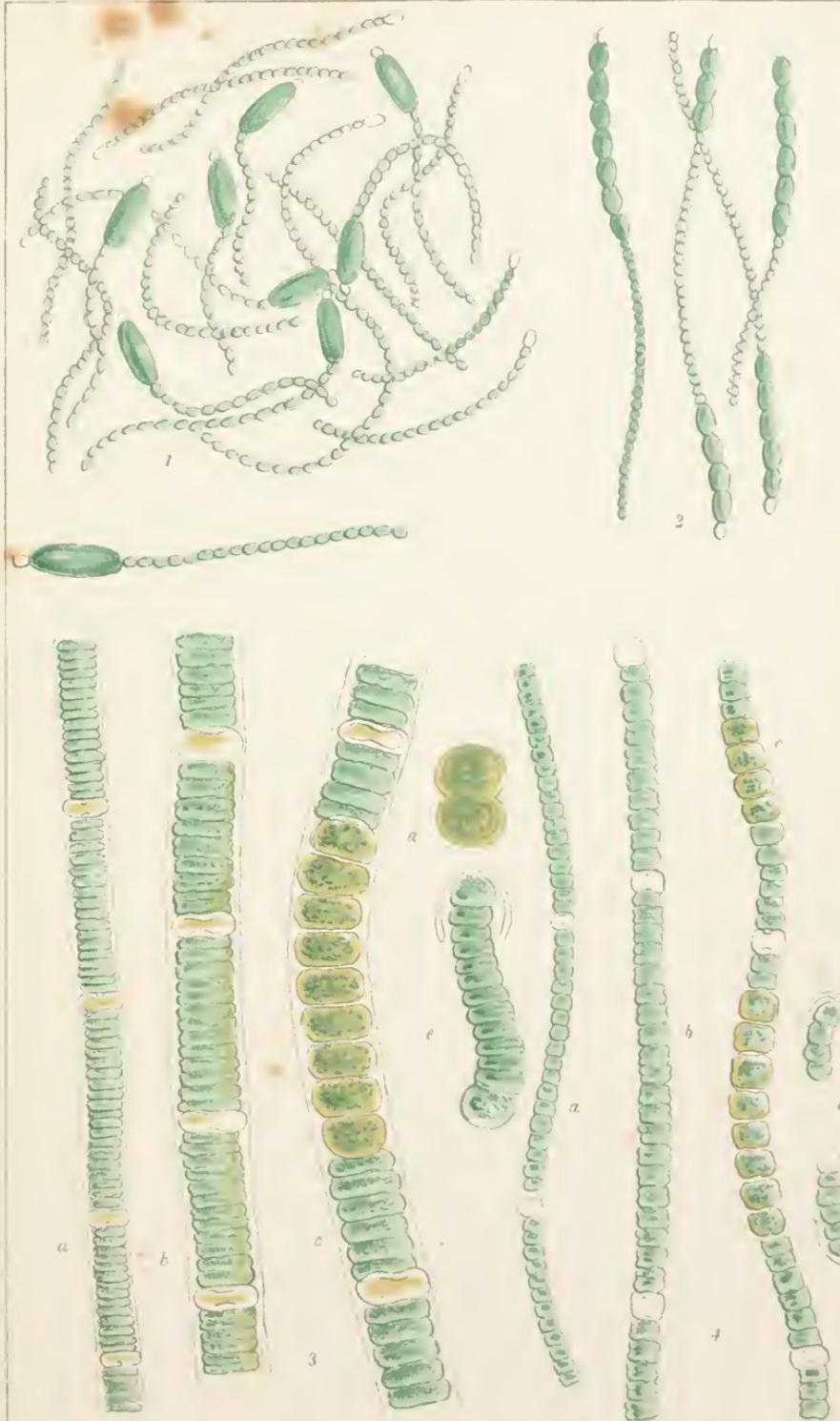
1. *Anabaena flos-aquæ*. Fr. 2. *Anabaena variabilis*. K. 3. *Anabaena Hassallii*. N. & W.
4. *Anabaena inequalis*. (Ralfs.) 5. *Anabaena Thwaitesii*. (Talis.) 6. *Anabaena oscillarioides*. (Bory.)
7. *Anabaena Smithii*. (Ralfs.)





1. *Anabaena Ralisi*. (Kutz.) 2. *Aphaniotomenon flos-aquor*. Morr. 3. *Sphaerzyga Carmichaeli*. Harv.
 4. *Sphaerzyga Broomei*. (Thur.) 5. *Sphaerzyga Jacobi*. Ralfs. 6. *Sphaerzyga Mooreana*. Ralfs.
 7. *Sphaerzyga Elatistica*. (Ralfs.) 8. *Sphaerzyga leptosperma*. Ralfs. 9. *Sphaerzyga Berkeleyana*. Thwaites.





1. *Cylindrospermum macrosporum*, Desm. 2. *Cylindrospermum catenatum*, Rab.
3. *Nodularia litorea*, Thur. 4. *Nodularia Harveyana*, Thur.





1. *Spirulina Jenneri*, K. 2. *Spirulina tenuissima*, K. 3. *Spirulina oscillarioides*, Purp.
 4. *Oscillaria tenerrima*, K. 5. *O. leptotricha*, K. 6. variety, *splendida* Griseb.
 7. *O. subfusca*, Vauch. 8. *O. tenuis*, Ag.



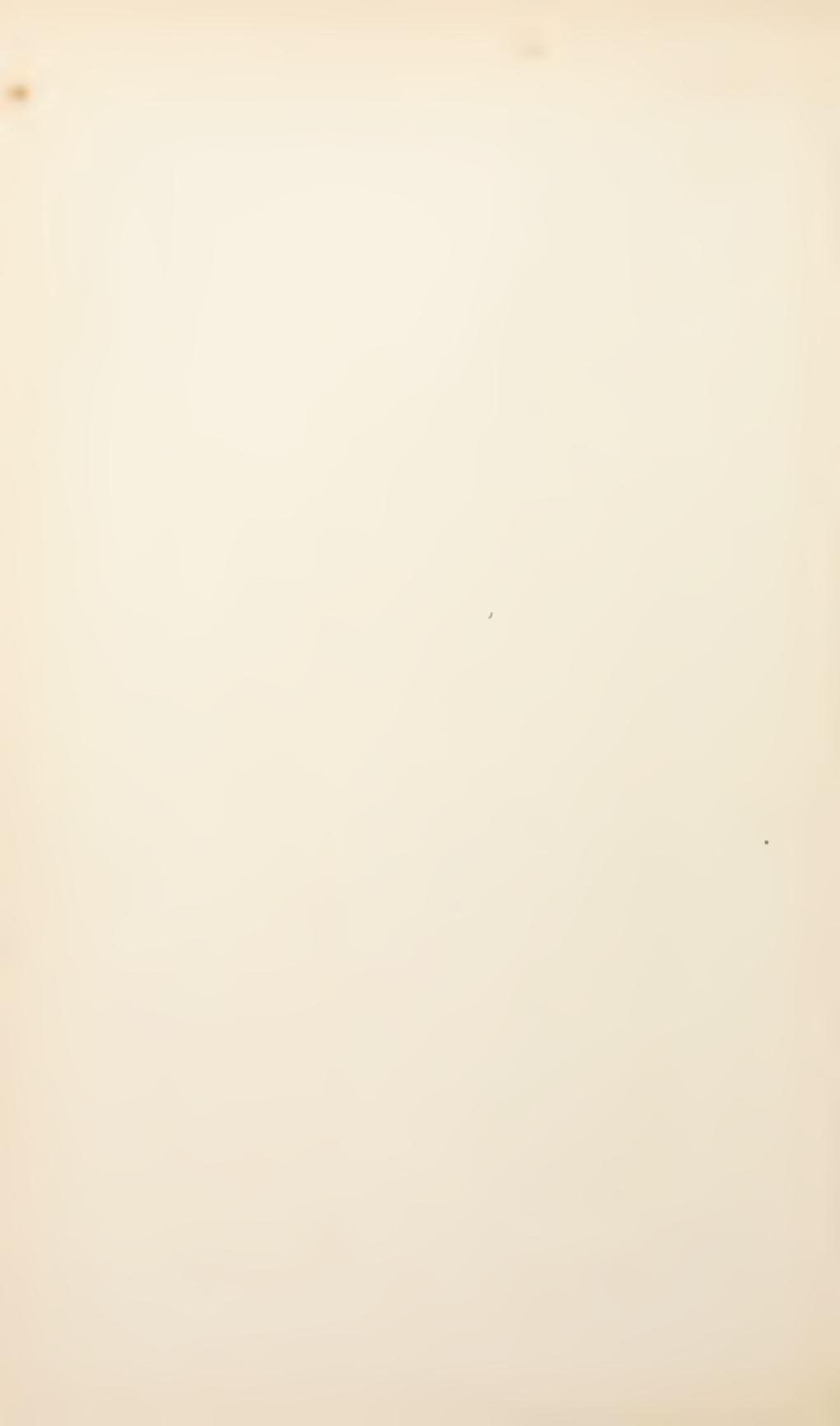


1. *Oscillaria tenuis*, var. *riridis*. 2. *O. antharia*, Jurg. 3. *O. limosa*, Ag.
4. *O. limosa*, var. *chalybea*, K. 5. *O. irrigata*, K. 6. *O. nigra*, Vauch.
7. *O. Frolichii*, Katz.





1. *Oscillaria chalybea* Mert. 2. *O. nigro-viridis* Harv. 3. *O. subuliformis*. H rv.
 4. *O. insignis* Harv. 5. *O. orangescens* Irum. 6. *O. violacea* Johnston.
 7. *O. spiralis* Carm. 8. *O. mucorinum* Carm





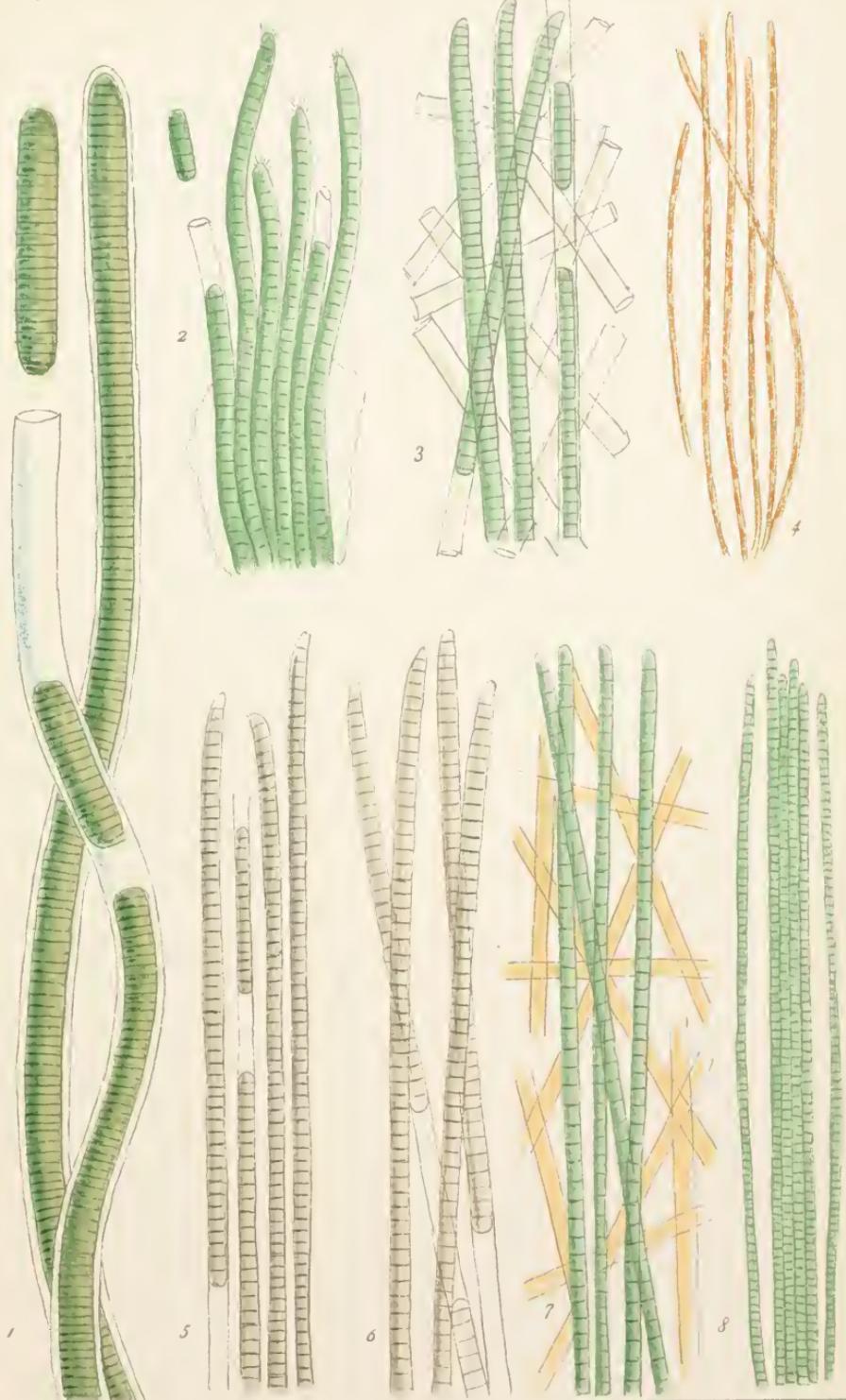
1. *Microcoleus gracilis*. Hass. 2. *Microcoleus terrestris*. Desm.



1. *Microcoleus cithonoplastes*. Thur. 2. *Inactis Cresswelli*. Thur.
3. *Inactis tinctoria*. Thur.



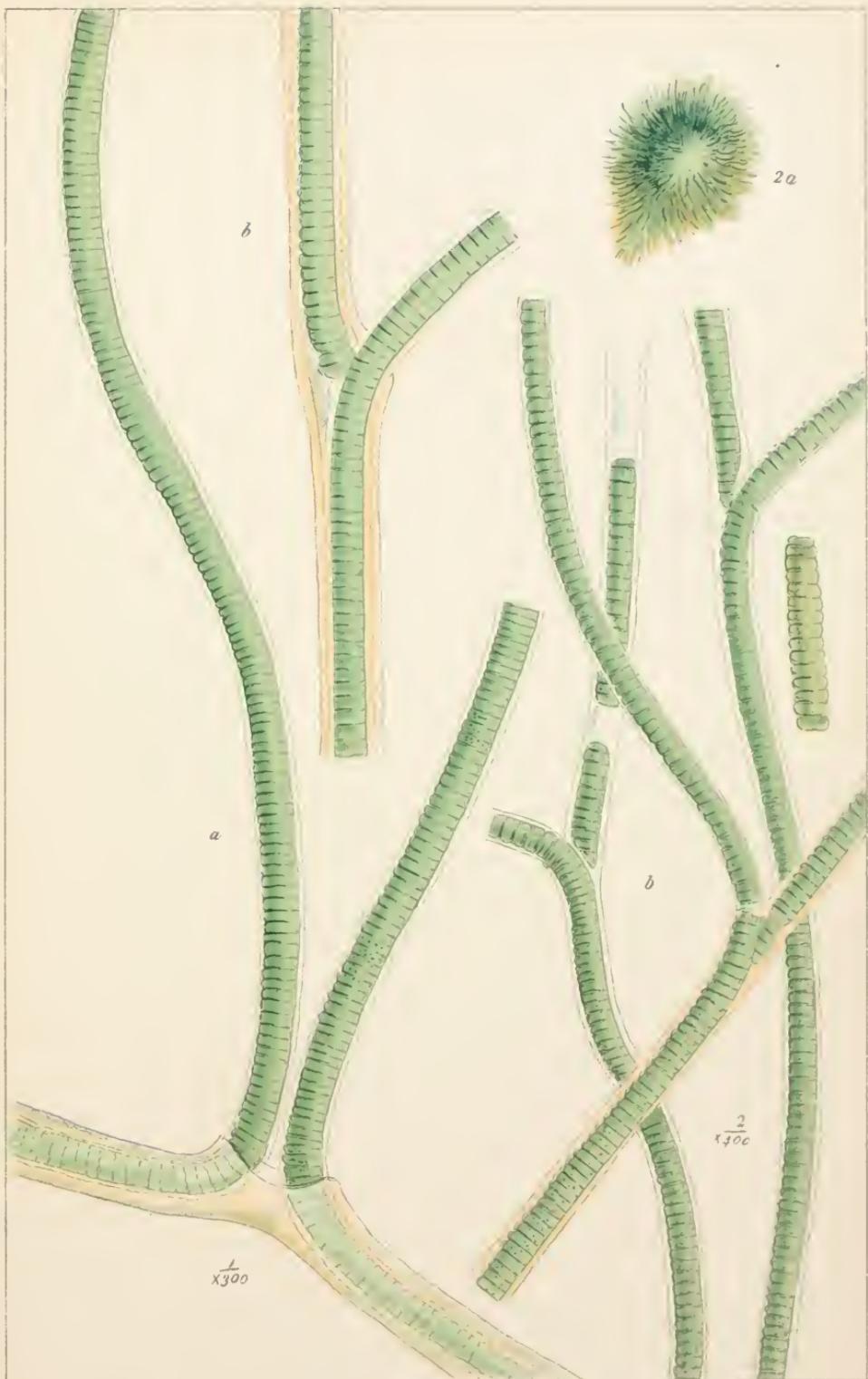
1. *Lyngbya aestuaria*, Lieb. 2. *Lyngbya rupestris*, Ag.
3. a. b. *Lyngbya subsalsa*, Ag.



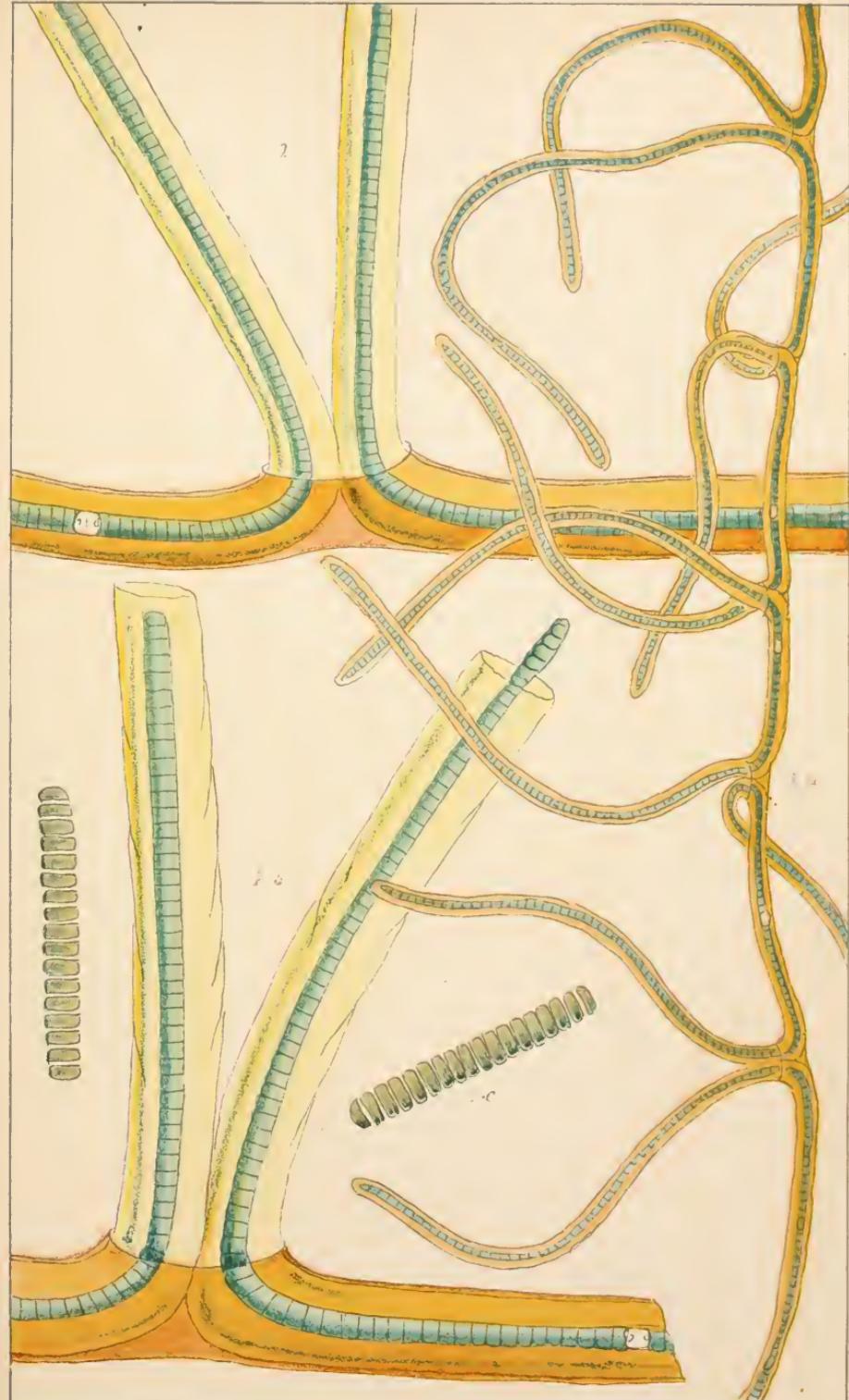
1. *Lyngbya littoralis*, (Carm.) *Lyngbya corium*, (Ag.) 3. *Lyngbya turfosa*, (Carm.)
 4. *Lyngbya ochracea*, Thur. 5. *Lyngbya vulgaris*, K. 6. *Lyngbya vulgaris*, var. *myochroa*.
 7. *Lyngbya papyrina*, K. 8. *Lyngbya inundata*, K.

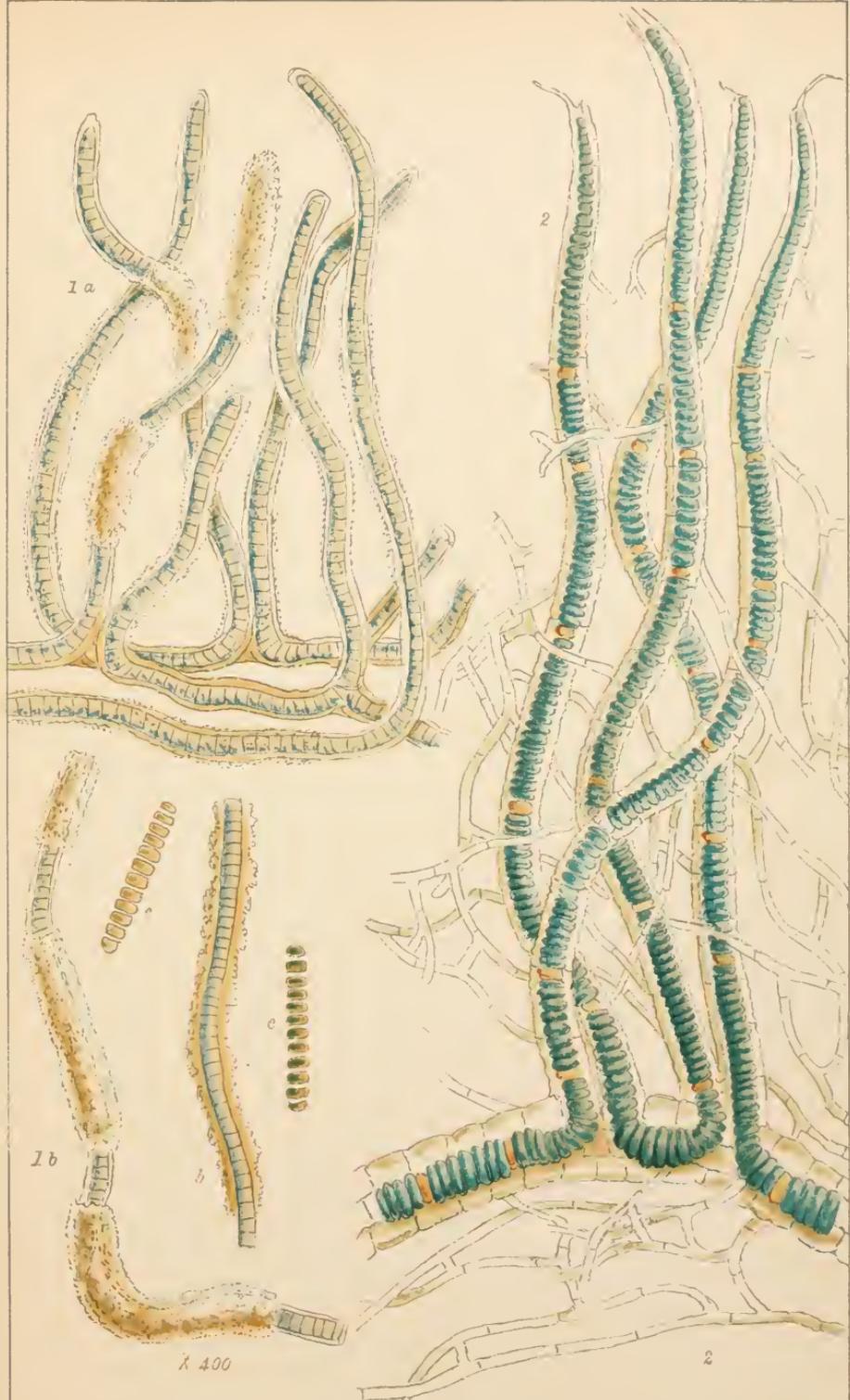


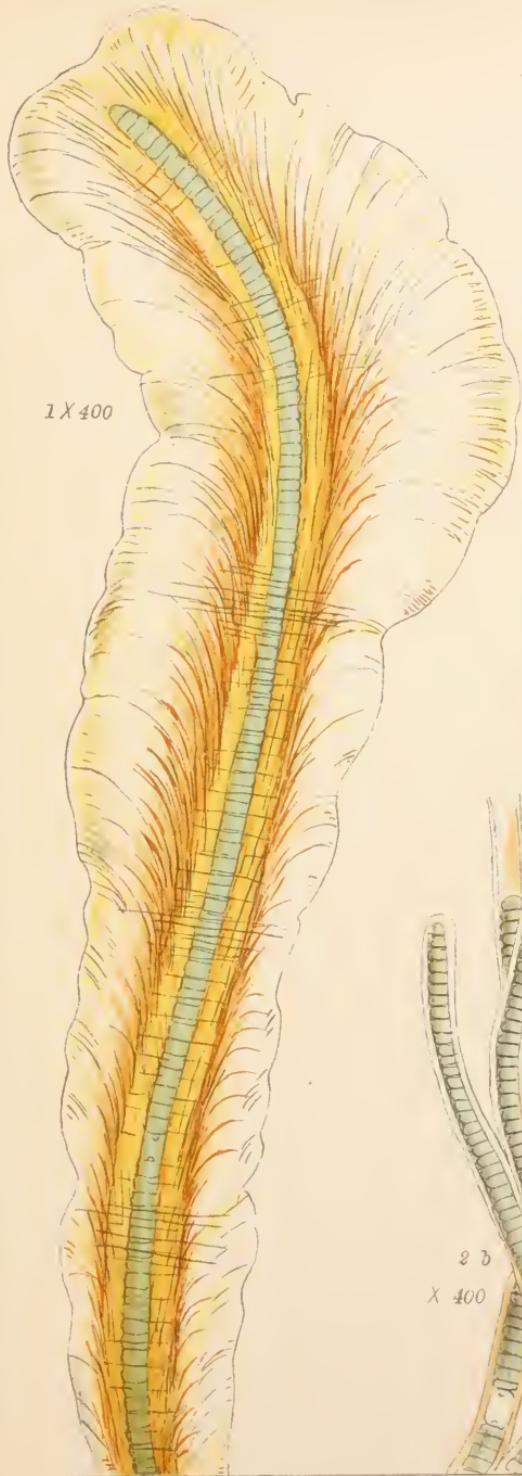
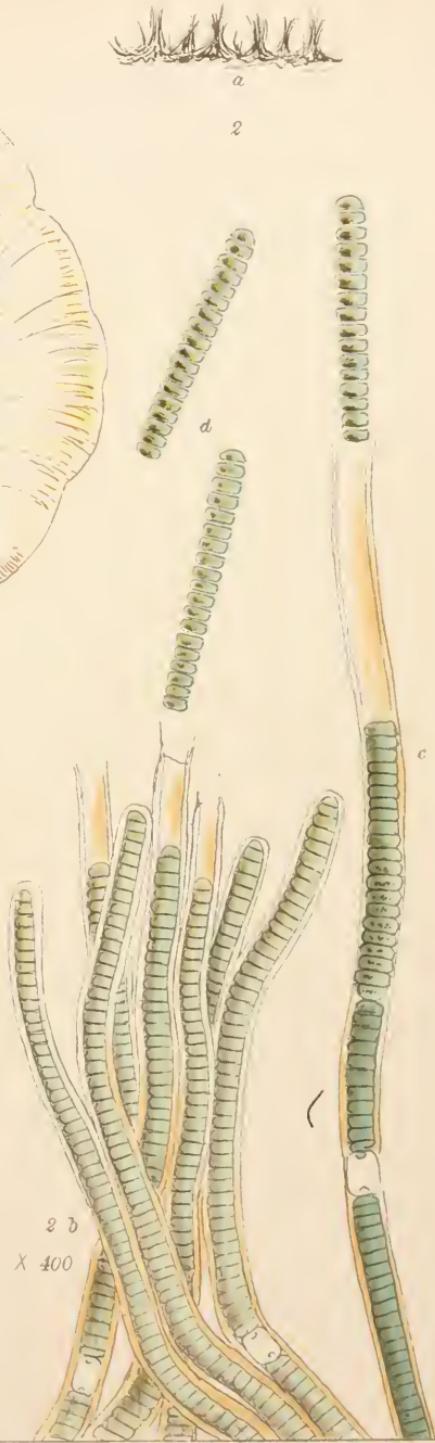
1. *Symploca Ralfsiana*, Kutz. 2. *Symploca lucifuga*, Hare.



1. *Plectonema mirabile*, Thür. 2. *Plectonema Kirchneri*, Cooke.

1. *Scytonema myochroum*. Ag.2. *Scytonema natans*. Breb.

1. *Scytonema cinereum*. Kutz.2. *Scytonema interruptum* (Garm.).

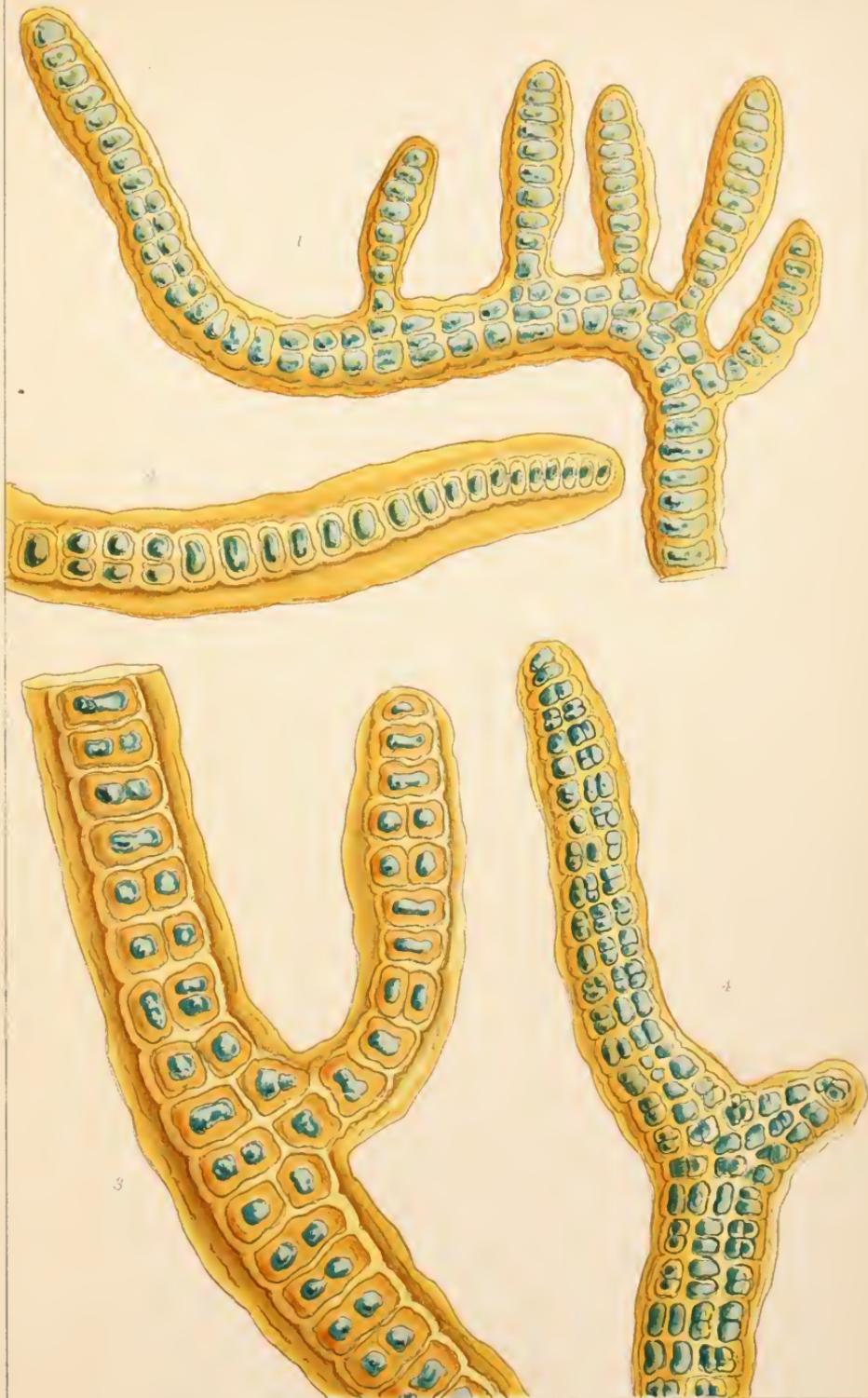
1. *Petalonema olatum*. Berk.2. *Symphyosiella non Hoffmanni*. Thur.



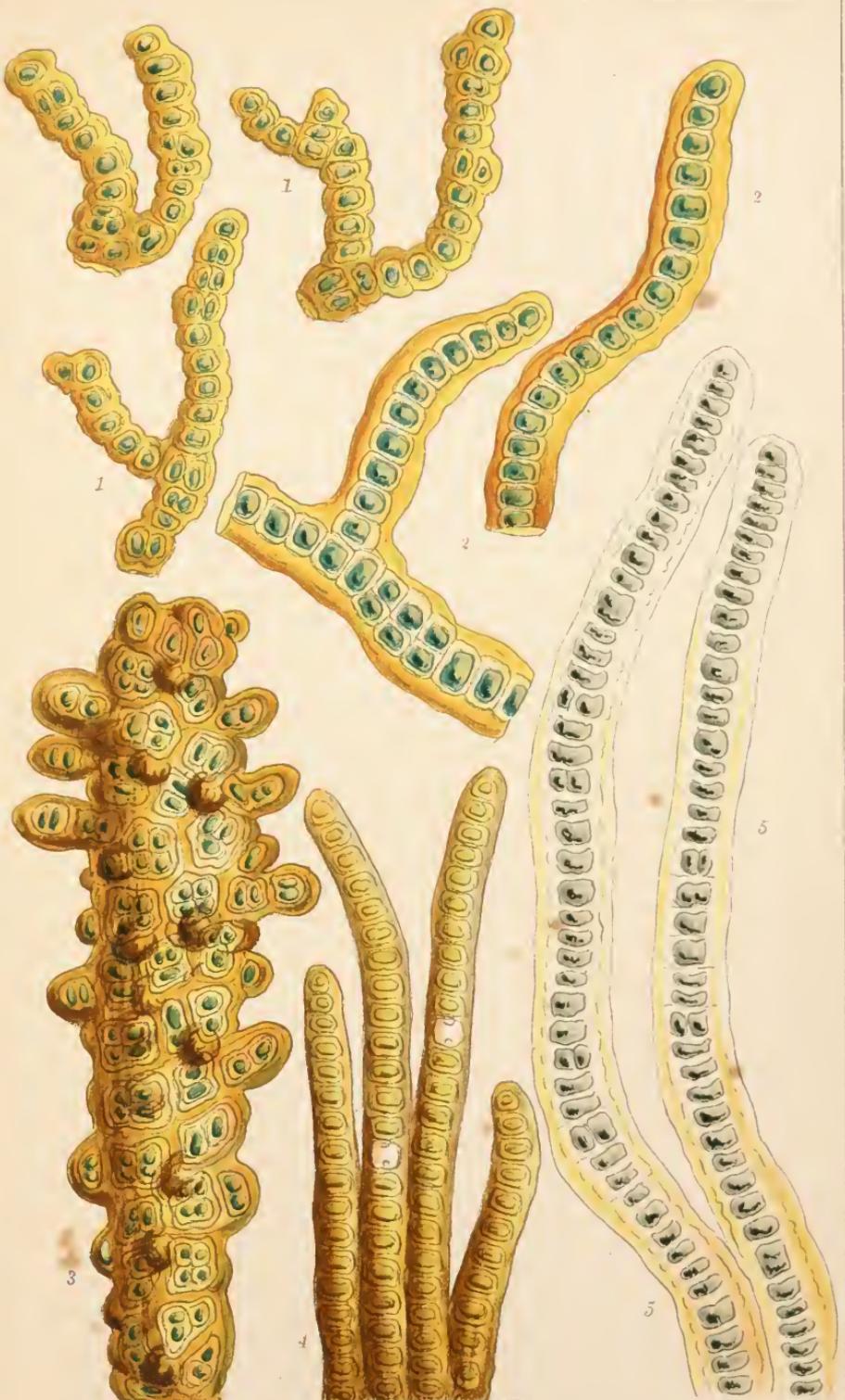
1. *Tolypothrix flaccida*. (Ag.) 2. *Tolypothrix distorta* Kutz
3. *Tolypothrix cirrhosa* (Carm.).



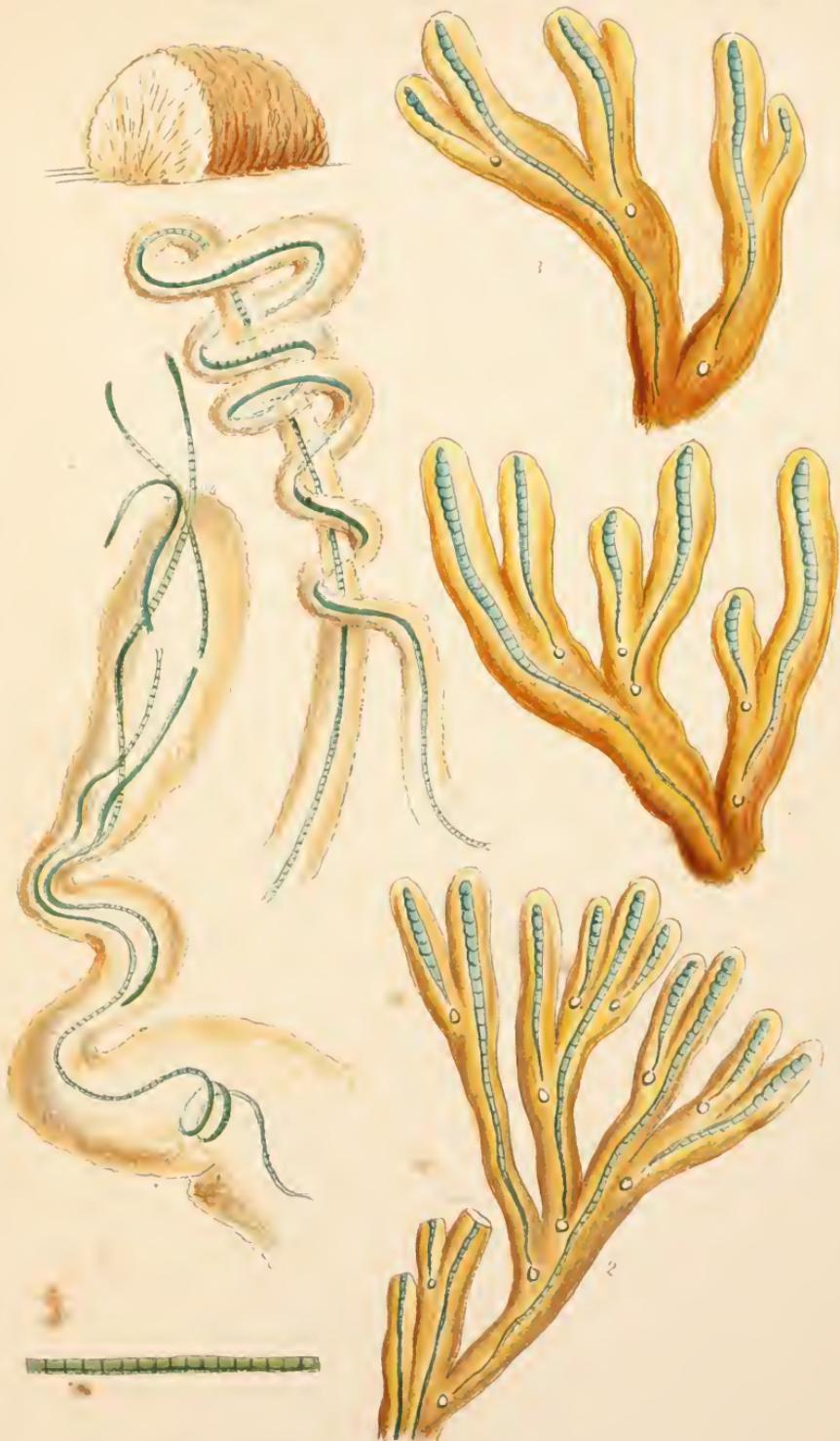
1. *Tolypothrix aggregata*, Kutz. 2. *Tolypothrix aggregata*, var. *pygmaea*, Kutz.
3. *Tolypothrix ventilis*, Kutz.

1. *Stigonema revolutum* (A. Nels.)3. *Stigonema boutibei* (Breb.)2. *Stigonema ciliatum* (Dill.)4. *Stigonema punctatum* (A. Nels.)



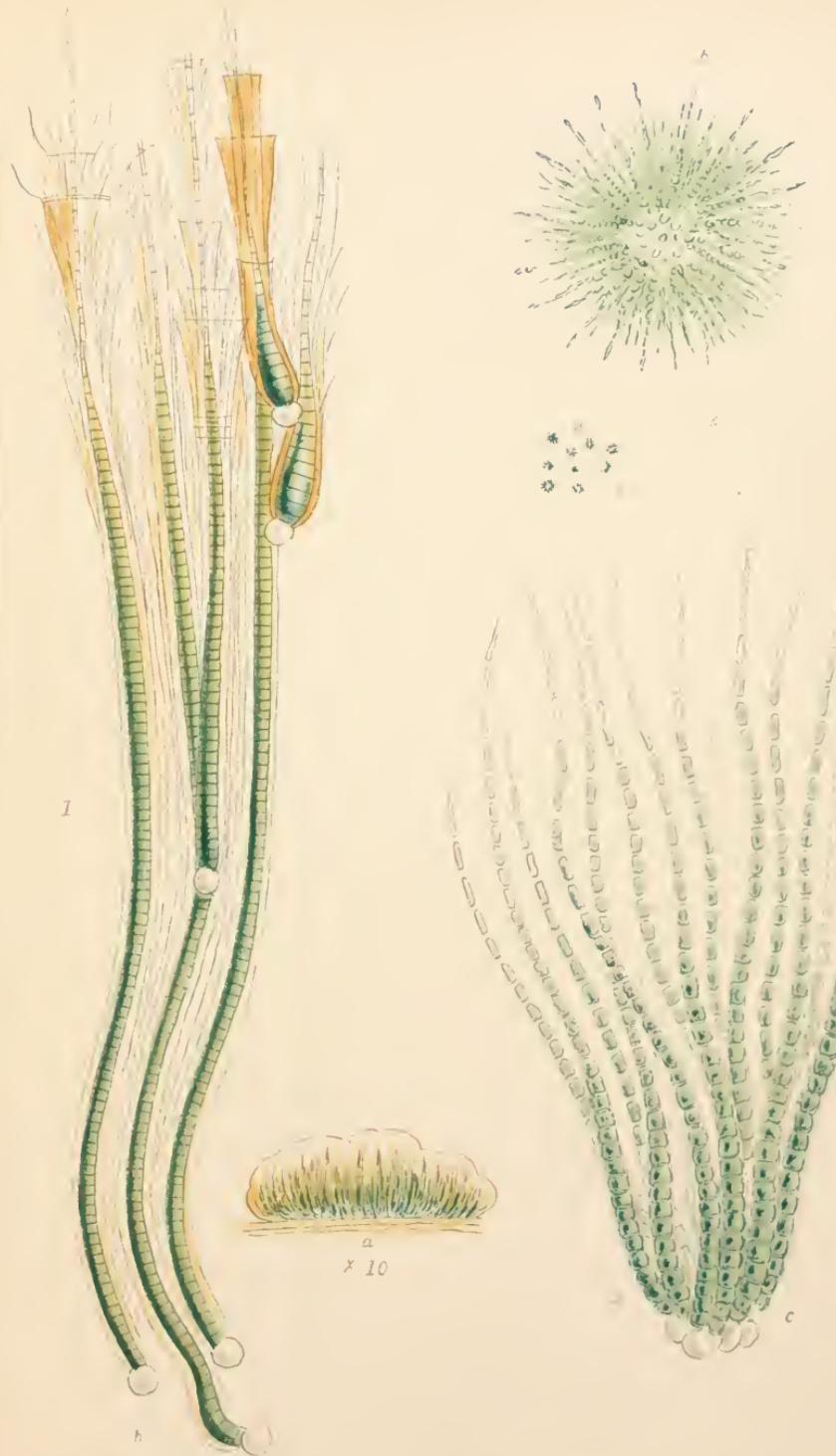
1. *Stigonema saxicola* Ag. 2. *Stigonema turfaceum* Link)3. *Stigonema mamillatum* Ag. 4. *Stigonema compactum* Ag5. *Hapalosiphon hypoleucus* Ieur.

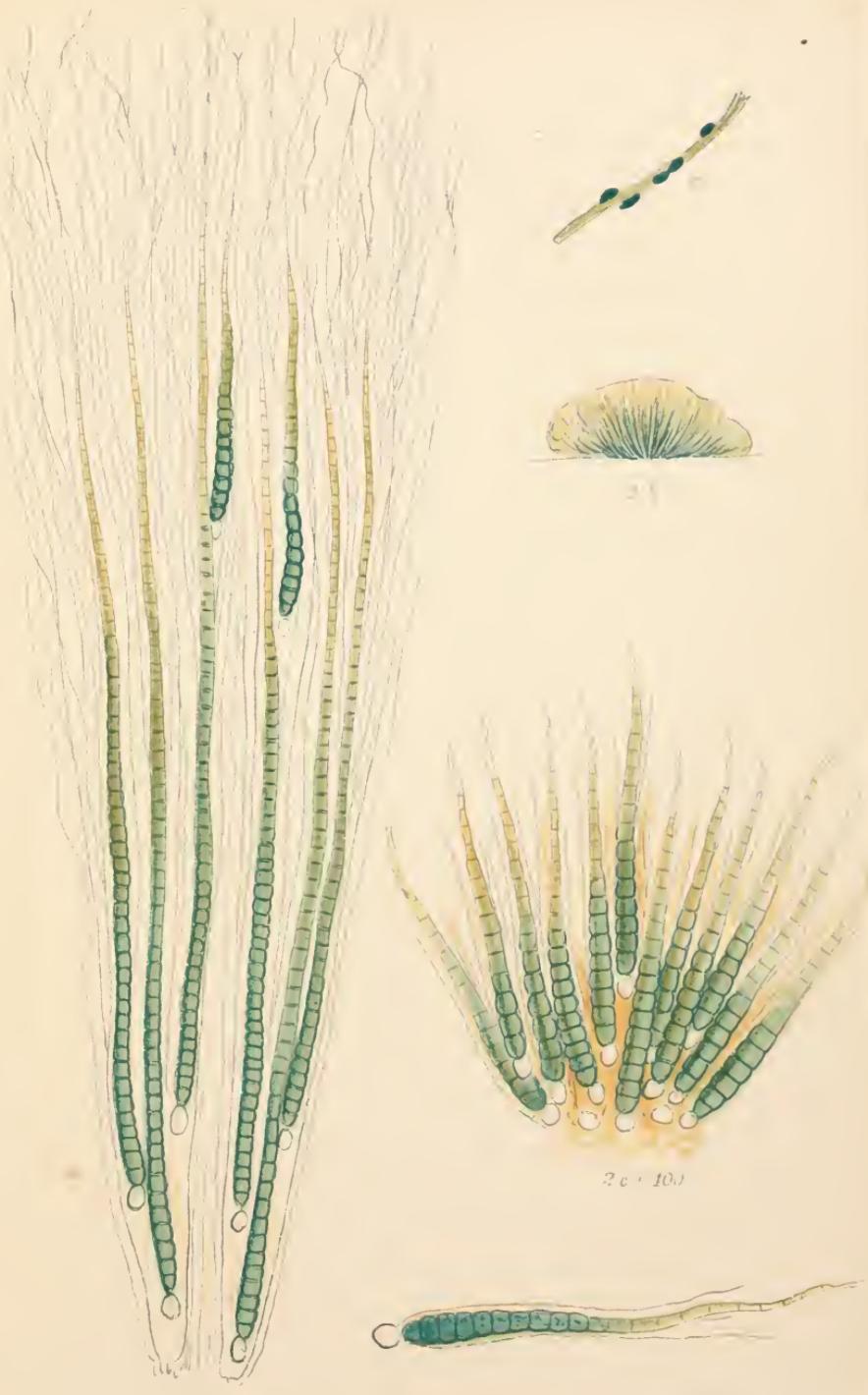


1. *Dasygloia amorpha* Thw. 2. *Petronema fruticulosum* Thw.3. *Scytonema crustaceum* Ag.



1. *Calothrix Orsiniana*. Thur.2. *Calothrix Dillwynii*. Berk.

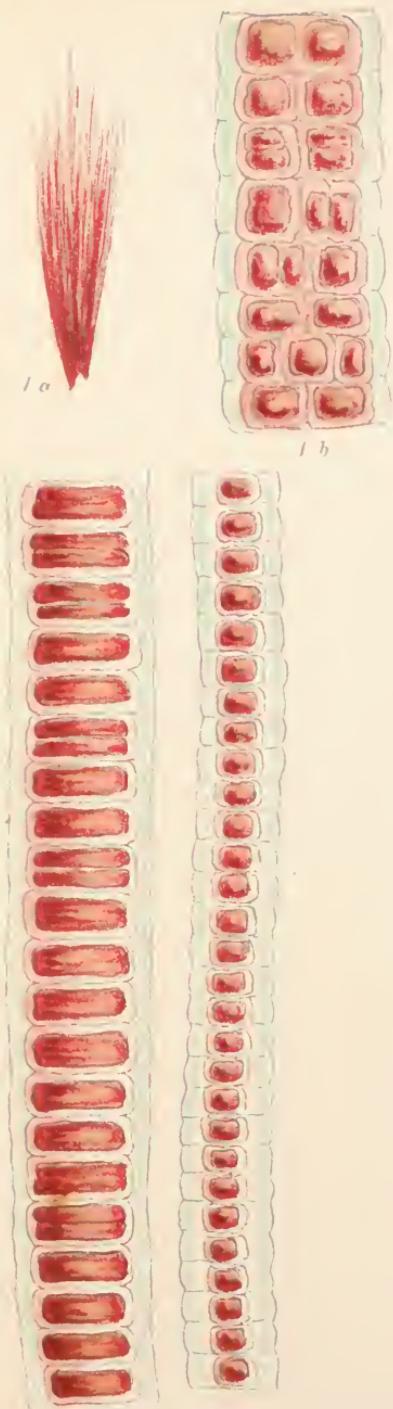
1. *Isactis plana*. Thur.2. *Leptothrix longistylis* Eno, Bst.

1. *Rivularia granulifera*. Lam.2. *Rivularia dura*. Kut.



1. *Glaetrichia natans*. Thür.2. *Gleotrichia pisum*. (Ag.)3. *Rivularia calcarea*. Eng. Bot.





1c X 400

1. *Bangia atropurpurea*. (Dillw.)2. *Chantransia scotcea*. Kutz

2

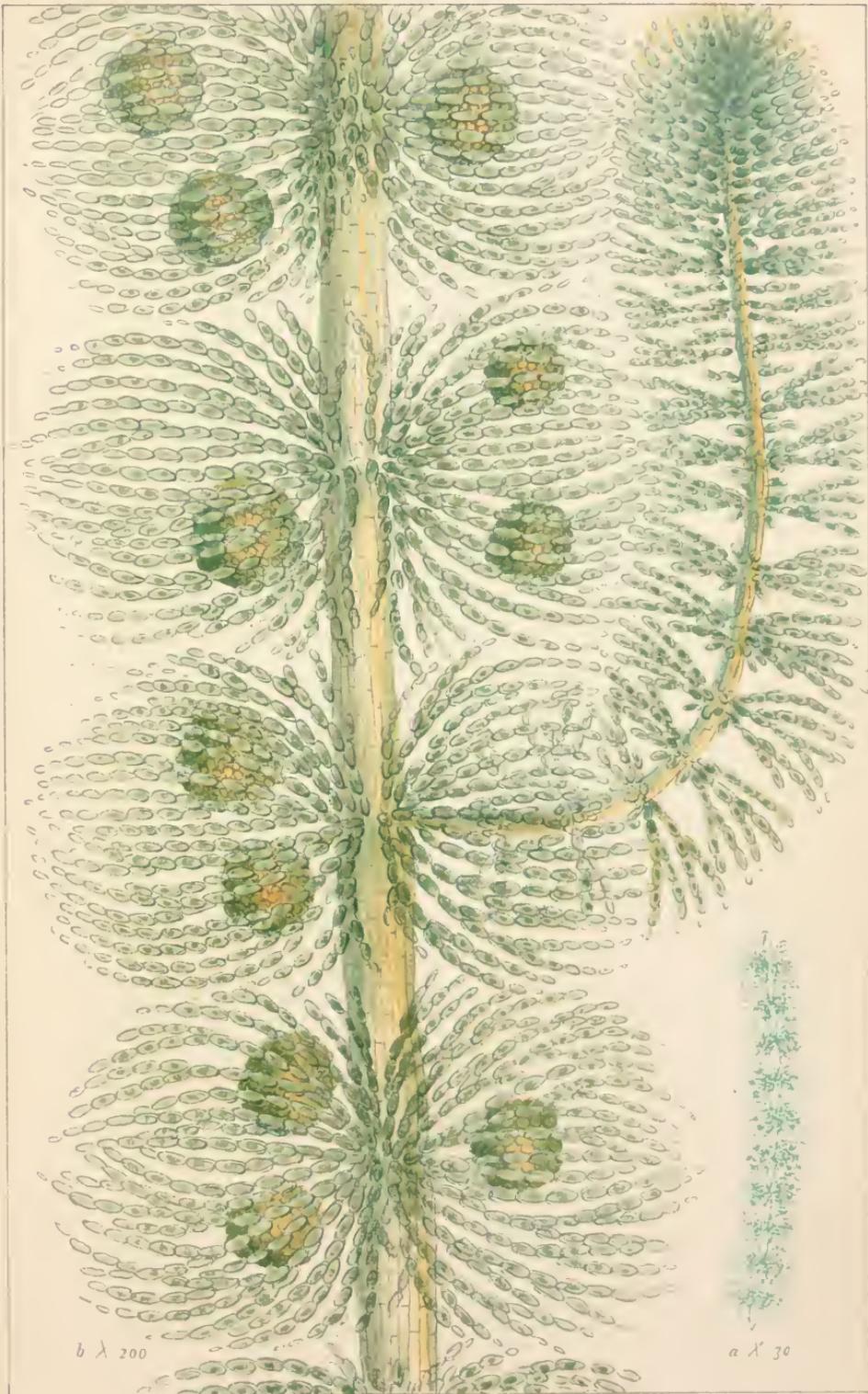


1. *Chantransia violacea*. D By2. *Chantransia Hermanni* Desv. $\times 300$

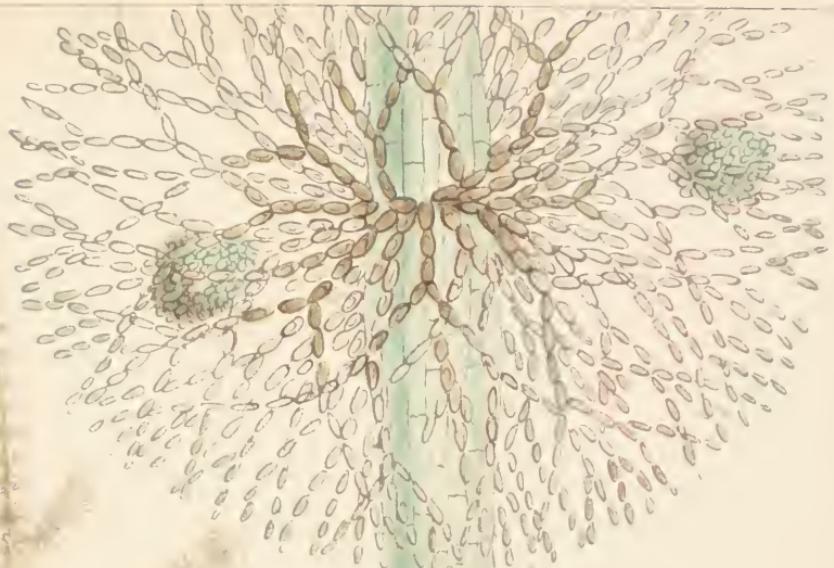
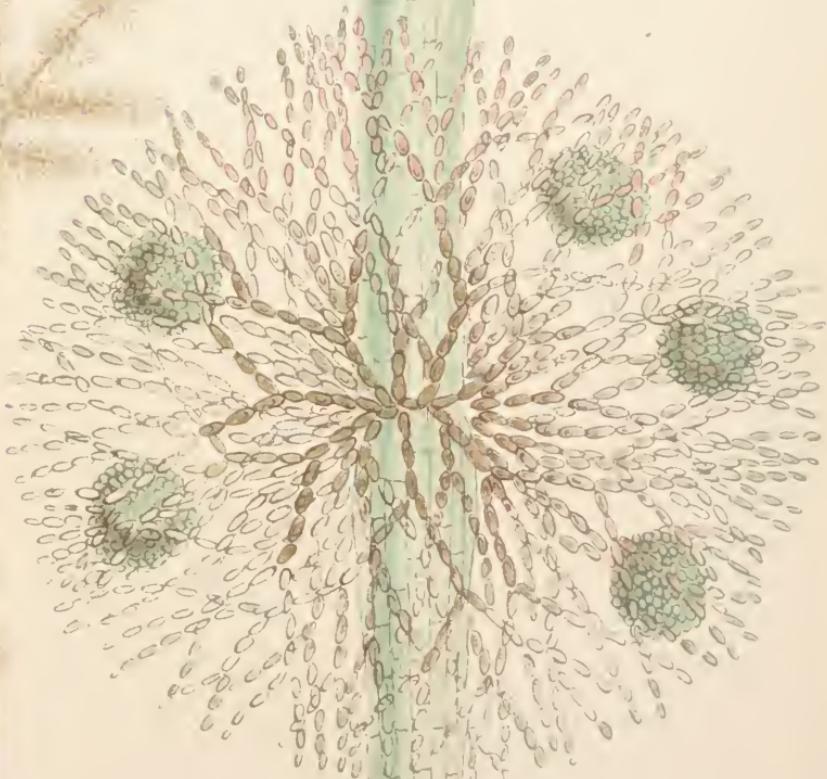


1. *Chantransia investiens* Kutz2. *Chantransia pygmaea* Kutz
3. *Chantransia chilybea*. Lynch

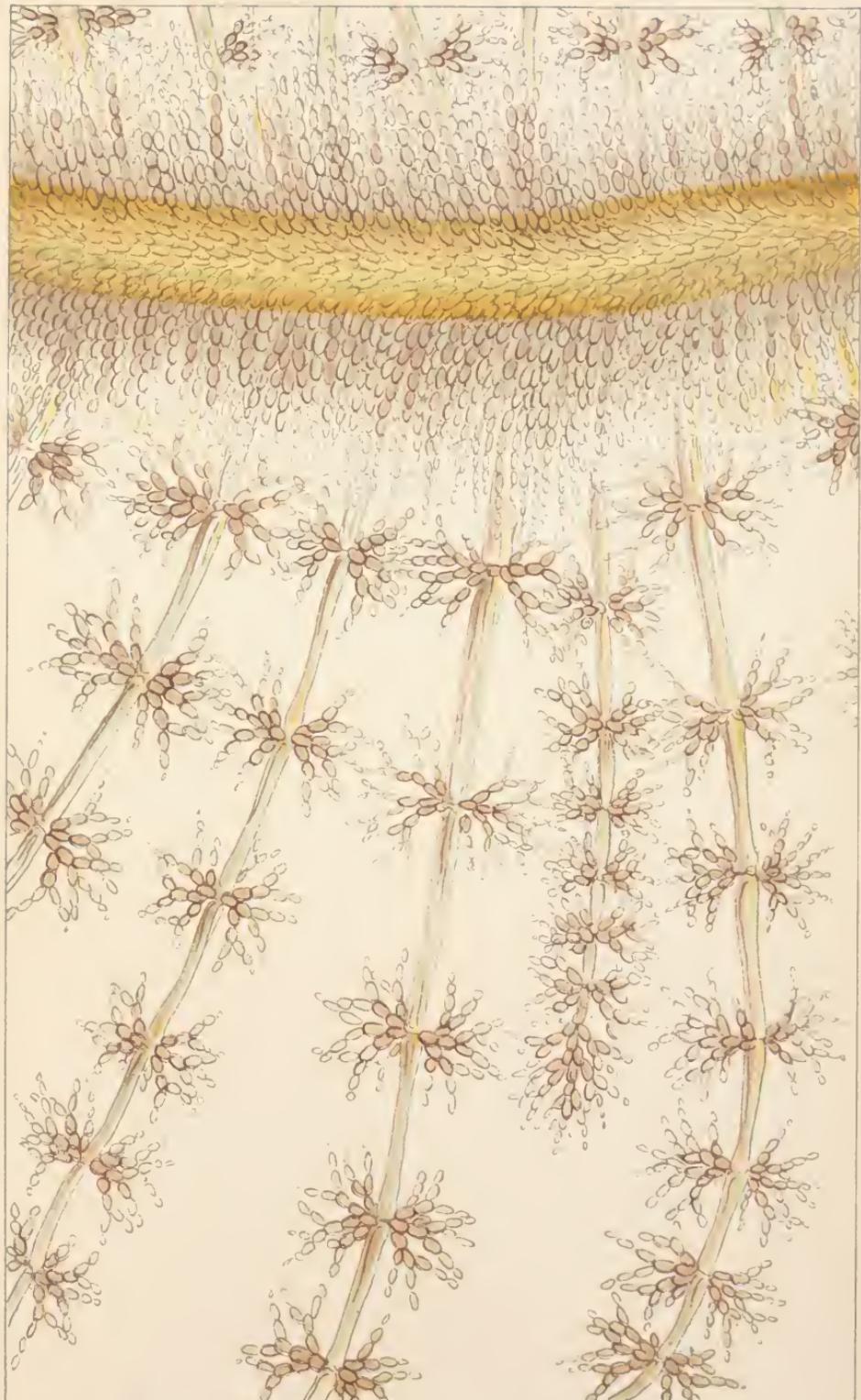




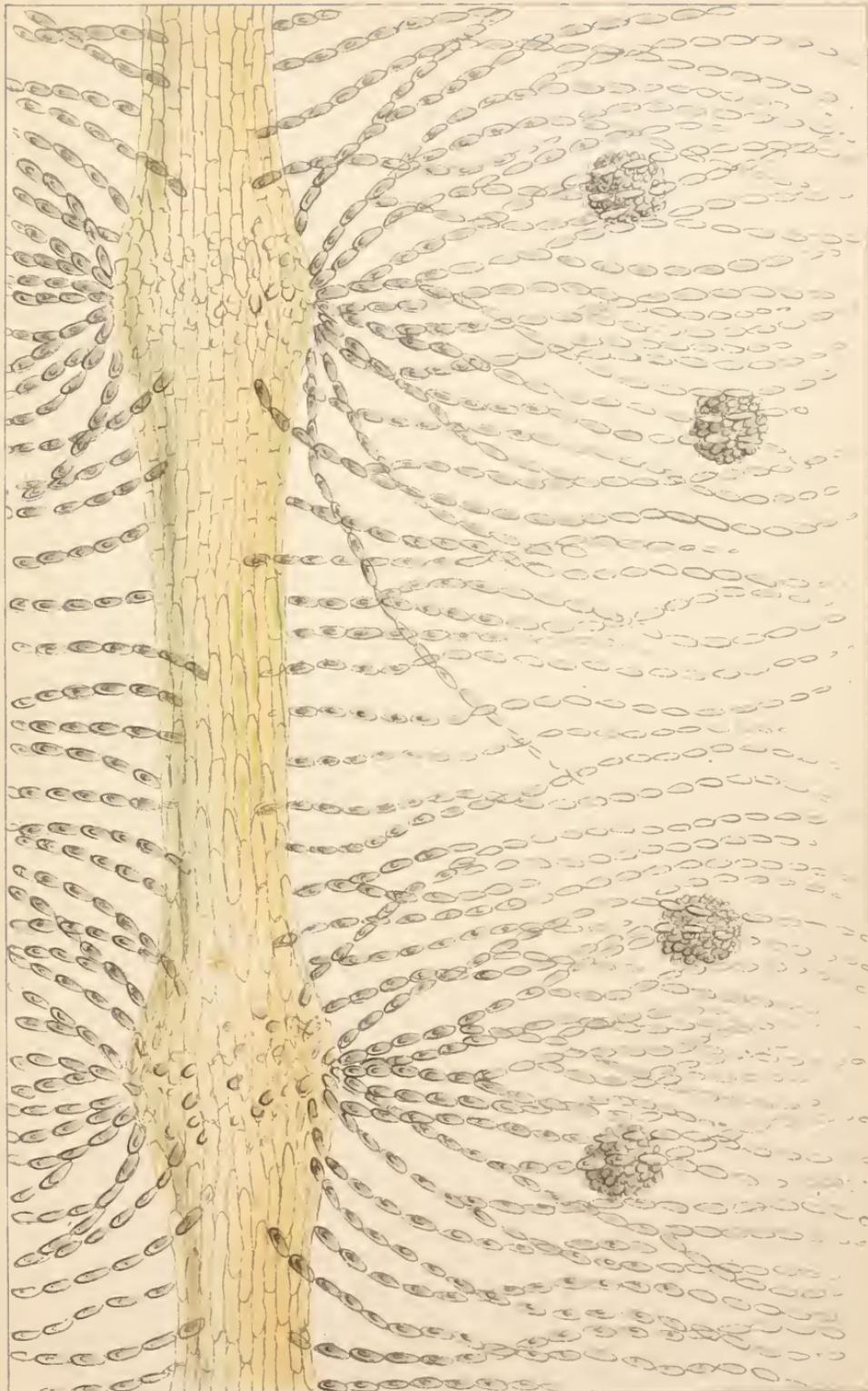
Batrachospermum moniliforme. Roth

 $b \times 200$  $a \times 30$

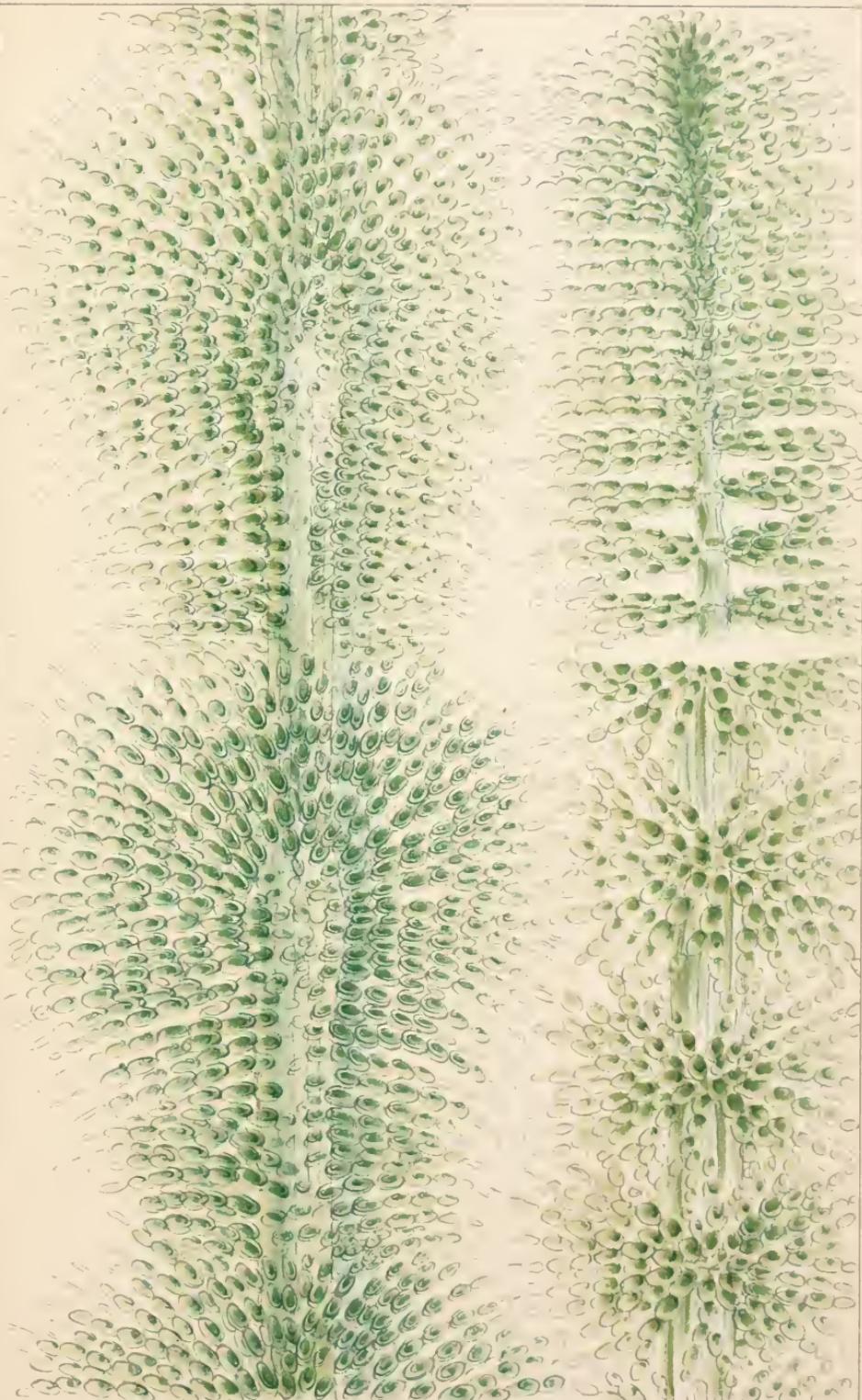
Batrachospermum moniliforme. Roth. var. pulcherrimum. Bory.



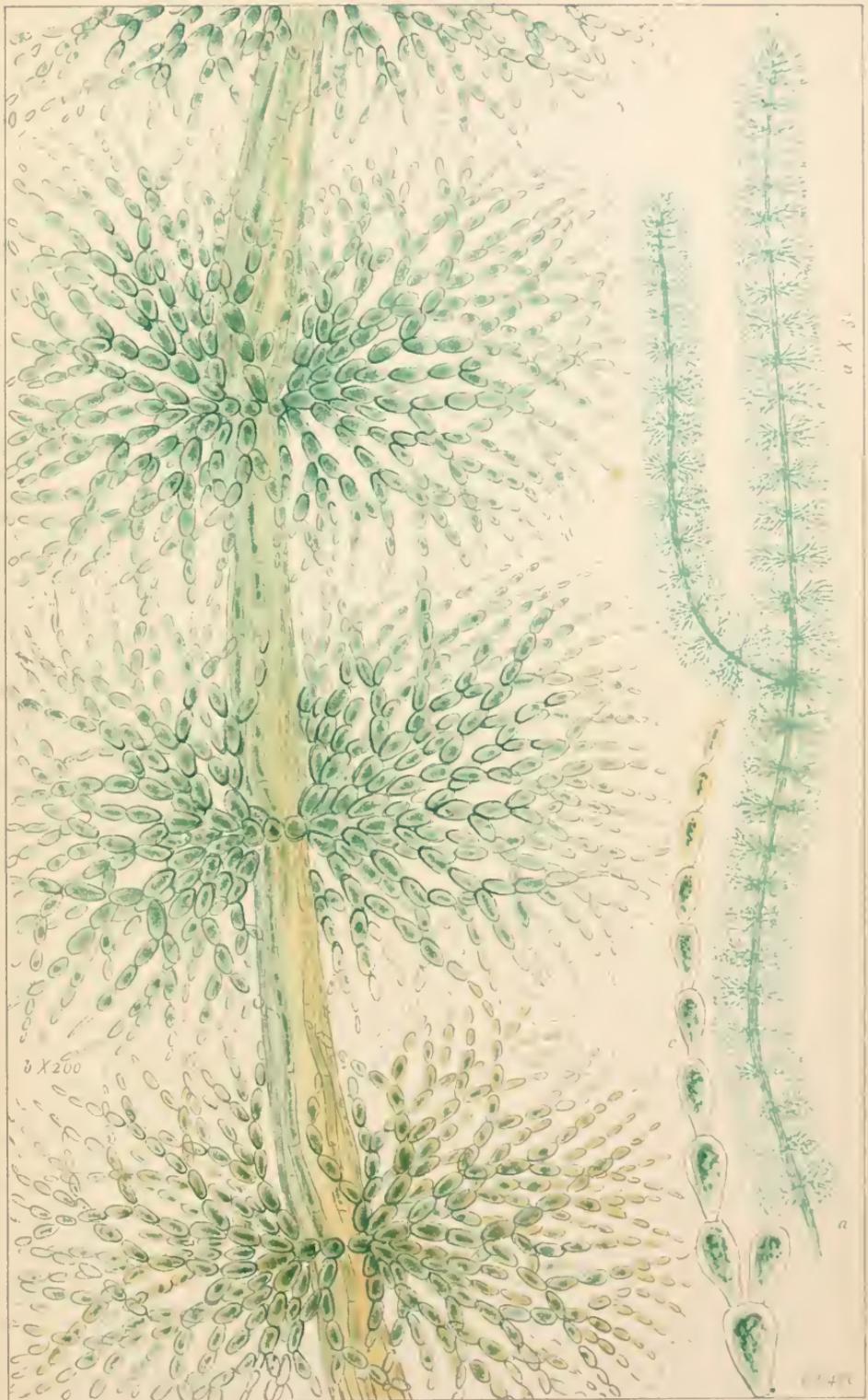
Batrachospermum moniliforme. Roth. var. *proliferum. Carm.*



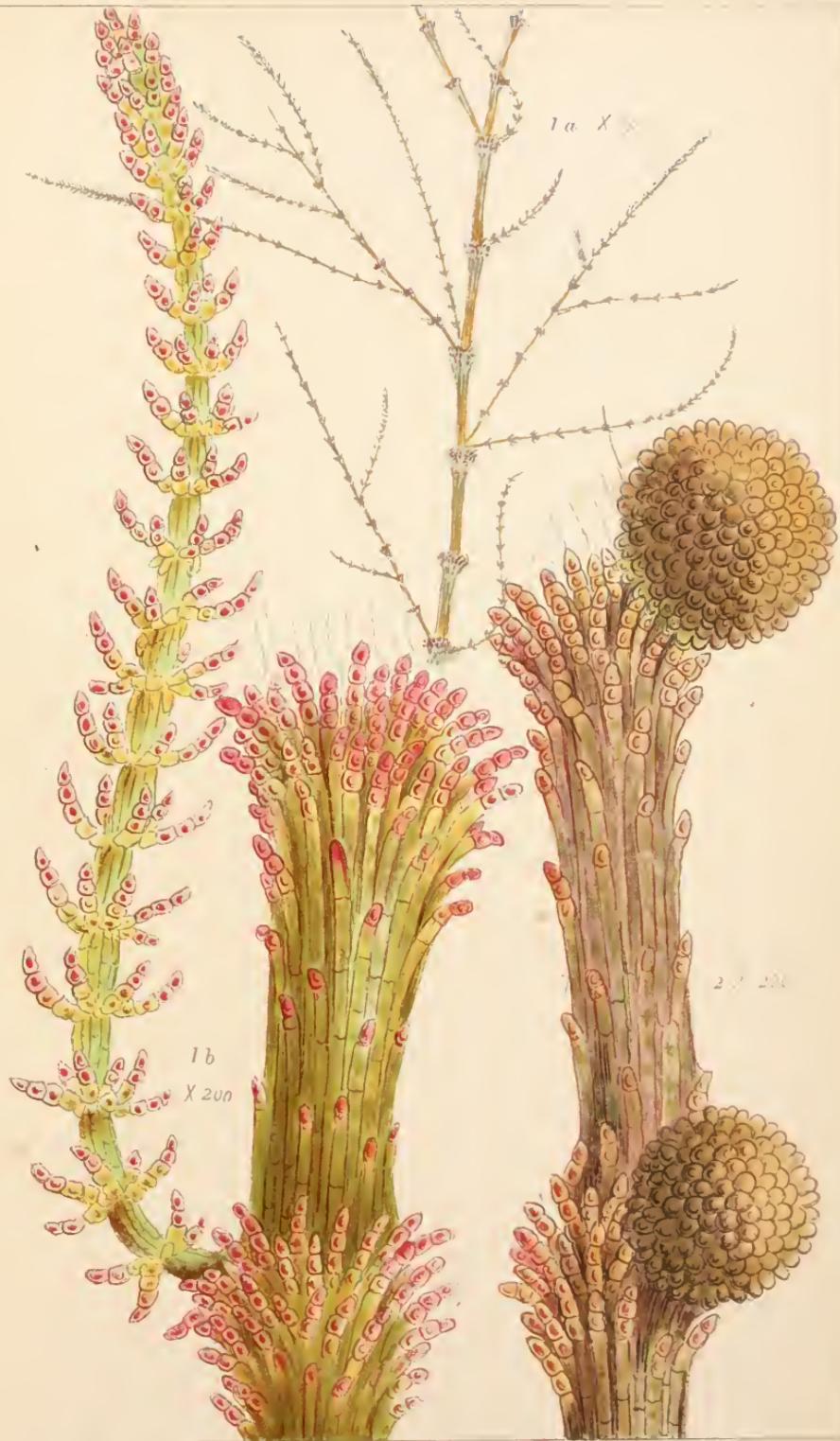
Batrachospermum moniliforme. Roti. — 17. 1897. var. Ha. s.



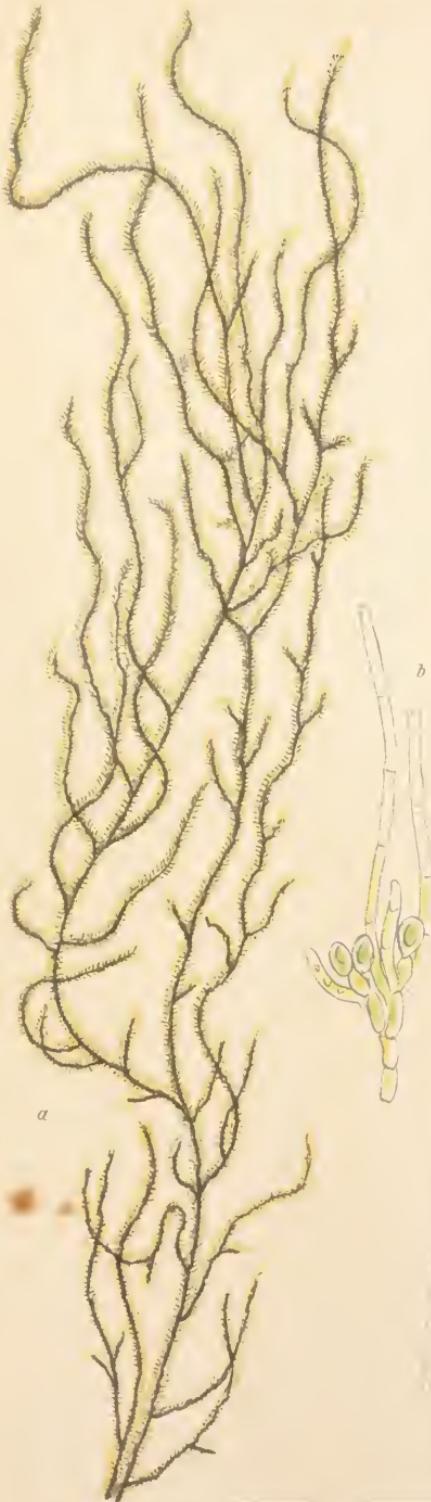
Batrachospermum moniliiforme. var. *Boltoni.*



Batrachospermum vagum var. *keratophyllum*.

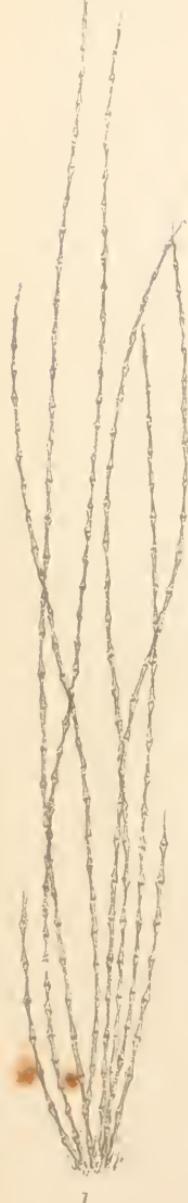
1. *Batrachospermum atrum*. Harvey2. *Batrachospermum Dillenii*. Bory.





Thorea ramosa (var.) *Bory*.



1. *Lemanea fluitatilis*. Ag.

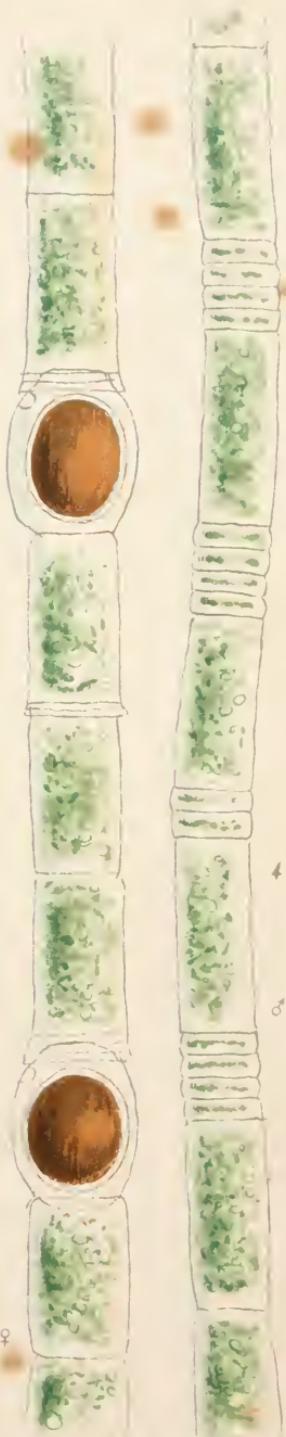
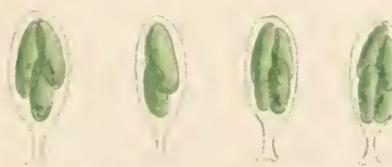
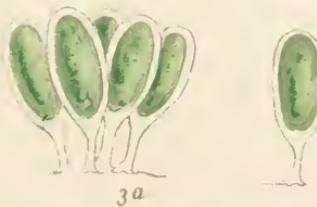
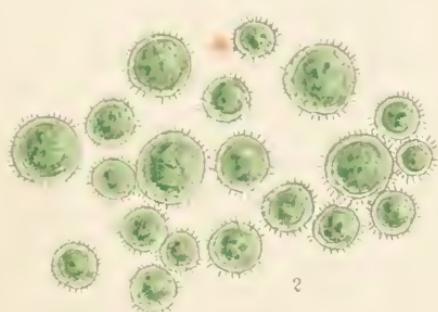
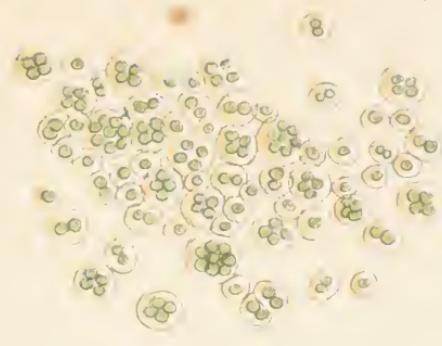
a

b

2

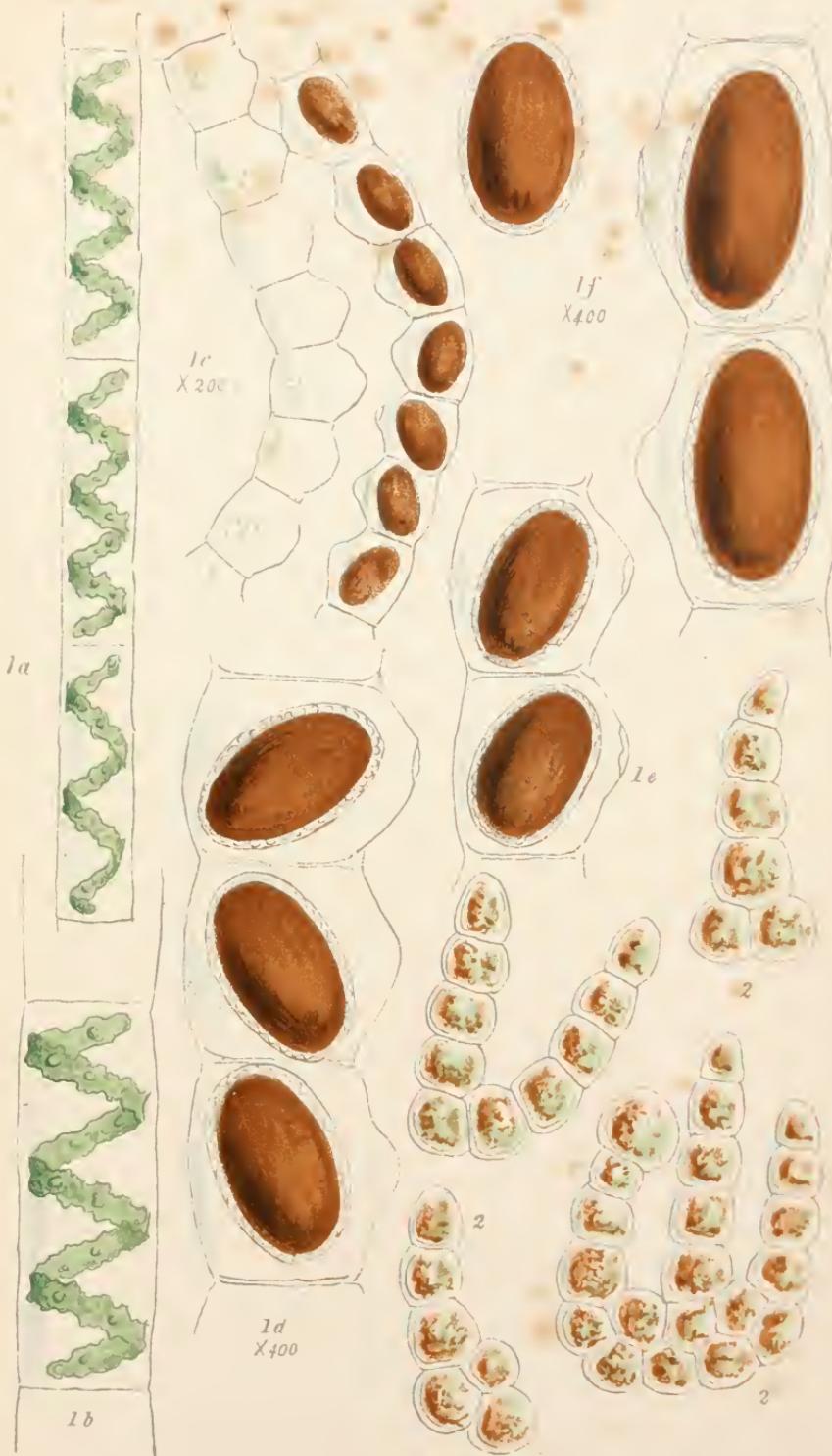
2. *Lemanea torulosa*. (Roth)





1. *Pleurococcus bituminosus*, Bory. 2 *Pleurococcus vestitus*, Rein.
3. *Dactylococcus Debaryanus*, Rein. 4 *Edogonium capilliforme*, Kutz.



1. *Spirogyra velata*, Nordst.2. *Chroolepus umbrinum*, Kutz.



