

PLATE III.

Figs. 1-8. *Botrylloides fulgurale*, n. sp.

Figs. 9-14. *Botrylloides perspicuum*, n. sp.

Figs. 15-18. *Botrylloides perspicuum*, var. *rubicundum*, nov.

Figs. 19-21. *Botrylloides nigrum*, n. sp.

a. Anus.
br. Branchial aperture.
br.s. Branchial sac.
cc. Cæcum from stomach.
d.l. Dorsal lamina.
d.t. Dorsal tubercle.
ec. Ectoderm.
en. Endostyle.
gl. Glandular tubules on intestine.
i. Intestine.

i.l. Internal longitudinal bar of branchial sac.
inf. Infundibulum.
l.v. Fine longitudinal vessels of branchial sac.
m.f. Muscle fibre from mantle.
n.g. Nerve ganglion.
n.gl. Neural gland.
œ. Œsophagus.
p.p. Peripharyngeal band.

r. Rectum.
sg. Stigmata of branchial sac.
sph. Sphincter.
st. Stomach.
t.c. Test cells.
t.k. Terminal bulb on vessel in test.
t.m. Test matrix.
tn. Tentacles.
tr. Transverse vessel of branchial sac.
v. Vessel in test.
z. Prebranchial zone.

- Fig. 1. A colony of *Botrylloides fulgurale*; natural size.
- Fig. 2. Part of the test of *Botrylloides fulgurale*; magnified (S., 1 inch).
- Fig. 3. Part of the branchial sac of *Botrylloides fulgurale*, seen from the interior; magnified (S., 1 inch).
- Fig. 4. Part of a vertical section through colony of *Botrylloides fulgurale*, showing the anterior part of an Ascidiozoid and the surrounding test; magnified (S., 1 inch).
- Fig. 5. Surface view of anterior end of an Ascidiozoid of *Botrylloides fulgurale*; magnified (S., 1 inch).
- Fig. 6. The reproductive organs of *Botrylloides fulgurale*, to show the shape; magnified (S., 1 inch).
- Fig. 7. Part of the anterior end of an Ascidiozoid of *Botrylloides fulgurale*, showing the tentacles, dorsal tubercle, &c.; highly magnified (S., $\frac{1}{4}$ inch).
- Fig. 8. A vertical section through the anterior dorsal region of the Ascidiozoid of *Botrylloides fulgurale*, to show the relations of the nerve-ganglion, the neural gland, and the dorsal tubercle; stained in aniline blue; highly magnified (Z., $\frac{1}{12}$).
- Fig. 9. Part of a section through the test of *Botrylloides perspicuum*; magnified (S., 1 inch).
- Fig. 10. A small portion of the same section, more highly magnified (S., $\frac{1}{4}$ inch).
- Fig. 11. A small part of the branchial sac of *Botrylloides perspicuum*; magnified (S., 1 inch).
- Fig. 12. Two pigment cells from *Botrylloides perspicuum*; highly magnified (Z., $\frac{1}{12}$).
- Fig. 13. A transverse section through the endostyle of *Botrylloides perspicuum*; highly magnified (S., $\frac{1}{4}$ inch).
- Fig. 14. The alimentary canal of *Botrylloides perspicuum*; magnified (S., 1 inch).
- Fig. 15. Part of the branchial sac of *Botrylloides perspicuum*, var. *rubicundum*, seen from the interior; magnified (S., 1 inch).
- Fig. 16. Part of the anterior dorsal region of an Ascidiozoid of *Botrylloides perspicuum*, var. *rubicundum* showing the dorsal tubercle and neighbouring parts; highly magnified (S., $\frac{1}{4}$ inch).
- Fig. 17. The branchial sac and alimentary canal of *Botrylloides perspicuum*, var. *rubicundum*; magnified (S., 1 inch).
- Fig. 18. Part of the test of *Botrylloides perspicuum*, var. *rubicundum*; magnified (S., 1 inch).
- Fig. 19. Part of the branchial sac of *Botrylloides nigrum*, seen from the interior; magnified (S., 1 inch).
- Fig. 20. Part of another sac of *Botrylloides nigrum*, seen from the exterior; highly magnified (S., $\frac{1}{4}$ inch).
- Fig. 21. The alimentary canal of *Botrylloides nigrum*; highly magnified (S., $\frac{1}{4}$ inch).