

retract toward their bases, even to such an extent as to be only three times longer than thick (*Fig. 9, a*), whilst the inner surface of the chymiferous cavity (*Fig. 2, F, g*) becomes deeply plicated in obliquely transverse folds, which look like spiral semi-partitions. The depth of these folds varies considerably, under the same degree of contraction in the stem; sometimes they are slight and very oblique (*H, g*), or present a form intermediate (*D, g*) between this and the first-mentioned state. In extremely contracted states (*Fig. 9*) every thing is so compressed, crowded, and reduced, that the cells of the different layers are not distinguishable as cells, but appear like coarse granules more or less regularly disposed.

The creeping stem (*Fig. 2, c*) is covered by a dense, rigid, horny sheath, which rises a short distance, on the narrow bases of the upright stems, in the form of shallow cups, and then suddenly thins out into a mere film which vanishes at a little distance above. This leaves the whole upright stem, even to its slender base, full freedom to assume any shape it may choose. The whole extent of the colony is composed of two distinct, continuous layers. The outer layer or wall (*Figs. 2, D F G H f, and 9, f*) of the upright stem and head, is moderately thick, and very transparent. At the mouth (*Fig. 9, g*) it terminates abruptly, in the simple lip. On the tentacles (*Fig. 8, a*) it has the same proportionate thickness, without increasing, in this respect, at the blunt tips of these organs, and is still more transparent than on the stem and head. The inner wall (*f'*) of the head and stem is about twice as thick, or a little more, than the outer wall, and much denser in appearance. This wall also terminates abruptly at the mouth (*Fig. 9, g*), on the same level with the outer wall. The interior surface of this wall is covered by brownish-red granules, which constantly become detached, and are carried away by the flow of the chymiferous fluid, which circulates backward and forward in the upright stems and the stolons. The remarkable oblique folds which appear in this wall, when the stem is contracted, have already been mentioned above; we have, however, to point out here, in addition, a few broad, longitudinal folds in the head, just below the mouth (*Fig. 9, g*). These vanish, however, at a short distance below. In the tentacles (*Fig. 8, a*) the inner wall of the body is continuous, as a solid axis, which is composed of a single row of very large transparent cells.

From the colony partially represented in Pl. XXI. *Fig. 2*, it is evident that the individuals united together by the creeping stem from which they arise, are very unequal in their development, some (*E*) having very few tentacles and no sign of medusæ-buds, while others (*A*) have their full number of tentacles and bear large bunches of medusæ. In their activity they show also a marked independence, some being fully expanded, while others are more or less contracted.