breeze is fresh and the animal is driven before the wind, these tentacles are stretched to a most extraordinary length, varying, according to circumstance, from twenty to thirty, forty, and even fifty feet, and forming as many anchors upon which it rides, without being cast adrift. I have observed them in stormy weather struggling in that way against the elements, in order to avoid being thrown ashore. It is curious to see how, under these circumstances, they change their position, by raising the pointed end of their air-bag and throwing themselves suddenly upon the opposite side; but I have never seen them emptying their bag and sinking under the surface of the water. These large hydræ form small bunches of two, three, or four, budding from a common hollow stem, which communicates with the chymiferous cavity extending between the inner and outer wall of the air-bag. (Pl. XXV. *Fig.* 3.) Bunches of similar hydræ in larger numbers, but of a uniformly smaller size, alternate with these and occupy a position on their lee. All these hydræ have nothing to do with nourishing the colony, and their actinal end is closed; they are, evidently, simply locomotive individuals. When the whole colony is at rest, they hang down loosely.

The feeding hydræ are also of two kinds, large and small ones, and, like the locomotive hydræ, their difference of size seems to be primitive, and not the consequence of a more or less advanced development. These individuals never have tentacles; but they are clustered in bunches, budding in greater or smaller numbers from a common hollow stem, and, like the preceding, communicate with the chymiferous cavity. All these bunches of feeding hydræ are scattered along the lee-side of the floating bag. (Pl. XXV. *Fig.* 2.) I have seen them gorged with food almost to bursting, but I have never seen undigested food in any other kind of individuals. Neither the locomotive, nor the feeding hydræ, ever produce medusæ-buds. These always arise from a third class of very small hydræ, forming very large clusters, suspended between the clusters of feeding hydræ. These prolific hydræ resemble the locomotive hydræ most in general form, but, like the nutritive hydræ, they are destitute of tentacles. The medusæ-buds themselves, of which there are males and females, arise singly, either from the base of the prolific hydræ or from the stems and branches which unite the latter. These medusæ-buds are very similar to those of Tubularia proper, and wither without dropping from their parent stock. As soon as it is understood that the Physaliæ are compound communities, and not single individuals with very diversified organs, the idea is at once suggested that the floating air-bag must be a large primary hydra, assuming the special function of a floating apparatus, and the observations of Huxley upon very young Physaliæ fully supports this view. I must abstain from further details, from want of room, but shall resume my communications, upon this subject, on another occasion.