In the male medusoids the spermatic particles (Pl. XX. *Fig.* 16, b^2) are developed in a position which is homologous to the place where the eggs are developed in the females. As the wall of the disk recedes from the proboscis, the increasing space which lies between them is constantly kept filled by the growing mass of spermatic material. In the earliest stages, this mass is transparent, so that the medusoid, at first sight, appears to be empty (*Fig.* 16, B), but gradually it becomes granular, and the color changes to an orange tint, and finally, at maturity, to a deep, dull orange, and withal very opaque. The fully-developed particles keep up a constant and very lively agitation within the cavity of the medusoid, but do not appear to move from place to place. They escape from the medusoid through an aperture in the disk opposite the end of the proboscis. In shape, the head of the spermatozoa is ovate (*Fig.* 16ª), and, at its narrower end, a slender tail, about a dozen times the length of the head, is attached.

SECTION IV.

RHIZOGETON FUSIFORMIS *AG.*

The Adult Hydromedusarium.—Among the pools left between the rocks by the receding tide on the promontory of Nahant, near Boston, red, velvet-like patches, varying in size from a mere point to several inches in breadth, may be found incrusting the stones beneath the surface of the water. Without close examination these may be mistaken for Hydractinia, which has an identical habitat, and can be found even upon the same stone.[1] The whole length and breadth of the colony is traversed by creeping tubes (Pl. XX. *Fig.* 17, *f*), from which arise two different kinds of individuals; the ones, thick cylinders (B), tapering to a blunt point (*m*)

[1] He who would make a successful search after these delicate specimens, and discriminate carefully between them, must not be over fastidious in his examination of the puddles and tide-pools among the rocks. He must go prepared to lie down, sometimes to stand almost upon his head, to creep up and down through wet and slimy crevices, and over the surfaces of treacherous rocks, covered with sea-weed. It will not do to remove these Hydroids from their foundation, and transfer them to a bottle, in order to ascertain their nature, inasmuch as they contract and disguise their shape, to such an extent that one might bring home Hydractinia when he wanted Rhizogeton, and *vice versâ*, unless he had patience to wait until the animals expanded again. The only ready method of getting at these sensitive creatures, without disturbing them, is to observe them with lenses fixed in a long tube, that may be plunged into the water. The sliding tube of a common pocket telescope may be used, if one does not wish to have a special apparatus constructed.