

depths either with the dredge or with the trawl. A single dredging operation takes a long time; the dredge is put over at day-break, and it is usually dark before it is recovered, so that the number of such operations must be comparatively small. It is necessary to take every precaution to keep the ship as nearly as possible in the same place, and as this can never be done absolutely, it is unsafe to run the risk of adding to what motion the dredge may already have acquired, by attempting to drag it for any distance along the ground; the consequence is, that in those cases where the dredge does reach the bottom, it probably too often sinks at once into the soft ooze and remains clogged with a single "mouthful" until it is hauled up again. Sometimes a slight excess of movement in the vessel, from a current or from wind-drift, seems to give a vibratory motion to the

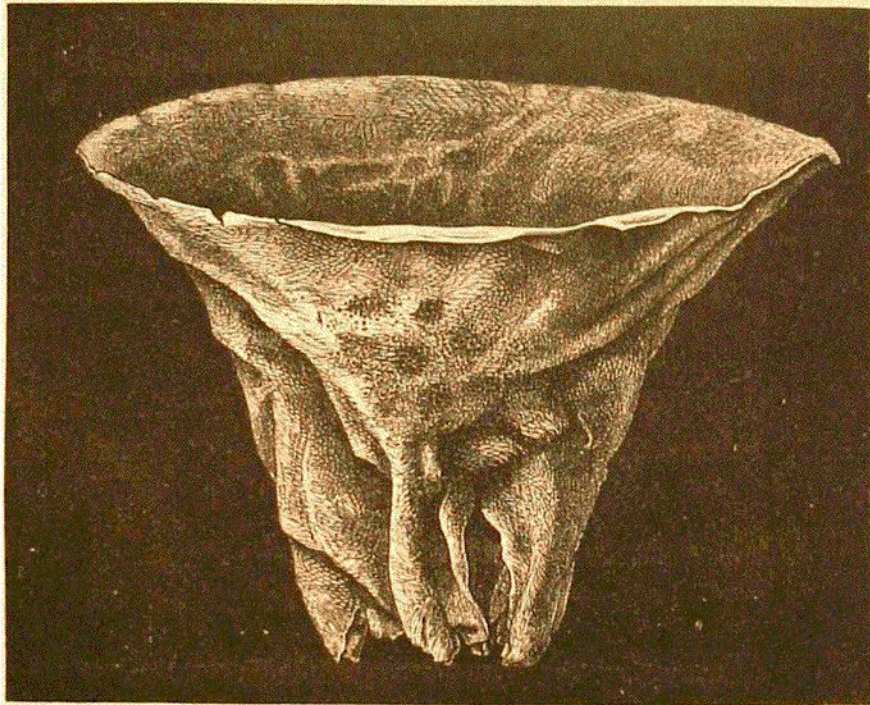


FIG. 14. —*Askonema setubatense*, Kent. A Hexactinellid Sponge. One-eighth the natural size.

enormous length of rope, and to keep the dredge tripping over the ground, so that only a few things are picked up by the tangles or clinging to the outside of the net. We must, therefore, bear in mind that only an infinitesimally small portion of the floor of the ocean at depths over 2500 fathoms has yet been explored.

*The Abyssal Fauna.*¹—Whatever may be the case at the extreme depths referred to,

¹ It has not been thought necessary, for the present at all events, to alter the name of the deepest zone of distribution of marine animals from that proposed by Edward Forbes. Although Forbes often expressed the belief that animal life occupied only a comparatively narrow belt round the shore, and that the bottom of the deep sea was azoic, still I think there can be no doubt that the population of his abyssal zone, in the "Boreal Sea" for example, was really a mixture of the fauna of the *infra-median* zone, with some of the true abyssal forms rising into shallower water with the isotherm of 35° F., and that he had therefore got a glimpse as it were of the van-guard of the abyssal fauna.—[Map of the Distribution of Marine Life. By Professor Edward Forbes, F.R.S. Keith Johnston's Physical Atlas, 2d edition.]