north of Berryman's line of soundings.[1] He used a modified form of Brooke's machine, elongated instead of spherical, the weights suspended by wire instead of cord, the valve for collecting the sediment being also different. Besides 18,000 fathoms of sounding line, he had 4000 fathoms of whale line, and 5000 fathoms of silk cord $\frac{1}{10}$ inch in diameter. He carefully noted the intervals of time in the descent of each 100 fathoms of line paid out. From the Irish coast as far as long. 11° 15′ W., the bottom was sandy, falling gradually to 90 fathoms. The deepest part on his line was between long. 15° and 45° W., where the deposit consisted of a plastic floury substance or ooze, which stuck to the line when drawn up. He thought this bed of ooze could not be very thick, for he occasionally found in it small pebbles, from which he concluded that they must have come upon a hard rock. From long. 45° W. to the coast of Newfoundland, he found a diversified bottom covered with stones and gravel; in Trinity Bay the water is deep and the deposit a thick mud.

Huxley on Globigerina Ooze.

Dayman's soundings were examined and reported on by Professor Huxley,[2] who found the samples obtained between 1700 and 2400 fathoms to be remarkable for their uniformity; in the bottles containing them Huxley observed a viscous substance, and small round corpuscles soluble in acid, which he called Coccoliths, and which he regarded as the skeletal parts of a gigantic Moneron—*Bathybius*[3]—widespread over the sea-bottom. When dry the deposit looked like chalk, and he observed that the calcareous organisms formed the principal part, *Globigerina* shells making up 85 per cent. of the mass; siliceous organisms were also present, including *Coscinodiscus* and other Diatoms. He considered the Globigerina Ooze to be of high scientific interest on account of its extent, depth, and resemblance to the Chalk, and discussed the question of the habitat of the Foraminiferous shells constituting the major part of the deposit.

Bathybius.

According to the first hypothesis these shells must have been carried from comparatively shallow water to the spot whence they were procured; he refutes this idea by referring to the special characters of the deep-sea fauna, remarking that if the shells had been thus transported they would have been associated with shallow-water organisms, which must incontestably have been carried along with them, especially as the large *Globigerinæ*, so abundant in the deep sea, are, in proportion to their size, heavier and more massive than the majority of Foraminifera. According to the second hypothesis these Rhizopods live in the surface waters and fall to the bottom after death; Huxley

[1] Dayman, Deep-Sea Soundings in the North Atlantic made in H.M.S. "Cyclops," in June and July 1857, London, published by the Admiralty, 1858.

[2] Appendix to Dayman's Report.

[3] See *Proc. Roy. Geogr. Soc.*, vol. xiii. p. 110, 1869. *Bathybius* has now only an historical interest, for during the Challenger Expedition it was shown that what was supposed to be a gigantic Moneron (*Bathybius*) consisted of the gelatinous sulphate of lime thrown down, from the sea-water associated with the specimens of the ooze, by the alcohol used in the preservation of the samples of deep-sea deposits (see Narr. Chall. Exp., vol. i. p. 939). The *Bathybius* error arose from a desire to ascertain the true condition of the ooze on the sea-bed, and with this view instructions were given which led to the use of too much alcohol in the preservation of the samples of the ooze for detailed examination.