

investigated by means of Brooke's sounding-apparatus; and thus it is proved that the bottom of the sea is there composed, in the main, of microscopic calcareous shells (*Foraminifera*) and of a small number of Diatoms. These frail and delicate shells which, in thick layers, strew the still ocean-bed, were brought up by the sounding-lead in a state of complete preservation; a proof that at a great depth the water is singularly tranquil.

The first exploration of the telegraphic plateau was undertaken, in 1853, by the American brig *Dolphin*, which made its soundings at every hundred miles up to the Scottish coast. Afterwards it directed its course towards the Azores, to the north of which the bottom (lime and yellow sand) was found at 6500 feet; to the south of Newfoundland the depth exceeded 16,350 feet. In 1856, Lieutenant Berryman, in the American steamboat *Arctic*, completed a series of soundings between St. John's, in Newfoundland, and Valentia, in Ireland; and, in 1857, Lieutenant Dayman, of the English steamer *Cyclops*, repeated the same operations.

[In the Gulf of Mexico the depth does not appear to reach 6300 feet. The Baltic Sea is one of the shallowest on the face of the earth; its maximum does not go beyond 1100 feet. Lieutenant Brooke's soundings in the Pacific give a depth of $2\frac{1}{2}$ and even of 3 miles; in the Indian Ocean, of about 8 miles—a result, however, which Captain Maury considers erroneous. Nothing is known of the depth of the Antarctic Ocean, nor, accurately, of that of the North Polar Sea, except that it is assuredly very shallow. To the north of Siberia the line gives only 14 to 15 fathoms at 150 miles from the shore. As far as investigations have gone, the maximum depth of the North Atlantic would seem to be 25,000 feet.]

The depth of the Mediterranean varies greatly. De Saussure obtained the bottom, off Nice, at 3000 feet. Between the Dalmatian coast and the mouth of the Po, it does not exceed 145 feet. Admiral Smyth has found from 975 to 2900 feet in the Straits of Gibraltar, and 5850 feet between Gibraltar and Ceuta, where the channel is only 14 miles wide. Between Rhodes and Alexandria the depth is 9750 feet; between Alexandria and Candia, 11,000 feet; and at 100 miles east of Malta, 15,000 feet. The Mediterranean, therefore, forms a kind of gigantic funnel.]

In the *Coral Sea* (lat. 13° S., long. 160° E.) Lieutenant Brooke obtained soundings of nearly 13,100 feet. Another sounding of 7040 fathoms (42,240 feet), in the Indian Ocean, was not successful in bringing up any specimens of the bottom. In the débris of the bed of the Coral Sea, conspicuous was the absence of calcareous shells, while the flinty *spiculæ* of the sponges were found in great numbers. Other soundings, made in the Pacific Ocean at depths varying from 16,300 to 19,600 feet, have been microscopically examined by M. Ehrenberg, who discovered in them one hundred and thirty-five different species, among which were twenty-two previously unknown