

already been so carefully and admirably investigated by the United States Coast Surveyors, except possibly by tracing the relation of the deeper layers of water beneath the stream with the layers at similar depths in other parts of the ocean.

We steamed out of the Camber on the morning of the 21st of April, and, going through the narrows, took a series of soundings following as nearly as possible the hundred-fathom line. The bottom falls off very suddenly along the eastern and northern coasts. We got a sounding in the afternoon, Gibbs's Hill Light-house 2° E. $18\frac{3}{4}$ miles distant, in 1375 fathoms; the bottom temperature was 3° C., and the bottom a fine gray mud, with a few foraminifera. On the following day we proceeded outside the reefs to the westward and southward, and sounded successively in 2450, 2100, and 1950 fathoms, finding in each case a bottom of gray mud, chiefly the detritus of coral with a scanty sprinkling of foraminifera, and a bottom temperature of $1^{\circ}6$ C. In the evening we sounded in 32 fathoms about 13 miles to the south-west of Bermudas: this is a bank well known to the Bermudas fishermen, and is said to have been discovered from a large number of fish swimming near the surface. We anchored on the bank, and the fishing-lines were soon out, but we were very unfortunate, for only one or two "snappers" were taken. Early on the morning of the 23d, the surveying boats left the ship to sound out the bank; it was cold, blustering, unpleasant weather, with a falling barometer and rising wind. During the day we sent the jolly-boat away to lower the small dredge a couple of hundred yards or so from the ship; the dredge was then slowly dragged to the ship by the donkey-engine. The bank, which seems to be about five miles across, consists mainly of large rounded pebbles of the substance of the Bermudas "Serpuline reef." There is an abundant growth all over the pebbles of the pretty little branching corals *Madracis asperula* (Fig. 88), and *M. hellana*; and other invertebrates were abundant, particularly one or two large star-