

100 fathoms from the surface. The characteristic forms were Radiolaria belonging to the legion Phæodaria (see p. 217). It is impossible to say whether or not these organisms exist all the way from a depth of 100 fathoms to the bottom, but the experiments proved the existence of an intermediate fauna of considerable variety existing between 100 fathoms and the bottom.

THE SANDWICH ISLANDS.

On the 27th July at daylight the island of Molokai was observed ahead, and Oahu on the starboard bow, and a course was shaped for the passage between them. At 8 A.M. a sounding was taken in 310 fathoms, with the extremities of Molokai Island S. 63° E. and N. 74° E., the island off the right extremity of Oahu N. 56° W., and the left extremity of Oahu S. 88° W.; afterwards serial temperatures and a haul of the trawl were obtained, but the latter operation was difficult on account of the rocky nature of the bottom. At 11 A.M. the ship bore up for Honolulu and was anchored outside the harbour at 2 P.M. At 4 P.M. a pilot was received on board, and the vessel proceeded into the harbour, and was moored head and stern at 5 P.M.

Honolulu (Honoruru).—The islands of Oahu and Molokai are most remarkable for the extremely barren aspect which they present as viewed from the sea on their leeward sides. In this respect they differ from all other Pacific Islands which were visited during the voyage of the Challenger; trees or shrubs do not form a conspicuous feature in the view, but the hillslopes are covered with a scanty clothing of grass and low herbage, which in the summer season is yellow and parched. Only one scanty grove of cocoanut trees is to be seen on the shore of Oahu Island, to the east of the town of Honolulu, whilst westwards the barren plains and distant bare hills almost equalled St. Vincent, Cape Verde Islands, in their sterility. There are no thick belts of cocoanut trees fringing the shores as at Tonga, with littoral vegetation overhanging the very surf; no dense forests clothing the mountains from the summits to the shore as at Fiji or the Admiralty Islands. There is little more show of vegetation in the general appearance of the islands, as seen from seawards, than is to be seen on the bleak Marion Island in the Southern Ocean.

The harbour of Honolulu is entered by a narrow channel through a fringing reef which is not very extensive. The town lies on an almost flat expanse immediately adjoining the shore, and is not very conspicuous at a distance. It is composed of streets of very various widths, laid out at right angles to one another, lined on either side by very irregular rows of houses of all kinds, mostly wooden shanties, the greater part of them occupied as general stores.

There is a large shop of Chinese and Japanese curiosities, and two photographers' shops, where corals, imported mostly from the Marquesas Islands, especially large specimens