

land is but seventy-six miles, or less than one twenty-fourth. In the Caroline Archipelago the proportion of land is still smaller. Menchikoff atoll covers an area of 500 square miles, and includes hardly six square miles of wooded land. In the Marshall Islands the dry land is not over one-hundredth of the whole surface; while in the Pescadores the proportion of land to the whole area is about as 1 to 200.

The distribution of the land upon the reef is obvious from the sketches already given. It is seen, as long since remarked, that the windward side is, in general, the highest. It is also



MENCHIKOFF ATOLL ($\frac{1}{20}$ OF AN INCH TO A MILE).

apparent that there are not only great irregularities of form, but that on one side the reef may at times be wholly wanting or deeply submerged.

In many islands there is a ship-entrance through the reef, sometimes six or eight fathoms deep, to the lagoons, where good anchorage may be had; but the larger part have only shallow passages, or none at all. In the Paumotus, out of the twenty-eight visited by the Expedition, not one-half were found to have navigable entrances. In the Carolines, where the islands are large and not so much wooded, entrances are of more common occurrence. About half of the Kingsmill Islands afford a good entrance and safe anchorage. Through these openings in the reefs, there is usually a rapid outward current, especially during the ebbing tide. At Depeyster