basin. The Red Clay of the Atlantic is usually of a reddish colour, the dark chocolate-coloured variety, with its zeolitic crystals formed *in situ*, found in the Pacific and also in the Indian Ocean, not having been met with in the Atlantic.

In the Indian Ocean, again, the area covered by Red Clay is less than that covered by Globigerina Ooze, being estimated at 4,900,000 square miles. It is found to extend from off the western shores of Australia and the East Indian Islands, south of the equator, across the ocean towards Madagascar, reaching also to a small extent into the Southern Ocean to the south and west of Australia. In the North Indian Ocean there is a small detached patch in the deep water of the Arabian Sea, between the Maldive and Laccadive Archipelagoes and the coast of Africa.

In the Pacific the Red Clay attains its most typical and most extensive development, covering by far the greater portion of the sea-bottom. Its area is estimated at about 40,800,000 square miles. The whole of the deep water of the eastern portion of the Pacific basin is occupied by Red Clay, and it extends more or less uninterruptedly over the western portion, approaching the shores of Japan in the north and of New Zealand in the south. It covers also a considerable tract in the Southern Ocean, where there is a detached area situated some distance off the coast of Chili. There are several detached patches occupying the deeper water between the various groups of islands of Oceania, viz., two small areas in the Coral Sea between the New Hebrides and the north-east coast of Australia; another between New Caledonia and New Zealand; another between the Solomon Islands and the Marshall and Gilbert groups; another between the north coast of New Guinea and the Caroline group, a considerable area in the deep water between the Philippines, Japan, Bonin Islands, Ladrone Islands, and Pelew Islands; a considerable area is also found between Australia and New Zealand, extending into the Southern Ocean.

Radiolarian Ooze.

This deposit, like the Red Clay, is confined to the greater depths of the ocean, indeed, as will be presently pointed out, it has a greater average depth than the Red Clay. The name was adopted during the cruise of the Challenger by Mr. Murray for those deposits which, while resembling Red Clays in most respects, differ from them in containing a much larger number of Radiolarian shells, skeletons, and spicules, together with Sponge spicules and the frustules of Diatoms. There is in short little, if any, difference between these deposits and Red Clay, except what may be attributed to the greater or less abundance of these remains of siliceous organisms. The colour is red, chocolate, or occasionally straw coloured; it is less plastic than the Red Clay, at least the typical examples are so. The peroxides of iron and manganese are everywhere present, as are also fragments of pumice, augite, felspars, hornblende, magnetite, palagonite, chondritic and other cosmic spherules. Manganese nodules and palagonitic