

not fill one two hundred-thousand-trillionth (2 with 23 ciphers) part of the sphere that has our nearest stellar neighbour on its surface; the gigantic volume of the sun in such a space is like an isolated shot containing but one-half of a cubic inch immersed in the whole water of the sea, while a little speck less than the two-millionth of a cubic inch suspended in the three hundred and seventy-three trillion gallons of the sea would represent the earth suspended in the sphere, the radius of which reaches only to the nearest star.

Did we set the Pole—star at the limits of our space sphere, the volume of the sphere would be three thousand times as great; and the sun must be thought of as occupying the six thousandth part of an inch in the four hundred million cubic miles of sea. Were Vega, at a distance of ninety-six light years, on the boundary of our sphere, the space that reaches to our nearest neighbour must be increased ten thousand times in volume, and the earth becomes a different microscopic object in the vast abyss of sea. These are all stars whose distance has been measured with more or less accuracy, but there are other objects more remote that have defied all attempts to measure them—in literal fact, they are immeasurably remote distances. The figures given here to show the position of the earth in space are wholly paltry and inadequate compared with the (as yet) unknown reality. Much has been learned and the way prepared for yet greater advances. Man has dethroned himself from the chief position in the universe, has seen his world cease to be the centre round which all else revolves; has recognized his abode as the tiniest imaginable speck in space; man—

Who sounds with a tiny plummet,
Who scans with a purblind eye,
The depths of that fathomless ocean,
The wastes of that limitless sky

—yet has a longing to penetrate still farther through the star depths to win yet other secrets from the mysteries of space.—*Prof. Wm. Schooling, in Knowledge for October.*

DEEP-SEA DEPOSITS.—The deep-sea deposits are essentially made up of the remains of pelagic organisms and volcanic products. Terrigenous material is almost entirely absent. The proportion of carbonate of lime decreases as the depth increases; below 2,000 fathoms; this is owing to the solvent action of sea-water on the calcareous organic remains. The deposits of the greatest depths are, therefore, almost entirely derived from siliceous organisms and volcanic material.

Proceeding outwards from the shore, we first meet with the variable deposits of the littoral and shallow-water zones—banks of sand heaped up under the influence of tidal currents, and wide stretches of mud in the deeper and quieter regions. Here and there occur local accumulations of shells and shelly *débris*. Near the 100-fathom line blue muds are found, and as these are followed down the continental slope, they merge, near its base, into Globigerina ooze—a deposit which extends with wearisome monotony over immense areas. As we descend into the abysses of the ocean, to depths exceeding 2,500 fathoms, the globigerina ooze passes into “grey” ooze, and this again into red clay—the most widely distributed of all the deep-sea deposits.

The physical conditions at great depths are practically the same from the equator to high latitudes. Seasonal changes are absent, and the temperature is uniform. Notwithstanding this, there is a marked variation in the character of the organic remains found in the deposits. Foraminifera are larger and more varied in form in the tropical regions. Cocoliths, rhabdoliths, and the