## THEORY OF THE OCEAN'S LEVEL. 313

sible, than the line now touched by the summits of our highest mountains. Had there been a graduated pole of adamant, equal in length to the radius of the globe, placed in that ocean of the Silurian period in which our Scotch graptolites lived,—a pole with its lower end fixed immoveably at the earth's centre, and its upper end level with the medium surface of the sea,—where, I marvel, would that upper end be now? High, I suspect, in the clouds; nay, in an attenuated atmosphere, to which cloud never now ascends. The graduated markings of the pole, indicatory not merely of how the *tide*, but also of how the *land*, *has fallen*, would, I doubt not, be found more conveniently summable in leagues than in fathoms.

But even setting aside all this as fanciful and extravagant,-even taking it as a given fact (what, I suspect, is no fact at all) that the earth's bulk has not very materially altered, the line of the sea-level may have, notwithstanding, been considerably affected simply by the rise of the land. It is estimated that about one-fourth part of the surface of the globe is occupied, according to the present distribution of oceans and continents, by land, and the remaining threefourths by water; or, more correctly, that the land is as I, and the water as 2.76. Let us suppose this fourth part of land annihilated to the mean depth of the ocean. Of course, the effect would be, that the ocean, having then to cover four parts, instead of three, would sink, all over the globe, exactly one-fourth part of its mean depth. If the mean depth of the ocean be, as has been estimated, four miles, the fall in its level that would take place, in consequence of this annihilation of the land, would be just a single mile. And, of course, a creation of land at the bottom of the sea, which would rise to its surface, would, on the same principle, and in exactly the same ratio, have the effect of *elevating* the ocean level. It would do on a large scale what the pebbles dropped by the crow in the fable