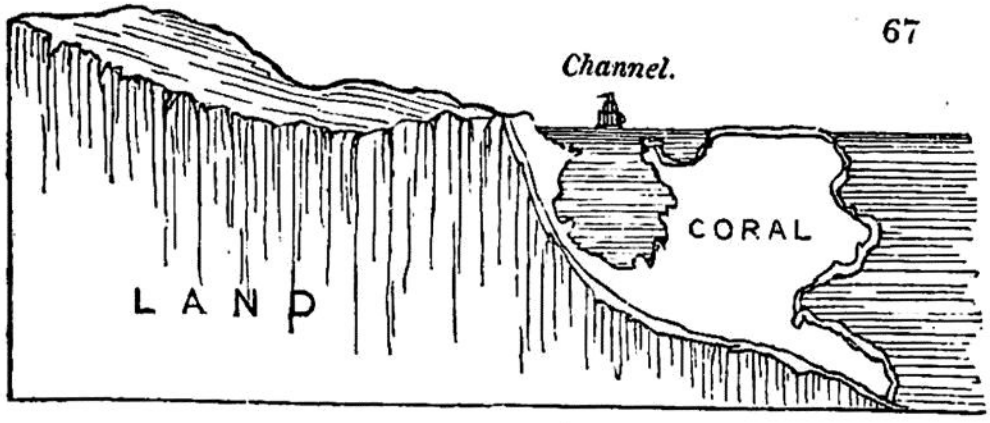

tance guarding, insulated points or long coasts of land, to a remarkable general speculation; viz. that in the Southern Ocean the distribution of the coral masses on a great scale, and their peculiar forms in detail, are explicable on the supposition of certain lines, or rather, long narrow spaces of ocean, in which the land has undergone and is still suffering gradual depressions, and alternating with these other long spaces in which the land is rising. Where depression has taken place, coral is supposed to have grown on the submerged points; and, as the depression proceeded, to have continued to grow and keep the surface as high as the sea. A depressed mountain chain might thus be the origin of a long line of coral islands, or of a continuous reef, as on the east coast of New Holland; a single island of rock, at first skirted by a fringing growth of coral, would, upon further depression, assume the appearance of a central rock, and a circular ring of coral; and, finally, the rock would vanish, and nothing but an annular coral reef appear, inclosing a lagoon, which might subsequently be filled up. The principle of this explanation may be understood by reference to the figures annexed, where a^1, a^2, a^3, a^4, are successive levels of water, surrounding and finally covering the insulated rock r, upon which, at c, coral began to grow where the depth was small enough. On a further subsidence, more coral, c^2, was added *upon*, but not *within*, the reef e; and, finally, c^3 being *raised* to the surface of the sea, while r had sunk below it, and fragments of the coral broken