

been formed in some chalk cavern, of which no traces now remain.

47. CONSOLIDATION OF SAND, AND LOOSE MATERIALS.—The changes effected by this process in strata composed of loose materials, are of still greater importance; for by an infiltration of crystallized carbonate of lime, sand is converted into sand-stone,—fragments of soft chalk are transmuted into a solid rock, as in the Coombe-rock of Brighton,—and accumulations of beach, and gravel, into a hard conglomerate, as in this example of the ancient shingle bed of the cliffs, at Rottingdean,—shells, into a building stone, as in this mass from Florida,—and broken corals, into limestone, as in these specimens from Bermuda. By this agency, the bones of animals become permeated with calcareous spar, and the medullary cavities lined with crystals of carbonate of lime: and clay, which has cracked by drying, has its fissures filled up, and becomes consolidated into those curious masses, called *septaria*, which when polished, form the beautiful slabs for which Weymouth is so celebrated.

48. DESTRUCTION OF ROCKS BY CARBONIC ACID GAS.—Although, in the instances cited above, water by its combination with carbonic acid, occasions the solidification of loose and porous beds of detritus, yet the effect of this gas on certain rocks is that of disintegration; for by its solvent influence on the felspar, granite itself is reduced to a friable state; the quartz and mica, which with felspar constitute