

calcareous, large percentages of bicarbonate of lime in solution. The reason of this is, that all rain in descending through the air takes up a certain amount of carbonic acid—one of the constituents, accidental or otherwise, of the air; and this carbonic acid has the power of dissolving the carbonate of lime which enters into the composition of a large proportion of stratified rocks, which sometimes as pure limestone, form great tracts of country. In this way it happens that springs are often charged with lime, in the form of a soluble bicarbonate, which is carried by rivers into lakes and estuaries, and, finding its way to the sea, affords material to shell-fish and other marine animals, through their nutriment, to make their shells and bones. Thus it happens that, by little and little, lime is abstracted from sea-water to form parts of animals, which, dying in deep clear water, frequently produce by their skeletons and shells immense masses of strata of nearly pure limestone, which is consolidated into rock almost as fast as it is formed.

What is going on now has been going on throughout all known geological time, from that of the deposition of the Laurentian rocks down to the present day.

Igneous rocks form a much smaller proportion of the surface rocks of most parts of the world, though in given areas, such as Iceland and the Faroe Islands, they largely predominate. To take Britain as an example: in North Wales, a considerable proportion, perhaps a twentieth part, of the rocks of Lower Silurian age are formed of igneous masses. The whole of the rest of Wales, till we come to Pembrokeshire, contains almost none whatever. In Cumberland a very large part of the Lower Silurian rocks are igneous, while a comparatively small proportion of igneous rocks is found