

now dawns, but here our facts fail us on the skirts of the Lake Mountains.

IX. Thousands of ages rolled away during the Secondary and Tertiary periods, in which we can trace no movement. But the powers of Nature are never still: during this age of apparent repose many a fissure may have started into an open chasm, many a valley been scooped out upon the lines of "fault."

X. Close to the historic times we have evidence of new disruptions and violence, and of vast changes of level between land and sea. Ancient valleys probably opened out anew or extended, and fresh ones formed in the changes of the oceanic level. Cracks among the strata may now have become open fissures, vertical escarpments formed by unequal elevations along the lines of fault; and subsidence may have given rise to many of the tarns and lakes of the district.

Such is the picture which one of our most eminent geologists gives as the probable process by which this region has attained its present appearance, after he had devoted years of study and observation to its peculiarities; and his description of one spot applies in its general scope to the whole district. At the close of the Silurian period our island was probably an archipelago, ranging over ten degrees of latitude, like many of the island groups now found in the great Pacific Ocean; the old gneissic hills of the western coast of Scotland, culminating in the granite range of Ben Nevis, and stretching to the southern Grampians, forming the nucleus of one island group; the south Highlands of Scotland, ranging from the Lammermoor hills, another; the Pennine chain and the Malvern hills, the third, and most easterly group; the Shropshire and Welsh mountains, a fourth; and Devon and Cornwall stretching far to the south and west. The basis of the calculation being, that every spot of this island lying now at a lower elevation than 800 feet above the sea, was under water at the close of the Silurian period, except in those instances where depression by subsidence has since occurred.

There is, however, another element to be considered, which cannot be better stated than in the picturesque language of M. Esquiros, an eminent French writer, who has given much attention to British geology. "The Silurian mountains," he says, "ruins in themselves, contain other ruins. In the bosom of the Longmynd rocks, geologists discover conglomerates of rounded stones which bear no resemblance to any rocks now near them. These stones consequently prove the existence of rocks more ancient still; they are fragments of other mountains, of other shores, perhaps even of continents, broken up,