

This key soon opened to us a knowledge of New England geology, mainly through the labors of Prof. Hall, and also of Professor H. D. Rogers, following up the survey of President Hitchcock; and now the so-called primary rocks, granite, gneiss, schists, and crystalline limestones, once regarded as the oldest crystallizations of a cooling globe, are confidently set down as for the most part no older than the Silurian, Devonian, and Carboniferous of New York and Pennsylvania. \*

Let us now briefly review the succession of epochs in American geological history.

The Azoic Age ended, as was observed, in a period of extensive metamorphic action and disturbance,—in other words, in a vast revolution. At its close, some parts of the continent were left as dry land, which appear to have remained so, as a general thing, in after times; for no subsequent strata cover them. Such are a region in Northern New York, others about and beyond Lake Superior, and a large territory stretching from Labrador westward,

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The parallelism of the rock formations of the east and west has been determined mainly through the researches of Prof. HALL, who first presented his views on the subject in 1841, and continues still his investigations. The examinations of DE VERNEUIL; besides defining the limits of our Devonian, also contributed much on this subject.

The red sandstone and trap regions of the Triassic or Jurassic period, which occur in the Connecticut valley and in other valleys parallel with the Atlantic border to the south, and also to the north beyond Nova Scotia, have been specially investigated by D. OLMSTED, E. HITCHCOCK, J. G. PERCIVAL, Professors ROGERS, E. EMMONS, J. W. DAWSON, C. T. JACKSON, F. ALGER; and as regards the vertebrate fossils, by E. HITCHCOCK, J. DEANE, W. C. REDFIELD, J. H. REDFIELD, J. WYMAN, J. LEIDY, I. LEA, and Prof. OWEN of London; and the plants, by the Professors ROGERS, C. T. F. BUNBURY, and E. HITCHCOCK, Jr.

\* The labors of Sir W. E. LOGAN have thrown great light upon New England geology, and are giving a definiteness to our knowledge hitherto unattained. He is finding that some of the crystalline New England rocks which stretch north into Canada, are there uncrystalline and fossiliferous, and thus is putting the question of age beyond doubt. The Berkshire limestone has thus been determined at its northern extremity as well as in New Jersey; the calcareous mica slate of western Vermont, has been shown to be Upper Silurian in age, it being uncrystalline limestone towards Gaspé, partially metamorphic and still containing distinct traces of fossils in the valleys of the river St. François and Lake Memphremagog, and farther south becoming more crystalline as well as calcareous and losing all indications of fossils. Prof. T. S. Hunt of the Canada Survey, has brought other facts to bear on this subject.