

System into two divisions, Upper and Lower; the Lower to include all the original Taconic of the 1842 and 1846 reports, with the exception of a portion of the Taconic Slate and the "Black Slate" of the 1847 report.

§ 162. The author describes the Upper Division of the Taconic rocks as consisting of numerous beds of slate alternating with shales, thin-bedded sandstones (some of which are coarse and brecciated), thin-bedded, bluish limestone more or less cherty and red, and brown and purple roofing slates. Sections are given that cross the Upper Taconic series at points from Highgate, in Northern Vermont, to Rensselaer County, New York. Some of the sections have been studied since Dr. Emmons examined them, and the fact has been ascertained that he did not, in many instances, recognize the series of north and south faults that break the continuity of the sections; but, after deducting all the errors, the Upper Taconic remains as a distinct formation beneath the horizon of the Potsdam sandstone.

§ 163. In 1859 Dr. Emmons again reiterated his views of the Taconic System in his little Manual of Geology. Under Taconic System (p. 81) we read:

This system deserves the special attention of geologists, for two reasons: 1st. It is probably the base of the *sediments*. 2d. It is also probable that it is the *Palaeozoic base*, and, in both respects, it must be regarded as the oldest series of the sedimentary class.

This system is subdivided into *Lower* and *Upper*; the first consists of a conglomerate at the base, succeeded by silicious talcose beds of considerable thickness, in which there are frequently pebbles; next above are three thick beds of sandstone, separated by talcose slates; these are succeeded by the Stockbridge limestone. This is the marble of Berkshire County, Massachusetts, and which extends from the State of Vermont to Georgia. The Stockbridge limestone is succeeded by a mass of slate of great thickness, the upper part of which is suitable for roofing. The greatest thickness of the Lower Taconic rocks is about 5,000 feet. The upper quartz beds are often vitrified, while a lower one, still many hundred feet nearer the pyro-crystalline rocks, is a sandstone (p. 85).

The upper series we have just described (§ 162).

§ 164. Prof. J. D. Dana considers that most, if not all, of the strata included by Emmons in his original Taconic is of Lower Silurian (Ordovician) age. Dr. T. S. Hunt holds that the term Taconic should be restricted to the original or Lower Taconic of Emmons (Trans. Roy. Soc. Can., Taconic Question in Geology, vol. i, p. 217; vol. ii, p. 125, 1883-'84), a view that appears to be the correct one; and whether geologists will unite with Dr. Hunt, and call the series of strata next beneath the Cambrian Taconian, is a question that is not yet decided, as it is yet unproven whether such a group exists in the original Taconic area. It appears to exist in other localities where it was described by Dr. Emmons, and, if this is verified, the term "Taconic" or "Taconian" may receive a final resting place in American geologic nomenclature.