

fossils, not only of State New York but also of a large portion of North America.

Contemporaneously with the investigations in New York State, the two brothers Rogers (cf. p. 304) were directing and participating in the survey of Pennsylvania and Virginia. There also it was found that the Palæozoic deposits were exposed over wide areas, and the stratigraphical succession was determined. But Edouard de Verneuil, who travelled in North America in the year 1846, was the first to institute a more detailed comparison between the relations of the American and the European "Transitional" formation. Verneuil drew up a table of the parallel palæontological horizons in the two regions, and established a line of division between the Silurian and the Devonian systems in North America. Some time later, J. J. Bigsby published a very exhaustive and lucid synopsis of the New York system in comparison with the parallel formations of Europe (*Quart. Journ. Geol. Soc.*, 1858).

The Taconic system continued to be ignored by the leading geological authorities in North America, notwithstanding that Emmons published a very able book on the subject in 1844, affording strong evidences of the wide extension of the Taconic system in the New England States, and its independence of the Champlain group. In Washington County, moreover, the first Taconic fossils were discovered (two Trilobite species, Graptolites and Nereites), and proved to be quite different from any known Palæozoic forms. Further discoveries of fossils followed, and these were described and figured by Emmons; he also traced the Taconic system in Pennsylvania, Virginia, and Georgia. But as Hall, Dana, Logan, and other geologists continued obstinate in their view regarding the identity of the Taconic and the Champlain groups, a hot polemical discussion ensued and dragged itself through the following decades.

In the year 1860, the European authorities Barrande and Marcou began to take part in this discussion among the American geologists, supporting Emmons in his view that the Taconic system was an independent formation containing a primordial fauna. Marcou wrote a series of papers, wherein he advocated that the term "Taconic System" should replace the disputed name of "Cambrian System" for the primordial group of rocks; that the name of *Cambrian System* be