

Graptolites of the slate belt of eastern New York. This series of investigations on the nature of the graptolite faunas of New York and their correlation with those of other parts of the world has been completed so far as relates to the earlier rocks. A second part of these investigations will include the later manifestations of the graptolite faunas. The graptolites have proved under the recent studies of European and American paleontologists the leading fossils for the subdivision of the Siluric deposits into zones of life and correlation. The first serious studies of their organization were made by James Hall and Ebenezer Emmons, and Professor Hall's elaborate and beautifully illustrated memoir on the *Graptolites of the Quebec Group*, 1865, republished in the 20th annual report of the State Museum as an "Introduction to the Study of the Graptolitidae" has been classical for the study of these forms. Our knowledge of these objects has however been greatly augmented by the investigations carried on by European authors, specially by Lapworth on the distribution and classification of the British graptolites. As far back as 1886 that writer indicated the general parallelism in the succession of these faunas in Canada and Great Britain, and in papers already published in our own reports the same line of inquiry and demonstration has been followed, together with contributions to their anatomy, physiology and bionomy. The present work covers with some degree of detail and in successive chapters the following subjects of inquiry: history of the study of the graptolites; methods of investigation and illustration; terminology; vertical range and geographic distribution; mode of existence; ontogeny and reproduction; morphology; histology; classification and phylogeny; synoptic tables; description of species—71 in all, of which 29 are new.

Fauna of the Beekmantown and Chazy formations. For many years before his death Professor Hall hoped for the opportunity to revise his first volume of the *Palaeontology of New York*. Back in the years from 1843 to 1847, when he was engaged in working out the fauna of the older rocks, the collectors were few and the localities but lightly explored. He did a work of the highest merit, but the revolving years have added much to our knowledge of these early faunas, though he found no opportunity to return to them. A