

special interest attaches to these early faunas of the earth, and their development in what is now the basin of Lake Champlain is most favorable, though it has not received merited attention. The collections which we have made in this region during the past five years are extensive and are now undergoing review preliminary to a careful reconsideration of the faunas. Actual additions to the numerical status of the faunas prove to be relatively numerous and of much interest, and these are brought together and presented with this report. Dr Ruedemann has been specially concerned in the collection and study of these bodies and has begun the preparation of a series of discussions pertaining thereto. I incorporate in this report some of his papers relating to certain aspects of the cephalopods, and these contributions will be found of more than ordinary interest in their exposition of the structural characters of these creatures. Prof. George H. Hudson of Plattsburg, who has long studied the rocks and fossil faunas of Valcour island, has also cooperated in this work by adding the descriptions of some interesting species discovered by him in the Chazy formation there.

**Fossil plants of the paleozoic rocks.** In the history of this office no serious effort has been specially directed to acquiring the plant remains found in the New York rock formations. Not that these have been intentionally ignored or overlooked but the collections which we possess have been acquired incidentally to the exploitation of the marine faunas. In the course of years these incidental collections have grown to be of considerable moment and embrace a few specimens of commanding size, such as the so called fern stumps from Gilboa, the gigantic seaweed (*Nematoxylon*) from Monroe, Orange co. and the great *Lepidodendron* from Naples—all from the Upper Devonian. Some forty years ago Professor Hall interested Sir William Dawson, who was generally acknowledged the most expert student of Devonian plants in America, in some of the New York material and both at that time and subsequently Sir William published brief accounts of some of our species. Professors D. P. Penhallow and C. S. Prosser have also given incidental attention to this class of fossils, though taken all together but little has been done in