

resembling an organic form had been found in this series. In the dark slates at the Ovens in Lunenburg county, however, I detected markings which the late Mr. Billings determined to be *Eophyton Linneanum*, elsewhere characteristic of the same low horizon. Since then no advance has been made in precisely determining the position of this series. But, as similar markings are quite common in the lower Cambrian slates (Menevian) of St. John, New Brunswick, there is every reason to suppose that the position assigned to this group in Nova Scotia is correct. About the centre of the south-western coast, however, in the vicinity of Yarmouth, there are a set of strata which differ considerably, in many respects, from those of the Atlantic coast series as developed in the vicinity of Halifax and elsewhere, and resemble very closely some of the Pre-Cambrian rocks of Cape Breton and of the Eastern Townships; but the details of the geology of south-western Nova Scotia, have yet to be investigated, and in the meantime the whole of the slaty series so well exposed on the coast between Cape St. Mary and Cape Tuskett has been assigned to the Lower Cambrian, instead of, as in the map of 1866, to the Silurian (Upper Silurian) system.

2. THE CENTRAL-AND-WESTERN PALÆOZOIC BASIN.

The general geological features of this basin have been referred to in Chapter I. They areas it includes are exclusively occupied by formation older than the Carboniferous and one or more of therecognized American subdivisions of the Lower Palæozoic age are found in each of them, but there are often considerable gaps in the series, arising probably not from any actual interruption in sedimentation, but from the fact that the subdivisions themselves are really more or less local and limited, and that they are subject to rapid changes on their horizontal extension, both as regards thickness, lithological characters and palæontological contents. No formation is perhaps more persistent in this respect than the Trenton. Its distribution in Canada, from the Mingan Islands and Murray Bay on the Lower St. Lawrence, to the islands of Lake Huron, as well as that of the other closely associated Cambro-Silurian formations, Chazy, Black River, Utica and Hudson River have been so fully described in chapters VIII, IX and X Geology of Canada, 1863, that it is unnecessary now to enter further into details respecting these formations. Stratigraphically and palæontologically they are intimately connected, and though the upper members frequently overlap the lower, or parts of the series are locally absent, and there are considerable local differences in the grouping of the fauna, yet there does not appear to be any decided