

outside lowest veins, narrow, with a few veinlets at acute angles running to the teeth. In the figure one side of the leaf appears less curved than natural, owing to a slight fold in the specimen.

This leaf is very puzzling in its structure, and up to the time of writing out my paper for the press, I had seen only fragments of it. I have, however, been able at length to uncover a nearly perfect specimen in shale from Nanaimo, from which the above description is taken. The form and venation recall features of the genera *Alnus* and *Platanus*; but I have seen no leaf, recent or fossil, which it entirely resembles. *Nanaimo, M., 1875.*

✓ 33. CARPOLITHES, Sp.

Small, round, smooth fruits or seeds, also ovate seeds, and ovate seeds with a rib on one side, are found at Beaver Harbor and Baynes' Sound. They may be seeds of taxine trees.

Miscellaneous and Undetermined.

In the collections from Vancouver Island, there are many other kinds of leaves, referable to the genera *Quercus*, *Diospyros*, *Magnolia*, &c., which are too imperfect for description, and there can be no doubt that the species above described, constitute but a fraction of a rich and varied flora which might, no doubt, be in great part restored by active and judicious collecting, pursued by observers having more time at command than those who have collected in these beds.

III.—THE LARAMIE AND TERTIARY FLORAS.

The whole of the plants classed under the last head belong to undoubted Cretaceous beds, characterized as such by animal fossils, and by stratigraphical position. It is true that the Coal-measures of Vancouver Island have been regarded as Miocene by the earlier observers; but this was solely on account of the supposed Tertiary character of their flora. The more detailed explorations of the Geological Survey of Canada have fully established their relation with the beds holding *Inoceramus*, *Baculites*, and other Cretaceous forms. Some portion of the confusion regarding these beds arose from the mixture of their fossils with those of the Tertiary beds. For example, in Heer's Memoir on the "Flora of Vancouver Island and British Columbia," the greater part of the species described are from the Tertiary deposits of Burrard Inlet and Bellingham Bay, on the island.

Both in British Columbia, however, and east of the Rocky Mountains, the Cretaceous proper is overlaid by newer beds. West of the Rocky Mountains these assume the form of old lake basins, filled with fresh-water deposits holding remains of plants and insects, which have been noticed or described in the reports of the Geological Survey of Canada, and are undoubtedly Tertiary, probably Miocene.* East of the mountains, on the other hand, the undoubted Cretaceous beds of the Fort Pierre and Fox Hill groups are covered conformably by a widely extended series of clays and sandstones, holding fossil plants and lignite, with brackish-water and fresh-water shells. This is known as the Laramie.

*Reports of Geological Survey, 1875-6, 1876-7, 1877-8.