

latter valley, where it is overlaid by the central Carboniferous trough of the island. One branch of this latter ridge runs out towards the extremity of the peninsula separating Notre Dame from White Bay, while the other continues northward through the Northern Peninsula, or "Petit Nord" of the French, nearly to the extreme north point of the island. This ridge is termed the Long Range Mountains, and is in reality the backbone of the entire structure of the island. One small isolated patch of the same system forms the nucleus of the Peninsula of Avalon. Surrounding this nucleus on the extreme eastern seaboard, and the shores of Conception and St. Mary's Bays, we have a set of ancient sedimentary strata consisting of:

- (a) Diorites and quartzites, with jaspery bands.
- (b) Slate conglomerate.
- (c) Greenish, purplish, pinkish or red slates, often approaching in hardness jasper or chert. These have sometimes been called feldsite slates, or hornstone.
- (d) Dark brown or bluish black slates, with thin layers of hard fine grained sandstones toward the top. This has been named the St. John's slate, or *Aspidella* slate, from the occurrence in it of an obscure fossil organism peculiar to these rocks in Newfoundland. It has been named by Billings Palaeontologist of the Canadian Geological Survey, *Aspidella Terranovica*. There is also another obscure form *Arenicolites*, which appears to be almost identical with *Arenicolites Spiralis*, a fossil occurring in Sweden in a formation lower than M. Barrande's Primordial.
- (e) Greenish and greyish, very hard quartzose sandstones or whinrock, in massive beds.
- (f) Dark red fine grained sandstone, nearly as hard as preceding, passing into fine conglomerate towards the top.
- (g) Heavy beds of coarse, reddish, conglomerate or pudding stone.

This formation has been hitherto designated Huronian, from its striking lithological resemblance to a similar series of strata, in about the same horizon, known by that name in Canada. It forms the greater portion of the Peninsula of Avalon, also the two long