

very distinctly stratified, and dip generally easterly at all angles from almost horizontal to vertical. Crossing the Wahnahpita River bridge a very marked change occurs. The dip, however, still continues easterly, and the general succession is as follows:—

HURONIAN.

1. Felsites or felsitic quartzites, red and white, weathering, and at a distance scarcely distinguishable from the Laurentian, but on examination these shew no gneissic structure.

2. Thick and thin bedded, dark, sometimes almost black quartzites; if not repeated by folding these must be of great thickness. They are followed in descending section—according to dip—by dark to grey or black siliceous beds, holding angular fragment and pebble of white granite or gneiss.

3. Diorite and diabase with a series of coarse and fine fragmentary beds, sometimes felspathic, sometimes chloritic or hornblende in character, and varying in texture from a fine laminated ash to a coarse agglomerate; following these are massive beds of diorite or diabase alternating with red, fine-grained syenite. After an interval of about five miles of flat drift-covered country, the Vermilion River sandstones commence, and beyond these again a somewhat similar succession recurs of felsite, quartzite, conglomerate, diorite, agglomerate and syenite, with some bands of argillite. One of these is well exposed a short distance south-east of Bannerman station.

The entire breadth of the belt in a west north-westerly direction is about eighty miles, after which the typical Laurentian gneiss again makes its appearance. Further west, along the north shore of Lake Superior, and again on the Lake of the Woods, the Laurentian gneiss is interrupted by belts of similar Huronian strata, and connected with these are large areas of granite and syenite which seem to be of later origin than the adjacent schistose and fragmentary Huronian rocks. Some of these are indicated on the present map, but there are probably many more not yet recognized.

As regards the so-called Norian or Upper Laurentian formation, I have no hesitation in asserting that it has, as such, no existence in Canada, its theoretical birth-place. Wherever these Norian rocks have been observed, they are either intimately and conformably associated with the ordinary orthoclase or pyroxenic gneisses, or they occur as intrusive masses when they present no gneissic or bedded structure. They clearly cut the surrounding gneiss, and are probably due to volcanic or other igneous agency in the Laurentian Age. Such masse