

Norian, and Arvonian groups, taking them in ascending order.

*Lower Laurentian.*—The Lower Laurentian formation is chiefly composed of gneisses, which sometimes may be called granitic or syenitic. True gneiss is defined to consist of quartz, feldspar, and mica; but the gneisses of the Laurentian strata often contain hornblende in large proportion. Let us quote here what the "Report of the Royal Commission on the Mineral Resources of Ontario, 1890," says, regarding gneisses of Lower Laurentian formation: "Lower Laurentian gneisses offer reddish and greyish colours, from very light to very dark shades, depending partly on the colours and partly on the proportions of the different constituents. The feldspar (orthoclase) is white, grey, and red, or sometimes yellowish or greenish; the quartz is white to grey, and the mica and hornblende black, or very dark green or brown. These rocks are generally distinctly foliated, or show a lamination or parallelism in the arrangement of their constituent minerals, easily traceable by their colours. When these are very distinct and the layers continuous and close together, the rock in cross-section is described as ribboned; where the layers are further apart it is called banded. But the bars are often broken into a series of tapering dashes which pass below or above each other or with an interlocking or dovetail arrangement, or the bars may be connected by thin streaks or rows of dots."

Dykes of greenstones or trap cut in some districts the