Auley claims in Bristol. schistose porphyries play an important part.

In refrence to the peculiar significance of this acid porphyry it may be well to point out that also in the Keewatin in the Province of Quebec, similar quartz ankerite veins have been observed, without, however, earrying any important amount of the noble metal. M. E. Wilson† considers that this lack of economic proportions of gold should be attributed to the complete absence of intrusions of quartz porphyries with which the occurrences of gold in Northern Ontario is apparently very closely connected. As a matter of fact in Northern Ontario such intrusions of porphyries have been observed to possess great extension. not only in Porcupine, but also at Swastika and Larder Lake

The favourable influence of the acid porphyry on the gold values cannot be of a genetic nature, since it is considerably older than the veins which are late Huronian. On the other hand, the chemical, and partienlarly the physical properties of this rock, which is easily altered by pressure to the schistose varieties, may be of considerable importance. "The more fissured and schistose the country rock the higher are the ore values" appears to be an important fundamental in estimating the value of these gold deposits. In the ordinary massive greenstone high values are not common, for in this hard and little fissured rock. the orebearing solutions were only able to ascend freely where the way was open to them by the steep, smooth walls of relatively wide fissnres. Such favourable conditions have been observed only rarely, as for example in the case of the chief vein of the Rea mine.

In the Porcupine district the Dome and the Hollinger mines are among the best known. The former deposit is the best representative of the dome vein type, while the latter deposit cousists of a mineralized zone containing compound veins. The Great Dome of the Dome mines forms an irregular dome rising above the glacial deposit about seven and one-half meters. It is, 180 meters long and 60 meters broad. This great body consists of several masses of milk-white quartz, some of which attain a diameter of 40 meters, and which, along with a net-work of veins and stringers, enclose large mineralized masses of schistose greenstone and of Huronian schist conglomerate. On the

†Summary Report of the Geological Survey, 1910, p. 206.