tense pressure, as evidenced by the extensive cataclastic structure which has been developed in both series of rocks. Frequently the rocks show a pyroclastic origin, and volcanic tuffs and breccias are very commonly met with. The relations of the diabase or basic irruptive rocks with the surrounding sedimentary strata was closely examined in a large number of instances, and revealed the fact that the diabase is apparently of later age, as it breaks through and alters the bedded Huronian. The occurrence of these masses of diabase with a surrounding breccia or agglomerate in many cases would seem to point to the fact that they are the bases of Huronian volcanoes, which continued in action after the latest sediments had been deposited. Some of these diabasic masses send out dykes which ramify through and alter the surrounding strata, these dykes frequently containing fragments of highly metamorphosed Huronian quartzite. These irruptive masses are usually lenticular, although occasionally rudely circular or oval in outline, and their longer axes correspond in general with the strike of the enclosing rock. They vary in breadth from a few chains to half a mile, or even more, and frequently extend for miles in length. The origin of the nickel and copper is closely connected with this diabase or gabbro, and the formation of the fissures containing these ores was no doubt due to the disruptive forces of the intrusion, and the contraction caused by the subsequent cooling of the igneous rock matter. These fissures were necessarily most frequently formed along the line of contact with the cooler sedimentary strata although in certain cases they were formed in the midst of the igneous mass itself. In nearly every case, therefore, the deposits of nickel and copper occur close to the contact of the diabase with the stratified rocks, although in a few cases they are found in the diabase near its junction with granite or micropegmatite. Another proof of the common genesis of these ores and the enclosing diabase is that the diabase itself commonly contains these sulphides disseminated through its mass, these impregnations occasionally forming such considerable and rich deposits as to be workable.

All geologists who have examined these deposits agree that they are not true fissure veins, and although at times a certain sloping surface is obtained which seems to have a uniform inclination, yet it seems certain that there are no regular walls in the miner's sense of the