the old rocks, sometimes half a mile or more from the general line of contact, as, for example, behind Amethyst Harbour.

Near the foot of Thunder Bay, the line of contact of the two formations trends northward across the strike of the Huronian green schists to the granite range lying about five miles back from the bay. Along this line, the two formations are dovetailed into one another for miles. In some cases, the dovetailing is caused by faulting, as for example, along the Blende Lake vein, and along the great Silver Lake fault. The latter causes the slightly-inclined Animikie beds to overlap the vertical Huronian strata on the north side of the fault, for a distance of three miles or more. The overlying Keweenian beds of sandstone and marl overlap the Huronian crystalline schists for over a mile. The conglomerate bed at the base of the Keweenian group is well exposed on the north side of the fault in the cutting on the Canadian Pacific Railway near the west end of Loon Lake, while on the south side, the same bed is exposed east of the Silver Lake Iron Mine, within fifteen or twenty chains of Silver Lake.

Contact of the Animikie and Keweenian Formations.—Geologists have expressed different views as to the correlation of these formations. I shall here give a few facts relating to this question, which have come under my own observation. I have, in one instance, traced the contact of the Keweenian with the Animikie, which is exposed at intervals, from Lake Superior, near Silver Islet, to the great Silver Lake fault in McTavish Township, a distance of about twenty miles. It starts from the water-level, a little east of Silver Islet, and winds around to Sawyer's Bay; thence, northward, along the west-facing escarpment to the fault above mentioned, at a point about fifteen or twenty chains west of Silver Lake. Here the line of contact has attained an elevation of probably five hundred feet above Lake Superior. All along, it shows a bed of coarse conglomerate, becoming coarser to the north and varying in thickness from a foot to thirty feet or more, and lying between the gritty white sandstones of the Keweenian and the underlying and much more altered strata of the Animikie group. The two formations, which are apparently conformable, dip at a low angle east-south-eastward. There seems to be a dislocation along the foot of the escarpment, extending probably into Thunder Bay, which has brought the lower members of the Animikie group on the west side against the clay-slates on the east side. The black clay-slates, seen underneath the conglomerate bed, for the most of the distance thence, are replaced at Iron Lake, twenty chains south of the great fault, by soft, grey, thin clay-slates which show a thickness of about seventy feet, underneath the sandstones. It is caused, no doubt, by faulting of the lower formation at a point further south, where it is not exposed. Some three or four hundred feet to the north of Iron Lake, a dislocation of Animikie age brings the ferruginous chert and jasper beds into position next underneath the conglomerate and sandstone beds; and they continue in this relation northward to the Silver Lake fault. At the Iron Lake fault, which brings the jasper rocks into the above position against the clay-slates on the south side of the fault, the overlying Keweenian beds continue across uninterruptedly, showing that a large amount of Animikie strata must have been denuded away before the deposition of the Keweenian beds.

About a mile or two south of Iron Lake, I saw places where deep erosions in the black clay-slates were filled in and levelled up to the overlying sandstone with coarse conglo-