Problems in Prospecting—No. 3.

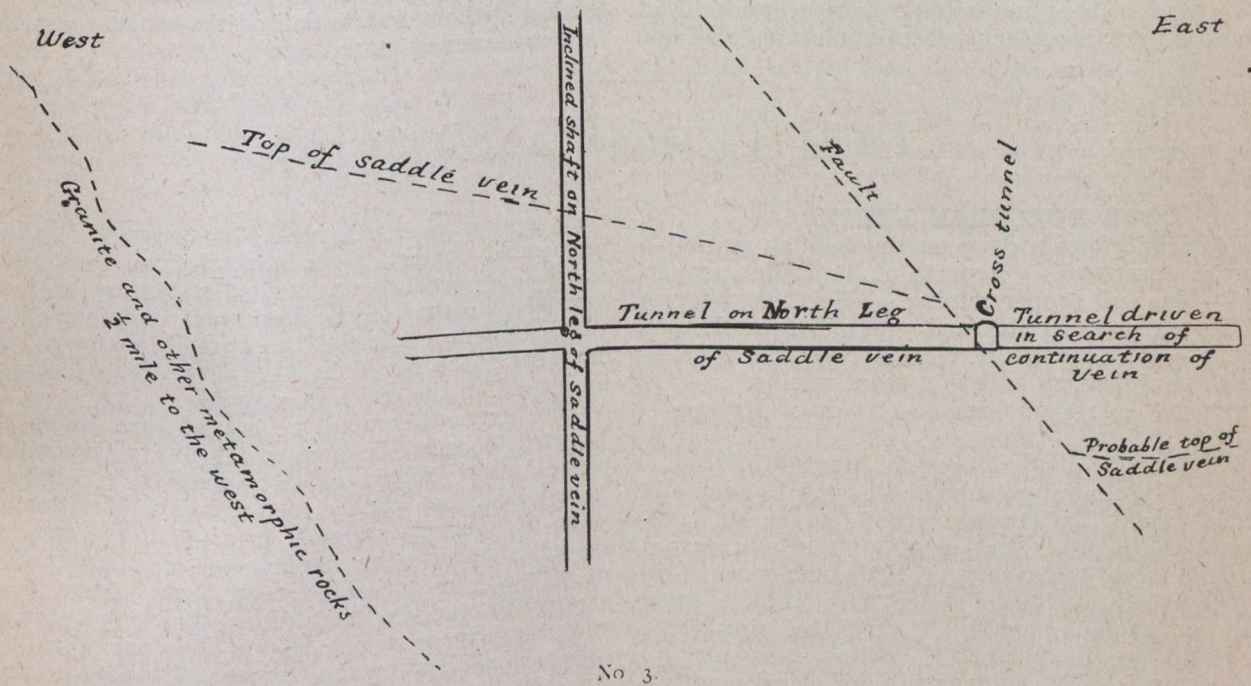
Underground section in Mooseland, N.S.

While angles of dip and proportionate length of tunnels are only approximate, this sketch will give a fair idea of a problem that cost the Mooseland Gold Mining Company much money and disappointment. Their prospectors despised geology, and the eastern extension of the vein still remains unopened. The prospecting tunnel was first carried east along the course of the anticline in the belief that the apex of the saddle vein would be cut in its downward pitch to the east. Failing in this, the tunnel was turned to the south to cut the south leg of the vein. This plan also failed for the simple reason that the vein was not there.

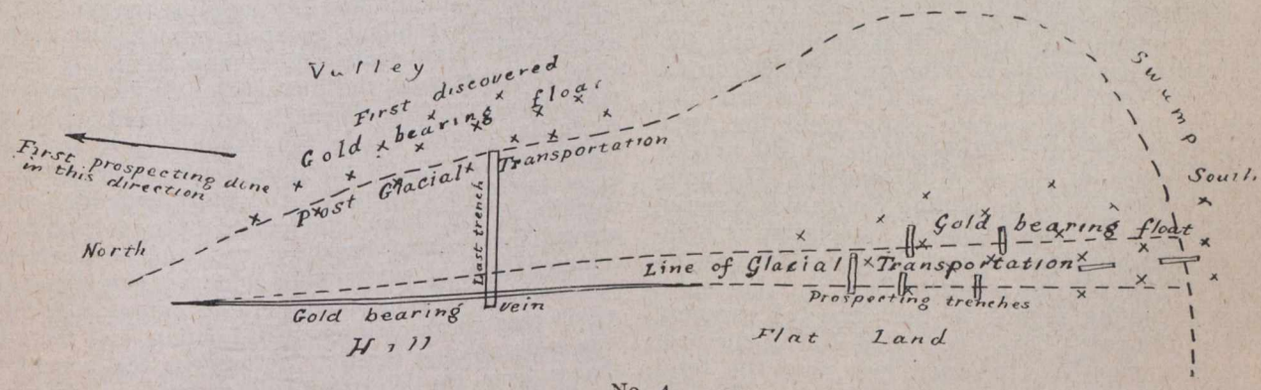
Problems in Prospecting—No. 4.

Spectacle Lakes, Lunenburg Co., N.S., Surface plan.

About 20 years ago large gold bearing boulders were noticed along the west side of a valley near Spectacle and Dares Lakes, and considerable prospecting done; as usual, in a northerly direction. At a short distance the boulders disappeared and no vein was found. About 15 years ago I found, about a quarter-mile further south, another deposit of float ore, and put down a couple of trenches parallel to the line of drift. Becoming convinced that the vein ran north and south, I put the next trenches across the line of drift. Then, as an examination of the other deposit of float ore made it evident that both came from the same vein, I transferred my operations to the long trench which



No. 3.



No. 4.

The evidence available points to the following as the true explanation of the problem. Maintaining the metamorphic origin of the granite of Nova Scotia, this rock on cooling contracted. This contraction resulted in a fault parallel to the boundary of the formerly molten mass. The western side of the fault being drawn toward the shrinking granite, left an opening into which the overhanging eastern side settled, thus bringing the higher strata on the eastern side opposite the lower strata on the western side. The vertical displacement is still unknown.

crosses the vein. The deposit of float at the foot of the hill was evidently the result of erosion by subaerial influences in post-Glacial times. The discovery of the vein the next day, up the hillside and beneath only two feet of soil, confirmed my views. The general course of glaciation during the Glacial age was south a little east. Then came the retreat of the continental ice sheet, while the province was still submerged; the deposition of the clays and sands which underlie the post-Glacial ore deposit here shown; then the deposit of the ore as mentioned in the valley east of the vein,