Gold Measures of Nova Scotia and Deep Mining.

as Lunenburg. The study of the structure of these rocks, over that region, has afforded an opportunity of acquiring many important facts and data by means of which gold mining may be carried on with more confidence, under more exact conditions, and with greater economy.

The most important feature disclosed, is that all the rich veins and the large bodies of low grade quartz worked in Nova Scotia, with few exceptions, follow the lines of stratification, and occur at well defined points along the anticlinal axes of the folds.

It was during the progress of the slow folding of the measures, that the rich quartz veins and large saddle-lodes of quartz were formed, at favourable places, along the planes of bedding on the anticlinal domes of the folds

Thus a thorough knowledge of the structure of the anticlinal folds becomes necessary, to locate the auriferous quartz deposits on the surface, and to develop them in depth.

In tracing the axes of the folds at the surface, the dip of the rocks is the chief guide. If the strata are found to dip towards each other, it is clear they form a synclinal axis or trough; while, if they dip in opposite directions they form an anticlinal axis or ridge.

The rocks, on opposite sides of anticlinal axes, generally dip at angles varying between forty-five and ninety degrees from the horizon, seldom lower than forty-five degrees, and overturned dips are frequently noted.

The deviation of any bed from the horizontal, along the axial line, is its "pitch." A longitudinal section, made east and west along the axis of an anticlinal fold, will show the strata and the fold to pitch either to the east or west, at low angles, seldom over thirty degrees from the horizon.

Owing to the pitch, the outcrop-edges of the beds, on each side of an anticline, are not parallel to the axial line; if they converge towards the east, the anticlinal fold dips east, and if to the west, it dips to the west.

When the pitch inclines both ways from a central point, that point is the centre of an elliptical "dome," and marks the position of one of the most favourable points on the main anticlines for the occurrence of quartz veins.