

cross-cutting may be avoided. In the case of a vertical fold (see cross section of Tangier) like (a) and (b) in the above list, a vertical shaft would run parallel with its axis-plane, and very little cross-cutting would be necessary if the shaft is properly located, as it will keep in the pay-zone all the way down. But if the fold is inclined as at Goldenville (see cross-section of Goldenville) the vertical shaft would necessarily approach or recede from the axis plane as it is sunk to greater depth, according to its position with reference to the fold; and the deeper the shaft the more cross-cutting will have to be done to develop the pay-zone. *Underground developments on vertical folds will thus require to be less extensive and will cost much less than on inclined folds, and they should generally receive the preference for deep mining.*

VEINS IN CLOSE SUCCESSION.

For the same reason it is desirable that the saddle-veins should underlie one another in close succession, and on this point the Nova Scotia saddle-veins are more advantageous than those operated in Australia.

VALUE OF THE ORE.

The general value and character of the ore already extracted from the veins outcropping at the surface in a certain district should also represent a fair estimate of what the underlying veins may be like in that district.

WATER POWERS.

A district with a good water-power should also be given the preference over one where steam has to be used. The transmission of power by compressed air for short distances and electricity for longer distances has now been proved practicable and is being extensively used elsewhere, and it could be applied successfully at several gold districts in the province where important water-powers are lying idle on account of their being too far away to be utilized by other means. Now that gold mining is being established on a more permanent footing in the Province, it is desirable that more advantage should be taken of the water-powers, as this would greatly reduce the cost of operation.

CHOICE OF COMPANY.

A good, strong, bona fide mining company that has already given proof of its ability should be preferred to a new company with no practical experience in mining, or one being formed with the special purpose of taking advantage of the Government's offer, unless the