

success appeared exceedingly promising, a relatively large amount of ore of better average grade having been developed and blocked out. All recent attempts, however, to locate the ore below the tenth level have been unsuccessful, and the manager has been instructed to close down the mine if after boring three more holes with the diamond drill the position of the vein is not then ascertained. It is yet too early to abandon hope of the success of this final effort, but surely the experience of the Hall Mines must demonstrate the doubtful advantage of employing diamond drills in mine development, particularly in cases where there is much evidence of geological disturbance. The Hall Mines has expended a very large sum of money to no purpose in this manner, and even when ore bodies have been discovered the cost of reaching them has been increased to the extent of probably three dollars per foot. When the lead is cut off in a mine-working there is nearly always some indications which, if followed, lead to its relocation in one direction or another, but these indications are of little use as a guide when a diamond drill is employed. The method at best is a blind and haphazard one, for as often as not the drill may be within a foot or two of an ore chute without anyone being the wiser.

Meanwhile it must be remembered that mining, like every other commercial enterprise carries with it certain risks, and if the Le Roi and Hall Mines have failed to realise the high expectations entertained concerning them, there are many mines in British Columbia which are making a satisfactory showing. We have but commenced to develop the mineral resources of the country and occasional set-backs and reverses should only act as a spur to further effort.

#### MINING IN THE YUKON.

**I**N a well-considered article, in the *Engineering and Mining Journal*, (New York), Mr. Walter C. Mendershell discusses the future prospects of mining in the Yukon, and arrives at the conclusion that while the maximum of production is probably past, a rapid falling off within a few years to an unimportant output is not to be expected, but rather that the territory will yield well for some years to come, not taking into consideration possible new discoveries or the inauguration of a quartz mining industry. Statistics of the gold output of the Klondike show an increase from \$2,500,000 in the year of discovery, 1897, to \$16,000,000 in 1899. In 1900 the same amount was taken from the creeks as during the previous year, but 1901 showed some falling off from these figures, the production being about \$14,500,000, and predictions have been fairly made that the district will quickly decline to an unimportant place as a producer, unless quartz properties of value are developed. All placer gold districts pass with greater or less rapidity through three phases: A preliminary feverish stage of unsystematic and costly but rather high production, in which operations are confined to the richer

properties; a second stage with more systematic working or reworking of the partially exhausted banner properties and of development of producing areas which were not sufficiently rich for exploitation during the first stage, and finally into a third, that of gradual decline. The rich region to the back of Dawson is in the period of transition from the first to the second of these stages of development. According to Mr. Mendershell a number of the best creek and bench claims are already worked out so far as profitable manipulation under present methods is concerned, and the majority of the others are rapidly approaching exhaustion. The camp has passed with unusual rapidity through this first most highly productive period because of the small size of the claims under Canadian law and the consequent large number of original holders and operators, each of whom could quickly cover his 500-foot claim. The great richness of many of the Bonanza and Eldorado properties, too, by making it possible to work at a profit no matter how great the lack of method, has encouraged the operations of the original staker and prevented his immediate sale to larger, more careful and more deliberate interests. It is this early unsystematic period of feverish operations on small holdings, which is now giving place to another of bigger holdings and more business-like management. A few weeks since the sale was recorded of a number of Gold Hill claims to one company, which will no doubt win large profits by reworking the famous bench upon which operations under present conditions have practically ceased. The Treadgold concession, which created such excitement in Dawson this winter, and by whose terms a syndicate with large capital was to have been granted all lapsed claims within the basin drained by Bonanza, Eldorado, Hunker, Bear, Gold Bottom and Last Chance creeks, in return for bringing to the district a sufficient water supply, is another one of the signs of the times pointing toward the passing of the small individual holder, and the incoming of the large capitalist. These new conditions alone could not keep production near the maximum of 1899 and 1900, but there are others which tend to counteract the shrinkage. Among them may be mentioned the steady improvement in transportation facilities between Dawson and the outside world, and particularly between Dawson and the various mining centres, which have advanced steadily since the discovery in 1897, through the stages of pack trail, private road, government road and government bridges, until now a railroad is projected. These improvements bringing about cheaper living and cheaper labour, increase the output by bringing within the zone of production many properties, whose richness, although high was below the standard necessary for successful operation under earlier conditions.

#### SOME MINING INVESTORS.

**A** CORRESPONDENT calls our attention to an interesting article which appeared in a recent issue of the *Australian Mining Standard* entitled "Some