was somewhat smaller in 1909, because of labour troubles.

In 1907 the coal mining companies in Nova Scotia paid out for labour and supplies a sum slightly exceeding $10,000,000; this is based on the actual figures furnished by the various collieries. The amounts paid out by the iron and steel manufacturers, whose ultimate prosperity is bound up with that of the coal companies, would not fall much short of the same amount.

4. A comparison of labour conditions may fitly be made. In the eastern and southern coal mining districts of the United States a large number of foreigners and negroes are employed, and from this and other causes the cost of mining as compared with Nova Scotia is much lower.

The men employed in the Nova Scotia collieries are of an excellent class; they are as a whole, very well paid; their standard of living is high, and the provisions for their safety and comfort are far beyond what is customary in the United States. The mining laws of Nova Scotia are as advanced in this respect as in any country in the world, and the coal companies find it to their interest as well as their duty to carry them out faithfully.

We respectfully submit that the difference in labour conditions should be considered when a proposal to wipe out our tariff protection is under discussion. The laws of the province respecting mining, the general influence of our Canadian standards, and the character of the population which supplies the greater part of our labour, make it impossible for us, even if we were willing to use the cheap labour which our competitors are able to employ.

MINING—A BUSINESS.

(Written for the Canadian Mining Journal.)

[Editor's Note.—This short article was written at the express request of the Canadian Mining Journal. To our mind it delimits admirably the function of the mining engineer—although this is not the theme. We are especially in accord with the writer's remarks anent the word "conservative." His strictures are just. That word has been used to cover much moral cowardice. The word that should supplant it is a homely English word—"honest." We earnestly invite comment on this article as we recognize the fact that on all such propositions there is room for difference of opinion. Moreover, we are diffident about forcing our own views upon our readers.]

The untutored have believed, and the general public suspected, that precious metal mining is in all its aspects a pure gamble like roulette. This impression has obtained partly through the sentimental side of human nature, and partly because of misconceptions on the part of those untrained to the business of getting gold and silver. These latter believe that little knowledge is necessary to win a fortune in mining fields. Nothing can be farther from the truth. It can be easily shown that a hard and careful training only can fit men to mine—with success.

In considering this matter, we may conveniently divide our subject into two parts. The indefinite, and the definite. It must be granted that any man or group of men wishing to make a business of mining must be possessed of the necessary capital, or be in a position to control and obtain this capital. And it must be further laid down that no mining operator (using the term operator in the sense of a single capitalist or a group of capitalists), will confine his risk to any one prospect to insure a profitable outcome for his undertaking. In other words, if he is going to make mining a business he must be persuaded or determined to distribute his energies over sufficient number of mining risks (guided by proper advice) to insure obtaining what he seeks; namely, a profitable mine. Those prospects, which we know as mining risks, which fail to satisfy his expectations, must be consistently written off to business losses, and charged against the successful property which he will ultimately control if he prosecutes the business steadily and intelligently. That part of mining which we term the indefinite part, is the prospecting and geological work necessary in the early stages of a deposit giving evidence of some interest to the miner. There is no line of demarcation between the indefinite and the definite parts of the business. As the prospect becomes more developed, competent engineers will readily advise their clients whether it promises a profitable outcome, or whether the venture should be abandoned. The early part of any operator's work must necessarily therefore be regularly guided by the geologist and the engineer, and it will depend upon their advice how much and what kind of work will be carried on. Should the deposit prove commercially valuable, it will gradually pass to the definite stage, and will show profitable mineral in place, and ore reserves that can be determined and the value of which in metallic contents estimated. When we have arrived at the estimation of ore reserves, even at that stage which we know as prospective ore reserves, we may be right in saying that the prospect has passed from that stage into what we may reasonably term a developed mine. If the ore opened by this development would indicate that the amount of money already expended is covered by value existing in the mine, we are right in saying that the mine has passed to the definite stage, and all work done can be, and should be, well done on business lines, and all risk for the capital expended can be almost if not entirely eliminated by a combination of good financial management, good operating management, and proper technical skill.

In every mine we must realize that there is the cooperation of three kinds of talent necessary in the commercial outcome of any mining venture, namely, financial management, or the business of the financier or capitalist, the department of mining which demands the service of the skilled mining engineer and geologist, the equipment and treatment of the ore, or the skilled metallurgist. These latter two divisions may have a number of sub-divisions that merge one into the other, or may be efficiently found to exist in one man; but this is not often the case. In any case it is for the operator to call to his aid the necessary skill that these various departments demand in order to be sure of the outcome of the proposition. Should he fail to seek this advice, his neglect cannot be debited to the mining industry. Mining conducted in this fashion should, and does, recompense and reward those engaged in it very handsomely. In fact, if prospects which are only intended to be gambles from the start are eliminated, it will be found that the percentage of mining failures is less than in any other business that we are acquainted with, and the reward greater than in almost any other business. This fact is amply proved by the history of the Western States and Mexico, where have been built up splendid towns and cities from the profits of the surrounding mines, and it is possible that the mining industry in the snow covered woods of Ontario will do more in a shorter time to build up Eastern Canada than all the other industries combined.