

\$3.66, and the trammers \$2.89 net after deductions for medical assessment, etc.

While the wages are lower than in many mining districts, there are advantages which offset this to a considerable degree. The mines are worked regularly, even in periods when the price of copper is very low. The mines are dry and well ventilated. The companies provide houses at low rentals, good schools, hospitals and libraries. Some men do not place a high value on these things, however, and in making comparisons neglect them altogether. They want to make a lot of money by working hard and are willing to live under less favourable conditions in order to attain their end. To such men especially do the wages seem low.

As a matter of fact, men who are willing to work hard are able to earn very high wages by using a one-man machine and working on contract. If they are given two-man machines and less industrious or less experienced partners they cannot make as good wages. Neither man works as hard and the one heavy machine cannot do nearly as much work as two light machines in the character of rock that is being mined in Michigan.

The contention of the strikers, or rather of the officers of the Western Federation, is that there should be a minimum wage, and that the one-man drill be abolished. This is equivalent to asking the managers to ignore the differences in ability of the workers and to pay wages according to number of men employed rather than to amount of work done. Such practice would evidently soon lead to financial ruin, and the mine managers are not likely to make any such agreement with the Federation or with anyone.

The wages paid must depend largely on the profits from mining. The profit depends on the price of copper and on good management. To keep down the costs the managers are constantly endeavouring to find better machines and better methods. The adoption of these results in larger profits and, therefore, in the possibility of increasing wages. It is the desire of all managers to reduce the hours of labour and increase the wages. To do this in the face of a low price for the product means that there must be increase in efficiency. When the strikers realize, as the men at work realize, that the interests of employer and employee are the same, they will have made a real step forward in their campaign for a larger return for their labour.

IRON DEPOSITS OF QUEBEC

The Bureau of Mines of the Province of Quebec has in preparation a work by Mr. E. Dulieux describing the iron ore deposits of the province and their possible utilization. In the reports on mining operations for the years 1911 and 1912, Mr. Dulieux describes most of the deposits and this work will furnish the basis for the more elaborate report.

The iron production of Quebec in recent years has been very small. A little bog iron ore has been mined and used in local furnaces; but the report for the year 1912 shows no production whatever.

It is to be hoped that the publication of Mr. Dulieux's monograph will direct more attention to the ore deposits.

WESTERN OIL AND GAS FIELDS

A memoir is being prepared by Wyatt Malcolm, of the Geological Survey, to lay before the public what is known regarding the oil and gas possibilities of the north-western provinces of Canada.

There are large areas of formations in which oil and gas may be reasonably expected to exist. Comparatively little has yet been done to test the possibilities.

There are a few areas already proven. At Medicine Hat and Bow Island gas has been found in paying quantities. Prospecting for oil has as yet met with little success.

The development of the West is creating a splendid market for oil and gas. The gathering together of all the available knowledge will aid exploration and will be much appreciated by those who are searching for commercial deposits.

MINE TAXATION

One of the leading topics for discussion at the meeting of the American Mining Congress at Philadelphia during the week of October 20 will be taxation laws for mines. Colorado, Arizona, Pennsylvania, and Michigan have new systems of taxation. Many mining men claim that they are overtaxed under the new systems and considerable airing of views is expected.

The system of taxation introduced by J. R. Finlay in his appraisal of the mines of Michigan resulted in much criticism; but in a re-appraisal of the mines in 1913, Mr. R. C. Allen, Director of the Michigan Geological Survey, has shown that the system, modified somewhat, is reasonably fair to the mine owners if the appraiser has time to acquire an intimate knowledge of the character of the ore bodies and the costs of mining and marketing the ore.

Mr. Finlay bases his calculation on three factors: average cost, present prices, and an estimate of future life. The third factor is determined partly by developed ore and partly by assumption of continuance of known ore bodies beyond the bottom levels of the mines. The assumption for continuance is based mainly upon the extent to which the continuity of the deposits has been proven for the district and for the type to which the mine belongs.

The third factor to be properly applied must be used only after careful study of the structural features of the ore bodies. The Michigan Tax Commission has consequently asked the Director of the State Geological Survey to make the estimates. During the past summer this has been done in the Michigan iron districts and the results are regarded as very satisfactory.

It is intended that the Geological Survey shall annually revise the estimates. The revision, compared with the first estimate, will be comparatively simple, and a more accurate record will be obtained than is possible by the more costly special commissions.