

hand are the men holding back, and on the other side increased working costs, and opportunities of production are not being utilized to the full. To the writer it seems that probably the key to the situation lies in the fact that the men who do the work are not, perhaps, obtaining their fair share of the wealth they produce and of the good things that are going. Starting from that proposition it should not be beyond the bounds of human ingenuity to devise some way by which, in conceding higher wages, more strenuous and intelligent labor should be obtained."

Greater effort on the part of the miner is fortunately not the only way in which costs can be reduced; but unless the worker is willing and industrious, attempts to increase efficiency are sometimes disheartening. It is not uncommon for managers to encounter opposition when they introduce improved methods and machinery which would allow the miner to get more work done without increased effort. It would be well if the workmen could be made to understand that their co-operation in increasing efficiency makes it possible for their employers to pay better wages. One of the easiest ways to make them understand this is to promptly reward those who earn more. There is sometimes difficulty in doing this, but where it is possible, as is the case under the contract system, it is very illuminating.

It is not enough, however, that the miner should be induced to use improved methods and machines. He should be made to see that it is to his advantage to devise improvements himself. He should understand that while inefficiency on his part helps to keep down the wages of both himself and his fellow workers, the industrious and intelligent worker is helping to increase wages as well as the profits of those who have supplied the capital which makes it possible to carry on the work.

DEVELOPMENT OF THE MINERAL RESOURCES OF THE EMPIRE.

At a meeting of the Royal Society of Arts, held in London, in February, Wm. Frecheville read a paper on the development of the mineral resources of the British Empire. Mr. Frecheville is a distinguished mining engineer and copies of his paper which have recently reached Canada will be read with great interest here. Lines of action which would aid development are clearly pointed out in his paper. Metals for construction and money to pay our debts will be needed in very great quantities after the war and it is incumbent on us to provide for the more vigorous development of our natural resources.

"Looking at the Empire as a vast estate, large parts of which still await exploration and development, the first and obvious step would be to find out what we have. While encouraging exploration and prospecting by others, it is suggested that the estate owner should himself take some active steps in the matter, and by means of the examination of the country by skilled men, ascertain the importance of known mineral dis-

coveries, the most likely ground for prospecting and generally the wisest policy to pursue to encourage the mining industry for the good of the community. In our Crown Colonies this should be done under the control of the Home Government. In other parts of the overseas Empire, the Governments of the great Dominions already give much attention to the development of their mineral resources; but the territories they administer are so huge there is ample scope for doing more if the means were available."

With regard to the great scope for expansion of the mining industry in Canada Mr. Frecheville says: "The mining centres are scattered through the known and prospected belt of country stretching from east to west, and the fact that they are absent on the little known and unprospected great northern country is in all probability not due to the non-existence of mineral deposits, but to their not having been found."

Referring to the difficulty of finding money in Canada to finance mining enterprises, Mr. Frecheville said that a very large copper deposit had recently been found in Manitoba, which had been proved to contain six or eight million tons of ore of a low grade, but which could be profitably worked on the huge scale on which Americans work their copper mines. \$5,000,000 is required to work this mine; \$2,500,000 for a railway and \$2,500,000 for a plant; but Canadians cannot provide the money. The Government was being asked to do a good deal and if they rose to the occasion they might do it. The South African Government is now offering mining areas on the Far Eastern Rand to tender, the Government taking a share of the profits on a sliding scale. Mr. Frecheville suggested that other parts of the Empire might well adopt the system.

GOLD IS NEEDED.

Since the selling price of gold remains fixed and the cost of mining and treating the ore has naturally risen during the war, it must be obvious that the present is not the most profitable time to mine gold. Anyone who imagines otherwise should consult the recent records of gold mining companies.

Since gold is not directly used in the manufacture of munitions, it is not surprising that a considerable portion of the public may be of the opinion that the war could be carried on just as well if the gold mines were closed down, and the miners employed on work that is commonly recognized as essential. As was pointed out by Mr. Hennen Jennings in an article recently published in the "Journal," the production of gold is necessary and every effort should be made to encourage it. With the public indifferent, we must depend upon the leading ability of governments. It is of interest to note that at least one leader in the United States government has strong views on the advisability of encouraging gold production. A Boston newspaper quotes Secretary McAdoo as saying:

"I fully appreciate that with rising cost of raw material and labor, and with a fixed value for their output, the gold miners of the world are facing difficul-