

tions in the Rand will rather have the effect of releasing capital, than of causing fresh inroads upon it. American and Eastern Canadian capital is well enough disposed to British Columbia, provided indisputable evidence is given of another forward movement in the country. It only requires decision and energy on the part of those who should have the interests of the country at heart, to insure the beginnings during 1902, of a period of great and real prosperity and progress. But certainly, there never has been a time when wisdom and discretion, as well as energetic action, were more necessary, if the golden stream is not again to be diverted from this Province, through our failure to comprehend the means by which it may be directed here, made profitable and productive, and induced this way in increasing volume from year to year.

#### LEAD-PRODUCING INDUSTRY OF BRITISH COLUMBIA.

**E**AST and West Kootenay are at present suffering much from the effects of the depression in the lead-mining industry. Many explanations of the existing state of affairs, and suggested remedies have been advanced, some practical but many showing that great misapprehension upon some of the points affecting the situation is common. The present condition of lead mining could be much improved we think if those interested should arrive at a correct understanding of the situation, and would then combine to use their influence for the amelioration of conditions. Those interested are not only the owners of the mines and the men who would like to earn money working in them, the smelters and the large population in the Kootenays whose business is immediately affected, but also the transportation companies, the farmers and ranchers of British Columbia, Saskatchewan, Alberta and Assiniboia, the Eastern Canadian manufacturers, and the merchants of both Eastern Canada and of our coast cities whose business in the Kootenays has been so remunerative. Through them a large population in Eastern and Western Canada feels the difference between prosperity and hard times in the Kootenays. Apart from the effect upon the prosperity of Canadians, the Dominion government has no more liberal contributors per capita, by means of duties on imported goods, than the residents of the Kootenays, while the value of the ore upon which a tax of 2 per cent. is collectible is among the considerations which give the Provincial government an especial interest in the production.

There is no doubt that the relation of the cost of production to the average value of the product of our silver-lead mines is the difficulty, and not the lack of ore in the mines. Dealing first with the value of the product to see how it can be increased we find, so far as the price of silver and the world's market price of lead are concerned, that if lead mining is not possible at current prices, it cannot be relied on as a permanent business. The transportation companies can improve the value of

the lead to the miner by reducing the freight charge on ore to the smelter and on the bullion from the smelter to the refinery, and we should imagine that they would be disposed to do something in this direction if the others interested would do their share in cheapening production.

The mine owner is paid for 95 per cent. of the silver contents of the ore as determined by the most exact assaying methods. By the methods now used, much higher results are obtained than was usual a few years ago, and assayers with experience on both continents, inform us that this difference is much more marked if the comparison is between the assaying methods now used here and those in use in England where the results were so much lower as to give the smelter some margin of safety. The 5 per cent. deducted has to provide for the smelters' losses in slags and by volatilization, and for the percentage deducted by the refinery to which the base bullion is sold, and any small percentage not so absorbed is taken into account as part of the earning when treatment rates are considered.

Payment is made for 90 per cent. of the lead in accordance with the American custom to provide for losses and refining deductions. If this were not done, a compensating increase in the treatment charge would be necessary. The price paid is based on the London market price. As an example of the misapprehension regarding the situation to which we have referred, which by its existence tends to prevent reasonable united action, our attention was recently called to an article published by a contemporary, over the signature of a Mining Engineer, criticising smelting charges and reflecting upon the business ability of mine managers who submitted to them, and in which the deduction of \$1.00 per 100 lbs. from the price of pig lead in London was referred to as something of which the owner of the ore was deprived to his unjust loss and the profit of the smelter. As a matter of fact, the treatment rate charged on lead ores is higher than it would otherwise be because the deduction of \$1.00 per 100 lbs. is only a part of the cost of conveying the lead in the form of base bullion to a refinery, or refining charges and the freight to the world's market and selling costs there, and the remainder of this marketing cost, over and above \$1.00 per 100 lbs., has to be included in the freight and treatment charge which therefore increases as the percentage of lead in the ore increases within certain limits. It would certainly be simpler to deduct, say \$1.50 per 100 lbs. from the London price of lead, which would give a more correct value for the lead in base bullion at Nelson or Trail, and charge a lower freight and treatment rate. The same critic includes in the amount of which he calculates the miner is deprived to swell the dividends of the smelting companies, 90 per cent. of the 10 per cent. deduction, at the value of pig lead in London, not considering that before the lead can have that value the smelter must pay freight to New York, refining charge, freight and insurance to London, selling commission, etc. The deduction for freight and treatment being a