

silver lead ores in which the galena and zinc blende are intimately mixed, is attracting a good deal of attention among metallurgists at the present time. The process recently devised by Mr. H. A. Hunicke will, therefore, be of considerable interest to our readers, although time has not yet been allowed for proving its final commercial value. The process consists in heating up separately the roasted ore and the coke to about the temperature at which zinc oxide is reduced to metallic zinc by carbonic oxide, and then charging thin layers of each alternately into a cupola furnace. The lead is reduced to the metallic state and runs together with the silver, to the bottom of the furnace. The zinc is reduced to the metallic state and volatilized, and after escaping from the heated mass, is rapidly oxidized again by the gases. The vapor thus formed is led to a condensing chamber, where it is deposited as a zinc oxide powder. The reduction of the lead and zinc are effected almost immediately after the introduction of the ore into the cupola furnace, owing to the smallness of each charge, and also to the fact that the ores have been previously heated to the temperature at which the zinc ore is reduced by carbonic oxide. Thus the zinc vapors have no opportunity to clog up the coke and prevent further combustion. This process differs from the usual one in the previous heating of the ore and fuel, and in the smallness of each charge. Apart from more ready freeing of the zinc and prevention of clogging, the chemical process is the same all through, and the chemical losses of lead and silver are practically the same. There will, however, be more heat expended in heating the two separately and charging them hot, and more labor will be necessary in charging them often and in small quantities. If the ores are brought to the cupola furnace direct from the roasting furnace, some expenditure of heat would be saved, but there would be considerable difficulty in making the output of the two furnaces correspond. The condensation of the zinc oxide can be carried out to as great a stage of perfection as is commercially profitable. Mr. Hunicke estimates that it is quite feasible to obtain 60 per cent of the metallic zinc when ores containing 1 per cent are worked with.

An objection which may be urged against the process is that it requires a constant uniformity in the chemical composition of the ores. So far no such difficulty has arisen in actual practice, as all ores can be treated satisfactorily. On whatever ores Mr. Hunicke has worked good results have been obtained, and an extra \$5 or \$10 per ton of ore has been realized by the recovered zinc oxide. No doubt the process will have to be adapted to each separate ore on which it is employed, but there is little doubt of its applicability, for it attains an end hitherto unattained—the separation of zinc without fouling the coke.—*Engineering and Mining Journal*.

BRITISH COLUMBIA.—The fortnightly shipments of gold on the 17th of November amounted to 5,263 oz., valued at \$93,977. The total output for the year up to date is 110,136 oz., valued at \$1,980,914.

From the following interview with Mr. Fielding, which appears in the *Chronicle*, it will be seen that the General Assembly is called together thus early in the year to act on special business that the Government has to lay before it. It relates to the acquisition of a majority of the Cape Breton Coal Mines by an American Syndicate, and proves that that scheme must be well advanced. In this case the Government are showing commendable zeal in acting promptly in a matter affecting the mining industry. It is a pity that last session they did not display the same spirit in legislating on the coal royalties. Then in defiance of the rights and wishes of lessees of coal areas the royalties on coal even under existing leases was increased. It was an act of gross injustice, directly affecting our largest coal mining companies, and was fought step by step by leading men in the business, but the Government turned a deaf ear to their remonstrances and passed the Act. The end is not yet, as by petition the Governor-General is requested to disallow the Act, and the grounds set out are so strong that there is every probability that it will be.

We now hope that the Government has convened the session of the Assembly thus early, not only to legislate on matters affecting the sale of the Cape Breton mines to the American syndicate, but also to undo the mistaken work of last session, by restoring the royalty on coal under existing leases to the old rate.

"A *Royal Gazette* extraordinary, issued last evening, contains a proclamation from His Honor the Lieutenant Governor, summoning the Provincial Parliament to meet 'for the despatch of business' on Thursday, January 19th. The date, being much earlier than usual, would seem to indicate some business of unusual character. A *Chronicle* reporter interviewed Premier Fielding at his office last night, seeking information as to the cause of the early session.

'Is not the date of meeting unusually early?' asked the reporter.

'Yes,' said Mr. Fielding. 'The usual time for opening the session is the latter part of February. The business year of the Government corresponds with the calendar year which has just closed. To get together the information respecting the year's affairs, put it in proper shape, and have it printed to submit to the House, requires at least a couple of months. In the larger arena at Ottawa Parliament is to meet on the 26th inst., but the year with which the Government there have to deal closed in June last.'

'Do you expect then to have the Government business ready for the meeting on the 19th?'

'No. That would be impossible. But we have one matter of considerable importance which we think should be laid before the Legislature at once. Hence the early meeting. Our expectation is that this matter will be dealt with, and that then an adjournment will be agreed to until the usual time at which the sessional business is taken up.'

'Will this adjournment be arranged in advance?'

'Nobody can arrange it definitely. The members of this Legislature will be notified that this will probably be the order of business. But how

far it shall be carried out must depend on Parliament itself. If the special business which the Government have to submit is quickly disposed of the adjournment will be necessary. But if protracted discussion arises it is possible the time will be filled without adjournment.'

'And what is this special business?'

'Ah,' said Mr. Fielding, 'you are asking too much. I am not in a position to give you any particulars at present. I can only tell you that it relates to some plans that our Government have had in view for about a year, for the purpose of securing a more vigorous prosecution of our coal mining industry. We think that business is capable of much larger development, which will mean more work for the miners, more business for those who deal with them, and more revenue for the provincial treasury.'

'This then,' said the reporter, 'is probably connected with the American syndicate about which something has been said in the papers.'

'I fancy,' replied the premier, 'that you are right, subject to this qualification, however—that the authors of the newspaper statements are not well informed. Many of the statements made are quite incorrect.'

MOOSELAND.—The annual meeting of the Mooseland Gold Mining Company Limited, will be held at the Halifax Hotel, Halifax, on Wednesday the first day of February A D 1893. This mine continues its steady gold yield, and the directors should have some pleasant information to lay before the shareholders at the coming meeting. Mr. Alfred Hare, of the Mooseland District, is at present in the city.

TANGIER.—Messrs. Murphy and Barton have tested the ore from the new lead found by them at Tangier, and it proved good for an ounce per ton.

MOOSE RIVER.—Mr. D. Touquoy has opened up a slate belt carrying low grade ore, and is crushing it at a good profit in his fifteen stamp water power mill. There is practically an unlimited quantity of this low grade material, which combined with the very high grade ore from the quartz leads, makes this mine one of the most certain producers in the Province. Mr. Andrew McGregor of the Montreal Company continues his prospecting, and it is reported that he has struck very good pay quartz.

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