

to deal with one responsible party instead of a score of small investors; and, to crown all, the treasury will receive more than asked for.

Mr. Robb, the City Treasurer, said: "Hanson Bros. left the question of exchange to be dealt with by the city, although the excess of their offer over that of the Royal Bank, which bank agreed to take pay for the loan in Montreal, was likely to fully cover any loss which might arise in exchange. Hanson Bros. also left domiciliation at the option of the city, while the bank stipulated that it should be left to them. Either offer is equal to 102 in London, if the city had gone to London market itself. In other words, issue fee, stamp duty, advertising, brokerage and other expenses would have amounted to at least 2 per cent." Mr. Robb thought success would hardly attend an issue at 102, following so closely on the loan placed by the Bank of Montreal, at 99.

As announced in these columns recently, the waterpower of the Porto Rico Railway Co., Ltd., has been turned on and is now generating all the electricity for power and light used by the company. That this would make a great difference in the working expenses of the company, was only to be anticipated, and the figures for October, just published, are in no way disappointing. The gross earnings for Sept., which was before the water was turned on, amounted to \$34,082, an increase of \$3,900 over Sept., 1907, the net earnings being \$14,433, an increase of \$1,400. In October, although the gross earnings were much less than in Sept., the net were very much greater, being \$32,632 gross and \$14,432 net.

Towards Common Stock Dividends.

This gave, as compared with October, 1907, an increase of \$2,095 gross and \$4,735 net, the latter being thus more than double the former and considerably more than three times the net increase for Sept. Although the ten months' figures only indicate net earnings for the year, of \$162,000, the Oct. figures, based on the waterpower working expenses, indicate net of \$206,000. Bond interest for 1909 will amount to \$150,000 so that \$56,000 would be left to apply towards the \$3,000,000 stock. This, with the probably larger receipts, would indicate a surplus of not less than 2 per cent. towards common stock dividends. Another Canadian enterprise in the south has consequently been brought to a dividend earning basis.

Price of Stock Exchange Seats.

There has been wide fluctuation in the price of seats on the Montreal Stock Exchange, in the past, but a motion has been introduced by Mr. Percy Cowans and seconded by Mr. Geo. Smithers, which, if it carries, will have the effect of giving reasonable permanency to values. This motion would empower the re-purchase of seats, at \$20,000, by the Stock Exchange, providing there were funds from the sale of seats available. The Exchange has now five seats left from the number created some years ago, and the price of these is \$25,000. Outside of these, it would seem that there are none available, while it is believed that there are several purchasers, \$22,000 having been bid recently. Some months ago, seats sold down around \$18,000, and if the motion referred to carried, anyone desiring to dispose of his seat at \$20,000 could do so to the Exchange itself—so long as the funds were available—so that the price of seats would be in effect pegged at \$20,000.

COBALT NOTES.

The British American Smelting Company, at Chippewa, are smelting a large volume of Cobalt ores.

The Buffalo Mine will after the first of the year pay a five per cent. dividend quarterly in addition to the one per cent. per month, which has been regularly maintained from the development work alone. This will make a total dividend of 32 per cent. per year.

A handy map of the Cobalt silver area, compiled from Government maps, has been issued by Alexander Warden, stock broker, of 18 Toronto street, Toronto. It really fills a proverbial long felt want. Being carried in the pocket, it will doubtless be the means of settling many a controversy as to the location of particular mines.

Cobalt, Nov. 23.—At a meeting of the directors of the Cleveland Cobalt and Clear Lake held recently, arrangements were made for the consolidation of the two companies, together with Cobalt Light, Heat and Power Company, of which the bulk of the stock belongs to the Cleveland Cobalt Company. The large holdings of the Clear Lake Company in Lower Lorraine are also included in the merger.

At the annual meeting of the shareholders of the Cobalt Townsite Mining Company, Limited, held at North Bay, a new board of directors was elected consisting of Eric H. Rose London, England; Thos. Plunkett, New York; Rupert

Simpson, Simcoe, and W. R. P. Parker, Toronto. The new officers of the company who were elected were: President, W. R. P. Parker; vice-president, Rupert Simpson; treasurer, E. H. Rose.

COBALT ORE SHIPMENTS.

Following are the Cobalt ore shipments in lbs. for the week ended November 21st:—Nipissing, 299,680; La Rose, 217,990; McKinley-Darragh, 180,700; Crown Reserve, 116,000; O'Brien, 127,600; Temiskaming, 60,000; Silver Cliff, 60,000; Nancy Helen, 41,500; Trethewey, 64,000; Right of Way, 62,150; Cobalt Central, 40,860; total, 1,270,480 pounds, or 635 tons. The total shipments since January 1st are now 43,508,690 pounds, or 21,754 tons.

The total shipments for the year 1907 were 29,981,010 pounds, or 14,040 tons. In 1904 the camp produced 158 tons, valued at \$316,217; in 1905, 2,144 tons, valued at \$1,473,196, in 1906, 5,129 tons, valued at \$3,900,000.

BOILER SCALE AND ITS PREVENTION.

It is seldom that information regarding the cause and formation of boiler scale, its effects and the best means of its prevention are more clearly presented than in the following extract from a report rendered some time since by Arthur D. Little, Chemist, of Boston.

"All water, especially surface waters, contain more or less mineral matter in solution which remains in the boiler as an encrustation when the water is boiled away or converted into steam. The mineral ingredients most commonly found in water and which cause the formation of boiler scale are the salts of calcium and magnesium. When the water is converted into steam those substances gradually separate from the solution in the form of deposits and coat the inner surface of the boiler with scale.

"Scale formation is detrimental in several ways. It is a non-conductor of heat and the fires must therefore be driven harder to accomplish the same results. The water becomes separated from the boiler plates and these latter become overheated and are gradually burned out. The tubes, and feed-pipes of the boiler become more or less clogged and consequently become less efficient. Some of the scale-forming ingredients, especially magnesium chloride, also exert a corrosive action upon the iron.

"The aim of a boiler compound is to convert these substances into insoluble compounds which settle in the form of sludge or mud and can be removed from the boiler by blowing or washing.

"We could prepare a list of nearly two hundred materials which are known to have been used for boiler cleaning purposes, but there are only four of these which are worthy of mention. They are:—

Soda Ash, or Sodium Carbonate.
Caustic Soda.
Tannin.
Kerosene.

"Soda ash is an alkali and will neutralize any acid in the water, and also precipitate salts of lime, magnesia, iron, and alumina, in the form of soft sludge which can be easily removed when the boiler is cleaned.

"Caustic soda is also an alkali and neutralizes acids and aids in the precipitation of the various salts.

"Kerosene is used in connection with the above to prevent foaming or priming.

"Tannin is also used to prevent foaming or priming, and will precipitate certain mineral matters, although it is not so efficient in this respect as soda ash or caustic soda."

The City of Lethbridge has sold a block of electric light 6 per cent. debentures at a high figure. Not long ago this city brought in chartered accountants to examine its finances and to put in a proper business system. The city is now reaping the advantage of this in obtaining good prices for its debentures. The present balance of debentures of the City of Lethbridge is \$196,500, and this will be placed on the market in December.