

and managers have always understood this. That is another reason why they have been anxious to reduce their power costs and increase the tonnage of profitable ore in their mines. In some instances, it is an open secret that alleged power costs as they appeared in reports to directorates were a hundred and 200 per cent. off. The factor of errors of estimation in the matter of power, therefore, is one of the things Cobalt managers admit—but not for publication. By cutting those costs in two, however, a very important saving of about \$750,000 per annum will be in force and effect. Furthermore, cheaper power suggests larger capacities, which will undoubtedly permit of lower grade rock going to the mills. The feeling is that future economies in greater degree will rest with the concentration of 25-50-oz. rock—high-grade shipments to be regulated so as to maintain dividends rather than speculation. A low extraction has been obtained—with one or two exceptions. That shortcoming is being remedied. Cyanide is another auxiliary measure. Nearly all of the mills are discarding their slimes as unpayable for secondary treatment. The Buffalo inaugurated cyanidation, and with success, it is said. At the O'Brien Concentrator all of the mill product is to be cyanided and the report is that the extraction is higher—enough so to warrant the heavy expenditure upon the mill and secondary equipment.

Greatest of Silver Areas

Cobalt has been taking itself seriously. It had to. Those spectacular ores at outcrop which gave Nipissing 12,500,000 ounces, La Rose 7,550,000, Crown Reserve 6,000,000 ounces, Kerr Lake 5,200,000, Coniagas 5,000,000, Buffalo 4,000,000, O'Brien 5,000,000 (estimated), could not prolong "the spree" attending the advent of the Cobalt era. Not many casualties—aside from the share market—have been notified by Cobalt. What the more sedate mining engineers disdained as a mere surface enrichment, concededly is the greatest of silver areas—and will be so for a few years. Cobalt, however, has realized, it is unprofitable to display all its jewelry and leave shareholders to whistle for their capital and interest, consequently there is more going toward dividends over the years. The seven companies specified have accounted for 45,200,000 of the 61,500,000 ounces to date. Putting the McKinley-Darragh, Temiskaming and Hudson's Bay, Temiskaming, Right-of-Way, and Trethewey, along with those, the relationship of the few to the many becomes manifest. Ontario's silver section is ultimately to be judged by the law of averages—that does not imply that the proceeds from 76,444 tons in six years are not truly phenomenal.

Reduction of Royalties

Concessions made by the Provincial Government in the matter of the royalties exacted from various companies carry with them the admission that the terms were oppressive, doubly so owing to the superimposed capitalizations. The public having the customary proportion of script, the ministry compromised with the complaining directorates by making the royalties 25 per cent. of the net returns from ore shipped, instead of 25 per cent. of the value at the collars of the shafts, which threw the burdens of mining charges upon the companies. Townsite and Nancy Helen had a double-barreled arrangement by which they were to pay 25 per cent. on certain grades of ore and 50 per cent. on other grades. That was prohibitive. City of Cobalt, Townsite, Nancy Helen and the Standard owned by Cobalt Central will hereafter pay 25 per cent. of the net to the Temiskaming and Northern Ontario Railway. Chambers-Ferland, Hargrave and one or two others will pay the same to the Provincial Treasurer. The Temiskaming and Hudson's Bay, and the O'Brien are unaffected by the change, although it is said the latter will be exempt from the costs of concentrating. That is nothing more than equity because what is concentrating ore is not economically available for shipment until it has been through the mill. The Temiskaming and Hudson's Bay obtained their patents in 1909 upon the condition that it pay 15 per cent. of the net proceeds from the smelter. In this respect it was fortunate. Crown Reserve is unaffected as its royalty is 10%. Right-of-Way did not seek a concession. It could not very well, having redeemed its capital and being about to extend its operations.

As to Lower Stock Prices

Speculatively, Cobalt shares have undergone reverses of late. Myriad promotions, the acquisition of miles of Montreal River claims, the competition arising out of the sale of blocks in Gillies Limits, and the prospects in South Coleman and South Lorrain; together with the recognition of the fact that market values were too high, and that ore reserves are prerequisite to continuous performances on "Change," restricted speculation in the latter half of the year. With rare exceptions prices are lower than they were a year ago. An unsettling influence, and one that was greatly misinterpreted by the haphazard speculator, was the passing of the Coniagas dividend. The action was a guarantee of good faith on the part of the directorate which wished to devote its surplus

funds to the perfection of the company's metallurgical works at Thorold, thereby securing its hold upon all the economies possible in Cobalt ores. La Rose was another disappointment. No sooner had a few thousand shares been taken by London—which would have taken more without question—than there was a market upset. One of the Lawson veins went wrong and a new alignment of principals took place. The Canadian directors promptly reduced the dividend and stopped the bonus pending the demonstration of the Lawson claim of the La Rose group. A large surplus has been set aside for the exploitation of all the other claims with the La Rose organization. At the moment the Lawson is showing rapid improvement. If it did not there would be a wave of pessimism throughout the district.

Of the Lawson Vein

The La Rose directors have received an intimation that the Lawson will be heard from in the course of the next few months, hence the hope of a general recovery of speculative interest. Beyond these incidents, the rejuvenation of the McKinley-Darragh, the achievements at the Crown Reserve where the equivalent of 24½ carloads of high-grade contained 3,433,914 ounces of silver, and the suspension of dividends by the Temiskaming, the industry has worn its prosperous clothes. Even the Foster has returned to the shipping list in behalf of the Argentum Company to which the claim is leased.

Nipissing retains premier place with a 1909 silver product totalling 4,591,773 ounces; Crown Reserve comes second with 4,000,000; La Rose shipped ore containing 3,250,000, and has first position in point of tonnage. Crown Reserve, Buffalo, Nipissing and Kerr Lake head the dividend list in the order as given. North Cobalt is the only new shipper. Encouraging features are the resumption of shipments by Silver Cliff, and King Edward, fresh discoveries on the Chambers-Ferland and the finding of high-grade ores in the Keewatin at the O'Brien, Beaver, and La Rose, No. 3 section. Silver Queen and the Drummond must be debited.

Space conditions do not permit of extended mention of South Lorrain progress. The Wettlaufer gives indication of becoming a very profitable mine and has been making shipments. The Keeley is more problematical. Recent disclosures at the Newman claim have been most encouraging.

Some Cobalt Results in the Concrete

Diamond mines shake hands with themselves when they can recover 25-30 carats to the hundred loads of 16 cubic feet, worth say \$8 per carat in the rough. A good many diamond mines do not get near to that on the average, because the contents of craters are as erratic betimes as ore bodies in metal mines can be. Cobalt was a "spoiled darling," distinct from bauble-winning in that it would not wax grandiloquent for \$200 and \$240 ore. To the contrary, the practice was, until recently, to inflate shipments rather than to grade them down to 500 ounces or so. As already stated, the better practice now is to treat the ores more rationally. The following synopsis of 1909 statements will serve to confirm what has been represented in this review:—

NIPISSING

This company shipped 72 per cent. as much ore during the year as it has since 1904 inclusive. The gross silver contents of that tonnage were 4,591,773.73 ounces of silver, estimating December production on the November basis. The gross value of the silver was \$2,327,316.97, and \$17,000 was received from the sale of cobalt. That constitutes a record. It represents 83 per cent. as much silver as all the mines of Cobalt, accounted for in the year 1906. The grand total of Nipissing results may thus be summarized:—

Years.	Gross ozs.	Gross value,	Cobalt,	Nickel,	Arsenic,
		\$	paid for	paid for	paid for
			\$	\$	\$
1904	.....	.....	23,148.03	635.05	380.82
1905	753,153.90	453,267.97	51,999.38	370.00	.....
1906	2,214,821.60	1,476,757.99	95,818.47	4,276.48	.....
1907	2,239,551.89	1,334,128.03	24,349.17	708.33	588.79
1908	2,893,031.44	1,504,833.47	21,568.40	.....	284.45
1909	4,591,773.73	2,327,316.97	17,000.00	.....	.....
Totals	12,692,332.56	7,096,304.43	233,883.45	5,990.79	1,254.06

As the aggregate of all the mines of Cobalt is 60,771,183 ounces of silver, it is evident the Nipissing Company has contributed 20 per cent. of it. Each ton of Nipissing ore, taking the total tonnage, has had a silver content of about 877 ounces on the average. The dividend paid or declared, including the one payable in January, is equivalent to \$265 per ton. Coincidentally it may be stated that the company has made up 24 per cent. of the total dividends credited to Cobalt, the 1909 distribution being \$1,350,000. Nor would it be far astray to put the cash position as of date at \$1,750,000. From this the January dividend of \$450,000 must be deducted. The mining prospects never were so bright.