

The overflow from this tank returns to the jigs. The slimes go through the system again, and uniting with the mine slimes are eventually caught in the settling tank. The accompanying flow sheet was prepared by Mr. F. D. Reid, mill superintendent, November 4th, 1911.

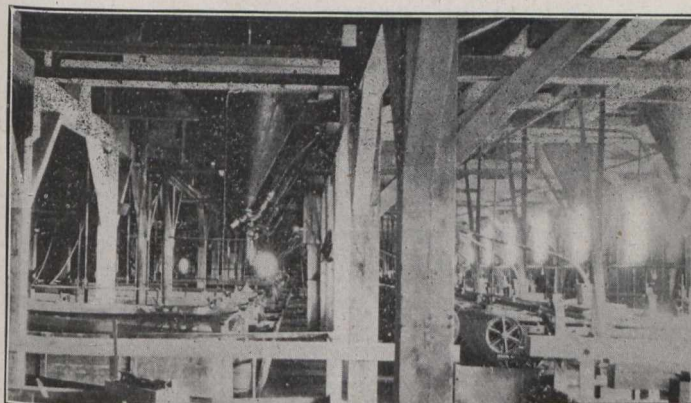
The treatment of the ore before stamping results in the recovery of about one-half of the silver contained in it. From heads averaging 36 ounces per ton, 18 ounces is recovered by the picking, jigging, and table concentration. Of this 18 ounces, about 49 per cent. is recovered by the jigs, 11 per cent. on the Wilfley table and 40 per cent. on the picking belt.

The sixty Fraser-Chalmers 1250-lb. stamps each crush 2.8 to 3 tons per 24 hours to pass 16 mesh. From the screen the pulp runs to 3-foot cone classifiers, of which

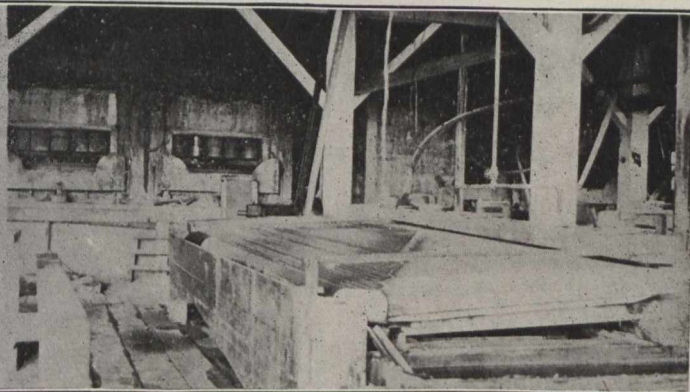
back to four Callow tanks, re-treated on four slimers and then on canvas tables. Tailings from the canvas tables are pumped to storage pond; but a sample of this product is being retreated in the mill on one of the Reid-Deister slime tables.

The ore fed to the stamps averages about 17 ounces silver per ton. About 30 to 35 per cent. of this is slimed in crushing and the slimes are usually richer than the sands, the relative content being about 5 to 4. The slime tails average 6 to 8 ounces and are being saved for possible future treatment. The sand tails average 3.5 to 4.5 ounces and are being stacked beside the mill at a cost of about \$250 per year, during which time the product is about 35,000 tons of sand tails.

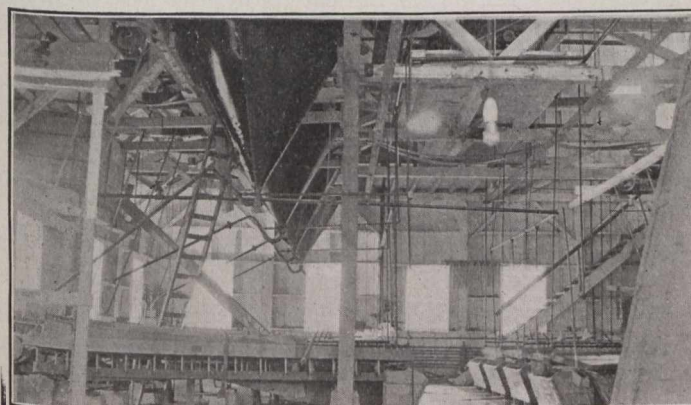
The shipping of mine slimes without treatment in the mill brings down the concentration ratio very considerably; but experience has shown that it is not advisable



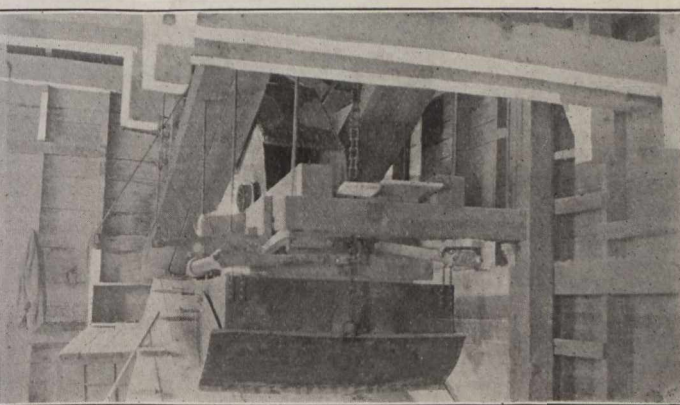
Wilfley tables, Callow tanks, and Frue vanners,
Northern Customs mill



Stamps and Wilfley tables,
Northern Customs mill



Tanks and tables, Beaver mill



Skip and weighing bucket, Northern Customs mill

there is one for every ten stamps. Sands from the classifier are concentrated on No. 2 Deister tables. The overflow runs to 8-foot Callow tanks, the underflow from which is treated on Reid's improved Deister slime tables. The overflow from the tank, along with slimes from all slime tables, runs over canvas tables. Tailings from the sand tables are dewatered in a classifier and the sands elevated and stacked on the property. A sample is taken of the sands as they are elevated, and this is treated in the mill on a Deister table. There is thus a constant running test being made on both sand and slime tails.

Overflow from the Drag classifier unites with middlings from the tables and is pumped back to a series of two classifiers. The coarse sands from this are treated on a No. 2 Deister, and the fine sands on a second Deister, while the overflow slimes are pumped

to mix these slimes with the lower grade slimes from the stamps. At present from 30 to 40 tons of the mine slimes per month is being shipped.

An especially interesting feature of the Coniagas mill is the great increase in efficiency of the Deister tables resulting in modifications introduced by Mr. Fraser Reid. The table deck has been changed from the standard type to one that not only does the work better, but is also much simpler in construction. Run in competition with other tables the superiority of Mr. Reid's modified deck has been conclusively proved. The concentrate produced by the new style table is said to average about 1,000 ounces, while that from the old style was 300 to 500 ounces.

The mining company's report for the year 1910-1911 shows that during that period the mill crushed 52,320 tons of ore, an average of 169 tons per day and shipped