

THE HENDRYX PROCESS AT NELSON.

The Nelson News states that the Hendryx cyanide plant has been successfully tested at the property of the Reliance Gold Mining Company, the values saved being 95 per cent.

The ore is received in a bin at the lower terminal of the aerial tram, 1,700 feet in length. The coarse ore passes over a slanting grizzly, then to a Blake crusher, and then, with the ore that was already fine, passes between rolls, 36 x 14. From the rolls, the crushed ore falls to the feed bin, from which, still by gravity, it is passed into the Chilian mill. There it is reduced to pulp and mixed with a cyanide solution, which passes over amalgamation plates on which nearly 60 per cent. of the gold is saved.

The liquid solution then passes through a series of ten storage settlers, and thence conveyed by launders to the Hendryx agitator. After from six to eight hours in the agitator the remaining gold values are on the plates that are contained in it. In the agitator the solution is continually exposed to the air by the revolution of the propeller, which hastens the separating process.

The solution and the tailings pass from the agitator to a decanter, from the bottom of which the tailings are drawn away to the creek. The then clear solution of cyanide passes to a sump tank, from which by centrifugal pumps, it is returned to the storage settlers, and from there to the original storage tank, so that the same solution is available for use again.

The amount of cyanide required for the process is never more than a pound to a ton of ore, and averages two-fifths of a pound. As the same solution may be used repeatedly, with small additions, and as the cost of cyanide is 23 cents a pound, it may readily be seen that the process is a decided success, economically as well as mechanically.

Mr. S. Lay, the company's superintendent and metallurgist, has increased the sensitiveness of the plates in the agitator by using galvanized plates for the purpose. Dr. Hendryx is making a further improvement by enclosing the plates in a vacuum, covered with a filtering envelope. The vacuum will then draw only the clear solution to the plates and precipitate the gold.

COPPER MARKET SITUATION.

Messrs Henry R. Merton & Co., of London, report:—

The upward movement has again made considerable progress and the price of refined copper stands to-day higher than it did during the rise in 1901. The reason for this is to be found in the unexampled state of the consumption of the metal. When copper was at its high level four years ago, the market was manipulated to a great extent by American operators, who controlled a fairly large stock of unsold material.

At present the market is free from manipulation, and there are no surplus stocks of metal—indeed there is a scarcity of good brands and but a small supply of the cheaper qualities. Production is very large and growing, but consumption is outstripping it, and has absorbed all the accumulations of recent years. There is every prospect of further expansion, especially in the electrical industries, where the electrification of railways and the transmission of power have become potent factors which must be reckoned with in the future.

The enquiry throughout the week has again been very large, and important contracts have been entered into by consumers for forward delivery, whilst fancy prices were paid for metal available between now and October. The Amalgamated Co. have repeatedly raised their price, which is now 15½ cents for November and December delivery: they have but little copper left for these two months and none for earlier delivery. The Calumet & Hecla Co. having sold very largely to home consumers are now in a similar position, whilst the other American producers command scarcely anything more for this year. In Europe the situation is similar.

Messrs. Morrison, Kekewich & Co., of London, write under recent date: Bi-monthly statistics show an increase of 112 tons in stocks and 612 tons in total visible supplies. The position of the market at the moment is one of exceptional strength. Consumption continues at an enormous rate and has completely overtaken production. Consumers have been obliged to buy freely against future requirements, with the result that in most cases producers are sold out until the end of the year. Prevailing conditions point to the employment of immense quantities of copper for years to come, and the scarceness from which we are now suffering can easily develop into a famine.

Messrs. James Lewis & Sons report: Consumers both in the United States and in Europe have at last begun to realize the exceptionally strong position of copper, and the great curtailment of supplies to Europe is now acutely felt. This has resulted in very large transactions for delivery not only over this year, but up to May of 1906.

THE INTRODUCTION OF STEAM SHOVELS IN THE ATLIN DISTRICT.

One of the companies operating in the Atlin district, in British Columbia, The Northern Mines, Limited, recently completed the installation of a steam shovel plant, for placer mining purposes. The plant includes a "Little Giant Special" shovel, with a capacity of 1,000 yards in 10 hours, manufactured by the Vulcan Iron Works, Toledo, Ohio; an auxiliary hoisting plant; 2,000 feet of flume, and 200 feet of sluices. The Atlin "Claim" states that operations have already been successfully initiated.

The shovel has been placed on a stratum of clay cement in a pit excavated for the purpose. The dirt is deposited by the shovel into skips holding 1 1-4 yards, which are hoisted by the auxiliary plant on a cableway conveyor some 40 feet to the dump box. At the end of the dump box there is a grizzly which cuts out all rock over three inches, from there the gravel travels over 60 feet of block riffles, at the end of this sluice there is another grizzly which cuts out all material over 3-8 of an inch, and the remaining gravel then passes over another 40 feet of sluice to the dump. From the height of the sluices, some 40 feet, there has been provided an ample dump, and the possibility of a block by tailings has been greatly minimized.

During subsequent tests for a 3-hour run some 95 buckets were handled and it is estimated that 800 yards per day can be handled with ease.

OUR LONDON LETTER.

(From a Special Correspondent.)

The London mining market is still in an apathetic condition. Prices, especially in the South African section—which section governs practically every other department—have been falling month by month with monotonous regularity, and although there have been occasional recoveries, prices are very much below the levels current during the last two months of last year. The regrettable part of the whole business is that no matter how low prices fall, the public does not seem to show the slightest inclination to pick up, what are undoubtedly in many cases, on intrinsic merits, really bargains. The political atmosphere throughout the year has been so highly charged that the public are apparently unwilling to venture into such a disturbed area. Canadian mining shares known and dealt in on the London market, are, as your readers are aware, chiefly confined to the remnant of those British Columbian concerns, which were floated in such reckless haste in 1896-8. It is a very attenuated list indeed, and its record since the eclipse of the ill-fated Whitaker-Wright has been a dismal one. Now and again one of the *Le Rois* moves 1-16 or so, but it can safely be said at the present moment that Canadian mining descriptions generally are very much under a cloud—and the latest developments in question with the Tyee Copper Company are likely to