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MINING.

MOLEGA—Mr. Charles K. McLeod is at work developing the Fiske Block by tribute, and has succeeded in taking out very rich ore. We are informed that the specimens are exceedingly fine, the gold coarse, and plenty of it. A few years ago such a discovery would be apt to cause half the people to go and see it. The property is owned by John McGuire, Geo. E. Forsythe, and others.

The Parker & Douglas Mine is showing up good gold this month.

The Malaga Mine, as usual, is taking out rich rock every day.

The Boston Mining Company are also having their usual good luck.

WHITEBURN—Manager Partington has returned, and intends prosecuting operations vigorously. We learn that men are again to be put at work on the Dunbrack and probably some other Leads.

The Queens Co. Mine is still showing nice gold in the quartz. Work on this property is carried on with the most approved machinery, and every endeavor made to save all the gold.—*Gold Hunter.*

A NEW PROCESS FOR GOLD EXTRACTION.—A new process for extracting gold from pyrites has been brought out in South Australia, and patented in other parts of the world. It consists in calcining the crushed pyrites in a furnace at a low degree of heat, operations being expedited by introducing a jet of gas containing an excess of oxygen, into a hollow cylinder, in which the ore is being roasted. The cylinder is made to revolve in the centre of the furnace, at a slight inclination from the horizontal, so that as it turns slowly round, the pulverised ore finds its way gradually from the upper to the lower end. Within the cylinder are a number of small flanges for the purpose of raising and carrying round the ore, which, by this means, drops clear from the top to the bottom of the cylinder, and is thus exposed to the full force of the jet of gas before mentioned. The ore is fed into the cylinder through a hopper, and the lower end is left open. On the crown of the furnace is an iron retort, which is charged with crude nitrate of soda wetted with acid. Nitrate and hydrochloric acid are obtained, and sulphuric acid from the sulphur contained in the pyrites. These products are derived from the gases which are stored in a chamber constructed for the purpose. The retort has a curved pipe descending into the open end of the cylinder, so that the jet of gas plays full into it. In the working model made by Messrs. May Brothers, engineers, of Gawler, the cylinder was 5 feet in length, and the time occupied by the ore in passing through it under 12 minutes; by which time the calcination was complete, and the pyrites decomposed. The ore could then be at once amalgamated with mercury, but the present plan is to transfer it at once in a bath of *aqua regia* composed of the acids before mentioned. By allowing it to remain in this bath for from 15 to 30 minutes, the gold is dissolved, and the liquor is next filtered through charcoal which retains the gold, and the charcoal being placed in a furnace the metal is smelted and recovered.

It is claimed that the process will save 95 per cent. of the gold contained in the pyrites, and that the cost of the operation will not exceed 4s. per ton of pulverised ore, which cost includes interest on the plant required. The cost of a plant capable of treating 100 tons per week, is estimated roughly at between £300 and £400. Hitherto, by most of the ordinary processes, it has been difficult to save more than 50 or 60 per cent. of the gold in pyrites, so that if the patent saves even 90 per cent. it is a vast improvement upon the methods commonly in use. Not only is its advantage seen in saving 15 dwts. where only 10 was got before, but in the lower cost of the process, so that 1 dwt. of gold would about cover the cost of saving 15 dwts., whereas 2 would be required to recover the 10 dwts. The inventor claims, as part of his patent, the right to use any peroxide in treating ores, and to apply the process to other metals besides gold. He is about to experiment on the zinc ores, which abound in the silver mines at and around Broken Hill, and is sanguine of being able to separate the zinc, which, though valuable, is mostly lost at present. He considers that the same principle is applicable also to the treatment of copper pyrites.

The working model above referred to is capable of treating about 30 cwt. of ore per diem, and the experiments have been thoroughly successful. In fact, the inventor and his friends satisfied themselves by repeated experiments of the effective nature of the invention before they went to the expense of patenting it in nearly all the important gold producing countries of the world. It is intended now to erect works in Adelaide on a large scale, so that pyrites can be treated in quantity. Amongst other advantages possessed by this process are (a) the saving in grinding the stone, as screens of 100 holes to the square inch are quite fine enough, the desulphurising process effecting all that is required on that grade; (b) in treating sulphide ores an excess of liquor is produced, and is available for the treatment of other stone containing very fine or "flour" gold, which can by this means be readily saved; (c) the entire removal of the sulphur is not necessary so long as the pyrites is decomposed; and (d) it is impossible to slag the ore as it must come out perfectly oxidised.

The *Weekly Bulletin*, London, thus hopelessly discusses the mining situation: "Suspended animation" represents what is going on just now on the Stock Exchange in securities coming under this heading. Nobody is doing anything except in Otto's Kopje, and if anyone wants to buy, he has to pay through the nose; whilst if he wants to sell a similar operation has to be undergone.

How could anybody expect it to be otherwise? Until the bigger things like Argentine, Uruguay, etc., are wiped off the slate, we must go on as now. Nobody has a shilling to bless himself with, as everyone holds on to what he has got with the pertinacity of a bull-dog. When the words "SUSPENDED PAYMENT" are stuck up at Buenos Ayres, and on the portals