The gold mines at Liscomb Lake, three miles from here, are looking up. Mr. Bell has found some leads lately that show well.

Molega.—The Boston Gold Mine, Molega, was sold at auction Tuesday under execution .- Gold Hunter.

LARGE COAL SHIPMENTS.—Saturday saw quite an enormous quantity of coal snipped from our mines, upwards of 10 000 tons being carried within the twenty-four hours. The Sydney pier shipped 2,500 tons inside 12 hours and the International managed to get away 2,600 tons within the day's work, a'though the hours worked were above 12. Glace Bay also did some fine hustling, and about 3,000 tons were shipped at that port.

The accident at Sydney Mines pit has been repaired, and work continues as usual. Much sympathy is expressed for the family of the deceased man, Bout lier, who was so suddenly killed at the time of the accident. A young wife und a baby are thus bereft of a father, kind and affectionate.—Sydney Reporter.

TO GET AT THE FACTS

Regarding Hood's Sarsaparilla, ask the people who take this medicine, or read the testimonials often published in this paper. They will certainly convince you that Hood's Sarsaparilla possesses unequalled merit, and that HOODS CURES.

LABORATORY EXPERIMENTS ON GOLD ORES, BY F. H. MASON, F. C. S. M. S. A., LATE CHEMIST AND ASSAYER TO THE NEWBERY VAUTIN (PATENTS) GOLD EXTRACTION CO., LIMITED.

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(Concluded.)

CHLORINATION.

Chlorination is the most important hydro-metalurgical process for the extraction of gold; chlorine in the presence of moisture has the power of conversing gold into soluble gold chloride, while it does not attack oxides of copper, iron and aluminium. Many patents have been taken out in connection with the chlorination of gold ores, and many and various are the processes connected with it, but they may be divided into two great classes, nearly all the others being medifications.

The first class is that in which the ore is kept stationary in vats and saturated with chlorine gas. When thoroughly saturated it is allowed to remain in contact with the gas for several hours, and then leached with water to wash away the gold chloride formed.

The second class is that in which the ore is sgitated in revolving b reelor by other means in an atmosphere of chlorine for several hours, then

turned out onto a filter bed and leached with water.

A little consideration will show that the second process has many advantages over the first, although it is at once obvious that it is the more expensive method, because of the power required to keep the ore in a state of agitation, but where natural power is at hand, and in many cases where it is necessary to use steam power, it will be found that the advantages more than compensate for the extra expense. In gold ores containing much silver the advantage is particularly marked, because the chlorine converts the silver into unsoluble silver chloride, which forms a protective coating around the particles of alloy and thus prevent their being further attacked by the gas, the same applies where there is not much silver, but where the particles of gold are large. In this case a protective coat of gold choloride being formed these coatings of silver or gold chloride are rubbed off the particles by their continual abrasion against the gangue of the ore.

The success of the chlorination method depends mainly on the previous proparation of the ore to be treated. It is necessary that all the other minerals should be in the very highest state of oxidation, because chloring gas is a powerful oxidizing agent, and much of it would be wasted if the lower oxides were present in converting them into higher oxides. It need hardly be remarked that if iron exists in the form of ferrous sulphate through improper reasting it would be simply fatal to the success of the experiment, because even if the gold was converted into chloride it would be reprecipitated in the gangue when the leaching was started, and cause complete failure. In nine cases of ten, or perhaps it would be nearer the mark to say ninety-nine cases out of a hundred, it is necessary to roast the ore before attempting chlorination. Gold chlorination particularly lends itself to laboratory experiments, and although a large number of experiments will be explained in this paper, the operator will soon see he has a wide field before him, and many more experiments will suggest them-

In some few cases where the gold ore is free from pyrites, or alkalis or alkaline earths, chlorination may be proceeded with without recating the ore first, but such ores are generally more satisfactorily dealt with by amalgamation, but these are not the only things which interfers with chlorination and make it necessity to first rosst the ore; some ores contain metallic hydrates which are attaked by the corrosive action of chlorine gas, while their corresponding oxides are unaffected by it.

Chlorination by Plattner's Method. - F .r these experiments an ordinary gas drying apparatus will answer every purpose. The sketch shows the

application of such apparatus.

A is a g as flask provided with a tightly-fitting cork, through which two lubes pass, one leading to the bottom of the flask and being provided with a funnel at the top, the other leading from just through the cark in the flack A to the bo tom of the Wolffs bot le B through a cork in one of the necks of the same. In the other neck of the Wolffs bottle is a cork through which passes a tube connecting it with the bottom of the cylinder C. The

top of the cylinder is provided with a cork, through which passes a tube leading to the bottom of the breaker D.

All the corks must fit accurately and should be coated with paraffine. Chlorine is generated in the flack A by the action of hydrochloric acid on manganese dioxide in accordance with the following equation:-4 HCH. + MNO. = Cl., + Mn. Cl., + 2H., O. The chloride then passes into the bottle B containing weter (if chlorine water is at at hand it is better to use it because the water will dissolve a considerable quantity of chlorine) where it is washed free from hydrochloric acid, it then passes into the cylinder C which contains a fiter bed of sand and the moistened ore, and having travelled through the ore it passes into the beaker D., which is filled with blotting paper moistened with alcohol where the excess of chlorine combines with the alcohol and so preventing the irritating fames of chlorine coming Continued on page 16.

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ARIFF Reform is in the air. The praises of B. B. B. are also heard everywhere. No so other medicine cures all discuses of the stomach, liver, bowels and blood so rapidly and so surely as Burdock Blood Bitters.

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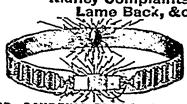
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HALIFAX STOCK EXCHANGE.

These quotations are furnished by J. C. Mackintosh, Banker and Broker, 166 Hollis St., Halifax, N. S. June 22.

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Bank of Nova Scotia	100	372	275
Bank o. B. N. America	243 33	252	255
Merchants Bank	100	140	347
Union Bank,	50	121	123
People's Bank	30	215	2171/5
Halifax Bank	20	215	2175
Bank of Yarmouth	75	221%	•••
Exchange Bank of Yarmouth.	70	103%	• •
Com. Bank of Windsor	40	103	_
Ac idia Fire Insurance Co	20	140	148
Halifax Fire Insurance Co	20	237	241
Eastern Assurance (25 pd.)	100	50	75
N. S. Marine Ins Co. (37) pd) E. C. Sav's & L'n Co., Honds.		• • •	75
Stock	100	33	100
/co' od up \	100	99	100
(50' pd. up) N. S. Telephone Co	••	104	•••
Halifax Gas Light Co	10	•	207
D.m. Coal Co., Boads	500	95	97 100
" " Frel'ed Stock	300	•••	100
" " Com. Strek .	100	17	20
N. G. C. I. & R. Co., prefed	100	65	ço
1 1 4 Common.	100	•••	75
N. S. St'l & Fre Co , pref'ed.	100	•••	100
l " " common.	100		95
Halifax & Nad. S.S. Co	1.00	50	75
Canada & NBd. S S. Co	100		100
Yarmouth S. S. Co	100	•••	73
Coastal Steam Packet Co	100	•	90
Hx. & Luncal's Steams'p Co.	100	•••	90
N. S. Sugar Refinery	500	•••	
Dom Course Co. Posts	333		
Dom. Cotton Co., Bonds	500	103	103}
Dom Comon Co. Stock	1000		
Dom. Cetton Co., Stock Bras d'Or Lime Co., Rends	100	312	122
Store Manufacturing Co.		•••	100
Starr Manufacturing Co	360	20	30
St. of Canso Marine Ry Co	50 50	•••	100
	200	30	50 100
McDivgall Distillery Co	200	•••	100
" bonds	500	•••	100
Dartmouth Electric Light Co.	,		
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