

it will be adapted most economically to ore to be treated. To go to a machinery man and order a plant on general principles is not the wisest course. It may turn out right in many instances, as in ores that are free-milling, but it is best to employ a competent metallurgist to select and erect the plant: he will, in the cost of construction, save far more than his salary. There should be as little as possible of haphazard work in the fitting out of a mine.

MINING REGISTRATIONS.

This week a bill, introduced by Mr. Hardy, has passed its third reading in the Legislature, regarding the registration of instruments in respect of unpatented lands. Instruments affecting unpatented land in Muskoka, Parry Sound, Nipissing, Thunder Bay and Rainy River are not hereafter to be registered in a registry office, but a caution shall be lodged with the Local Master under the Land Titles Act. After the passing of the Act, the registration of any instrument affecting unpatented lands in any of the said districts shall cease to have any effect after two years from the passing of this Act. The Act also provides for the valuation of mining lands, where compensation is claimed out of the Assurance Fund. Additional payments into the fund by transferee are to make up one-fourth of one per cent.; entry to be made at additional payment, and in such entry to show the total amount which has been paid in respect of such land. Patents devising mining lands for a term of years to be registered in the Land Title Office.

NOTES AND COMMENTS.

MINE managers are sometimes men who know a little—or very little—and who employ men at the lowest wages they can induce men to work for—an easy matter when men have no choice. Such bosses do not know a good workman or what makes a good day's work. It is such bosses that induce the belief that the Miners' Unions appear to hold, *i. e.*, that a rate for miners should be fixed, which if it allowed the poorest workman to get more than he earned would, at any rate, prevent the best workman from being paid the minimum which an incompetent miner would accept. The union and the know-nothing bosses are both wrong. A sliding scale could be made by which poor workmen could get a fixed minimum and good workmen much higher wages. Good mine managers generally find out the relative value of their men, and the fact with graduated wages would be a stimulus to many who, smarting under a sense of injustice, prefer to not do more or better work than the poorest workman does where a uniform rate prevails.

THE capacity of each furnace used in iron production has increased four fold in twenty-five years without any increase in the cost of operating the furnace, says a contemporary, the *Mining Industry and Review*, of Denver. What is true of iron production is to some extent true about smelting other minerals. The old methods and the old furnaces in use twenty years ago would be ruinous now in competition with the improved appliances now used on this continent. It took years to learn that a clay bottom to a furnace is better and cheaper than brick. Gas produced from a ton of coal will do twice the work in roasting that a ton of coal

itself can do. Large diameter rolls with narrow faces run at high speed are better for pulverizing than the old fashioned rolls with broad faces. Edison uses in his New Jersey iron ore concentrating mills, rolls sixty feet in diameter with a capacity of five thousand tons daily. These recent improvements which have taken long to learn are the outcome of long practical experience of men actually engaged in mill and metallurgical work, and they have been accomplished little by little.

TORONTO BROKERS ORGANIZE.

ON Thursday afternoon an informal meeting of a number of Toronto mining brokers was held in the offices of Messrs. E. L. Sawyer & Co. to talk matters over with the idea of more concerted action with regard to mining stocks. Some twenty or thirty mining men were present, including some of the most prominent brokers, who after a good deal of discussion decided to appoint a committee to formulate a scheme to carry out the objects of the meeting. The gentlemen named for that purpose were Messrs. Sawyer, Sharpe, Bleasdel, Wallace and Thompson.

While there was suggestion of establishing an Exchange it was pointed out that the mining industry was not sufficiently firmly established to warrant such action at present and would probably prejudice sale of mining stock on the Toronto Stock Exchange. A good deal of dissatisfaction was expressed at the action of some of the brokers who advertised and sold stock at a less price than it could be bought for from the various companies, also of advertising stock they did not possess to draw investors and then try to sell them something else, as well as other practices which they considered should be strongly condemned. The brokers regret that certain papers "bear" stock to the great disadvantage of mining brokers and mining properties in general.

A meeting was held in the office of THE CANADIAN MINER, some months ago, for a similar purpose, without bringing about any of the reforms called for, and results will show whether any practical suggestions can be made that will produce a better state of affairs and a closer union of brokers than, it is claimed, exists at the present time.

THE MADOC GOLD BELT.

ACROSS the counties of Hastings, Addington and Frontenac and eastward and westward over a considerable distance on each side extends a remarkable mineral belt several miles in width. The country is a beautiful one and is generally well settled, abounding in towns and villages and with numerous farms that indicate the richness of the soil. Here and there the rock crops out with indications of gold, silver, lead and iron. Many and wonderful have been the "finds" made in this country—sufficiently rich, in fact, to be designated as one of the richest gold belts known. Free gold, gold with sulphurets, mispickel are all included in the veins thus far discovered or operated. The refractory nature of some of the ores for a long time hindered development, but the advances now made and the fine results shown by the modified bromo-cyanogen process being perfected at the Deloro mines in this region, owned by a very wealthy English company, which has already spent hundreds of thousands of dollars in plant and reduction works, promise a great future for this picturesque and immensely wealthy section. That immense rift, the lovely Bay of Quinte on the south is but an indication of the fissured veins that parallel to it lie one after another to the northward, the mechanical cracks that with tufa or tuff show the enormous activity of the

archaic forces at work on this southern verge of the old Laurentian continent that lay with no great elevation the only land above water in the entire western world. Subsequently glacier swept, the rock, except for the scanty covering of recent centuries, show on the surface rich specimens of free gold, and ore containing free gold is the prevailing character of some of the veins as far as they have been developed. But it is to the mispickel veins that this region will probably owe the great celebrity that it is likely to attain in the immediate future. Men with small capital cannot alone develop this source of wealth. Capital in very considerable quantity is required and the best mechanical and metallurgical skill.

The Deloro company, the Sovereign, each possesses hundreds of acres in various localities in this rich mineral belt, and include what prospectors would judge to be some of the richest properties in the entire region. The veins are of various kinds, some bearing free gold and others not; some rich narrow fissures and others wide bodies—so wide and rich as to astonish those acquainted only with the veins from which so much of the gold wealth of the world has hitherto been obtained. Another advantage the region has is its neighborhood to the centres of commerce, wealth and population in Eastern America. A prospective investor has not to go or send some one for him, thousands of miles away, but can readily without loss of time investigate the properties.

The varied and picturesque gold belt embraces reaches of slightly undulating land, grandly sloping hills and abrupt precipitous elevations that reach sometimes several hundred feet above the surrounding country. Tunnelling in many cases is admissible and advisable in point of economy, but no doubt the sinking of shafts will generally be found the most advisable way of reaching the stores of wealth contained in this gold threaded region.

THE GREAT IBEX OF SLOCAN.

OWING to the enormous quantities of ore blocked out, claimed to be nearly \$2,000,000 worth, the directors feel justified in advancing the price to 40 cents after May 10th next. This mine is now in a position to ship largely and continuously, and judging from the result of both assay and mill tests the success of the mine is beyond question, and in the opinion of those who know bids fair to become one of the best dividend-payers in the Slocan.

GERMANIA GOLD MINING COMPANY.

THE Germania Gold Mining Co. is placing 50,000 shares of its Treasury stock (marked "special") on the market at 20 cents per share, upon which the company is guaranteeing a yearly dividend of 10 per cent. on the allotted price of stock. The authorized capital of the company is \$1,000,000 and its directors are Messrs. William Roos of Berlin, president; Hon. S. Mercier, New Hamburg; Hartman King, Berlin; Fred C. Stone, Preston; Aug. Long, Dr. H. G. Lockner, Dr. C. L. Pearson, John R. Eden and H. M. Andrews of Berlin; J. B. Hughes, Waterloo; J. A. Smith and Robert Scott, Rossland. The company has two claims, the "Chief Seattle" and the "Electric" on Green Mountain four miles north of Rossland. In the later under the superintendence of Mr. Johnson, the company's expert, development work has been going on day and night since October last and he guarantees one of the best mines in British Columbia.

From telegrams received in Toronto this week it is reported that the Golden Cache mine has been sold for \$3,000,000, the first payment to be made next week.