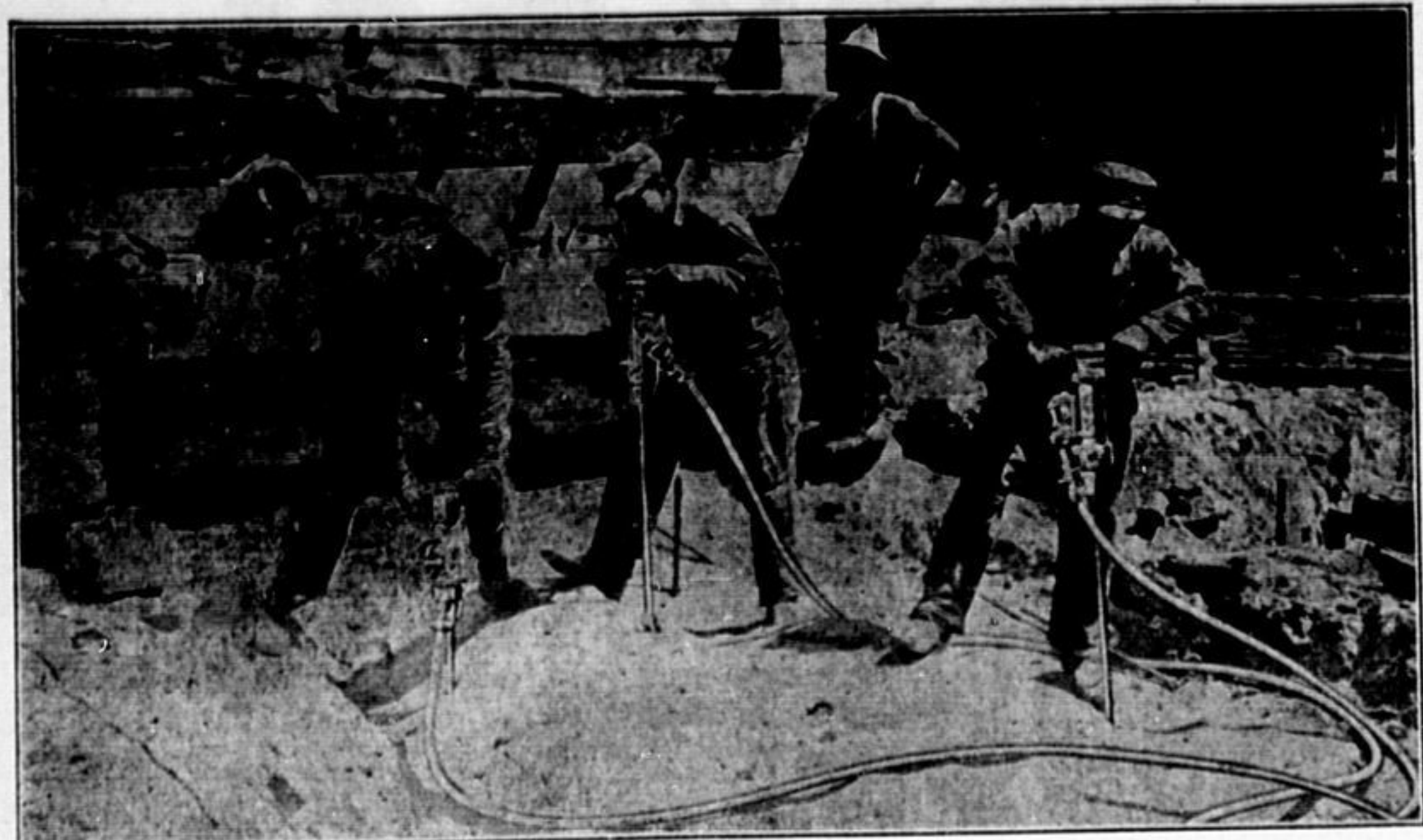


THE MCKIERNAM TERRY
Class "B"

Hammer Drill



Three "Busy Bees" at Work on the New York Excavation

Are you sinking a Shaft? Would you like to do it faster? If so, follow the method used by the contractors in New York, who are putting down the big shafts for the Subway excavation.

They use Class "B" Hammer Drills
Will bore either wet or dry
There is no time wasted

They call them "Busy Bees"
They use half as much air
They are BUSY all the time

These Drills will put down 8ft. in 60 sec.
They require no setting up
They are the last word in a shaft sinking tool

BUY ONE AND TRY IT

CANADA FOUNDRY COMPANY, LIMITED

Cor. King & Simcoe Sts., Toronto.

District Offices:

Montreal, Halifax, Ottawa, Cobalt, Winnipeg, Calgary, Nelson, Vancouver, Prince Rupert

TO THE MINES OF PORCUPINE:

Remember we carry in stock all sizes of PAGE-HERSEY Pipe from 1/4 in. to 6 in.

PAGE-HERSEY Pipe is the best pipe made to-day. We are repeatedly getting enquiries with, "Nothing but PAGE-HERSEY Pipe will do us."

THERE IS A REASON--Ask us before you buy. Our price as low as the lowest.

Northern Canada Supply Co., Limited

South Porcupine Branch - - Bruce Ave.

J. LEWIS THOMAS

REAL ESTATE & MINING BROKER

1120 GREENE AVE.

MONTREAL

Phone 3965 Westmount

References on Application.

R&O Navigation Open

Between Hamilton, Toronto Bay of Quinte, Montreal and Intermediate Points

Steamer "BELLEVILLE"

Leaves Toronto 6.00 p.m. every Tuesday.

Low rates in effect including meals and berth.

Tourist steamers "Toronto" and "Kingston" commence running June 1st daily except Sunday. After June 24th daily.

For rates, illustrated folders, etc., write H. Foster Chaffee, A.G.P.A., Toronto.

Canadian Pacific

Homeseekers Excursions

Manitoba
Saskatchewan
and
Alberta

April 2, 16, 30
May 14, 28
June 11, 25
July 9, 23
August 6, 20
September 3, 17

Tickets, reservations and full information on application to W. S. Metzler, Town Ticket Agent, Ferguson Block, North Bay, or D. J. McKeown, Depot Ticket Agent, North Bay.

MINING DEVELOPMENT

—AND—

ASSESSMENT WORK

Undertaken in
SWASTIKA
LARDER LAKE
CRIPPLE CREEK
West SHINNIG TREE

PORCUPINE

and all Outlying Districts

High Class References upon Request

HOMER L. GIBSON & Co

Mining Contractors
SOUTH PORCUPINE

FLEMING & MARVIN

Members Standard Stock Exchange
LUMSDEN BUILDING
Porcupine and Cobalt Stocks
TELEPHONE M 48 902

S. Alfred Jones, K.C.
Barrister, Solicitor, Notary, &c.
King St., Golden City
Porcupine, Ontario.

TO RENT — ONE STORE, IN Grant, Ont., building with a room in the back of it. Situated on lot No. 130, good locality for restaurant, pool room, fruit store, butcher shop or any other kind of business, except dry goods store. For particulars write or apply personally to CHALYKOFF & DRAJKOFF, Box 120 Cochrane, Ont.

Code & Code

Ontario Land Surveyors
Engineers and Maps

Engineering, Mine and Land Surveying, Draughting, Blue Printing by electric process and latest maps of all mining areas on hand.

HEAD OFFICE:

Devlin Block - Cobalt
PORCUPINE.

ARTIFICIAL GOLD IS ADMITTED POSSIBILITY

Since Expressed Views of Half Century Opinions Have Changed

The disclaimer recently issued by Sir William Ramsay, in which he definitely contradicts the rumor that he has reported favorably on the process of manufacturing gold, shows that speculators are already taking advantage of the fact that modern scientific opinion regards the transmutation of metals as an open possibility. The gradual disappearance of scepticism in this matter was explained by an eminent scientist.

"The absurdity of a transmutation of metals was adopted as a scientific dogma in the eighteenth century," he said, "but since 1869 certain things that have been discovered have shown that the dogma was premature, just as it would still be premature to say that transmutation will ultimately be achieved. In 1869 the Russian chemist, Mendeleeff, arranged the elements in the order of their atomic weight, and from this arrangement conceived the hypothesis that they had all been evolved from some common original substance. For the elements thus arranged fell into families, each member having similar but accentuated properties as the atomic weight increased, and therefore the old idea that the simple elementary substances stood absolutely apart one from another had to be abandoned. The hypothesis that an unknown substance or element, provisionally called 'protyle,' underlies their differences, was suggested to account for the affinities.

"Now this was a considerable revolution in opinion. The discovery of oxygen in 1774 had overthrown many conceptions previously entertained by scientists, and it had come to be supposed that the search for the transmuting 'philosopher's stone,' which occupied the mediaeval alchemists, was an entire delusion. This 'philosopher's stone' meant some substance by means of which the elements, and indeed everything, could be turned into gold, and though probably a good deal of honest research was undertaken in connection with the idea, all sorts of frauds accompanied its

exploitation. "But since the whole method of mediaeval science has been generally discredited—whether accompanied by honest or by dishonest experiments—the revival of the 'original substance' idea in 1869 was a very considerable revolution in opinion. However, the idea of artificial gold might not have entered the minds of modern speculators at all seriously if radium had remained undiscovered. But it was found that radium undergoes a sort of spontaneous decomposition, and that among the emanations which it gives off a totally different element, namely, helium, is included. Here, then, within the last decade science has been brought to admit by facts that a spontaneous transmutation of elements does take place in nature. Therefore, scientists can no longer deny that the transmutation of such elements as lead, gold, copper, nickel, platinum, silver, mercury, radium, and so on, and even the creation of artificial gold, are possibilities of future experiment.

"However, I think one may say that scientists still maintain the improbability of this achievement, although the state of scientific knowledge as it stands at the moment seems to oppose no insuperable barrier to it. But one may speculate whether a universal method of transmutation would be discovered. It appears to me that we shall conceivably be able to note affinities between certain elements, and even to transform one into another. But the idea that gold will be the first artificial element to be constructed is probably a delusion. A universal process of transmutation would throw our whole economic life into the most extraordinary quandary, and the difficulties created by the discovery of a way to make gold artificially would alone be very disastrous. But the other minor transmutations, not bearing so directly upon our standard of values, might be scientific benefits without becoming the basis of too profitable exploitations."—London Telegraph.

SAVE YOUR SAWDUST IT WILL BE WORTH MONEY

To be Used for Manufacture of Alcohol and Glucose As An Experiment

Plans are being prepared for the construction of a plant to utilize sawdust and other waste materials from Canadian lumber mills. Colonel J. B. Miller, President of the Polson Iron Works Company, and Professor Wallace P. Cohoe of Toronto are behind the scheme, which is entirely new in Canada, and involves the conversion of sawdust into glucose and by the addition of yeast the production of alcohol. It is believed the industry has a big future in the Dominion in view of the large output of lumber and the demand for the by-products of the waste. A successful experimental run was made at the laboratory of Prof. Cohoe in Toronto recently, when sawdusts derived from soft woods were treated with acids and converted into that form of sugar commonly called glucose. A specially designed vessel made of boiler plate was used in the process. This can be made almost any size. The one now in use is four feet long and four feet in diameter. It is rotated by means of centre bearings, one of which is hollow. Through this bearing the steam and reacting materials are introduced. The vessel is also provided with a manhole, through which the sawdust to be treated is introduced and dumped. A special acid-proof lining prevents the iron shell from being acted upon by the various chemicals used.

The operation consists of filling or partially filling the reacting vessel, which is called a digester. The manhole cover is then put on and screwed down and steam is introduced from a steam line through the hollow bearing. This heats up the contents of the digester, and when the desired temperature has been attained the by-products introduced during the first stage of the operation are

Hustling Work on Elk Lake Line

The T. & N. O. contractors for the Elk Lake branch have lost no time in getting to work. Twelve miles of the right of way has been cleared, and over three hundred men are at work on the construction.

Ballasting has commenced on the uncompleted portion of the Porcupine branch, and the depot at Timmins is now being erected.

Chairman Englehart is hopeful that work on the new line will be sufficiently advanced to open for traffic by December 1. The outlook for the season's business is bright. A number of settlers are going into the country at points from Liskeard to Cochrane.

recovered. The first stage of the operation is known as the pre-cook.

After the blow-off cock has been closed again reacting materials are introduced from a smaller vessel located alongside the larger one. The operation then takes place very rapidly. When completed the blow-off cock is opened, the pressure allowed to sink to zero, and the manhole cover is taken off and the contents are dumped. The bright yellow sawdust is now golden brown in color. It has lost its fibre, and a portion of it has been converted into glucose.

As much as forty per cent. has been converted in one operation into material which is soluble in water, although not all of this forty per cent. is sugar. The glucose produced in the wood may be extracted by hot water in a properly-designed extraction battery and elevated to fermentation tanks, where yeast is added. When yeast is added to the glucose fermentation starts and the glucose is converted into alcohol, which may be distilled and rectified, a very high-grade alcohol being produced by this operation.

If it is desired to make glucose from the sawdust the extracted material is clarified. By this means it is possible to produce either a light yellow glucose or a pure white solid mass.