

## ONTARIO MINERALS.

The following table presents by quantities and values the statistics of metallic production in Ontario for nine months ending September 30, 1899, and for twelve months ending December 31 in the years 1896 and 1893 respectively, as published in the Report of Bureau of Mines, Vol. VIII, second part:

Metals	1899 (9 mos.)	1896 (12 mos.)	1893 (12 mos.)
	oz. \$	oz. \$	oz. \$
Gold...	20,210 318,212	7,154 121,848	1,695 32,960
Silver..	98,000 58,800	.....	.....
	lb.	lb.	lb.
Nickel.	4,608,000	3,897,000 357,000	3,306,000 454,702
	566,633		
Copper.	4,642,000	3,736,000 130,660	2,862,000 115,200
	tons.	tons.	tons.
Pig Iron	48,216 693,455	28,302 353,780	.....

No silver was produced in the province in 1893 or 1896. The mines were closed down in 1892, and were not reopened until 1898. The first production of pig iron after an interval of more than thirty years was in 1896, and the first production of gold after almost as long an interval was in 1892. The total value of metallic products in 1893 was \$602,862, and in 1896 \$963,288. For the nine months of the present year it has been \$1,637,100, and if the same rate of production be maintained to the end of the year it will reach \$2,200,000. The total value of the metals produced in the province for the twelve months of last year was \$1,655,968, made up of \$290,919 gold, \$51,960 silver, \$514,220 nickel, \$268,080 copper, and \$530,789 pig iron. The revenue from sales and leases of mineral lands has been \$147,665 for the nine months of the present year, as compared with \$97,762 for the whole of 1898, \$40,588 for 1896 and \$26,159 for 1893.

## "TEMPERATURE."

Editor CANADIAN ENGINEER :

Under the above heading in your January issue the following question is worked out in detail:

"If water is at the temperature of 60° F., how many pounds of it will it take to condense 1 lb. of steam at 5 lbs. pressure, the resultant water to be 110° F.?"

The answer is given as 20.8 lbs.

The following will show that an error has been made. The water is raised from 60° to 110°, or each pound takes up 50 heat units, and as the total number of heat units to be taken up

is 1,073, therefore  $\frac{1073}{50} = 21.46$  lbs. water required.

Let  $x$  = number of lbs. of water required.

$t$  = initial temperature of water.

$t_1$  = final temperature of water.

$H$  = heat units in steam.

The loss of heat from the steam = the gain of heat by the water

$$xH - (t_1 - 32) = x(t_1 - t)$$

$$H - t_1 + 32 = x(t_1 - t)$$

$$1151 - 110 + 32 = x(100 - 60)$$

$$1073$$

$$\therefore x = \frac{1073}{50} = 21.46 \text{ lbs.}$$

$$50$$

The error arises in treating one quantity "from 32" and the other from zero, making a difference of fully 3 per cent. This error is commonly made in calculations of the kind.

Toronto, January 24th, 1900.

A. Wood.

## AMERICAN STOKER CO. VS. GENERAL ENGINEERING CO.

In our October issue a short history was given of the case of the General Engineering Co., of Ontario, Ltd., vs. the American Stoker Co. and the Dominion Cotton Mills Co., of Montreal. The original action, the reader may remember, was brought to recover damages for the infringement of the patents held by the General Engineering Co. on the Jones Underfeed Stoker, and to restrain the defendants from using or erecting these stokers in Canada. The action was carried by the defendant companies from one court to another, till it reached the Exchequer Court, to which it had been taken when our last

report was given. The Exchequer Court had given a strong judgment in favor of the General Engineering Co., granting the injunction asked for and restraining the defendants from setting up or using any of the Jones Underfeed Stokers in Canada, with damages. This judgment confirmed the rights of the General Engineering Co. to the Jones' patents, which the American Stoker Co. was adjudged to have infringed. A new point was now raised for the first time, we understand, in connection with the Canadian patent law, and that was the contention by the American Stoker Co. that the Jones patent became invalid in Canada by reason of the expiry of the British and Italian patents for the same invention. In a judgment handed down last month the court held that the American Stoker Co. were not entitled to a writ of *scire facias* for the repeal of the patent in question on this ground. The judgment, however, did not go into the merits of one of the questions raised "as to whether the Canadian patent referred to means a patent issued here after the foreign patent has been issued, or if it means a Canadian patent applied for after the foreign patent has issued. The identity of the Canadian and Italian patents was disputed, but was not dealt with by His Lordship, neither was the question of whether the expiration of a foreign patent by forfeiture before its potential term expired would operate as a termination of the Canadian patent." The court gave permission to the defendants to test these points in a new trial, but the evidence in such new trial would have to be limited to these points, and would not affect the judgment previously given in favor of the General Engineering Co. The American Stoker Co. is thus prohibited from doing business in Canada in the meantime, and should the new trial sought for be pushed and decided in its favor the General Engineering Co. has other subsequent patents on the Jones Stoker as improved, and which patents would not be affected by any decision on the point here raised.

## MARKETS OF CANADIAN GOODS IN GREAT BRITAIN.

Harrison Watson, curator of the Canadian section of the Imperial Institute, London, England, is in receipt of the following enquiries: A Liverpool house desires to hear from Canadian manufacturers of wood blocks for mangle rollers for which they could place several orders. An importing house possessing a connection with picture frame makers asks for names of Canadian manufacturers who can supply oak mouldings. A Midlands firm of manufacturers wishes to hear from Canadian importers of elastic boot webs, boot looping, garter webs, skirt bindings, ladies' belts, etc. The manufacturers of a patent metal seek a Canadian resident agent of good standing. A London dealer in high-grade goods would like to hear from Canadian packers of smoked salmon in thin slices, in oil, in tins. A Glasgow importer would like to hear from Canadian manufacturers of cheap bedroom furniture. A Bristol house is open to import ash hay-forks and hickory pick-handles. A Glasgow firm of merchants possessing a connection with the confectionery and wholesale grocery trade seeks agencies of Canadian products. They also have a house in China and are open to consider agencies for the far east. A Paris, France, commission agent asks for samples and prices of Canadian wood bicycle rims for which he has an opening.

## FIRES OF THE MONTH.

Jan. 11th. J. I. Lloyd's foundry and machine shop, Kentville, N.S.; loss, \$15,000; now rebuilding.—Jan. 15th. R. S. Porteous, Stratford, Ont., furniture factory; loss, about \$5,000.—Jan. 20th. Cox & Johnson's box factory, Vancouver; loss about \$3,000.—Jan. 25th. S. Bicknell's cheese box factory, Peterborough; loss, about \$3,000.—Jan. 30th. F. W. Shaw's pork packing house, Forest, Ont.; loss, \$7,300.—Jan. 31st. Drying house of the Empire Tobacco Co., Granby, Que.

## HEIRS WANTED.

Editor CANADIAN ENGINEER :

Sir.—I am looking for the heirs of Braddock Nyle, who is supposed to have lived in Montreal in 1844. Any information will be received with thanks.

Box 523, Houston, Texas.

HENRY MALMGREN.