

cases the pot, or muffler, must be of sufficient size to permit a free escape of the burned gases without excessive back pressure. In other words, if the usual exhaust pot is of the proper dimensions to permit of easy escape of the exhaust, the insertion of a number of hot water pipes might so reduce the cubical contents of the exhaust pot as to be equivalent to using too small a pot, resulting in back pressure and its accompanying difficulties.

One of the common uses of the exhaust gases in regions where low-grade liquid fuels, such as crude oil, are used is to pass the exhaust through the generator, and thereby furnish the necessary heat to assist in the vaporization of the fuel.

In some cases it has been found advantageous to use heated air, or warm air, in very cold weather, and at least one engine company has supplied a three-way valve whereby cold air, hot air, or both cold and hot air may be drawn in by the engine. The air is heated by having come in contact with the exhaust pipe before reaching the valve.

There are numerous ways in which the heat usually wasted in the cooling water or the exhaust can be utilized. In fact, there is hardly a plant, where a gas or gasoline engine is in use, that does not require heat or hot water more or less of the time, and surely there is no excuse in such cases for not using what otherwise becomes a waste. By the advantageous use of the heat from the engine conveniences may often be devised as well as effecting a saving of money otherwise made necessary.—Albert Strittmatter, in *The Gas Engine*.



## INDUSTRIAL NOTES.

Listowel, Ont., will erect a library building at a cost of \$10,000.

R. Gillis' woodworking factory, at Sydney, N.S., which was destroyed by fire in August, is again running.

The first blast furnace of the Nova Scotia Steel and Coal Co., at Sydney Mines, was blown in on August 30th.

The Soo Steel plant resumed operations on August 23rd, and is now making steel rails at the rate of 500 tons per day.

The Dominion Atlantic Railway intend erecting a 200-room hotel, at Digby, N.S., to be ready for next year's tourist travel.

The Nipissing Foundry and Machine Co. are erecting a machine shop, 25 by 40 feet, and a foundry 35 by 50 feet, in North Bay.

Oil is being struck in several new wells in Moore Township, Lambton County, Ont. Over twenty drilling rigs are at work in the field.

The compounding department of the Canadian General Electric Co.'s works, at Peterborough, was gutted by fire on September 2nd.

The Art Metal Co., of Galt, is beginning the manufacture of metal shingles and sidings. This is the fourth company in Ontario making these goods.

Arrangements are being made to put the Canada Cabinet Co., of Gananoque, again on a business footing. The company has been shown to be solvent.

The Government is paying steel bounties to firms at the Soo, Sydney, Hamilton, Midland, Deseronto, Radnor, Drummondville, and some minor places. The rate is now \$2.75 per ton.

On October 4th, Waterloo is to vote on a by-law granting a loan of \$16,000 to the Canada Furniture Manufacturers, to enable them to rebuild their factory in that town, recently destroyed by fire.

The Imperial Dry Dock Co., of St. John, propose erecting a large dry dock at that city. The company expects to receive subsidies from the Dominion and Provincial Governments and from St. John.

Clark & Demill, of Galt, manufacturers of woodworking machinery, may move to Hespeler. The business is growing too large for the present premises, and Hespeler is offering the inducement of a \$15,000 loan. A by-law ratifying the offer will shortly be put to a vote.

The Edmonton, N.W.T., Brewing and Malting Co. has ordered from Chicago an outfit of machinery for a new malting house.

The puddlers and rollers in the Hamilton Steel and Iron Company's works have struck against a reduction of 7½c. in their wages.

The peat plant at Caledonia Springs, Ont., erected by Alex. Dobson, of Beaverton, is almost completed. It is the largest plant yet erected in Canada.

The Ontario Lantern Co., Hamilton, suffered by fire to the extent of about \$10,000 last month. A wing of the building was gutted and some valuable machinery damaged.

Fairbanks, Morse & Co. are looking for a location for a Canadian branch factory. F. H. Crane, their representative, was well impressed with Fort William as a site.

The Dominion Iron and Steel Co. have started blowing in their blast furnaces, which have been idle since the strike in the summer. They expect to have all four working by Oct. 1st.

The Toledo Stock Company, which manufactures shovels and kindred hardware, is contemplating a Canadian branch employing about 150 hands, to be located probably at Hamilton.

The Guelph Axle Works have added a spring making plant to their equipment, and will be known in future as the Guelph Spring and Axle Co. The new building is 120 by 40 feet, and equipped throughout with high-class machinery.

There will be over 400 individual claimants for the bounty on crude oil of 1½ cents per gallon. There are some 2,000 producing wells in Ontario, but many groups of these are owned by companies.

The five woolen mills properties of the Canada Woolen Mills, Limited, have been purchased by Wm. D. Long, of Long & Bisby, wool dealers, Hamilton, for \$253,000. The mills will be reorganized under new management.

Malcolm Booth, a Yale graduate at Yarmouth, N.S., has developed a peat process, by which the raw material is dried, compressed, and coked. Tests of the peat coke have been made at the Yarmouth Street Railway Co.'s power house, and on one of the naval launches at Halifax, and reports show the fuel to be a steam producer equal to, or better, than Welsh coal.

The J. A. Craig Lubricant Co., Limited, of Toronto, to whom a charter has recently been granted, are putting on the market an improvement in oil and grease compounding which they believe will revolutionize the business. They have testimonials from some large manufacturers and mill men as to reduction in lubricating accounts by fully one-half, by the use of this compound.

The introduction of the \$7 duty on steel rails has led to the revival of the rumor that the United States Steel Corporation is collecting data as to the feasibility of establishing a plant in Canada. The plant, if established, would include a steel rail mill, blast furnaces, and finishing department, and would cost about \$12,000,000.

Heavy rains raised the water in the Chaudiere almost to the level of spring freshets, and the temporary works erected across the river and the coffer dam and machinery in connection with the railway bridge under construction were swept away on September 4th. This bridge was part of the work of the Quebec Bridge Company, and was intended to connect the railway lines east of the Chaudiere with the main bridge across the St. Lawrence river. The loss to the contractors will be heavy, as it practically destroys their summer's work at that point.

The first meeting of the Northern Iron and Steel Company, Limited, successors to the Cramp Steel Company, Limited, of Collingwood, was held in Toronto on the 22nd ult. The following officers were elected for the new company: Major J. A. Currie, president; Duncan Donald, secretary-treasurer; F. Asa Hall, J. T. Duguid and W. J. Lindsay, directors. The rolling mills, steel furnaces and other plant will be formally turned over to the new corporation at once.



—The first autumn session of the Canadian Society of Civil Engineers will take place on the evening of the 13th inst. at the Society's rooms, in Montreal.