

Canada Iron Furnace Co.'s metal as the basis of their work for standard car wheels. It will also be gratifying to Canadians to know that the high quality of this metal, as shown by its great strength and splendid chiling qualities, has so far attracted the attention of foreign engineers that the company have been enabled to open up a foreign trade during the past year, and are now shipping their iron regularly into the Pittsburg market, where it is used for very special qualities of work. In addition to this, important shipments have recently been made from Radnor Forges to the European market. While this trade is not a large one as yet, it proves that the quality of the iron made in Canada is unsurpassed, and is another reason why we should carefully build up our national industry.

DRUMMONDVILLE.

The campaign was short, but the output will be about the same as 1894. The whole of the production of this furnace is used in manufacture of car wheels at the company's works in Montreal. The campaign is always more or less regulated by the requirements of the car wheel department.

PICTOU CHARCOAL IRON CO., BRIDGEVILLE, N.S.

The returns of output have not yet been filed, but a very notable point in connection with these works is that the company are just on the point of installing a steel converting plant, and will use the largest portion of their material in that way, finishing it into the highest quality of agricultural implement steel for the home market. This is a striking illustration of the effect of the Dominion Act of 1894, which provided for the payment of a bounty of \$2 per ton on all steel billets manufactured in Canada from Canadian pig iron.

THE HAMILTON IRON AND STEEL CO.

The new furnace, with the capacity of 100 tons per day, goes into blast immediately. At the start a large proportion of this company's ore will be the product of American mines, but they look to the Act of the Legislature of Ontario, session 1894 (which provided for the payment of \$1 per ton on the pig metal product of iron ore, raised or smelted in the province of Ontario), to bring about an almost immediate development of the mines of the province. In the meantime the Hamilton Iron and Steel Co. will naturally have to waive claim to the Dominion bounty of \$2 per ton, so that it is entirely in their interest to push forward the exploration and development of Ontario mines, and thus give the real benefit of the industry to Canadian labor. Under present circumstances, Ontario not possessing coal mines, and the question of economical transportation and handling of Lower Province coal being as yet unsolved, the Hamilton Iron and Steel Co. will have to use American fuel, which unfortunately means that one-half of the labor benefit of the industry will go to a rival market. Under these circumstances the Dominion Government will probably restrict the Federal bounty to a sum proportionate to the amount of Canadian labor employed in the industry; this as a protection to the coal miners and charcoal burners of the other provinces.

(Concluded in next issue.)

It is estimated that if the trolley railway plants were run by the latest style of oil gas-engines, a brake horse-power could be generated by $\frac{3}{4}$ lb. of coal per hour, which is less than half what can be done by the best triple expansion engines now in use. There are firms who are now prepared to take contracts, guaranteeing the result continuously.

For THE CANADIAN ENGINEER.

A CANADIAN MOTOR-VEHICLE CONTEST.

BY ARTHUR W. WHITE, LONDON, ONT.

Glancing through the different scientific papers one sees considerable discussion and argument about motor vehicles. Some, probably through selfish motives, publish what they designate a "conservative article," and in some instances an editorial dealing with the question. The articles referred to are inconsistent in the extreme, and the only inference to be taken from them is that their writers are not ready for the advent of motor vehicles; by all means be conservative, but do not allow personal advantages to be the motive. Among the best methods, in the writer's opinion, for pushing this good thing along in Canada, public trials and tests stand well to the fore. New York is agitating one, France and Germany will hold a number next summer. The last issue of the London (England) *Engineer* contains full prize list and conditions of a competition for one thousand guineas. The present English law prohibits a self-propelled vehicle from travelling more than four or six miles per hour, and places further restrictions on this manner of travelling, enough to make a race impossible without special act of parliament, or a revision of turnpike laws, which changes are now being agitated. There seems to be a difference of opinion as to whether a race could be run in Canada without the same steps being taken. Should this be the case would it not be advisable to obtain permission before a Canadian race takes place, otherwise the contestants or promoters of the trial could be held responsible for damages arising from frightened horses, etc.

That a Canadian race should take place goes without saying. We must keep up with the times. If there are no public-spirited men who can afford to offer sufficient inducements, in the shape of prize money forthcoming, the race can be arranged in other ways. In Ontario we have two large fall exhibitions, the Industrial of Toronto and the Western of London. Either of these should be able to make a paying investment of a motor-vehicle contest; it certainly would be a drawing attraction, more instructive, more entertaining, better advertised and more in keeping with an Industrial Exhibition than balloon ascensions, high diving, second-class contortionists and acrobatic entertainments and wild-west and Arab shows, comprised mostly of toughs from the slums of large cities, who hire a few horses, dress in exaggerated costumes, shout and discharge fire arms. Half the amount of money paid for this sort of thing would make a purse sufficient to induce others besides Canadians to compete. It would make an exhibition industrial in reality, as well as in name. It would stimulate Canadian inventors as the Chicago race did United States inventors. Previous to the advertising of this race motor-vehicles were almost unknown in the United States. Over five hundred applications for patents, covering motor-vehicles and parts thereof, were made during the time intervening between the first notice and the consummation of the race. If five hundred of our best thinkers started to think, it would mean more for Canada than one can imagine. Motor-vehicles are only in their infancy. There is room for great improvement and competitive tests are among the best methods for their improvement. Preliminary tests, from which the judges could decide the points of internal friction, design, construction, ease of handling, finish, etc., could be held the first four or five days of