Many Newfoundlanders realize that the industrial birth of the colony dates from the advent about six years ago of a firm of Canadians, the Reid Bros., of Montreal, who built the colony's railway and gave a chance for its mines and factories. Previous to that time, the one great industry was the fisheries. What one Canadian firm has so well started can be expanded by other Canadian firms, and our capitalists who have hitherto been putting money into enterprises in South America, Cuba, Mexico, and the West Indies, might well turn their attention to this island where investments would be safe from political disturbances, and where the people are of our own race and of an industrious hardy character.

Meantime has the Canadian Government no offer of preference or of reciprocity to make towards Newfoundland, while the question of the colony's fishery negotiations with the United States are still unsettled?

Sir Robert Bond, the Premier, while opposed to confederation with Canada, pointed out in an interview in London the other day that the United States while getting special privileges in Newfoundland in the fisheries regulations, is taxing, almost to a prohibitive degree, Newfoundland products that go to the United States, and said that Newfoundland could not let this question stand open forever. He hinted at a preferential tariff with Canada. Such a tariff would ultimately be of great advantage to both countries, and the Canadian Government should send a commission of four or five broad-gauge men to St. John's, to negotiate a commercial treaty or preferential tariff in such a spirit as will make amends for the follies of the past.

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## THERMIT.

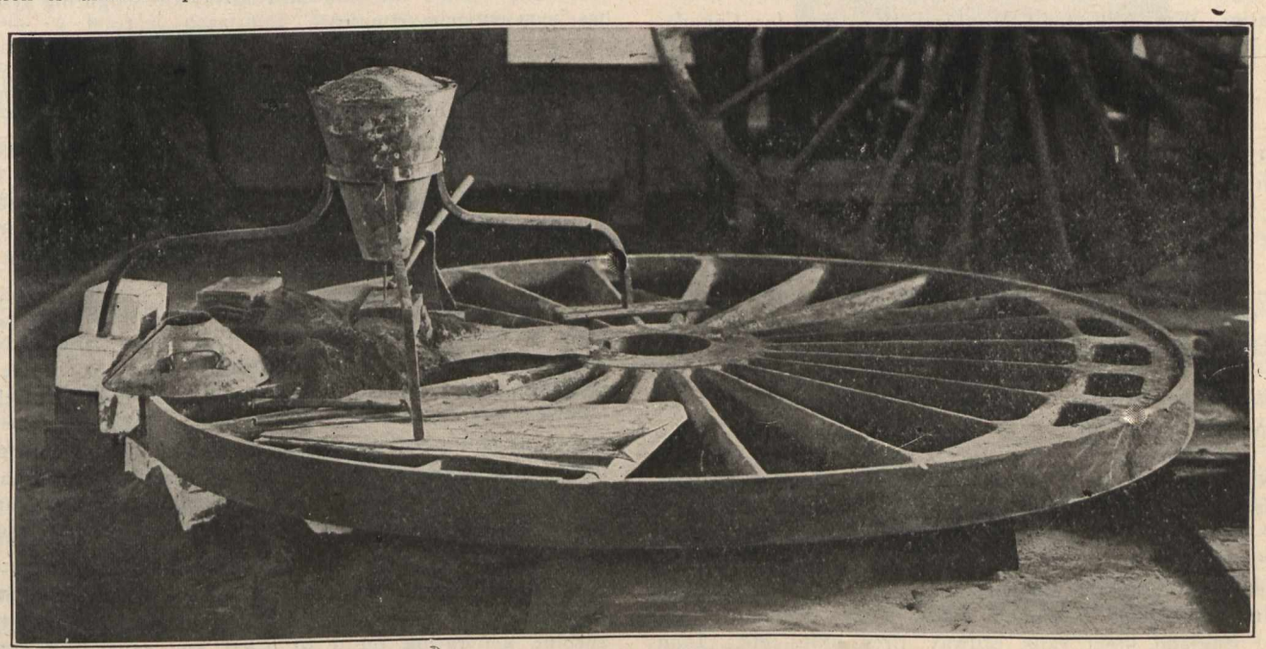
By producing in a suitable manner the chemical combination of oxygen and aluminum, a temperature is created which is almost equal to that of the electric arc. Fifty years ago attempts were made to apply the reducing properties of aluminum, but it was not until within the last few years that the reaction has been brought within the sphere of practical operations, when Dr. Hans Goldschmidt, of Essen-Ruhr, Germany, after many years of experimenting, solved the problem.

Iron oxide is mixed with finely granulated or pulverized aluminum and the resulting mixture is the heat producer to which the trade mark name "Thermit" is applied. The thermit is poured into a sheet metal crucible lined with magnesite tar; a pinch of ignition powder is placed on top and is ignited with a match. The chemical reaction is started at once and combustion is continued throughout the whole mass, and a temperature of 5,400 degrees Fahrenheit is produced without any external supply of heat. The reaction is complete in thirty seconds, whatever the size of the crucible, and the result is a pure liquid steel which sinks to the bottom and is covered by a perfectly distinct layer of aluminum slag. The steel and slag are run out

Railwelding by means of Thermit.

by tapping the crucible from the bottom, and, by regulating the quantity of thermit according to the size of the mould used, the mould may be filled with steel and the slag allowed to flow off.

This is the operation in steel casting or welding by the use of thermit. For the engineer this is the great use of thermit. It is only about a year and a half since this process has been introduced on a large commercial scale, and so far the most important use to which it has been put, is that of welding rails in trolley road construction. The great advantage of the process is the absence of any bulky equipment; all that is required is a crucible, a mould-box, and in some instances, where a complete buttweld of the head of the rail is desired, a rail-clamp. All of these materials, including the necessary quantity of thermit, can be easily moved on a hand-truck. Moulds are made of an ordinary mixture of sand and loam rammed into a sheet metal case and baked. Formerly the rails were superheated before applying thermit, but this is found to be quite un-



Repair of a Large Engine Wheel with Thermit.