

mind. Even its most ardent advocates do not consider it a menace to the older methods, but rather as a new and useful adjunct to present metallurgical practice. It should be noted that while some processes are designed to perform the direct reduction of iron ores, the general tendency is to use the electrical energy for production of steel, and particularly as a refining agent in treatment of pig iron and scrap. For this field of usefulness, the electro-refinery seems destined to occupy a permanent place in the art.

When we shall witness the combination of the blast furnace for cast iron, the Bessemer converter for common steel, and the electrical refinery using energy generated from waste blast furnace gases, making higher grade steels, then industrial metallurgy will have attained the high-water mark in the utilization of the heat energy of coal. In attacking the older art from the crucible steel standpoint, electro-metallurgists are undoubtedly hitting at the weakest spot. In the application of the electric furnace to foundry practice, it would be possible to arrange an electrical refining furnace so that it could use the product of any one or all of the cupolas. With the furnace body in the form of a ladle, placed upon a carriage, suitably counter-balanced, and able to swing free in a circle, it may receive its charge and then be placed under the arrangement for carrying the electrodes. By lowering the electrodes, turning on the current, refining may be carried out as previously described in several processes. Without using excessive currents, liquid iron may be converted into steel of good quality. This may suggest to some of your enterprising foundry managers ways of employing their full capacity at all times; to improve the quality of their castings; to convert a portion of the product into steel. For a small cost, a foundry arranged for the manufacture of cast iron could undertake steel castings and augment considerably its sphere of commercial activity."



HOW NOT TO GET CANADIAN TRADE.

The Monetary Times has published a pamphlet under the title of "Dishonest representations—a remonstrance against untruthful statements made in England in connection with Canadian trade." This pamphlet reproduces articles that have appeared from time to time during the past three years in the Monetary Times exposing the methods adopted by the travelling agent of two Montreal commercial journals in obtaining advertisements from British firms who are seeking trade in Canada. One of the schemes adopted by this canvasser was to claim that the paper he represented was subsidized by the Dominion Government. The attention of the Canadian Secretary of State was called to this matter, but it does not appear that any steps were taken until quite recently to put a stop to these misrepresentations, though the Under-Secretary of State denied that his department ever authorized its name to be used even as "a reference" in behalf of one of the papers referred to. A letter from the Under-Secretary to that publisher asking for the name of the official alleged to have given authority for the "reference" remained unanswered. The Canadian Engineer has been in receipt of letters from time to time from British firms who appear to reason, rather illogically, that because they have been disappointed in one advertising transaction there is no use in trying to do business in Canada through advertisements. A correspondent of "Commercial Intelligence" deals with this subject, and pokes fun at the readiness with which British firms have placed advertisements in certain

journals "masquerading as trade papers" while their names are absent from the pages of the reputable papers in Canada devoted to their particular line of trade. Imagine, for instance, a coterie of leading British boot and shoe manufacturers spending hundreds of pounds in advertising British-made footwear in Canada, or furniture manufacturers pushing English-made goods of the common class, when Canadian furniture and boots and shoes are so much cheaper that thousands of dollars worth are shipped every year to the Old Country.

These mistakes of British merchants and manufacturers are not serious in themselves, but they are important as disclosing a condition of apathy in regard to trade opportunities in Canada, and of ignorance of the trade conditions now existing in this country. Why is it that, as a rule, we do not find United States firms making the same mistakes in placing their advertisements in Canadian papers? Yet United States firms advertise ten times as much in the trade papers of Canada as British firms, and the striking fact is that in many lines they are taking a proportionate amount of the orders placed by Canadian houses. Regret it as many of our people do, it must be confessed that our United States neighbors understand Canadian temperament better than our British cousins do, and keep themselves in better touch with us, and no clearer proof of this is needed than the methods adopted by the two peoples in cultivating Canadian trade.



—Now that a large supply of electric power will soon be on the market at Niagara Falls, we shall expect to learn of electricity being turned to account to a surprising extent by the farmers of Ontario, especially in the Niagara peninsula to begin with. What has happened in some rural districts in the Western States may be taken as a forecast of developments in Canada. A notable instance briefly described elsewhere is the successful attempt made by the farmers of Kane County, Illinois, to supplant horse, hand and steam power by electricity in carrying out all the operations of the farm. The current is switched from the electric railways and is made to operate pumps, creameries, feed choppers, threshers, fanning-mills, saws, churns, water storage systems, and in fact perform almost all the work hitherto done by horses or steam engines. In a report to the Chicago Tribune these farmers state that the cost of electric power is from 40 to 60 per cent. less than manual or horse labor. The success of these experiments and the remarkable extension of the use of the telephone on the farm will mean a revolution not only in the methods of farming but in the social condition of the farmers. The farmer and his wife and children will no longer need to lead solitary lives. In a few minutes they can learn the price of produce in their market town, or the substance of the foreign news, or again have a social chat with their neighbors. With electric power to ease the strain of the heavier labor of the farm, rural life will have positive attractions to many people now toiling hard in ill-ventilated factories in cities. For a number of decades, "Back to the land" has been the vain appeal of philosophers who have realized the evils and drawbacks of city life; but electricity may soon accomplish a change which neither legislation, philosophy, nor the eloquence of patriots has effected in keeping the boy or girl on the farm or bringing him back after he has adventured into the city.