

raised the capitalization far beyond the safe or necessary limit.

If Cobalt Lake succeeds, it will succeed in spite of the unwisdom of its promoters. If it fails the blame cannot be laid upon the Provincial Government, nor upon its sane and efficient executive.

DISSIPATION OF ENERGY

Although in the ordinary iron blast furnace we have one of the most economical forms of the utilization of the energy stored up in coal, still even in its operation there are many very serious losses of energy. No scheme has yet been devised whereby the heat contained in the molten slag can be utilized. Sporadic attempts have been made to this end, but no method has been evolved whose application is of general value. Similarly in the quenching of the pig iron after it has been moulded, a considerable loss of heat energy occurs. But in the production of coke for use in the furnace the loss of energy is most marked. In the case of bee hive ovens the whole of the volatile hydrocarbons are entirely lost. The incandescent coke is quenched in the oven, and again energy is dissipated to the winds. With the by-product ovens, the most serious loss occurs in this quenching. The red hot coke is pushed out of the rectangular ovens and is quenched on a platform with a stream of water. In view of the efficiency of all the other operations of these ovens, this wasteful method is anomalous. It is surprising, indeed, that it has not been superseded long ago. That the utilization of this hitherto wasted heat energy is practicable is demonstrated by Mr. Charles E. Arnold in an article on "Quenching of Coke," in the May number of *The Chemical Engineer*.

In principle his plan is simplicity itself: "The hot coke is pushed from the oven directly into the cooling apparatus, which communicates directly with any oven which is ready to be 'pushed.' The coke having been received into the compartment, the doors are closed and the outside air entirely excluded. The small amount of air in the compartment is soon deoxygenized, and the hot gases (nitrogen, carbon monoxide and carbon dioxide) are drawn away from the coke, blown through a cooling compartment and again in contact with the coke. This circulation is kept up for a short time, when the coke can be discharged into the air without danger of combustion.

"The heat from the coke has been carried by inert gases to the iron coil, which conduct it to the water or other cooling medium circulating within said coils, thus making every unit of heat given up by the coke available for regeneration for a multitude of purposes." The still unremedied leakages of energy might very profitably become subjects of attention from the various Technical Colleges.

PROPHETS WITHOUT HONOR

The conferring of honorary degrees is a pleasant and profitable function. It is expected of our larger universities that they will see to it that those on whom they bestow recognition shall not only be in themselves worthy and distinguished men, but that they shall have been directly or indirectly of signal service to the community or to the country at large. Thus it is appropriate that the professional man whose work, whether literary or scientific, or specifically technical, has actually benefited his fellows or has ameliorated the hardships incidental to any class or classes of society or, in fine, has tended in any way to improve the conditions of life, should receive official recognition from the universities. But our universities are educational institutions supported by the people, for the people. Doubtless the larger foundations serve a dignified and useful purpose in conserving the ideals and maintaining the best traditions of the Canadian people. But their first duty is to fit our young men to earn a livelihood and to recognize and encourage men, Canadians primarily, who are doing and have done something to advance the material welfare of their native land. In glancing over the names of those upon whom in late years the University of Toronto has conferred honorary degrees, we find men of letters, politicians, doctors and lawyers. Many of these are distinguished foreigners, whose relation to Ontario's welfare it is hard to guess. We do not question their worthiness. But we wish to suggest, not without humility, that the Province of Ontario and, indeed, the Dominion of Canada, owes far more to the geologist, to the mining engineer, to the civil engineer, and to the technical man generally, than to any of the classes that Ontario's largest University has chosen to honor. We would further suggest that the University of Toronto need not look far afield to find creditable recipients for the honors of which she has the bestowal. The world is moving.

LABOUR

It would be well for the Federal authorities to take prompt measures to relieve the dearth of labor in the West. In British Columbia and the new Provinces the production of coal could be greatly increased were there a sufficiency of labor. The operators of metalliferous mines in British Columbia have been forced to grant substantial increases of wages to their employees to prevent them from leaving for other parts. These distressing conditions will, in the case of the coal mines, contribute towards another fuel famine next winter. Metalliferous mining in British Columbia is but now recovering from a long period of depression. It is essential that these industries be watched and guarded. The Federal Government employs emigration agents in Europe, and it has ample sources of information. The streams of immigration are, to a certain extent, dirigible.