The Canadian Engineer

WEEKLY

ESTABLISHED 1893.

VOL. 18.

TORONTO, CANADA, JUNE 10th, 1910.

No. 23.

The Canadian Engineer

ESTABLISHED 1893.

Issued Weekly in the interests of the

CIVIL, MECHANICAL, STRUCTURAL, ELECTRICAL, MARINE AND MINING ENGINEER, THE SURVEYOR, THE MANUFACTURER, AND THE CONTRACTOR.

Editor.—E. A. James, B.A.Sc. Business Manager.—James J. Salmond. Advertising Manager.—A. E. Jennings.

Present Terms of Subscription, payable in advance: Canada and Great Britain: Year - \$3.00 One Year - \$3.50 Year \$3.00 Months - \$1.75 ee Months - 1.75 Copies Antedating This Issue by Two Mo ths or More, 25 Cents. One Year 2.00 Six Months **Three Months** ADVERTISEMENT RATES ON APPLICATION.

(HEAD OFFICE: 62 Church Street, and Court Street, Toronto, Ont. Telephone, Main 7404 and 7405, branch exchange connecting all departments

ments.
Montreal Office: B₃₃, Board of Trade Building. T. C. Allum, Editorial Representative, Phone M. 1001.
Winnipeg Office: Room 404, Builders' Exchange Building. Phone M. 7550.
G. W. Goodall, Business and Editorial Representative.
London Office: 225 Outer Temple, Strand, T. R. Clougher, Business and Editorial Representative. Telephone 527 Central.
Germany and Austria-Hungary: Friedrich Lehfeldt, 2 Lindenstrasse, Berlin, S.W., 68. Telephone IV, 3198, Telegrams Advertise, Berlin.
Address all communications to the Company and not to individuals.
Everything affecting the editorial department should be directed to the Editor.

NOTICE TO ADVERTISERS.

Changes of advertisement copy should reach the Head Office by 10 a.m. Friday preceding the date of publication, except in cases where proofs are to be mailed to distant points, for which due time should be allowed. Printed at the Office of The Monetary Times Printing Company, Limited, Toronto, Canada.

> Index of this issue will be found on page 594.

CONVICT LABOR.

It has been announced that the Ontario Government have decided that the "trusties" from the jails and prisons of Northern Ontario are to be employed on colonization roads.

From the movement in the United States we are under the impression that convict labor is on the decrease. We recognize the difficulty of combining correction and useful employment, but we cannot see any excuse for taking the convict on to the highway and exposing him to the glance and chance remarks of the passerby. Nothing will break a man's spirit quicker than humiliating him, and the released prisoner who has lost pride and spirit and self-respect is not a corrected man.

More than this, convict labor is a menace to legitimate business. It should not be the aim of the Government to make the criminals profitable to the State. They are sentenced for correction, and the community which deprives them of their liberty should not attempt to escape the cost of correction. Legitimate business of the free workman should not be called in competition with criminal labor.

There is a vast difference between the experiment at the Guelph prison farm, where the prisoner will be a self-contained community, and the utilization of prisoners on colonization roads, where they will have to be removed from camp to camp, and transported in some cases considerable distances on the railways.

If it is necessary to employ the prisoners of Northern Ontario in Northern Ontario, get another farm, but keep them off the highway.

SUBAQUEOUS CONCRETE CONSTRUCTION.

An example of the successful replacing of wood by concrete was manifest last week at Goderich, Ont., where pontoons of reinforced concrete construction were built half a mile from their position, floated across the bay, and weighted with sand and lowered into position.

The advantages of concrete for subaqueous work has long been recognized, but the difficulty of cofferdamming, or of placing concrete under water, has limited the use of this material for such work. It has, for some years, been customary to build crib work to a foot or two of the low-water level, to cap the timber with concrete, carrying the superstructure of concrete up to the required level. By the method adopted at Goderich concrete work is done above water, and the wharf or foundations completed in still water, and kept dry until properly set. It was then floated into place, submerged, weighted, and the superstructure carried on above the water line. This method eliminates almost entirely timber construction.

As far as Canada is concerned, we believe this to be the first attempt at this method of construction. At Kewaunee and Algoma Harbors, Wisconsin, a somewhat