

## CONTRACTS OPEN.

GRANBY, QUE.—Mr. James Irwin will erect a steam laundry at an early date.

MAGOG, QUE.—Mr. N. A. Beach, of Georgeville, proposes erecting a saw mill here.

WINDSOR, ONT.—The agitation for the erection of county buildings has been revived.

BARRIE, ONT.—Mr. Van Sickle intends erecting a new saw mill at the head of the bay.

CARLETON PLACE, ONT.—The purchase of an electric fire alarm apparatus is under consideration.

MOUNT FOREST, ONT.—Mr. R. J. Dale is making arrangements to erect a business block in the spring.

W. TORONTO JUNCTION.—A manufacturing company is said to have selected the site for a factory north of the C.P.R. depot.

LINDSAY, ONT.—A Committee of the Victoria county council has reported strongly in favor of the erection of a County Poor House.

STRATFORD, ONT.—Arrangements are being made for the erection of a large addition to the Separate School building, to cost about \$3,000.

HAMILTON, ONT.—City Engineer Huskins estimates the cost of diverting the sewers for the Toronto, Hamilton & Buffalo Railway at \$25,000.

BEDFORD, QUE.—A special meeting of the County Council will be held on the 28th inst. to consider the question of re-building the Des Rivières Bridge.

NEW WESTMINSTER, B. C.—The Westminster and Vancouver Tramway Company is soliciting tenders for the clearing and grading of about 3,500 feet of the road.

QUEBEC, QUE.—The Courts have ordered the school commissioners of St. Antoine de Lilly to proceed with diligence in the erection of a school house on the land bought for this purpose.

ST. THOMAS, ONT.—A Committee of the Council has been appointed to ascertain the cost of an electric fire alarm system. The purchase of an electric fire alarm will result in placing the city in class "A" for fire insurance purposes.

MONTREAL, QUE.—Plans have been prepared for the widening of Bleury and Inspector streets, and Notre Dame st. east.—A sub-committee of the Protestant Board of School Commissioners is looking for a suitable site for a new school in the east end.

PICTON, ONT.—A memorial will be presented to the Government by the town council, Board of Trade and county council of Prince Edward, asking aid for the extension of the Central Ontario Railway from Coe Hill to Sudbury, and for the establishment of nickel steel works.

DARTMOUTH, N. S.—At a meeting of rate-payers held a few days ago, the following resolution was adopted: "That the council be authorized and instructed to apply to the legislature at its next session for authority to borrow the sum of \$100,000 for the purpose of providing a water supply and system of sewerage for the town."

OTTAWA, ONT.—At a meeting of directors of the Inter-provincial Bridge Co., who hold a charter to construct a railway bridge across the Ottawa river from this city to the Quebec shore, it was decided to open stock books immediately. A deputation was also appointed to solicit aid from the Dominion, Quebec and Ontario Governments.

COLLINGWOOD, ONT.—The Collingwood & Bay of Quinte Railway Co. are appealing to the county councils for assistance to carry out the surveys. The Company claim to have received assurance from capitalists that if their plans are endorsed by the country through which their road will pass, funds would be furnished to build it.

SMITH'S FALLS, ONT.—A deputation waited on the Deputy Minister of Public Works at Ottawa a few days ago, with reference to the erection of a new post office building. They received the assurance that an official would be sent up in a few weeks to select site, and the Parliament will be asked to make a grant for the construction of a suitable building.

WINNIPEG, MAN.—Application will be made to the Legislature for incorporation of the Norwood Improvement Co., the Norwood Bridge Co. and the Norwood-Electric Tramway Co., which are practically the same organization. The company has purchased 400 acres of land in St. Boniface, which it intends subdividing and placing on the market. The property will be laid out in streets, on which trees will be planted and other improvements made.

TORONTO, ONT.—The following building permits have been granted: John Graham, det. 2-storey and attic bk. dwelling, Pape ave., north of Withrow avenue, cost \$2,000; W. S. Thompson, three det. 3-storey bk. stores, north side Queen, east of O'Hara ave., cost \$12,000; John Graham, det. 2-storey and attic bk. dwelling, east side of Shaw street south of College, cost \$2,000; Davidson & Todd, pair det. 2-storey and attic bk. dwellings, west side Admiral road, north of Lowther ave., cost \$14,000; Dr. Oliphant, 2-storey and attic bk. dwelling, corner Spadina and Orchard avenue, cost \$5,000; R. Coons, five 2-storey and attic bk. dwellings, east side Bathurst st., near St. Patrick, cost \$10,000, and a 2-storey and attic bk. dwelling on Woolsley street, near Bathurst, cost \$2,100; John Douglas, 4-storey bk. warehouse, Temperance St., cost \$10,000; Chas. Hubbard, three 4-storey bk. warehouses, Adelaide St. w. of Yonge St., cost \$21,000; W. S. Thompson, three att. 3-storey bk. stores, n. side Queen St. e. of O'Hara Ave., cost \$12,000; Mr. Sullivan, pr. 2-storey and attic bk. stores, 405-7 Parliament St., cost \$2,100; Wm. Greyson, pr. 2-storey r. c. dwellings, Dupont St., w. of Palmerston Ave., cost \$1,200; L. Richey, three att. 2-storey and attic bk. dwellings, w. side Crawford St., n. of Queen St., cost \$9,000; E. Rose, pr. 2-storey bk. dwellings, e. side Ossington Ave., n. of College St., cost \$5,000.—The Rev. J. McD. Kerr is about to make arrangements for the erection of a church building for the accommodation of a mission enterprise conducted on the Asylum grounds, Queen st. w.—The Executive Committee will recommend to the City Council that an appropriation of \$30,000 be granted for the erection of a fire-proof building for the Public Library.—Mr. J. T. Stokes, County Engineer of York, in a report to the County Council, recommends the immediate overhauling of all the county bridges, and the rebuilding of a number of them.—Incorporation is being sought for by the City and County Water, Power & Light Co. for the purpose of constructing a tunnel and viaduct for water from Lake Simcoe to Toronto.—The congregation of the Campbell Ave. Methodist Church are considering the question of enlarging their building.—Contracts will be let, not later than the 1st of April, for the construction of the following sewers:—Essex st., from Christie st. to its westerly limit; Murray st., from first lane west of Dufferin st. to its westerly limit; Barton ave., from Bathurst st. to Euclid avenue.—Tenders will also be asked for sewers as follows.—Davenport road, from Yonge st. to Hazelton ave.; Armour st., from Blair st. to Lisgar st.; Garnet ave., from Christie st. to its westerly limit; Liberty st., from Frazer avenue to Dufferin st.—A special committee of the City Council has decided to recommend that a sum be placed in the estimates of the present year for the purchase of a new steam boiler and the enlargement of the boiler house at the jail.

## CONTRACTS AWARDED.

MONTREAL, QUE.—The Road Committee awarded contracts for the supply of red stone with which to macadamize Ontario and St. Catherine streets to Messrs. A. Collins and A. Brouillet, in equal shares, at \$9.25 per ton.

The manufacturers of structural material in Chicago are engaged in a discussion as to whether the columns for the World's Fair building should be made of steel or cast-iron. In a communication to the *Industrial World*, the writer says:

"The ultimate strength of cast-iron used in the manufacture of columns, in this city, is from 90,000 to 100,000 pounds per square inch, and, assuming that for work made by firms thoroughly conversant with the business, and properly inspected, a factor of safety of eight is absolutely safe, we have 12,000 pounds per square inch as the safe load for cast-iron columns, in which the length does not exceed the diameter.

Nothing very definite is known as to the strength of columns made of ingot iron, or low carbon steel, but the makers of them claim an ultimate strength of from 45,000 to 60,000 pounds per square inch, although this claim would appear to be wrong, from the facts that, in one or two instances recently, ingot iron or steel columns have failed. For this character of steel the factor of safety should not be less than six, as so little is known of it; this gives as its safe load from 7,500 pounds to 10,000 pounds per square inch.

We are informed that some of the sky scrapers now being erected have ingot iron or steel columns, in which the computations have been made to strain the material in compression to 15,000 pounds per square inch, and, as many of the columns are made of extremely light and thin material, being exposed to moisture and change of temperature, in many instances, they are certain to rust and deteriorate sufficiently, in a period of twenty-five years, to make the buildings unsafe, from the fact that, when new, their factor of safety was not sufficient, and this small factor will constantly grow smaller, until finally some great calamity will occur. Then an ordinance will be passed, prohibiting the erection of such structures.

As the cost per pound of cast-iron columns is less than one-half that of steel, and as the carrying capacity is greater, it is evident that cast-iron columns cost less than one-half those of steel; also, as a very large portion of the World's Fair buildings will eventually be torn down, the sale of the old material is an important matter; the cast-iron will be much more easily marketed, and will produce a very much greater aggregate price."

Another signing himself "Foundryman" makes the following argument: "We are sorry to say that steel has almost entirely taken the place of cast-iron for building material. This, however, is more true of Chicago than any other city of the United States. We have found by inquiry that in New York and other large cities cast-iron is used mostly for columns, almost exclusively in large fire-proof buildings.

Aside from the great difference in the cost of cast-iron and steel columns, which amounts to about 50 per cent. in favor of cast-iron, we are quite sure that it is preferable for several other reasons as a building material.

1st. Cast-iron stands a greater crushing strain than steel, the crushing strain of the first named being from 90,000 to 115,000 pounds, and that of steel from 35,000 to 55,000 pounds per square inch.

2nd. It does not corrode as fast as steel (see enclosed sample of corroded metal of steel beam during a period of six months), where cast-iron would not corrode that much in 60 years. (A sample of steel beam accompanying this letter showed great corrosion).

3rd. The relative supporting strength of cast-iron and steel columns (the most important one to be considered in their application as building material) is more than two to one in favor of cast-iron.