

have recommended the acceptance of the following tenders in connection with the Pointe du Bois power development: One second-hand 38-ton standard gauge "Baldwin" Logal locomotive, Mussels Limited, Winnipeg, at \$3,600; construction of wooden Howe truss bridge across the Winnipeg river, Buchanan & Co., \$44,127; reconstruction of Redwood avenue bridge, Kelly Bros. & Co., \$29,461; metal lockers for new police station, Schmidt & Co., \$1,351; installation of electric light and fixtures for new police station, McDonald-Wilson Lighting Co., \$630.

TORONTO ONT.—The Orpen Contracting Co. have secured the contract for the proposed sewer from Queen street to G.T.R. tracks at \$22,950. The City Engineer also tendered at \$27,000.—In connection with the new 3-storey Strand Hotel to be erected on Richmond & Victoria streets, Architect Simpson, of 17 Toronto street, has awarded the contract for the masonry work to J. Clarkson & Son.—The following contracts have been let by the Board of Control:—Asphalt pavements: Brock, Bloor to north end, Godson Contracting Co., \$4,842; Aberdeen avenue, Parliament 441 feet west, Constructing and Paving Co., \$1,450; Clinton street, Bloor to Barton, Godson Contracting Co., \$3,788; Elliott street, Broadview to Bolton, Barber Asphalt Paving Co., \$4,044; Jordan, King to Wellington, Constructing and Paving Co., \$1,357; Manning avenue, Bloor to north end, Constructing and Paving Co., \$13,974; Russell avenue, Bloor 987 feet north, Godson Contracting Co., \$3,773; Mansfield, Manning to Clinton, Engineer, \$1,896; Castle Frank, Hawthorne to Dale, Engineer, \$5,700. Macadam: Hogarth, Broadview to Logan, City Engineer, \$15,395. Concrete: Lane, first south of Queen, between Bathurst and Tecumseh, City Engineer, \$1,650. Vitrified block: Don Esplanade, Queen to Mary, City Engineer, \$9,507. Concrete walks: Dovercourt place, Salem avenue to Bartlett, Dominion Concrete Co., \$1,19½ per lineal foot; Dufferin street, Lindsay avenue to Muir, Grant Co., \$1.17; Brookfield avenue, from Queen to Humbert, City Engineer, 72c; Elmer avenue, from Queen to north city limit, Gardner Co., \$1.04; James street, Albert 151 feet north, Dominion Concrete Co., 90c; Roxborough street, from Yonge to Cluny avenue, Dominion Concrete Co., \$1.19; Regent street, from Wilton to Sydenham, both sides, Gardner Co., \$1.15; Jersey avenue, from Evans to north end, Constructing and Paving Co., 98c; Markham, from Herrick to Lennox, Excelsior Co., 75c; Dupont, from Bedford to Davenport, Crescent Paving Co., 74c; Garnet avenue, from Shaw to Miles avenue, Crescent Co., 74c. The City Engineer has been awarded following sidewalk contracts: Bathurst, Nassau to Rosemary avenue, 86c; Bathurst, Wolsley street to St. Patrick, 86c; Buchanan, Yonge to Terulay, 80c; Brookfield, Queen to Humbert, 72c; Caer-Howell, Simcoe to University avenue, 86c; Fern, Srauren to Roncesvalles, 72c; Sorauren, Dundas 137 feet north, 72c.

FIRES.

Buildings and machinery of the New Brunswick Railway & Machine Co. Gibson, N. B., loss \$75,000.—Buildings of Queen's Hotel, Pulford's drug store, I. McKinney and W. Reid, at Lacombe, Alta., heavy loss.—Buildings of Tess & Persse, paper manufacturers, and John Robertson & Co., distillers, loss, including stock, \$60,000.—Buildings and plant of the Inter-West Peat Fuel Co., Lac du Bonnet, Man., loss \$40,000.—Saw mill and building of the Albert Lumber Co., Barabois, Que. Building and machinery of the Quebec Manufacturing Co., Penetanguishene, Ont., estimated loss, \$8,000.—Planing mill of Wm. Grader, Chatham, Ont., loss \$40,000.

EXPANSION AND CONTRACTION IN CONCRETE STRUCTURES.

A paper by Mr. A. C. Lewerenz, M. Am. Soc. C. E., containing some notes on concrete and reinforced concrete retaining walls at the United States Navy Yard, Puget Sound, is deserving of study as the subject of expansion joints in structures of the kind has never been exhaustively investigated, and many practical engineers are not entirely convinced as to the efficacy of such joints. In the case of a solid concrete wall built some four years ago, Mr. Lewerenz states that the expansion joints provided all appear to be active, opening as much as 3/16 in. Across the top of the wall many fine cracks, sufficiently wide to admit the blade of a pocket-knife, and 2 in. to 3 in. deep, have appeared at intervals of about 6 ft. apart. It is interesting to compare these results with the record concerning a reinforced concrete wall with a thin face slab, and buttresses at intervals. This wall, over 1,200 ft. long, was built last summer without expansion joints, as it was considered that the reinforcement would prevent serious cracking of the concrete. The anticipation has been fulfilled, for careful examination shows the only effect of exposure to the sun at low tide during the day, and to the cold water at high tide during the night, has been the formation of very fine surface cracks across.

A CONCRETE RAILWAY TIE.

Concrete plays an important part in a new invention in railroad ties, on which Harry J. Correll, of Mt. Jewett, Pa., has secured patents. Concrete blocks connected by forged steel bars and securely bolted to the rails, make up the principal feature of the ties. It is said that with these ties there can never be a case of spreading rails, so common with wooden ties. It is claimed that the invention may solve the problem which has been confronting railroad companies for years and which refers to the securing of wooden ties, owing to the scarcity of suitable oak and other timber. It is said that the new tie is practically no more expensive than wood and will last for a lifetime. For street car tracks in cities, these ties would be desirable, it is said, because when they are once in place, the pavement would never have to be torn up to replace them. Each sleeper is approximately thirty inches long, twelve wide and twelve thick, and if necessary to guard against possible fracture, could be reinforced with metal rods laid in the blocks. Another feature which is said to appeal to railroad contractors, is the fact that these ties can be made at any point along the line of road where little concrete block work could be set up.

BRICKS FROM GARBAGE.

The system of refuse destruction in some of the English cities is beyond criticism. The money derived from the material in many instances more than covers the cost of collection and reduction, and, in addition to this, heat, light and power are supplied for municipal purposes. A notable instance is at Nottingham, England, where a third incinerator is about to be erected which will be much larger than the two existing plants. In that city one of the by-products of the plants is bricks for paving or building. The clinkers from the furnace are mixed with cement and under hydraulic pressure formed into blocks which are said to be harder and more enduring than rock itself.

USE OF PEAT IN BRICK-MAKING.

In Germany they are mixing coal and peat, making a compressed mixture, which has been used as a fuel in a brickyard with a result so favorable that it will no doubt open a new field for the use of peat fuel in brick manufacture. In the neighborhood of Jever, Oldenburg, an excellent heavy blue clay is found, which was considered suitable for the manufacture of hard clay bricks. All efforts to manufacture such bricks from this clay proved unsuccessful until a mixture of one part of peat and ten parts of coal was tried as fuel. The result was a hard, brown brick, instead of the light red brick which was produced formerly. The experiments were repeated until at last a first class brick was produced.

NOTES.

The Raven Lake Portland Cement Company, Limited, of Raven Lake, Ont., have assigned to H. R. Morton, Toronto.

Another argument against the building of "sky-scrapers" has been brought forward by the Underwriters of New York who contend that the water pressure would be quite inadequate to meet the exigencies of the situation if a fire broke out out on the upper floors of any of their big buildings. Such an event, they believe, would entail enormous loss, as they fear that the flames would spread to the other lofty structures.

At the Municipal Convention recently held in the City Hall, Toronto, Dr. Morley Wickett gave an address upon "Municipal Statistics and Debentures" showing that municipal debentures increased in the three years ending December 31st, 1906, by \$35,000,000 against a total issue of \$26,700,000 by the Provincial Governments, and that the municipal debts of Canada amount to \$150,000,000 against a total provincial indebtedness of \$100,000,000.