

building.—J. R. Booth will place two arc machines in his electric light plant at his saw mill.—Local capitalists have under consideration the erection of a cold storage warehouse.

TORONTO, ONT. — A largely signed petition for a brick pavement, with concrete and stone curb, on Huron street, between College and Bloor, has been presented to the City Clerk.—A deputation from the city council will request the Minister of Militia to complete the drill hall in this city by erecting a cavalry stable.—Messrs. Humphries & Roban, manufacturers of brass mountings and harness fixtures, Canton, Ohio, are considering the establishment of a branch factory in Toronto.—Steps will be taken at once by the Industrial Exhibition Association to erect a new stable and make other repairs to buildings at the exhibition grounds.—The Dominion Government will be memorialized to construct three groynes to protect the western point of the island, at a cost of \$1,500.—The city council have resolved to purchase a strip of land, 26x75 feet, adjoining the Bay street fire hall for the purpose of extending the building.—Building permits have been granted as follows. Wm. Murray, two 2-story and attic bk. dwellings, 157 Dowling ave., cost \$5,000; Toronto Electric Light Co., one-story bk. power house, Esplanade, south of Scott st., cost \$5,000; F. Nicholls, one-story bk. add. and alterations to dwelling, 422 Sherbourne street, cost \$1,000; Kemp Manufacturing Co., 2-story bk. engine and boiler house, rear factory, cor. Gerrard and River streets, cost \$3,000.

#### FIRES.

The Belleville Box & Basket Manufacturing Co.'s factory at Belleville, Ont., was completely consumed by fire on the 23rd inst. Loss about \$10,000, fully covered by insurance.—A brewery at Prescott, Ont., owned by J. McCarthy, Sons & Co., was burned last week. The damage is about \$30,000.—The dry goods store of T. E. Vanstone & Co., at Owen Sound, Ont., was damaged by fire on Saturday last to the extent of \$6,000.—Six houses in the village of St. Nicholas, Que., were burned on the 26th inst. The losers are: Ignace Paquet, Gabriel des Rochers, Benj. De Villiers, Geo. Bedard, Joseph Martineau and Modeste des Rochers.—The Hastings shingle mill at Vancouver, B.C., owned by E. H. Heaps and leased by J. & D. McNair, was destroyed by fire on the 27th inst. Loss, \$10,000; insurance, \$2,500.

#### CONTRACTS AWARDED.

MERRICKVILLE, ONT.—W. H. Newman has the contract for a residence for R. C. Percival.

BRUCEFIELD, ONT. — William Scott has let the contract for a residence to Mr. Gutteridge, of Seaford.

SANDWICH, ONT.—The contract for seating the court house has been awarded to the Globe Furniture Co., of Walkerville.

SHERBROOKE, QUE.—The contract for interior decoration for the Methodist church here has been let to Castle & Son, of Montreal.

GANANOQUE, ONT.—Mitchell & Wilson have secured the contract for building an addition to the Methodist church here, at the price of \$7,863.

LONDON, ONT.—The new Southern Congregational church will cost \$4,500. Moran & Ridge have the contract for brick work. Herbert Matthews, architect.

RODNEY, ONT.—Thomas C. Campbell has been awarded the contract for building the new Baptist church here. The price is \$1,800. Harry Livingstone, architect.

PETROLEA, ONT.—Forkin & Simpson

of Sarnia, have been awarded the contract to construct the pumping house, engineer's residence and intake well for the water works system.

BARRIE, ONT.—Kennedy, McVittie & Co., architects, have awarded the contract for a residence for Mrs. G. Copeland, Penetang, to A. Tessier. Heating and plumbing not yet let.

CHATHAM, ONT.—A syndicate, composed of Messrs. J. Abram, J. Kime, and W. H. Carswell, has been awarded the contract for the construction of the sedimentation basin. The price is \$9,973.

WINNIPEG, MAN.—The tender of Kelly Bros., for asphalt paving, as reported in last week's issue, has been accepted, the price being \$80,384.80 for Wasatch and \$81,134.80 for Trinidad or Bermuda asphalt.

OTTAWA, ONT. T. A. Shore has been awarded the contract for a car barn at Lake Dechene for the Hull & Aylmer electric railway.—O'Rielly & Murphy have the contract for wiring Orme & Stephen's stores on Sparks street.

NEW GLASGOW, N. S.—Raymond & Dand have been awarded the contract for the erection of the new Baptist church here. It will be a wooden edifice 50x70 feet, with stone foundation. The plans were prepared by H. H. Mott, architect, St. John.

TORONTO, ONT.—G. A. Stimson & Co., of this city, have just taken delivery of the £20,500 sterling debentures of Drainage District No. 1, guaranteed by the Province of Manitoba, which they recently purchased from the Manitoba Treasury Department.

ST. MARY'S, ONT.—Jacob Near has been awarded the contract for remodeling the Methodist church here, at the price of \$2,414. Other tenderers were: A. Falconer, \$2,775; Pullyblank Bros., \$2,625; W. W. Haines, \$2,790; Johnston & Wright, \$2,450.

HAMILTON, ONT.—The contract for the interior woodwork and fittings for the new Royal College of Dentistry, Toronto, has been awarded to J. Hoodless & Son, of this city.—The tender of John Lampman has been accepted for the construction of a sewer on Catherine street, at 33 cents a foot.

ST. CATHARINES, ONT.—S. G. Dolson, architect, has prepared plans for a buff brick residence for James A. McSloy, to cost \$5,500, without plumbing, mantels or heating. The contract has been awarded to Newman Bros., with the exception of carpenter work and interior woodwork, which has been given to George Wilson. It will have hardwood finish throughout.

GUELPH, ONT.—G. R. Bruce, architect, has let contracts as follows for a two storey brick dwelling house for Robert Strachan: Stone and brick work, Taylor Bros.; carpentry, John Hughes; painting, John Goss; plumbing, Feek & Phil-

lips; plastering, Peter Martin. The Guelph Pavement Co. have received the contract from the village of Elora for some 10,000 feet of pavement.

QUEBEC, QUE.—Messrs. O. Picard & Son, plumbers, have the contract for heating the convent at St. Roch, Quebec.—Berlinquet & Lemay, architects, have awarded the following contracts for a church on Grande Allee, for the Franciscans: Masonry, Louis Larose; carpenter and joiner's work, J. B. Gingras; roofing, L'Heureux & Dallaire, painting and glazing, J. M. Tardivel; iron work, Canadian Bridge Co. Estimated cost, \$23,000.

MONTREAL, QUE. The contract was awarded last week by the Lachine Rapids Hydraulic & Land Co., for 10,000 barrels of cement for construction purposes. The successful tenderer was Francis Hyde & Co., the price being \$2.05 per barrel.—Gamelin & Huot, architects, have awarded the following contracts for two houses on Oliver avenue for H. S. Hutchins. Masonry, brick and plastering, Z. Popel & Co.; carpenter and joiner's work, painting, glazing and heating, Georges Bail.

#### THE STRENGTH OF TIMBER.

Among the results arrived at by the committee appointed by the American Association of Railway Superintendents, for the purpose of considering the strength of timbers for bridges and trestles, emphasis is laid on the fact that variations in strength are generally directly proportional to the density or weight of the timber, and that structures should be, in general, designed for the strength of green or moderately seasoned timber, of average quality, and not for a high grade of well-seasoned material, age or use not destroying the strength of timber unless decay or season checking takes place. It is found that timber, unlike materials of a more homogeneous nature, as iron or steel, has no well-defined limit of elasticity; for, as a rule, it can be strained very near to the breaking point without serious injury, which accounts for the continuous use of many timber structures with the material strained far beyond the usually accepted safe limits; while, on the other hand, sudden and frequently inexplicable failures of individual sticks at very low limits are liable to occur. Knots, even when sound and tight, are declared to be one of the most objectionable features of timber, whether for beams or struts. The full-sized tests demonstrate, not only that beams break at knots, but that invariably timber struts will fall, owing to the proximity of a knot, by reducing the effective area of the stick, and causing curly and cross-grained fibers.

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