

ventilating of the public school is to be effected by the "Kelsey" system, manufactured by the Jas. Smart Manufacturing Co., Brockville, Ont.

BATTLEFORD, SASK.—The contract for the new land titles office has been awarded to the Saskatchewan Construction Company at \$31,000.

NEW WESTMINSTER, B.C.—J. B. Bright has been awarded the contract for the tram line from Eburne to New Westminster. The work is to be hurried to completion as soon as possible.

VANCOUVER, B. C.—In connection with the establishment of their new paper pulp works at Swanson Bay, the Canadian Pacific Sulphite Paper Company have awarded the following contracts: excavation and concrete work.—B. C. General Contract Company; construction of power dam, pipe line, and electric lighting plant.—Elliott & McCallum, Vancouver.

WINNIPEG, MAN.—The C.P.R. have let the contract for an extension of the line running north-west from Moose Jaw on the way to Lacombe and Edmonton. The line will be immediately extended northward to the South Saskatchewan river, crossing it a short distance south-west of Hanley. The contractor is J. D. McArthur. For the seventy-three miles it is estimated that the cost will be in the neighborhood of \$300,000.

REGINA, SASK.—Extension to electric light power house: Murphy & Martin, contractors, price \$7,375. Walter J. Colman, architect.—The City has ordered two new boilers of 550 horse power from the Babcock Wilcox Co. for installation in the power house.—The following tenders have been accepted by the City Engineer:—Dunn Bros. for supplying 20 inch sewer pipe at \$1.65 per foot and junctions at \$5.50 each; W. F. Lee for 15 inch sewer pipe at 75 cents per ft. and junctions at \$3.10; and 18 inch sewer pipe at \$1.05, junctions \$4.20.

LONDON, ONT.—The committee have awarded the contract for the Dundas street pavement to the Barber Asphalt Company, whose tender was the only one received. Their contract called for an expenditure of \$26,201, divided as follows: Section "A", \$6,849; section "B", \$6,814; section "C", \$3,119; section "D", \$2,278; section "E", \$3,627; section "F", \$3,514. A trifle over 12,000 yards of pavement will be laid, costing about \$2.19 a yard. The same company were awarded the contract for the curbs and sewers, although the Forest City Company's tender was \$44,711 cheaper. Total expenditure will be \$29,155.41.

TORONTO, ONT.—Electric wiring at Toronto University: Philip Lahee, Montreal, contractor, at \$7,000.—The following contracts for pavements have been awarded by the Board of Control: Asphalt pavements, Ontario street, Queen to Wilton avenue, Godson Contracting Company, \$6,827; Boustead avenue, Dundas to 650 west, Godson Contracting Company, \$2,787; Dupont street, Bathurst to Kendal, Barber Asphalt Company, \$6,888; Dupont street, Walmer to Kendal, \$1,269; Wood street, Yonge to Church, Gudson Contracting Company, \$3,949; Clinton street, Barton to Yarmouth, Construction & Paving Company, \$5,759.—The City Engineer secured the contract for an asphalt block pavement on Strachan avenue from the G.T.R. tracks to 612 feet south, at \$6,614, and for a vitrified block pavement on Peter street, from Front to Wellington, at \$2,781.

FIRES.

Buildings of Joseph Bourk, Napoleon Herbert, Three Rivers Seminary, E. Garon, Petrus Bergeron, Albert Duguay and Albert Boliveau, at Doucet's Landing, Que. Total loss about \$55,000.—Residence of Thomas Black, Huli, Que.; loss \$4,500.—Three buildings belonging to W. E. Earle, St. John, N.B., destroyed; loss \$12,500.—Factory of the Superior Mattress Manufacturing Co., Montreal; loss

\$6,000.—Pulp mills of the North River Lumber Company, Murray, C.B., totally destroyed.—Factory of Dominion Furniture Co., St. Therese Junction, Que., totally destroyed; loss \$100,000.—Dominion Elevator Company, Hamiota, Man.; loss \$20,000.

NEW COMPANIES.

The Dauphin Creamery and Produce Company, Limited, Dauphin, Man., incorporated, capital \$10,000. Incorporators, Thomas Shaw, Samuel Code, Robert Lily, G. E. Goodhand, J. G. Harvey, W. Blackadar and H. Nicholson, all of Dauphin.

The M. G. Walker Company, Limited, Winnipeg, Man., incorporated, to deal in safes, vault doors and general office supplies, capital \$40,000. Incorporators, H. Teint, M. G. Walker, J. R. Davidson, H. H. Saunderson and Clara E. Walker, all of Winnipeg.

The Peter Jansen Company, Limited, Winnipeg, Man., incorporated, to act as general agents and commission merchants, capital \$20,000. Incorporators, Hon. Peter Jansen, of Jansen, Nebraska, and J. G. Jansen, Thomas L. Metcalfe, Lorne J. Elliott, and James Ellis Steele, all of Winnipeg.

McDonald & Wilson Lighting Company, Limited, Winnipeg, Man., incorporated, capital \$60,000. Incorporators, Dunbar H. Hudson, of Winnipeg, and Chas. S. McDonald, Chas. H. Wilson, Barbara Ann McDonald and May Winfield Wilson, all of Toronto, Ont.

Elmwood Development Company, Limited, Winnipeg, Man., incorporated, capital \$40,000. Incorporators, John Coltart, R. L. Greene, W. Smith, S. Staples and A. H. S. Murray, all of Winnipeg.

Orlando Vickery, Limited, Toronto, incorporated, capital \$40,000. Directors, Orlando Vickery, Victoria M. Vickery, Arthur J. Jackson, and others, all of Toronto.

Hartigan Mining Company, Limited, Halifax, N.S., incorporated, to acquire and operate the Archibald Gold Mine at Harrigan Cove, Halifax, capital \$500,000. Incorporators, W. J. Stairs, W. E. Leverman and A. A. McKay.

Tecumseh & Walkerville Oil & Gas Company, Limited, Walkerville, Ont., incorporated, capital \$40,000. Directors, Hiram A. Walker, Hiram C. Walker and Robert J. Colloton, all of Walkerville.

Castleton Hotel Company, Limited, Castleton, Ont., incorporated, capital \$2,500. Directors, Henry Brown, Levi B. Welton and W. R. May, all of Castleton.

General Industries Construction Company, Limited, Toronto, Ont., incorporated, capital \$100,000. Directors, John A. Patterson, G. F. McFarland, A. McKenzie, and others, all of Toronto.

The Martin Corrugated Paper &

Box Company, Limited, Toronto, incorporated, capital \$30,000. Directors, S. Martin, H. Martin and James A. Martin, and others, all of Toronto.

E. Harvey, Limited, Guelph, Ont., incorporated, to carry on the business of builders' supplies, capital \$300,000. Directors, Edmund Harvey, Joanna L. Harvey and Harriett Harvey, all of Guelph.

FIRE TEST OF REINFORCED BRICK FLOOR.

Brickwork requires no recommendation as a fire-resisting material, for its qualifications in this respect are beyond dispute. But without the aid of steel in some form bricks cannot be conveniently applied to floor construction of the kind required in ordinary buildings.

A report issued last week by the British Fire Prevention Committee gives the results of fire and load tests upon a floor built of stock bricks and concrete, both reinforced by longitudinal bars of steel. The bricks were laid on edge in one course, the rows being 1 in. apart. The spaces were filled with Portland cement mortar in the proportions of 1:3, and in three out of every four spaces steel bars $\frac{3}{8}$ in. square were laid at the distance of $1\frac{1}{2}$ in. above the under surface of the floor. The bars were bent upwards near each support, and their ends formed into hooks of about 6 in. diameter projecting above the upper surface of the bricks. The floor was completed by a layer of concrete $5\frac{3}{8}$ in. thick, composed of one part Portland cement, one part of sharp sand, one part granite chippings $\frac{1}{4}$ -in. gauge and one part granite chippings 1-in. gauge. Three hooked bars were applied as transverse reinforcement in the concrete immediately above the bricks.

The floor thus built had the total thickness of $9\frac{3}{8}$ in., the centering was struck after the lapse of twenty-six days, and at the time of testing the work had been hardening for 112 days. When the distributed load of 280 lb. per square foot had been imposed the floor was subjected to heat with the results stated below.

In ten minutes, at the temperature of 850-900 deg. F., flakes of mortar commenced to fall from the joints; in fifteen minutes, at the temperature of 875-900 deg. F., the floor began to deflect and continued to do so until the maximum deflection of 3 in. was recorded at the temperature of 1,900-2,000 deg. F.; in 20 minutes, at the temperature of 900-1,000 deg. F., the corners of the floor warped upwards, leaving spaces which ultim-

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