

manufacture of woodworking machinery, and will erect a two story stone building 200 feet x 100 feet, at a cost of \$20,000.

**RAT PORTAGE, ONT.**—Hon. Robt. Watson, Minister of Public Works, has instructed Mr. George Browne, architect, of Winnipeg, to prepare plans for the new court house building to be erected in this town.

**STOFFVILLE, ONT.**—Tenders are invited until the 25th inst., for the erection of a Presbyterian church in this village. Plans may be seen on application to Mr. J. J. Rae, in this village, or at the office of Messrs. Gregg & Gregg, architects, Toronto.

**LUNENBURG, N. S.**—The ratepayers have decided to erect a new academy, at an outlay of \$15,000. The building will be of wood, with improved system of heating and ventilation. There will be fourteen departments, besides laboratory and library.

**KINGSTON, ONT.**—Power & Son, architects, are preparing plans for a four story building to adjoin the new Rectory building, and to be erected of similar materials. The same architects are preparing plans for a building for the use of the Roman Catholic societies of the city.

**BROCKVILLE, ONT.**—We learn that the plans are being prepared by the Union Bridge Company, of New York, for the proposed international bridge across the St. Lawrence river between this city and Morristown. Construction is expected to commence as soon as financial arrangements are completed.

**OTTAWA, ONT.**—Mr. G. M. Bayly, architect, has prepared plans for a block of stores, with concert hall above, for Messrs. Grant Bros., to be built on Bank street, and having pressed brick front. Tenders will be asked for at once.—Plans have been prepared for a residence on MacLaren street for Mr. P. Rochon.

**AYLMER, ONT.**—The municipal council, at a meeting held on Monday of last week, decided to engage Mr. Rambold, C. E., of Ottawa, to make a survey of the town and prepare an estimate of the cost of constructing a complete system of waterworks. It is thought the work will cost about \$60,000, and it is probable debentures will be issued for that amount.

**WOODSTOCK, N. B.** The promoters of the Woodstock and Houlton railway are preparing a bill to be presented to the Legislature, asking for power to build a railway from a point on the C. P. R. near Woodstock to the American boundary line in the parish of Richmond. The capital stock is to be \$100,000. Mr. C. F. K. Diblee, C. E., is prospecting for a favorable route.

**QUEBEC, QUE.**—It is stated that the Grand Trunk Railway Company contemplates the erection of engine sheds at South Quebec this summer.—The Quebec, Montmorency & Charlevoix Company are about to proceed immediately with the construction of their new station on St. Paul street. Contracts have also been given out for the repairing of all the stations on the lines between Quebec and St. Anne.

**GUELPH, ONT.**—At the last meeting of the City Council, the erection of a new bridge at Gows was recommended at an estimated cost of \$3,000 for super-structure, approaches and masonry.—Mr. R. Morrison will receive tenders until Monday, the 19th inst., for the erection of a two-story brick house on park lot No. 65, Yorkshire street.—Poultry buildings are to be erected at the Ontario Agricultural College, one 136 x 15 feet, and the other 115 x 15 feet.

**WINNIPEG, MAN.**—The construction of a sewer on Bannatyne avenue, from Kate street to Nena street, at a cost of \$8,750, is recommended by the Board of Works.—Separate or bulk tenders are invited until the 16th inst. for the erection of a new church edifice for the Board of Management of St. Andrew's church. Plans may be seen at the office of Mr. James McDiarmid and tenders are to be addressed to Mr. J. A. Platt, secretary, City Hall.

**HAMILTON, ONT.**—It is reported that the Grand Trunk Railway Company will make a proposition to the Dominion Government to erect a railway bridge across the canal at Hamilton Beach.

The question of forming a new school section and erecting a school building will be discussed by the Barton Council on the 16th inst.—Tenders will shortly be asked for the erection of the new Sunday school building in connection with Knox church. The old manse will be torn down and the new school built out to Cannon street.—Building permits have been granted as follows: S. S. Rolis, two semi-detached brick dwellings on Hunter street, between Wellington and Liberty streets, cost \$2,800; J. T. Hancock, for a two-story brick dwelling on Inchbury st., between York and Tecumseh streets, to cost \$1,000.

**TORONTO, ONT.**—Mr. Frank Turner, C. E., on behalf of the Ontario Water Works Construction and Supply Co., has asked permission from the City Council to construct a system of waterworks on the island, and for the use of sufficient land on which to build a pumping station and other necessary buildings, together with an elevated storage tank.—The construction of sewers on a lane off Elm st. was confirmed by the Court of Revision on Monday last. A petition protesting against the widening and paving of Avenue Road was presented, and action in the matter will be deferred for a time.

—It is said that a new grain elevator will be erected at Little York, to be completed in time for the fall trade.—Messrs. Gregg & Gregg, architects, Victoria street, have prepared plans and are receiving tenders for the erection of a Presbyterian church in Stouffville.—Building permits have been granted as follows: F. R. Richardson, 461 College st., 3 story bk. store and dwelling, with lodge room above, also one and a half story bk. stable rear s. w. cor. College and Markham sts., cost \$8,000; A. Jones, 13 Humbert ave., det. 2 story and attic bk. dwelling, e. side Crawford st., opposite school, cost \$3,000; L. H. Clarke, 26 Front st. e., 2 story bk. add. and alterations to dwellings, 63 Isabella st., cost \$3,000; Geo. Kerr, 62 Wellington st. w., 2 story bk. add. to factory on Millstone Lane, cost \$1,500.

**MONTREAL, QUE.**—Mr. A. Davis, Superintendent of Waterworks, invites tenders until Tuesday, the 17th inst., for the supplying and erecting of a double horizontal turbine and power pumps for the water works.—David R. Brown, architect, is about to close contracts for extensive alterations to building on St. Paul street for the Estate Tiffin. He is also preparing plans for alterations to residence of Mr. Hugh Paton, Sherbrooke street, and for three other residences. In the report presented at the annual meeting of the Canadian Pacific Railway Company held last week, it was shown that the sum of \$741,965 would be required for permanent bridge work, and other improvements; \$137,150 for terminal yard and buildings at Toronto, and for Montreal terminals; \$115,230 for various buildings, siding and spurs, additional fencing and miscellaneous improvements; \$75,000 for substitution of heavy rails for lighter; \$195,000 for a steamer for local service on the Pacific coast, and \$250,000 for other rolling stock and equipment.—The Road Committee has decided to construct a brick sewer on Mignonne street, between St. Denis and Sauguiet streets, at a cost of \$1,130.—Mr. J. A. Chausse, architect, writes that Mr. Raza is not the sole architect for St. Bridget's school, as stated in our last issue, Messrs. Chausse and Raza having been appointed joint architects.

#### FIRES.

A residence on Bath road, Kingston, owned by G. Sears, was destroyed by fire on Monday last; insurance \$2,000.—The residence of Mr. J. E. Lawlor, at Strathroy, Ont., was damaged by fire recently to the extent of \$2,000 which is covered by insurance.—Buildings at Brechin, Ont., owned by Mrs. Luck, Mr.

Gillespie and Mrs. O'Neill, were destroyed by fire last week. The loss in each case is partially covered by insurance.—The engine house of the Ontario Car Works at London, Ont., was destroyed by fire on the 4th inst., the foundry being also badly damaged. Loss, \$5,000. The buildings were owned by Mr. George Burland, of Montreal.—Thos. O'Neil's residence at Merriton, Ont., was destroyed by fire on the 8th inst.—The drug warehouse of Giroux Bros., on Peter street, Quebec, was damaged by fire recently to the extent of \$7,000, the loss being covered by insurance.—Two houses at Shediac, N. B., owned by E. J. Smith and Joseph Lamb, were consumed by fire on the 6th inst.—John Wible's greenhouse at Kingsville, Ont., was burned on Monday of last week. Loss, \$12,000; partly insured.—The grain elevator at Belwood, Ont., was totally destroyed by fire on Tuesday last. Loss on building and machinery, \$6,000.—H. Stroud & Co's carpet works at Paris, Ont., were destroyed by fire on the 10th inst. Loss about \$30,000.—The Grand Trunk station at Allandale Junction, Ont., was burned recently.—The dwelling house of N. A. Jerome, at Orono, Ont., was burned to the ground on Tuesday last.

#### CONTRACTS AWARDED.

**DESERONTO, ONT.**—The Rathbun Co. have received the contract for pressed brick and terra cotta for a new furniture warehouse for Mr. John Dalton.

**HALIFAX, N. S.**—Messrs. Rhodes, Curry & Co., of Amherst, have been awarded the contract for the Nova Scotia Furnishing Company's new building on Barrington street.

**MCKELLAR, ONT.**—Messrs. J. & S. Armstrong, of this place, have been awarded a sub-contract on the Parry Sound Colonization Railway, amounting to about \$15,000.

**PICTOU, N. S.**—It is reported that Messrs. Rhodes, Curry & Co., of Amherst, have been awarded the contract by the Dominion Government for the erection of the post office building here.

**MONTREAL, QUE.**—David R. Brown, architect, has let contracts as follows for two houses for the Estate Monk on Kensington ave.: masonry, J. H. Hitchison; brickwork, A. Cowen; carpentry, W. Swan; plumbing, F. Horton; roofing, E. W. Reed; painting, Castle & Son; plastering, John McLean; steel work, Canadian Bridge Co.

**KINGSTON, ONT.**—Messrs. Power & Sons, architects, have awarded contracts for the new office building for the Rectory Committee as follows: masonry, &c., J. Newlands; carpentry and joining, E. M. Story; painting and glazing, T. M. Milo; heating, plumbing and metal work, McKivley & Birch. Don Valley pressed brick and Credit Valley stone facings will be used in the construction.

#### NEW COMPANIES.

**MONTREAL, QUE.**—The Wm. Clendinning & Son Co., incorporated.

**BUCKINGHAM, QUE.**—The Press Brick Co., of Buckingham, is being organized, to manufacture press brick; Albert McLaren, manager.

**NIAGARA FALLS, ONT.**—Colonial Telegraph and Telephone Co.; seeking incorporation; capital stock, \$25,000; incorporators, James Hampfield and others.

**AYR, ONT.**—Goldie Milling Company, limited, seeking incorporation; capital \$180,000; incorporators, David, John and G. E. Goldie and R. Neilson, of Ayr, and Hugh McCulloch, of Galt.

**VANCOUVER, B. C.**—The Stevenson Gold & Platinum Hydraulic Mining Co., applying for incorporation; capital stock, \$1,000,000; applicants, Robert Stevenson, Jos. H. Thain and W. L. Hogg.

#### BUSINESS NOTES.

The stock of Thos. Linklate, plumber, Montreal, is advertised for sale.

Messrs. Denton & Dods have filed a petition in the Chancery Division, on behalf of John McGlade, asking that the Mimico Sewer Pipe and Brick Manufac-

turing Company be wound up. The proprietors of the company are Messrs. R. West, John Kennedy, A. Stewart, and W. P. Kieron, and the liabilities are estimated at about \$9,000. The assets consist of a plant valued at \$20,000, on which the Bank of Toronto and the Ontario Bank have liens for \$20,000.

## MUNICIPAL DEPARTMENT.

### WATER AND GAS PIPES IN DIFFERENT SOILS.

The corrosion of cast iron pipes by the soil, according to Prof. Weber, of Berlin, is greatly accelerated if sulphuretted hydrogen be present together with atmospheric oxygen, the sulphide which is readily formed being rapidly converted into oxide by the free oxygen. Chlorides in the soil have a similar effect when free air has excess. Under salt water, cast iron is in about fifty years converted for about a third of its thickness into a gray graphoid mass. Water containing nitrates or nitrites has very energetic action as does also ammoniacal matter; and pipes near an old cemetery and a foul spring were eaten through, the water coming in contact with the iron being strongly charged with ammonia, and containing also chlorides and sulphates of potash, soda and magnesia. It is recommended, especially to prevent contamination of drinking water, that pipes traversing such ground be protected by a coating of clay or asphalt.

The erosion of sewer inverts where the velocity of flow is considerable has been investigated by City Engineer Andrew Rosewater, of Omaha, Neb., who finds in that city that the wear is mainly for a width of 18 to 24 inches and amounts to 2 or 3 inches after a dozen years of service. A noticeable feature is found on curves, where the greatest erosion is always found on the inside of the curve. Mr. Rosewater conjectures that "the centrifugal force carries the water in an oblique position in passing around the curves, throwing the sediment to the lowest end of the section on account of its greater specific gravity, and this sediment concentrates all the rubbing against the brick work on the inner side, where it is massed, causing it to wear out faster than where the water alone comes in contact."

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