

SARNIA, ONT.—Plans are now being prepared for a new hotel to be erected on the corner of Palmerston and Green streets, north of the station. It will be a frame building on a stone foundation, 56x72 feet, two and a half stories and basement, and will contain accommodation for fifty guests. The building will cost in the neighborhood of \$6,000.

SAULT STE MARIE, ONT.—The Ontario and Sault Ste Marie Water, Light and Power Company want tenders until Thursday, May 19th, for excavation, masonry, concrete, timber, iron, dredging, etc., necessary in the construction of Sault Ste Marie water power canal. Plans to be seen at the office of Mr. John A. Wilde, Resident Engineer.

BRANDON, MAN.—Mr R Hall of Whitehead is going to erect a handsome residence here.—Tenders are wanted until the 10th May for trenching and laying pipes for the water works and sewerage systems. Particulars can be obtained from Mr. J. C. Kerr, City Clerk, this town, or Mr. Thos. Worwick, Consulting Engineer, Toronto, Ont.

HAMILTON, ONT.—Building permits have been granted as follows: L. D. Cahill, additions to dwelling at the corner of Emerald and Stinson streets, cost \$800; Corporation of the city of Hamilton, brick building for a maternity hospital, cost \$2,300; C. Gurney one two-storey brick dwelling on Belmont avenue, cost \$3,500.—Mr. Stewart, architect has been engaged to prepare plans for a bank building to be erected at Alliston for the Bank of Hamilton.

BROCKVILLE, ONT.—Hon. Mr. Fraser, Commissioner of Public Works for Ontario, was in town recently in connection with the selection of a site for the insane asylum. He states that the contract will be awarded as soon as the site is decided upon. The total cost of the proposed buildings will be in the neighborhood of \$250,000.—St. Paul's Church is to be improved by the addition of a chancel, new seats stained glass windows, etc. R. Gambier-Bousfield, architect, Toronto, will have charge of the work.

OTTAWA, ONT.—Mr. John Davis is erecting a new brick residence on Clarence street.—The Electric Railway Company has purchased property adjoining their sheds on Albert street, and will erect buildings thereon during the coming summer.—Messrs. Kivas Tully and David Blain, of Toronto, held an interview recently with the Hon. Mr. Abbott, regarding the subsidy for the Huronian ship railway scheme. They advocated the construction of a 20-foot canal nine miles long, from the Georgian Bay to Lake Simcoe, as the initial step.

KINGSTON, ONT.—Mr. Arthur Lills, architect, will receive tenders until Monday, May 2nd, for the supplying of all materials and the construction of an asphalt bicycle track for the Kingston Amateur Athletic Association.—The following sums will be spent on public buildings in this city during the present year: Public school, \$20,000; collegiate institute, \$24,000; Regiopolis college, \$50,000; military college, \$10,000.—Tenders will be received by the Superior, Hotel Dieu, until May 7th, for the several trades required in making alterations to the Regiopolis building for the sisters of the Hotel Dieu. Mr. W. Newlands, architect, will have charge of the work.

WINNIPEG, MAN.—The Bank of British North America has purchased a site on Main street on which to erect a large block during the coming summer.—Mr. Jas. Burridge intends to erect a residence on George street.—Mr. C. H. Wheeler, architect, is preparing the plans for the addition to the general hospital.—Work will soon be commenced on the new Baptist church to be erected on the corner of Cumberland and Hargrave streets. The cost of this building will be about \$40,000.—The addition to the court house will be started in about a month's time, and it is the intention of the Government to expend about \$50,000 on this work.—Mr. Pettigrew will build a residence on the corner of York and Hargrave streets, which will cost in the neighborhood of \$4,000.—Mr. John Galt will erect a fine residence on River avenue. Operations will commence in a few weeks.—The sum of \$25,000 will be expended this year on the new North Central school.—Mr. T. Rutherford contemplates erecting a building on the corner of Nellie and Bal-

mond streets during the coming summer.—W. H. Thompson will build a residence on Assiniboine street, to cost about \$4,500. The H. B. Co. intend remodelling their land and northern department buildings immediately. The changes will cost several thousand dollars.

TORONTO, ONT.—The Markets and License Committee have decided to ask the City Council for an appropriation of \$10,000 for the extension of the cattle market.—Geo. M. Miller, architect, 1 Queen St. east, wants tenders until May 3rd for the erection of a pair of houses on Carlton street.—The City Council have decided to purchase the block of land on the lake shore situated between Port Credit and Long Branch for a rifle range. The sum of \$12,000 will be expended for equipment, including trenches, drains, buildings for storing materials, etc.—The Medical Health Officer has been instructed to report on the best means of putting the west end of Ashbridge's Bay in a sanitary condition.—The Fire and Light Committee want an appropriation of \$5,275 for preparing the towers and placing illuminating clocks in the Ossington avenue, Cowan avenue, and Bolton avenue fire halls.—The promoters of the Mimico electric railway will receive tenders until noon on Wednesday, May 4th, for the erection of their power house at the Humber. Plans at County Engineer's office, Court House.—The following building permits have been granted: Edward Trout and Thomas Todd, 3-storey bk. add. rear 72 Church st. cost \$7,000, Wm. Belshaw, three att. 2-storey & attic bk. dwellings, n. w. cor. Euclid ave. and Lennox st., cost \$13,000; Beard estate, 7-storey and basement bk. and stone bank, office and hotel, s. e. cor. Jarvis and King sts, cost \$60,000, Home Savings Co., 3-storey bk. add. and alterations to office 78 Church st., cost \$7,500, Geo. Gibling, det. 2-storey bk. dwelling, n. side Victor ave. opp. De Grassi st., cost \$2,000, John Poucher, three att. 2-storey & attic bk. dwellings, w. side Gifford st., cost \$7,000.

MONTREAL, QUE.—A petition has been drawn up by the councillors of St. Henri asking the Grand Trunk Railway company to erect a new depot at that place.—Plans are invited by the ladies of the Montreal Protestant Orphan Asylum for a new building to be erected on the northwest corner of Summerhill avenue and the Cote des Neiges road.—Mr. J. H. R. Molson has donated \$3,000 to the Protestant Hospital for the Insane, to be used in the erection of a pavilion.—The Montreal Water and Power Company have had plans prepared for the utilizing of the water power at the Back river.—A. Gosselin, Assistant City Clerk, will receive tenders until Tuesday, the 14th of May next, for the privilege to construct and operate electric railways on various streets throughout the city.—The City Surveyor has given notice of the intention of the Council to construct sewers on the following streets: Stadacona street, from St. Germain street to Prefontaine street; Prefontaine street, from Stadacona street to Ontario street, Ontario street, from Prefontaine street to the Canadian Pacific Railway.—The congregation of Erskine church will meet on Wednesday next to consider the plans for alterations to their church. Mr. A. C. Hutchison, architect, has prepared four sets of plans, the cost of execution ranging from \$7,500 to \$55,000.—The Fire and Light Committee have decided to ask the City Council for an appropriation of \$15,000 to erect a new public station in St. Lawrence ward, and \$10,000 for a new station in Hochelaga.—At a vestry meeting of St. Matthias' church, Cote St. Antoine, held recently, a committee was appointed to proceed with the erection of a new church.—The Montreal Land and Improvement Company are applying for incorporation with a capital of \$300,000. The company propose to construct docks, warehouses and elevators.—L. R. Montbrant, architect, is preparing plans for six dwellings, corner Wellington and Liverpool streets for Mr. Mercier two houses on St. Herbert street for Mr. G. B. Demars, and extensive alterations to Mr. Beuchant's residence.

FIRES.

James Thompson's saw mill near Lynden, Ont., was destroyed by fire recently. Loss, \$6,000, no insurance.—Mr. S. J. Brooks' dwelling and general store at Campbellford, Ont., were burned on the 23rd inst. Loss, \$2,000.—The residence of P. Thompson, College street,

Toronto, and the Lansdowne Hall adjoining, were badly damaged by fire on Monday last.—The grist mill of Messrs. Bentz & Pitalke at Eganville, Ont., was destroyed by fire on the 20th inst. Loss, \$10,000, insurance \$6,000.—The following buildings in Casselman, Ont., were destroyed by fire recently: Gilbert Pierre's grocery, Alexander Pilon & Bros.' general store, F. Amyotte's blacksmith shop, M. Boudreault's blacksmith and carriage shop, M. Jolie's carriage shop, and some private dwellings.—The Baptist church and Temperance Hall at Doaktown, N. B., were destroyed by fire on the 25th inst.—The residence of Mr. J. B. Fick, at Port Rowan, Ont., was destroyed by fire on Tuesday last.—Messrs. Bowman & Zinkan's tannery at Southampton, Ont. was totally destroyed by fire on the 28th inst. Loss, \$25,000; insurance, \$8,000.—The Commercial Hotel at Listowel, Ont., was totally destroyed by fire on the 26th inst. The building was insured for \$2,650, which will almost cover the loss.—The residence of Mr. J. W. Knowles at Rockwood, Ont., was burned on Wednesday last. Loss, \$2,500; insurance, \$1,600.—Quickfall's saw and chopping mill at Glenallan, Ont., was burned to the ground on the 26th inst. Loss between \$10,000 and \$12,000, no insurance.—A. Morrison's residence at Petrolia, Ont., was burned on Tuesday last. Loss, \$1,200.

CONTRACTS AWARDED.

TORONTO, ONT.—Messrs. Medler & Arnott have secured the contract for the construction of a wharf at the eastern end of the Island, at the price of \$1,993.

MONTREAL, QUE.—The contract for the wood work of the College of Philosophy in connection with the Grand Seminary of Cote des Neiges, has been awarded to Parquette & Godbout, the amount of their tender being \$59,000.

KINGSTON, ONT.—Mr. C. Maund has accepted the following tenders for the erection of a residence on William street: Masonry, J. C. Mitchell carpentry, Barber & Johnston; painting, Robinson Bros.; hot water heating, McKelvey & Birch; plumbing, J. Jamieson, tinsmithing, Nugent & Taylor.

HAMILTON, ONT.—The contract for dredging the harbor at this place has been awarded to Mr. T. B. McNamee, of Montreal.—The Hospital Committee have accepted the following tenders for the erection of the maternity hospital: Masonry and brickwork, Alfred F. Webber, \$857; carpenter work, James Purvis, \$907; tithing and plastering, James McKee, \$103, unwork, John L. Riddell, \$47, painting and glazing, F. W. Kirk, \$113, plumbing and gasfitting, Wm. Farmer, \$185.

MIXTURES FOR THE REMOVAL OF STAINS, ETC.

In chemical works it is no uncommon occurrence for one's hands to become so soiled with the various well defined and separate nastinesses to be found there as to be quite insusceptible of cleaning by ordinary soap or soap powder. One of two chemists, of our acquaintance, the *Chemical Trade Journal* says, use a mixture under these circumstances which we publish for the benefit of those of our readers who care to try it. Take about two or three grammes of bleaching powder, the same quantity of soda ash, and about twice their bulk of sawdust. Completely saturate these with caustic soda liquor, say, 10 or 15 Twaddell, and quickly rub over the hands. As soon as the desired effect is produced, rinse the hands with hot water. It is occasionally necessary to repeat the process, but, as a rule, one application suffices to make the hands perfectly clean. There is an odor of bleaching powder perceptible from hands thus treated, to which some may object, but this may be destroyed, and the appearance of the hands still further improved by rubbing them over with a little sulphurous acid solution, or by rubbing first with a solution of sulphite or hyposulphite of soda, or sulphite of ammonia, and, while still wet from this, rubbing over with very dilute hydrochloric acid. The hands should be well washed with water, and a little ten per cent. glycerine rubbed in to keep them soft. Nitric acid stains on the hands still appear to defy all comers, except pumice stone, but inks and organic stains may—in the absence of bleaching powder—be generally removed by a mixture of chlorate of potash and hydrochloric acid.

MUNICIPAL DEPARTMENT.

NEW BUILDING LAW FOR NEW YORK.

Among the most important provisions of the bill are the following:—

Every building constructed or altered for a hotel, tenement house or lodging house must have the first story above the cellar absolutely fireproof. The stairway from the cellar to this first floor must be inclosed in brick walls and provided with a self-closing iron door at the bottom. It must also be at the rear of the stairway leading to the upper stories. All stairs and halls in the centre of the building must have a fireproof hallway leading from them to the street. Within six months all hotels must have at least one continuous line of stair-cases from top to bottom, inclosed in brick walls and giving a direct exit to the street. The same time is allowed the hotels to inclose all their elevators in brick walls, and the superintendent of buildings may require all elevator shafts to be inclosed, and to be provided with trap doors, to be kept closed when not in use. The law is to go into operation in thirty days after its passage.

This movement is a direct outcome of the terrible fire in the Hotel Royal, and is framed in the light of the lessons so severely taught by that disaster.

TESTS FOR THE PURITY OF WATER.

The apparatus used in testing the purity of water is simple and cheap. First procure a dozen test tubes, about 4 in. or 5 in. long, and 1 in. wide at the top. Next, a glass rod, about 6 in. long, for stirring, and also a small pipette. This may be made by heating a piece of glass tube in the flame of a spirit lamp, and when it gets hot enough draw it out in opposite directions. When it is cool the ends may be broken away to any desired aperture. Then get a few (say three or four) glass beakers, and this is all the apparatus needed to detect the ordinary impurities of water. Now for the test solutions. They are made thus: 1. Ammonium oxalate, 10 grains, distilled water, 2 drachms. 2. Barium chloride, 8 grains, distilled water, 2 drachms. 3. Potassium ferrocyanide, 12 grains; distilled water, 1½ drachms. 4. Lead acetate, 11 grains; distilled water, 1 drachm. 5. Nitrate of silver, 4 grains, distilled water, 1 drachm. 6. Potassium chromate, 5 grains; distilled water, 1 drachm. 7. Lime water. Lime water is made by steeping a lump of unslacked lime in distilled water, shaking well, and letting it stand for eight or ten hours. Then decant the liquid and filter it, the clear solution, which passes through is lime water. These solutions are quite strong enough for ordinary use. Having prepared the seven foregoing solutions, let us proceed to use them. Taking any sample of water, let us pour a little into each of the test tubes. To the first tube add a little of solution 3; if there is a blue precipitate, it shows the presence of iron. To the second, add some No. 4; if there is a milky precipitate, it shows the presence of ammonium carbonate. To the third, add some of No. 2, if this gives a milky precipitate, it shows the presence of a sulphate. This is usually a sulphate of lime; for if some of No. 1 be added, and a milky precipitate is given, there must be lime present. If some of No. 6 be added, it gives a light yellow precipitate if lead be present. No. 5 gives a milky precipitate if a chloride be present; this chloride is usually chloride of sodium, that is—common salt. It may also be calcium, chloride of lime (that is calcium oxide) was shown to be present by test 1. Chalk (that is carbonate of lime) can also be shown to exist in water, for carbonic acid gives a milky precipitate on the addition of lime water, and lime was shown to be present by No. 1. The pipette is used to take up the test solution in drops. To do this it is only necessary to put the small end into the liquid for the distance of about ¼ in.; then press the finger on the open end and draw it out; place the nar-