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CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL OF PUBLIC WORKS, TENDERS, ADVANCE INFORMATION AND MUNICIPAL PROGRESS

EVERY THURSDAY

THIS PAPER REACHES EVERY WEEK THE TOWN AND CITY CLERKS, TOWN AND CITY ENGINEERS, COUNTY CLERKS AND COUNTY ENGINEERS THROUGHOUT CANADA.

Vol. 4. Toronto and Montreal, Canada, March 30, 1893. No. 7

THE CANADIAN CONTRACT RECORD,

PUBLISHED EVERY THURSDAY
As an Intermediate Edition of the "Canadian Architect and Builder."

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64 Temple Building, Montreal.
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Information solicited from any part of the Dominion regarding contracts open to tender.

ADVERTISING RATES ON APPLICATION.

At its Convention held in Toronto, Nov. 20 and 21, 1889, the Ontario Association of Architects signified its approval of the CANADIAN CONTRACT RECORD, and pledged its members to use this journal as their medium of communication with contractors with respect to advertisements for tenders.

The following resolution was unanimously adopted at the First Annual Meeting of the Province of Quebec Association of Architects, held in Montreal, Oct. 10th and 11th, 1890: "Moved by M. Perrault, seconded by A. F. Dunlop, that we the Architects of the Province of Quebec now assembled in Convention being satisfied that the CANADIAN CONTRACT RECORD affords us a direct communication with the Contractors,—Resolved, that we pledge our support to it by using its columns when calling for Tenders."

Subscribers who may change their address should give prompt notice of same. In doing so, give both old and new address. Notify the publisher of any irregularity in delivery of paper.

BARTER AND EXCHANGE.

This department has been opened for the speedy barter and exchange of second-hand plant or material, or small lots of new or second-hand materials by builders and others not regularly engaged in the sale of such articles. Advertisements other than those of the above description will not be inserted.

RATES—12 words and under, 25 cents; each additional word, 1 cent (three figures count one word); on two or more subsequent insertions a discount of 10 per cent. will be allowed. Not more than four insertions of an advertisement can be granted.

Replies to advertisements may be addressed to a box at this office, in which case necessary stamps must be sent for re-mailing replies. Advertisements for this department must be prepaid.

TO DRAUGHTSMEN.—About 2½ quires of Whatman's Drawing Paper for sale (Imperial size), only \$6 for the lot. Box 151 at this office.

FOR SALE Builder's plant, consisting of plank, poles, pullocks, scaffold, ropes, horses, wagons, sleighs, etc. Apply 194 Bellwoods Ave.

TENDERS WANTED.

Tenders will be received at the office of the undersigned until noon, FRIDAY, APRIL 7TH, 1893, for the artists' works to be done in erecting a Brick School House at Woodbridge. Plans and specifications on view at my office. Tenders for whole work or parts. The lowest or any tender will not necessarily be accepted. Contractors will be required to furnish satisfactory evidence of their ability, financial and otherwise, to properly execute the work.

JAS. A. ELLIS, Architect,
GEO. ELLIOTT, Kilburn Hall, Toronto Junction.
Sec. P. S. B., Woodbridge.

TENDERS

Will be received by the Secretary of the Public School Board up to APRIL 13TH for the several works required in the erection of a

Four Room Brick School Building

in the Village of St. George. Plans and specifications can be seen at the office of the Architect, also at the office of the Secretary P. S. B. No tender necessarily accepted.

R. A. LAWRASON, Sec. P.S.B.,
JAS. A. ELLIS, Architect, St. George, Ont.
Toronto Junction, Ont.

TORONTO JUNCTION SEWERAGE WORKS.

Tenders will be received at the office of the Town Clerk until 6 p.m., on WEDNESDAY, APRIL 12TH, 1893, for furnishing materials for the construction of about

8,700 Lineal Feet of Sewers

as per instructions to bidders, which will be forwarded upon application at the Sewerage Works office, Toronto Junction, or at the office of the Chief Engineer, 103 Bay St., Toronto.

By order of the Town Council,
WILLIS CHIPMAN,
THOS. WRIGHT, Esq., Chief Engineer.
Chairman Board of Works,
R. J. LEIGH, Esq., Town Clerk.

TO CONTRACTORS.

Tenders will be received by the Secretary-Treasurer Toronto Junction High School Board up till APRIL 10TH NEXT, for the erection and completion of the

Toronto Junction High School Building.

Tenders will be received for the various trades separately or the entire works.

Plans and specifications can be seen at the office of the architect on and after Friday, March 31st. A marked cheque for five per cent. on tenders for less amount than one thousand dollars, and two and a half per cent. on tenders over that amount, must accompany the tender. The lowest or any tender not necessarily accepted.

J. A. ELLIS, J. F. HOLDEN,
Architect. Sec. Treas.

A model of St. Peter's church at Rome, will be exhibited in a building 50x100 at the Cloumbian Exhibition. This antique monument, valued at \$100,000, is a perfect miniature of the great Roman church, with its wonderful marbles, statuary and painting, and has been made from Michael Angelo's original plans.

PAPIER MACHE is finding more extended use for sunken panels and relief ornaments, as well as for figures in the round, its comparative lightness being a highly appreciated quality. The high beautiful finish of which it admits, by means of enamel color, and the delicacy and sharpness of contours that may be imparted to relief forms are in its favor.—*The Decorator and Furnisher.*

CONTRACTS OPEN.

HARTNEY, MAN.—Mr. Code proposes to erect a flour mill.

WARTBURG, ONT.—The Orange Lodge has decided to erect a new hall at an early date.

MANSONVILLE, QUE.—The Methodist church lately destroyed by fire will be rebuilt at once.

WALLACEBURG, ONT.—A system of waterworks will probably be constructed in the near future.

PERTH, ONT.—Two new buildings will be erected this summer on the Grant and Matheson property.

BRANDON, MAN.—More school accommodation is required, and a new building will probably be erected.

COBURG, ONT.—Northumberland Patrons of Industry propose to erect a co-operative grist and flouring mill.

BARRIE, ONT.—The town council has granted money for the construction of a wharf at the foot of Mulcaster street.

SEAFORTH, ONT.—Tenders are invited until the 10th of April for the erection of a town hall. Wm. Elliott, clerk.

STANLEY BRIDGE, P. E. I.—Tenders are invited until the 10th of April for the building of a new Presbyterian church.

GUELPH, ONT.—Applications for the office of City Engineer to this city will be received by the city clerk until the 31st inst.

VICTORIA, B. C.—Messrs. Ames, Hulden & Co. have purchased a site on which to erect a factory, at a cost of \$20,000.

HOLLAND CENTER, ONT.—Wm. Norton will receive tenders for the erection of a brick parsonage until 12 o'clock on April 13th.

LAKEPORT, ONT.—Steps are being taken by the Episcopalian congregation towards securing the erection of a new church.

MORRIS, MAN.—The Farmers' Institute is negotiating for the erection of a flour mill. A joint stock company will be formed.

ST. CATHARINES, ONT.—Mr. M. Tracey contemplates erecting a fine hotel on his property here. Mr. S. G. Lybson, architect, will prepare the plans.

TORONTO JUNCTION, ONT.—The waterworks committee has recommended to council the erection of two houses at the pumping station, at a cost of \$2,000.

WOODSTOCK, ONT.—Mr. D. M. Perry has purchased a lot on Peel street and will erect a residence thereon.

PORTAGE LA PRAIRIE, MAN.—The Town Council has decided to erect a new fire hall, at a cost of \$7,000. Plans have been asked for.

WINDSOR, ONT.—Mr. Joseph Deguse, city engineer, was in Toronto recently securing information to be used in the construction of the proposed race track.

CARLETON PLACE, ONT. Committees have been appointed by the Town Council to look into the questions of establishing a market and the building of a town hall.

SHERBROOKE, QUE.—Tenders will be received by W. H. Armstrong, North Hartney, until April 9th, for the erection of an English church. Plans and specifications to be seen at the post-office.

HEMINGFORD, QUE.—The members of St. Luke's and St. John's churches have decided to build a parsonage on the church glebe. A committee has been formed to proceed with the work of erection.

BROCKVILLE, ONT.—Plans are being prepared by Mr. G. A. Allan, architect, for improvements to the interior of St. John's Presbyterian church. The present windows will also be replaced by stained glass.

ST. THOMAS, ONT.—Ald. Idsardi will erect a new hotel on his property on Talbot street, pro-

vided that a license for it will be given by the Ontario Commissioners. It is proposed that the building shall cost about \$10,000.

ESSEX, ONT.—W. D. Baman, Secretary Public School Board, will receive tenders until Wednesday, the 15th of April, for the construction of a public school building in this town. Plans may be seen at the office of the Secretary.

KNOWLTON, QUE.—Considerable building will be carried on here this summer. Mr. A. L. Gilman will build a fine block on his property on the Island and Mrs. N. Pettes intends to erect a large building on the property known as the McLaughlin corner.

GLENCOE, ONT.—Tenders are invited by Mr. Richard Coad until Monday, the 10th of April, for the erection of an Episcopal church in this town, according to plans prepared by Messrs. Moore & Henry, architects, of London.

RENFREW, ONT.—The building committee of the Sons of Temperance have given instructions to Mr. J. D. McNeil, architect, to prepare plans for a new Temperance hall. It will be 40 x 60 feet, two storeys high and built of brick.

VANCOUVER, B. C.—The Masonic fraternity have nearly sufficient stock subscribed for the proposed temple. The cost of the building and land will be about \$65,000. It is probable that work will be commenced in a few weeks.

NEWMARKET, ONT.—The work of rebuilding the High School, recently destroyed by fire, will be commenced as soon as plans are prepared. The Board will purchase chemicals and other apparatus for the equipment of the school at once.

PARIS, ONT.—David Brown, Chairman Building Committee will receive tenders until noon on Monday, the 10th of April, for the erection of a brick Presbyterian church in the town. Plans may be seen at the office of T. J. Rutley of Chatham.

WINNIPEG, MAN.—Mr. D. E. Sprague intends erecting a dry kiln in connection with his saw mill on Point Douglas, at a cost of \$8,000. Tenders will be called for at once for the erection of a pork packing establishment for Messrs. J. T. Griffin & Co.

ST. BONIFACE, MAN.—The council and rate-payers are endeavoring to secure permission from the local government to construct a bridge across the Red River between this town and the city of Winnipeg. The cost of the bridge is estimated at \$75,000.

BRANTFORD, ONT.—A local company has purchased the Slingsby woollen mills, a large addition to the present mills will be built. The capital subscribed is nearly \$100,000. The chief stockholders are Messrs. Slingsby, Frank, Charles and Ed. Cockshutt, W. Watt, sen., T. M. Harris and J. F. McLaren.

MINNEBOSHA, MAN.—The town authorities invite correspondence from persons willing to undertake the construction of a dam and working of water power on the Little Saskatchewan river. The engineer's report provides for a reservoir or power canal 600 feet long, 150 to 200 feet wide and of a depth of 13 feet.

ST. HYACINTHE, QUE.—The Presbyterian congregation has resolved to proceed at once with the erection of a manse for Rev. M. F. Boudreau. The church building will undergo considerable repairs this summer. The Building Committee consists of Messrs. S. Duclou, P. Pagan and W. W. Pickett.

BRANDON, MAN.—It is not unlikely that the Methodist congregation will erect a new church this season. A large brick structure is spoken of and it will probably be located at the southeast corner of Lorne avenue and 8th street.—The Dominion Government has decided to erect an industrial school for Indians at this place.

KINGSTON, ONT.—Rev. Dr. Mountain is making preparations for the erection of a new Episcopal church to take the place of the present wooden edifice known as Mountain Memorial Church, in East Cornwall. The new building

will be a fine structure.—Mr. R. J. Carson is going to erect a large biscuit factory on Princess street.—Mr. Arthur Ellis, architect, is asking for tenders for the erection of a brick residence on William street.

STRATFORD, ONT.—It is the intention of the Myers estate to build a new white brick corner block here, 3 stories high to contain two stores, offices and lodge hall, estimated cost \$15,000. One store has been leased for a bakery, for which two patent ovens will be required. There will also be required hoists, hot water radiators, shop fixtures, &c. The plans are being prepared by David G. Baxter, architect; notice of tenders will be published later on.

LONDON, ONT.—The City Engineer has granted the following permits: G. C. Gibbons, addition to Robert Green's store, on Carling street, cost \$2,000; addition to Pocock Bros.' on Carling Street, for James Owrey, cost \$1,500; Richard Johnston, brick residence and frame barn, 15 x 30 feet, on York street, cost \$1,200.—The City Council is advertising its intention to construct an artificial stone sidewalk on the north side of King street, between William and Maitland streets.—The City Engineer is preparing plans for alterations to the city hall building, the estimated cost being about \$6,000.

HAMILTON, ONT.—The Hamilton Steamboat Company will erect a pavilion 100 feet square at Burlington Beach this spring.—Building permits have been granted as follows: Ed. Lindner, pair of two story brick dwellings on Grant avenue, between Main and Sunson streets, cost \$2,400; A. Hornick, two story brick dwellings on George street, between Queen and Ray streets, cost \$2,500; J. M. Lottridge, ten brick dwellings on Bay street, between Sheaffe and Melbourne streets, cost \$7,700; John Mallen, two story brick dwelling on Ashley street, between King William and King streets, cost \$1,000; Wm. Strong, brick dwelling on Ontario avenue, cost \$1,800; J. A. Studdart, two story brick dwelling at the north-east corner of Barton and Crook's street, cost \$1,000; Robert Raw, two-story brick dwelling on Markland street, between Bay and Caroline streets, cost \$1,800.—The Waterworks Committee has authorized the purchase of a heater for the pumping house, at a cost of \$1,320.

MONTREAL, QUE.—The site committee appointed to secure a site for the proposed Masonic temple are busy at work endeavoring to secure a suitable location. The sum of \$40,000 has been subscribed, about half the required amount.—The Market Committee will ask the City Council for an appropriation of \$12,000 with which to build a cattle shed at St. Gabriel's market. A new roof is also needed. The City Clerk will receive tenders until Tuesday, the 4th of April for the establishment of a patrol signal system for the city. Full particulars at the office of the Chief of Police.—The Montreal Street Railway company will build new car sheds and motive repair shops, at Hochelaga, a large stone office building on the corner of Craig street and d'Armes hill, costing about \$150,000.—The City Council is discussing the erection of an isolation hospital for the treatment of contagious diseases.—A committee was recently appointed to report on the sanitary condition of the City Hall, which report was presented to the City Hall Committee at its last meeting. It was resolved to report to Council in favor of the removal of the Police and Recorder's court and to recommend the building of a new court and police station where the old St. Gabriel church now stands. The sum of \$6,000 is to be asked to relay the drains with iron pipes, renovate the Mayor's parlor and make alterations in the finance department.

TORONTO, ONT.—At a meeting of the Industrial Schools' Association held last week it was decided to build a green house at the Victoria Industrial school at Mimico, at a cost of \$1,200. Mr. H. A. Massey contributing the sum of \$1,000 towards it.—The work of constructing the Toronto and Richmond Hill electric railway will be proceeded with at once, and the company expect to have the road completed to Newtonbrook before the summer is over. A new bridge will be constructed at York Mills.—The members of Broadview Avenue Congregational church have decided to erect a new brick edifice, to cost \$10,000 on the site of the present building.—The

governors of the General hospital have decided to build a new woman's and children's hospital on George and Stewart streets.—Mr. J. Bromwell's hotel at the corner of Bellwoods avenue and Queen street is about to be re-built. Mr. G. M. Miller, 18 King street E. will prepare the plans.—The Fire and Light Committee will ask the Executive Committee to provide the sum of \$15,000 for a new fire hall on Dundas street, and a similar amount for rebuilding the one on Berkeley street.—The particulars before the public of the proposed hotel to be erected on the northwest corner of King and Yonge are very premature. Nothing definite has been settled and no syndicate is yet formed.—Building permits have been granted as follows:—J. and D. Williams, 413 Gerrard street east, three attached two-storey and attic brick dwellings, south side of Macpherson avenue, immediately west of Yonge street, cost \$7,000; John Somers, Leslie street, pair brick extensions, west side Jones avenue, near Davenport avenue, cost \$1,000; Mrs. Bland, 115 McGill street, five attached two-storey and attic brick dwellings, east side Church street, north of Alexander street, cost \$9,000. A. J. Frost, 192 Howland avenue, two-storey rough cast dwelling and stable, northwest corner Hallam and Preston avenues, also green house, cost \$1,500.—Mr. M. Croake, corner of Richmond and Victoria streets, is proposing to build a small factory on Adelaide street.

OTTAWA, ONT.—Steps will be taken at once towards the erection of a new hospital for contagious diseases. Dr. Bryce Secretary of the Provincial Board of Health, estimates the cost of a suitable building at \$10,000. Several sites are under consideration.—A deputation from the united counties of Durham and Northumberland interviewed the Government recently asking a grant towards the reconstruction of the bridge over the Trent river at the Narrows in Seymour township.—The Hull City Council has appointed a committee to confer with a similar committee from Gatineau Point regarding the construction of the proposed bridge across the Gatineau river. It will be of wood, 1,700 feet long, having swinging span eight feet from high water, the cost is estimated at \$25,000. The exact location is not yet decided, but it will be probably from a point on the Gatineau side near the convent and 300 feet from the present ferry landing.—Mr. La-Fleur, chief engineer of the public works department has recently taken soundings in the River St. Lawrence with a view to building a bridge connecting Howe Island with the mainland, near Kingston. He will recommend that the scheme be considered favorably by the public works department. The bridge will be about 1,300 feet long and will be built on piles and iron spans.—The final supplementary estimates of the Dominion Parliament have been laid upon the table, among which are the following: extension of the North Sydney branch of the Cape Breton railway to the deep water terminus, \$20,000; the purchase of two locomotive engines, \$24,000; forming a new entrance channel into Sturgeon lake, \$4,000; swing bridge at Fenelon Falls, \$3,000; bridge over the old lock on the Welland canal, \$3,500; ship channel in the St. Lawrence river, \$80,000; new building for the lepers at Tracadia, N. S., \$15,000; extension of the electric light in the Ottawa public buildings, \$5,000; erection of a military store building at Winnipeg, and a new court house at Wolseley, N. W. T., \$12,500; a new post-office at Victoria, B. C., \$700,000; breakwater at Sours, P. E. I., \$20,000; wharf at Port Rowan, to complete, \$3,300; extension of piers at Port Stanley, \$12,000; new ferry scow at Burlington channel, \$1,500; removal of rock in River St. Lawrence, above Brockville, \$1,200; completion of channel at Owen Sound, \$5,000; Goderich harbor, additional amount, \$10,000; Hamilton harbor, dredging, \$6,000; Midland harbor, dredging, additional amount, \$2,500; repairs to breakwaters at Cobourg, \$1,000.

FIRES.

Mr. W. H. Hills brick grist mill at Sarnia, Ont., was almost completely destroyed by fire on the 22nd inst. The machinery and stock was also badly damaged. Loss, \$8,000, covered by insurance.—Lewis & Son's peg and last factory at Turo, N. S., was gutted by fire last week.—

Fire on north Main street, Winnipeg, on the 26th inst., destroyed Fould's block, the boot and shoe store of J. S. Douglas, Neilson's jewellery store, and Shelly's restaurant. Loss between \$40,000 and \$50,000, insurance \$15,000.—The residence of Mr. Duggan, on St. Antoine street, Quebec, was gutted by fire last week. Insurance, \$3,500 on the building and \$1,000 on furniture.—Mr. R. H. Best's dwelling at Bannockburn, Ont., was burned on Thursday last with all its contents. Loss \$1,600, insurance \$1,000.—The British hotel at St. Mary's, Ont., owned by W. Cosgrove, was badly damaged by fire on Monday last. The loss is covered by insurance.—The brick residences of Miss Preston and Mr. H. K. Fox, at Picton, Ont., have been destroyed by fire. The loss is \$1,000 and \$3,500 respectively.—The office of the Montreal Herald was completely destroyed by fire on Monday. In the same building were contained the offices and workshops of the Benaclack Lithographing Company, and Southam & Carey, printers. The losses are as follows: Herald Printing Co., \$40,000, partly covered by insurance, Benaclack Lithographing Co., \$25,000; Southam & Carey, \$10,000 to \$15,000. The building was owned by Duncan McIntyre, and was valued at \$50,000.

CONTRACTS AWARDED.

RYLESTONE, ONT.—The contract for building the new Presbyterian church has been awarded to Mr. Charles Dunk.

REGINA, N. W. T.—The contract for the new Windsor Hotel has been let by Mr. Howson to Mr. J. McCrie. It will cost about \$21,000.

BRANDON, MAN.—Mr. James Patterson will rebuild the Beaubier House, recently destroyed by fire. The contract price is in the neighborhood of \$12,000.

SHERBROOKE, QUE.—The contract for the Protestant Hospital has been awarded to Mr. G. G. Bryant. Messrs. D. G. Loomis & Sons will put in the mason and brickwork.

HULL, QUE.—Messrs. C. B. Wright & Sons have secured the contract for supplying stone from their Hull quarries for the construction of the Ontario, Arnprior and Parry Sound Railway bridge at Arnprior.

TORONTO, ONT.—The Board of Health have awarded the contract for heating the Isolation Hospital to Messrs. Purdy, Mansell & Mashinter at the price of \$2,640, and Mr. L. Sherlock secured the contract for plumbing, at \$1,118.

QUELPH, ONT.—Mr. J. Mahoney has awarded contracts as follows for the erection of a double pressed brick house on his property on Laverpool street:—Stone and brick work, Taylor Bros.; carpentering, R. Mahoney; plumbing, Walker & Mahoney; painting, Mr. Pass.

OTTAWA, ONT.—G. M. Bayly, architect, has awarded the following contracts for the erection of a residence for Ex-Ald. Hutchison, to cost in the neighborhood of \$10,000:—Masonry and brickwork, R. Cram & Son; carpentry and joinery, A. Sparks; plumbing and heating, Torney, Georgeson Co.; plastering, Kearns & Bennett; painting and glazing, J. Shepherd; roofing, J. Herbert & Son; Granolithic work, Canadian Granite Co.

HAMILTON, ONT.—The following are the successful contractors for the new Sunday school building for the First Methodist church. Masonry, George Webb; carpenter work, James Sage; painting, Wm. Barrett; plumbing, George A. Truman. New tenders will be asked for the plastering.—The Water Works Committee have accepted the following tenders for supplies:—Brass work, Dodson & Sutton; lead pipe, Wood, Vallance & Co.; pig lead, A. Hope & Co.; stop-cock boxes, Nie & Lynch; hydrants, Nie & Lynch; iron pipe, A. Gartschore; iron castings, S. J. Moore; water tanks, E. Faustmann.

WINNIPEG, MAN.—The contract for the erection of a new warehouse for Messrs. Carscaden, Peck & Co., on the northeast corner of Notre Dame and Princess streets, has been awarded to Messrs. Lumsden & Keele, at the price of \$30,000. The hot water heating and plumbing will be done by the Canadian Plumbing Co. The structure will be solid brick four stories high with stone basement. The plans were prepared by Mr. C. H. Wheeler.—The Provincial Government has let the contract for a large addition to the court house, to cost \$80,000.—The Canadian Pacific Railway Company has let the contract for the erection of four new depots along their main line between this city and the mountains, at Portage la Prairie, Brandon, Regina and Calgary. The successful tenderer is Mr. Tomp-

kins, of Vancouver, and the estimated cost is \$100,000.

MONTREAL, QUE.—Mr. W. McLean Walbank, architect, has awarded contracts as follows for the erection of a building on St. Charles Borromeo street, for Christie, Brown & Co.: stonework, W. L. Turner & Co.; brickwork, W. Peel; carpentry, Simpson & Peel; plumbing, Drapeau, Lavigne & Co.; painting, W. Young.—A. C. Hutchison, architect, has awarded the following contracts: a residence for W. W. Ogilvie at Lachine—brickwork, P. C. Dand; masonry, R. Wilson; carpentry, Hood & Son; plumbing, Hughes & Stephenson; plastering, J. Morrison & Son; painting, W. P. Scott; roofing, G. W. Reed. Protestant school on St. Urbain street—brickwork, W. Lavers; masonry, P. Lyall; carpentry, L. Paton & Sons; plumbing, Garth & Co.; plastering, J. Morrison & Son; roofing, G. W. Reed; painting, Alex. Craig; heating, Smead, Dowd & Co.—The contract for the base of the Maisonneuve monument has been awarded to Mr. Robert Reid, at the price of \$5,200. It will be constructed of New Brunswick granite.

COLORING OF ROOMS.

If the aspect of a room be north, north-east, northwest or due east, the general tone of the coloring should be positively warm. Blues, greens, etc., all shaded colors which involve any predominant use of blues, must be avoided.

In such aspects the choice should tend towards reds and all their various combinations with yellow.

As the aspect approaches east and west, so colors should verge towards yellow, rather than red tints. In an eastern aspect, tints of light yellows, lemon colors, etc., are always effective and cheerful.

If the aspect is south or southwest or west, and open to the sun, then we may venture on the use of cooler colors, even on positive blue.

Where the light is strong, unobscured and plentiful, the tone of coloring may be full.

Where the supply of light is small, the coloring should be light.

It should be borne in mind that full toned colors lessen the apparent size of a room, while light coloring enlarges it.

MUNICIPAL DEPARTMENT.

DESTRUCTION OF A PIPE SEWER BY QUICKSAND.

A 6-inch tile pipe sewer for the Government building at Owensburg, Ky., became stoppued recently, and was found that for a distance of 700 or 800 feet it was filled with quicksand. The sewer had to be abandoned and a new one constructed. It appears upon investigation that this expense was due to a failure to properly enforce the specifications and inspect the work when the original sewer contract was executed. The specifications provided that the pipe should be laid in an open trench, have cemented joints and sustain a test while the trench was open. Instead of conforming to these proper and necessary provisions, the contractor was permitted to substitute for the open trench a more economical system of separate pits 6 feet long and 9 feet apart, from the bottom of which the pipes were driven from one to another through the earth without sufficient opportunity to cement or examine the joints. These joints were presumably distorted and open, if not actually broken by the hard usage to which they had been subjected. It must be evident that it would be impossible to thus secure good grade or alignment, and the impropriety of such imperfect methods seems so obvious that the expense incurred by the necessity of renewing the work would appear to be a just penalty to impose upon those responsible for the execution and acceptance of the imperfect work.

Brick pavements are to be tried in Glasgow, Scotland, according to *The Builder*. Hitherto granite, whinstone and wood have been used almost exclusively in that city, but now a specially prepared brick, known as the Omoa fire-clay, are to be tried. They are 9"x3"x5" in size, and will be laid on "a good, sound foundation." and everything done to make the

MUNICIPAL ENGINEERS, CONTRACTORS, AND MATERIALS.

test a fair one. In the space between the bricks will be inserted thin slips of wood, over which cement will be spread.

The necessity of deep intakes on a water-works drawing its supply from a lake or pond in a high latitude is shown by a recent occurrence at Muskegon, Mich., says the *Engineering Record*. The main intake pipe of this city terminates 4,000 feet from the shore of Lake Michigan in 41 feet of water, yet it was recently clogged with ice and several hours elapsed before it could be freed again. At Evanston, Ill., where the intake crib is sunk 29 feet, the pipe is kept free by means of a revolving strainer, designed by J. G. Falcon, of the same city. This consists of a cylinder screen hung in the mouth of the well, through which all water must pass. Inside this cylinder are numerous buckets inverted above the mouth of a pipe through which air is forced by a compressor at the pumping station. The buoyancy of the air in the buckets raises them, thus revolving the cylinder and presenting a clean surface to the water, the accumulation of leaves or anchor ice on the screen being scraped off by a suitable projection from the frame. The Superintendent of the Evanston Water-Works, S. B. Peeney, writes us that this strainer has kept the supply of that city free during the entire winter except for about one hour when the air pipe was frozen. All the neighboring works were shut down for some time owing to anchor ice, and the new plant at the Washburn & Moen Manufacturing Company's works at Waukegan has been so seriously crippled on this account that the company has ordered the largest Falcon strainer yet made. It will be 16 feet long, 7 feet in diameter, and make 15 revolutions a minute. It will be located in a tank connected with the shore by 1,728 feet of 36-inch cast-iron water pipe. The air compressor used will have 8x12-inch steam and 10x12-inch air cylinders, and will force air through a 2-inch lead pipe.

THOROLD CEMENT

I have tested with Reihle's Testing Machine the tensile strength of six blocks made from the barrel of Thorold Hydraulic Cement sent me last summer. The blocks were made of neat cement, and were 1 1/2 inches square at the smallest part. Four of them were kept 23 days in air, and only broke under the following weights: No. 1, 420 lbs.; No. 2, 470 lbs.; No. 3, 436 lbs.; No. 4, 420 lbs.; averaging 437 lbs. each, or 194 lbs. per square inch. The remaining two were kept one day in air and forty-seven in water, and broke under the following weight: No. 5, 420 lbs.; No. 6, 450 lbs.; averaging 435 lbs. each, or 193 lbs. per square inch.

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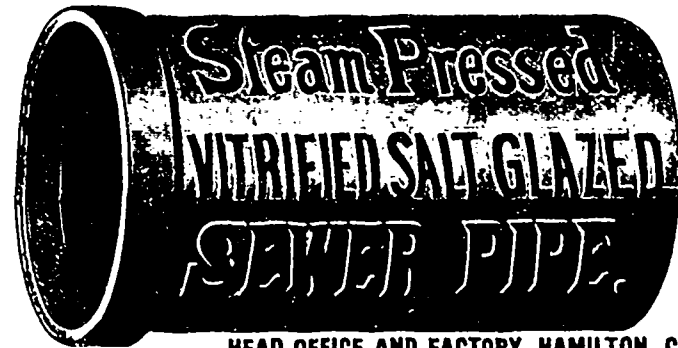
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