

CANADIAN CONTRACT RECORD

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Information collected from any part of the Hamilton 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 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.



NOTICE TO CONTRACTORS.

Tenders will be received by registered post, addressed to the City Engineer, Toronto, up to eleven o'clock a. m. on TUESDAY, SEPTEMBER 6th, 1892, for the following work:

CEDAR BLOCK PAVEMENTS:

On Edmund street, from the south side of the C. P. Railway tracks to Royce avenue.

On lane southerly from Adelaide street to lane in rear of the Arlington Hotel.

Specifications and forms of tender may be obtained on and after August 31st, 1892, at the office of the City Engineer.

A deposit in the form of a marked cheque, payable to the order of the City Treasurer, for the sum of 5 per cent. on the value of the work tendered for under \$1,000, and 2½ per cent. for the value of the work tendered for over that amount, must accompany each and every tender, otherwise it will not be entertained. All tenders must bear the bona fide signatures of the contractor and his sureties (see specifications), or they will be ruled out as informal.

The Committee do not bind themselves to accept the lowest or any tender.

JOHN SHAW,
Chairman
Committee on Works.

Committee Room, Toronto, Aug. 26th, 1892.

BUILDING A CISTERN IN JOINT CLAY.

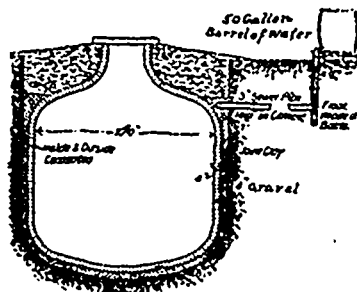
The material known as joint clay occurs throughout extended sections of the West. In recent geological times the territory north of Ohio and Missouri rivers was covered with glaciers. As these melted and receded they left extensive deposits of clay, especially along what had been their southern border. These clays are generally stiff and for the most part are impervious to water. When exposed to the air or when penetrated by wells, however, they shrink and crack, and are called joint clays. Another material to which the same name is given is the black city clay, sometimes called gumbo, which occurs on river bottoms.

The following scheme for building a cistern in joint clay is sent us by Mr. Gordon Dinsmoor, of Columbia, Mo., and may be of service to some of our readers. Mr. Dinsmoor says:

All attempts to make a satisfactory cistern in joint clay have hitherto failed. If such a cistern be lined with a dry wall of brick, it will hold water very well; but since the calcium carbonate in the soil soon renders the water hard, such a reservoir loses its value as a cistern.

If, on the other hand, the wall be laid in cement, and cemented inside and out, it will hold water until the joint clay dries and shrinks away from the wall; then the inside pressure breaks the wall and the water leaks out.

The accompanying design for a cistern in joint clay is intended to overcome these difficulties.



A 4-inch space is left between the joint clay and the brick, so as to give room to plaster the outside of wall with cement as it is carried up. After building a foot or more this space is filled with gravel, and so on up to the line (A B), when a circle of 3-inch drain tile is laid, connecting with a line of sewer pipes laid in cement, which is turned up and brought to the surface as shown in the plan. Water is now poured into the open end of the sewer pipes until all the interstices of the gravel are filled, thus causing a constant pressure upon the outside of the wall. The joint clay, being impervious, holds this water so that little is lost by percolation.

A constant level of water in the gravel is maintained by the flow from the barrel, the outlet of which is automatically opened and closed by a float, as shown in the plan. The only attention needed is to see that the barrel does not become empty.

SLATES AND SLATING.

The best and most substantial roof known to the architects at present, says a writer in an English exchange, is the slate roof having at least a square pitch. Such a roof weighs considerably more than shingle roof, and it also costs a little more, but it is many times more durable.

Some queer technical terms are used in connection with slating. Names are used to indicate the size of slate. One 10x13 inch being known as a double. Smaller slates are called small doubles. The next larger size is known as plantations, the next size is called viscountess. Sizes ranging from 8x12 inch to 10x15 inch are called ladies; from 10x20 inch are called countesses; up to 14x24 inch, which are known as princesses.

There are slates that run through all the titles of nobility—marchioness, duchess, imperial—and then comes what is probably a poor man's slate; under the delicate title of rags. The noble titles are again resumed, and run queens, empresses, and end with princesses.

In American practice the slates run simply by inches, from 7x14 inch up to 17x24 inch. The thickness of slates ranges from 0.125 to 0.3215 inch, and their weight varies from 2 pounds to 4½ pound per square foot. A square of slating is rated as any other roofing equal to 100 square feet, the gauge is the distance between the courses, while lap is counted as the distance which each slate overlaps the slate lengthwise next below but one.

Lap varies from 2 to 4 inches, and a standard lap is about 3 inches. As above stated, a good slate roof should have about square pitch, but slates should never be put upon a roof which pitches less than 1 foot in 4 feet. When it is desired to compute the surface of a slate when laid and the number of squares of slating, subtract the lap from the length of a slate which is taken as distance from nail hole to tail, and one half the remainder will give length of surface exposed, this when multiplied by width of slate will give the surface required.

To ascertain the number of slates required for a square, divide 14,400, which is the area of one square in inches by the surface obtained above, and the quotient will give the number of slates required for one square. For an example, take a slate 12x24 inch, take a standard lap 3 inches, the number required for a square will be found by subtracting 3 from 24, equal to 21, and 21 divided by 2, equals 10½ inches, which multiplied by 12 equals 126 inches, 14,400 the total area to be covered divided by 126 which equals the area of one slate, gives 114 29 inch slates required for the square.

Slate weighs from 165 pounds to 180 pounds per cubic foot, and, in consequence of lap, it requires an average of 2½ square feet of slate to make one square of slating. When slate 0.125 inch thick is laid on laths, it weighs 4.75 pounds per cubic foot; when the same is laid on 1 inch boards, it weighs 6.75 pounds per cubic foot. Slate 0.1875 inch thick on laths and boards weighs 7 pounds and 9

pounds respectively. A 0.25 inch slate weighs 8.15 pounds and 11.25 pounds respectively. The thickest kind, gauging 0.3215 inch, weighs 11.15 pounds and 14.10 pounds on laths and boards.

A slate roof composed of 6x12 inch slate weighs 1680 pounds per square, and requires 480 slates. A 10x29 inch slate weighs 6720 pounds, and requires 171 slates per square. A 12x24 inch slating requires 125 slates and weighs 4480 pounds.—Carpentry and Building.

CONTRACTS OPEN.

HARTNEY, MAN.—Messrs. Hartney & Dickson intend erecting a new store.

SOUTH FINCH, ONT.—Messrs. Wood & Cameron will erect a grist mill at this place.

WINNIPEG, MAN.—Capt. Robinson will rebuild his saw mill at Fisher Bay, Lake Winnipeg.

BENFORD, QUE.—It is reported that the Eastern Townships Bank has decided to erect a new building.

WOODSTOCK, ONT.—Plans are being prepared for the Engineer's residence at the water works, to cost \$1,400.

GRAND BAY, ONT.—The Presbyterian congregation are making arrangements for the erection of a new church.

LONGUEUIL, QUE.—The Longueuil Boating Club has decided to erect a new club house, at a cost of from \$2,500 to \$3,000.

GLENORA, ONT.—Mr. Wilson, formerly of Picton, will erect a first-class summer hotel here this fall, to cost about \$10,000.

FORT ERIE, ONT.—Tenders are being called up to Saturday, 27th inst., for the erection of a Town Hall. W. E. Edwards, Clerk.

BURNSIDE, MAN.—Tenders are wanted until the 29th inst., for the erection of a 30,000 bushel grain elevator. Wm. Kison, Secretary.

NEW WESTMINSTER, B. C.—A by-law will be introduced in Council to provide the sum of \$100,000 for the completion of the waterworks.

LONDON, ONT.—M. L. Buffy, architect, will receive tenders until the 29th inst., for the erection of a two-story residence on Queen's avenue.

WALKERVILLE, ONT.—Plans have been prepared for a new office building to be erected by Messrs. Hiram Walker & Sons, to cost about \$65,000.

SMITH'S FALLS, ONT.—At a recent meeting of the Committee of St. John's Church, it was decided to proceed at once with the erection of a new church.

SEAFORTH, ONT.—The ratepayers carried a by-law on Tuesday last authorizing the expenditure of \$14,000 for the erection of a new market building and fire hall.

PETERBOROUGH, ONT.—J. E. Hecher, architect, is preparing plans for the new Bank of Commerce. The front is to be of brown stone and Don Valley brick.

TOTTENHAM, ONT.—Geo. P. Hughes, Village Clerk, will receive tenders until to-day (Saturday) for the completion of the waterworks on the rotary pump system.

DORVAL, QUE.—At a meeting of the residents of the parishes surrounding Dorval, it was decided to erect a new Roman Catholic church on a site near Dorval station.

MONTREAL, QUE.—The contract with the Royal Electric Company expires at the end of 1892, and tenders will, in all probability, be called before that time for future lighting.

LEVIS, QUE.—The Town Council has passed an order granting a bonus of \$12,000 to Messrs. J. D. King & Co., of Toronto, for the erection and operation of a branch factory here.

CAPETON, QUE.—The Nichols Chemical Co.