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CANADIAN CONTRACT RECORD

A Weekly Journal of Advance Information and Public Works.

ITS PURPOSE: TO SUPPLY TO CONTRACTORS ADVANCE INFORMATION RESPECTING CONTRACTS OPEN TO TENDER, AND TO ARCHITECTS, ENGINEERS, MUNICIPAL AND OTHER CORPORATIONS. A DIRECT MEDIUM OF COMMUNICATION WITH CONTRACTORS.
ITS MERIT: ECONOMICAL AND EFFECTIVE SERVICE.

Vol. 2. Toronto and Montreal, -Canada, February 14, 1891. No. 1

THE CANADIAN CONTRACT RECORD,
A Weekly Journal of Advance Information and Public Works,
PUBLISHED EVERY SATURDAY
As an Intermediate Edition of the "Canadian Architect and Builder."
Subscription price of "Canadian Architect and Builder" (including "Canadian Contract Record"). \$2 per annum, payable in advance.
G. H. MORTIMER, Publisher,
74 KING ST. WEST, - TORONTO, CANADA.
Telephone 2362.
62 Temple Building, - Montreal.
Bell Telephone 2299.

Information from any part of the Dominion regarding contracts open to tender, sent exclusively to this journal for publication, and not elsewhere published, will be liberally paid for.

ADVERTISING RATES ON APPLICATION.

At its Convention held in Toronto, Nov. 30 and 31, 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."

The publisher of the "Canadian Contract Record" desires to ensure the regular and prompt delivery of this Journal to every subscriber, and requests that any cause of complaint in this particular be reported at once to the office of publication. Subscribers who may change their address should also give prompt notice of same, and in doing so, should give both old and new address.



Sealed tenders, addressed to the undersigned and endorsed "Tenders for Excavations for New Drill Hall, Toronto," will be received at this office until Tuesday, the 17th February, 1891, for excavations required for the New Drill Hall to be erected in the rear of Osgoode Hall, Toronto. Tenders to state the price per cubic yard for excavating and carting away the material from the premises, and also excavations required for draining the site.

Tenders will not be considered unless made on form supplied by this Department, and must be signed with the actual signatures of the tenderers. Conditions and forms of tender can be obtained on application to the undersigned. An accepted bank cheque for \$200, payable to the order of the Minister of Public Works, must accompany each tender. This cheque will be forfeited if the party decline the contract or fail to complete the work contracted for, and will be returned in case of non-acceptance of tender.

The Department does not bind itself to accept the lowest or any tender.
By order,
E. F. E. ROY,
Secretary.

Department of Public Works,
Ottawa, 9th Feb., 1891.

TENDERS

Will be received by the undersigned until SATURDAY, FEBRUARY 23rd, INST., for the erection of a

PUBLIC SCHOOL BUILDING AT NEWMARKET, ONT.

Plans, &c., may be seen on and after Monday, Feb. 16th, at the Post Office, Newmarket, or at the office of M. B. Aylsworth, Architect, Canada Life Building, Toronto.
No tender necessarily accepted.

DAVID LLOYD, Sec. P. S. B.,
Newmarket, Ont.

TENDERS

Will be received by the undersigned till SATURDAY, 21ST INST., at noon, for ARTIFICERS' works of new front and other alterations to Warehouse of O. McGarvey & Son, Notre Dame Street.

W. E. DORAN, Architect,
85 St. James Street, Montreal.

Cut Stone for Sale Cheap

A quantity of Deschambault Stone (lime stone), cut a few years ago for a proposed new Church in the vicinity of Quebec, is now offered for sale, on account of the abandonment of the project. The Church (Early English) was to have been 65 x 26, with two small transepts, each 16 ft. 6 in. x 9 ft. Original cost of stone, \$1,300. It can be shipped from the neighborhood of Quebec either by cars or steamboat. The plans of the church can be seen on application to the undersigned. Any one purchasing the stone may have the plans free of charge.

H. STAVELEY, Architect,
113 ST. PETER STREET, QUEBEC.

TENDERS WANTED

— FOR —

Electric Light Plant.

Sealed tenders, addressed to the undersigned by registered mail, will be received up to 6 o'clock p.m. on SATURDAY, THE 23rd DAY OF FEBRUARY, 1891, to equip and fit up a complete Electric Light Plant of one thousand light capacity of 60 candle power each.

The lowest or any tender not necessarily accepted.

Information will be given on application to Thos. Gillies, Esq., Chairman of Committee.

All tenders to be marked "Tender for Electric Light" and addressed to

ROBT. J. LEIGH, Town Clerk,
Box 313, West Toronto Junction, Ont.
West Toronto Junction, Feb. 10th, 1891.

According to a French authority the breakage of glass in windows subject to shocks - as in the neighborhood of mines or quarries where heavy blasts are set off, or near forts where there is practice with heavy guns - may be prevented by pasting on the glass strips of paper crossing each other in different directions. These, it is said, will prevent or stop the vibrations produced by a shock, which are the cause of breakage of the glass.

THE EFFECT OF VARIOUS DEGREES OF LIGHT UPON INTERIOR DECORATION.

Concerning the effect of various degrees of light upon the colors of upholstery and interior decoration schemes generally, an authority says that if increase of light above what may be called a normal standard (one capable of showing a colour in perfection) effects a change in hue, so also does decrease of light, although in an opposite direction. These changes of hue are shown in the following table:

Decreased Light.	Standard Light.	Increased Light.
Purplish,	Red,	Scarlet,
Red,	Orange,	Reddish Orange,
Brown,	Yellow,	Yellow,
Olive Green,	Yellow Green,	Paler Yellow,
Greener,	Blue Green,	Yellower,
Greener,	Blue,	Bluer,
Violet Blue,	Violet Blue,	Turquoise,
Violet,	Violet,	Blue,
Violet Purple,	Purple,	Bluer,
Purplish Violet,	Purple,	Red Purple.

Consequently, if we want to be sure of the chromatic effect of a decorative scheme, we must arrange and modify its elements in such a way as to adapt it to the usual illumination of the apartments in which it is to be carried out. And here one curious result may be noted. In a very dimly lighted room, saturated and comparatively pure colors may yield delicate and refined harmonies, while the same colors in a blaze of strong daylight or direct sunshine may also lose their garishness because of the large amount of white light which then become mingled with the proper hues they reflect. But with a medium illumination, those saturated colors, if freely used, becomes intolerable, just because they are perceived in their original strength. We thus learn, says a contemporary, how it is that a scheme of coloring, which seems exquisitely choice when occurring in the dimly lighted apartments of a Cairo or Damascus house, may become to the last degree crude when transferred to the full illumination of an English or American home, where the walls are pierced with large windows of plate glass, admitting floods of light. The employment, under such altered conditions of colors saddened with black and dulled with gray, has been long recognized and practised as one of the easiest ways of modifying the crude effect of such chromatic arrangements. If saturated colors are still used we reduce their area, or employ them in such small and involved touches, that the mingling of their hues produces what Owen Jones called a neutralized bloom.

The Canadian Contractors' Hand-Book, 50 cents to RECORD subscribers.

CONTRACTS OPEN.

LONDON, ONT.—The C. P. R. Co. will shortly erect machine shops and a new station here.

MAGOG, QUE.—The Roman Catholic authorities ask tenders for the erection of a parsonage.

COLLINGWOOD, ONT.—The Methodists are considering the question of erecting a new church.

JANARK, ONT.—The Royal Templars of Temperance propose erecting a Hall next summer.

RICHMOND, QUE.—The new Rocklaid Slate Co. will erect twelve new houses this coming spring.

MEAFORD, ONT.—A motion is before the council to raise \$12,000 for the purpose of constructing water works.

WINDSOR, ONT.—Plans are expected to arrive from Ottawa shortly for the repair and enlargement of the post office.

QUEBEC, QUE.—The time for receiving tenders for the construction of the new Fortress Hotel has been extended to the 18th inst.

CLINTON, ONT.—The Roman Catholics of this town are negotiating for the purchase of property upon which they will erect a new church.

LACHINE, QUE.—Mr. J. Alcide Chausse, architect, Montreal, is now preparing plans for a stone cottage for Mr. B. Leduc, to be erected here next spring.

LENOXVILLE, QUE.—It is the intention to proceed immediately with arrangements for the re-building of the portions of Bishop's College recently destroyed by fire.

DUNNVILLE, ONT.—The Dunnvill Natural Gas Co. has been organized with a capital of \$10,000 for the purpose of sinking wells. Mr. F. G. Ramsay is the President.

HAMILTON, ONT.—The County Council on the 7th inst. appointed Warden Dickinson and Counsellors Baur, Briggs and Lewis a committee to choose a suitable site and obtain plans for a county poor house.

ST. MARY'S, ONT.—The tenders received for the new Town Hall are in excess of the estimated cost, consequently none have been accepted. The Building Committee have not yet decided what course they will adopt.

ALMONTE, ONT.—The county council of Carleton have decided to erect a new iron bridge to cost \$9,000, at Burrin's Rapids.—The Presbyterians are asking tenders for the erection of a new stone church, estimated to cost \$4,000.

PETERBORO, ONT.—Arrangements are being made to erect a new school building to take the place of what is known as No. 17 Otonabee School, immediately east of the town.—A new school is also to be built in school section No. 8, Douro Township, and in school section No. 12, Asphodel.

KINGSTON, ONT.—An active canvas has been entered upon to raise the amount necessary for the erection of the proposed Y.M.C.A. building. Construction is expected to begin in the spring.—The Collegiate Institute Board are having new plans prepared for a new building, and will again ask the council for a grant to enable them to erect the same.

PORTAGE LA PRAIRIE, MAN.—The Methodist congregation, at a meeting held a few days ago, decided to proceed at once with the erection of a new church to take the place of the one recently destroyed by fire, provided satisfactory arrangements are made with the insurance company. The new church will probably cost about \$12,000, and have a seating capacity of about 1100.

VICTORIA, B. C.—The owners of the Colonist Hotel are having plans prepared for a new building, to occupy the site of the present structure. The estimated cost is \$30,000. The new building is to be of brick and will be equipped with electric light and all modern improvements.—A company has been formed composed partly of American and partly of local capitalists for the purpose of erecting a large brewery.

OWEN SOUND, ONT.—At a recent meeting of the county council, a Committee was appointed to select a site and ascertain the cost of erecting a building for the purpose of a House of Refuge. A by-law was also adopted, granting the sum of \$1,000 to aid in the erection of a marine and general hospital in this town.—A movement is stated to be on foot among local capitalists for the construction of an electric street railway.

OTTAWA, ONT.—The Government will shortly invite tenders for a new light house to take the place of the Gaspé Light House recently destroyed by fire.—It is understood to be the intention of the Government to construct a new canal on the north shore of the St. Lawrence at Coteau. The canal will be 14 miles long with 6 locks, with 14 feet depth of water, and 100 feet wide at the bottom.—The consent of the Ontario Government has been obtained for the construction of the proposed new electric street railway.

VANCOUVER, B. C.—The Vancouver Candy Co. will enlarge their factory and purchase additional machinery.—It is the intention of the Board of Directors of the Temperance Hall Association to commence the erection of their proposed new building this year.—Mr. V. Kratz, of Seattle, W. T., was in the city recently, looking for a suitable site on which to erect a large flour mill.—The Chief Engineer of the Esquimaux and Nanaimo Railway will shortly commence a locatory survey of the proposed line from Wellington to Comox, in order that the work of construction may be commenced in the spring.

WINNIPEG, MAN.—The Masonic Fraternity is looking for a suitable site on which to erect a Masonic Temple. There is a possibility of an opera house being built in connection.—It is said to be the intention of Messrs. Archibald & Howitt to erect an extensive business block on their property adjoining the Post Office.—The extension of the sewerage system of the city is under the consideration of the council. It is estimated that to complete the system satisfactorily for the present population, it will be necessary to expend from \$250,000 to \$300,000. Petitions have been received for new sewers estimated to cost \$40,000, the construction of which will probably be commenced about the first of March.

MONTREAL, QUE.—Mr. Robert Findlay, architect, is preparing plans for a large private residence for Mr. A. H. Hyndman, of Sherbrooke, P. Q.—The governors of the Montreal General Hospital have under consideration plans for the erection of two new wings to the present building. The estimated expenditure is \$100,000.—Mr. R. M. Hunt of New York, the expert appointed to judge the competitive designs for the new Board of Trade building, has completed his examination of the designs, and his report is expected to be made known in the course of a week.—Mr. P. H. Chabot and other local capitalists are seeking to be incorporated as a company to erect a central railway station on the south side of the proposed inter-provincial bridge.

TORONTO, ONT.—Mr. Robert Milligan has commenced excavation for a pair of semi-detached brick houses on the east side Robert street near Bloor street, to cost between \$4,000 and \$5,000. Contracts for brickwork and carpentry only are let.—New water mains will shortly be laid on King, Queen and Yonge streets.—The city solicitor has been instructed to prepare a by-law for the building of new bridges crossing the railway at Dundas street.—Mr. R. F. Clarke is intending to erect a new building on his property on the Island.—The Dominion Government having refused to sanction the erection of a high level bridge over the Don River at Queen street, the city engineer has been asked to report on the cost of erecting a swing bridge.—The following building permits have been granted: F. F. Pickering, pr. det. 2-storey bk. dwellings, corner Huron and Prince Arthur ave., cost \$24,000; Henry C. Stevens, pr. 2-storey dwellings, Cowan ave., cost \$3,600.

CONTRACTS AWARDED.

W. TORONTO JUNCTION, ONT.—Messrs. McQuillan & Co., of Toronto, have been given the

contract for ctb work around the water pipes in the Bay.

ST. JOHN, N. B.—Messrs. McNeal & Connor have been given the contract of erecting a memorial to the memory of J. Fred. Young, their price being \$2,500.

TORONTO, ONT.—The Board of Works has recommended acceptance of the following tenders for construction of sewers: Essex avenue, from Christie street to west terminus, Burns & McCormack, price \$909; Ruskin avenue, from Edwin avenue to Peith avenue, price \$1,703; Yarmouth road, from Christie street to Manning avenue, J. J. Booth, price, \$1,133.

CAUSE OF UNRELIABLE ESTIMATES.

The cause for unreliable estimates are plain to those who understand the facts, and they resolve themselves into three simple conditions: The first, inexperience from a lack of education; the second, a lack of mature judgment, based upon practical and mechanical operation; third, the methods practiced by the fraternity of procuring work by competition.

There is no doubt in my mind but that a remedy may be applied for all phases of a difficult question; and yet we are aware that until the building trades, as a unit, combine in a general movement looking towards a more advanced condition of scientific education, we may not hope for any marked improvement.

Let us, for a moment, discuss the first cause and its remedy—inexperience from a lack of education. However, a mechanic may understand the principles of his trade in a practical way, and be enabled to construct any piece of work given him, he may be lacking in that one great requisite which will enable him to make an accurate estimate. Education which treats of the science of mathematics as applied to building affairs—a knowledge of the many rules of measurement adopted throughout the country by architects and estimators—these are absolutely necessary to the mechanic who attempts to carry on business, and the lack of them by many who, by their push and energy, find themselves master-builders, soon brings failure and disastrous results from uncertain and mistaken estimates of cost upon which contracts have been awarded.

The second cause, a lack of mature judgment based upon practical operations, applies to every young mechanic who attempts to carry on his business on his own resources. He may be an expert, practical mechanic, and enabled to lay out and perform any branch of his trade; in addition he may be thoroughly competent in all that relates to figures and mathematics, and yet he fails from a want of proper and mature judgment applied at the proper time.

He may be capable of estimating correctly the quantities necessary to complete the building, in drawing off the bill of materials from a plan, and yet, when he is called upon to estimate the cost of labor, he is an utter failure. How many contractors can properly estimate the labor necessary to perform a given piece of work? Not one in five; for it is a matter of judgment, based upon a practical experience in the management of men, and the faculty for pushing work; for, while one may consume half a day on a

certain piece of work, another may do it in two hours. Hence it requires an extended experience in the handling of men to determine, under all circumstances, the time required and the cost incurred in performing a certain amount of mechanical labor; and this is where many estimators fail.

We venture to say in support of our statement, that if any ten subscribers who are contractors and readers of this paper, take them as they run, were called upon to estimate the labor of putting up any new block that may now be in course of construction in this city, there would be a difference of fifty per cent., from the highest to the lowest, which would only go to prove that in matters of judgment not based upon a thorough knowledge of the exact facts, we are all liable to make mistakes, and the contractor never did anything that never made a mistake.

The third cause of unreliable estimates, we have said, was the method adopted by the building trades of procuring work by competition. Here the reliable builder, be he ever so competent in figures and judgment, allows his anxiety for business to run away with his better convictions. To this class of mechanic we cannot read too severe a lecture; for it is by his rash, capricious acts that prices are lowered, and fair values cut to the minimum. It is not dishonesty that prompts him to submit a low estimate, nor does he intend to injure his fellow contractors; but in his anxiety to carry on a large business, or to occupy his enlarged facilities, he oft-times is led to underestimate the cost of a piece of work even lower than his own judgment dictates.

We know from a long association with builders and contractors, that it is better to take one job at a good price than to have ten at a losing figure, and there is no one who will contradict us; and yet the same condition goes on from year to year, without an attempt to improve it. That there is ample room for improvement no one can deny, and we have some hope that the building fraternity, when they fully understand the issues at hand, will take the proper steps towards a reorganization of the system of estimating and the rules which govern the submitting of proposals.

The system so long practiced in England of quantity surveyors is a vast improvement upon the American method of arriving at the cost of a building, for it regulates the judgment of the builder to a certain extent, and at the same time confines the proposal to a closer condition of facts, and hence brings them within a radius of the proper percentage of cost; and yet, even in the face of a system of

this character, the value of labor becomes an important factor, which, as we have said, must ultimately be governed by a matured condition of mechanical judgment, engrafted upon the builder by extended practice.—Southern Architect.

Prices of Building Materials.

LUMBER.

Table listing lumber prices for various types like 'CAR OR CARGO LOTS', '1 1/2 and thicker clear picks', '1 1/2 and thicker, three uppers', etc.

Metallic Roofing Co. of Canada:

Table listing metallic roofing prices for 'Heavy Eastlake galvanized steel shingles', 'Light Eastlake galvanized steel shingles', etc.

124 Notre Dame Street, Montreal, October 14, 1890

G. H. Mortimer Esq., Publisher Canadian Architect & Builder, and Contract Record.

Dear Sir,

I have to inform you, that, the following resolution was unanimously adopted, at the First Annual Meeting of the Province of Quebec Association of Architects held in Montreal on 10th & 11th inst.:-

Moved by M. Frenault, seconded by G. J. Dumbley. 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 where calling for tenders. Yours truly G. Bliff, Secretary.

Table listing various building materials and their prices, including 'Heavy Eastlake painted steel shingles', 'Light Eastlake Painted steel shingles', 'Tower or Mansard galvanized steel shingles', etc.

Table titled 'YARD QUOTATIONS' listing prices for 'Mill cull boards and scantling', 'Shipping cull boards', 'Shipping cull boards, stocks', etc.

Table listing prices for '1 1/2 inch flooring, dressed, F. M.', '1 1/2 inch flooring rough, B. M.', '1 1/2 inch flooring, dressed, F. M.', etc.

Table titled 'BRICK—M' listing prices for 'Common Walling', 'Good Facing', 'Sewer', etc.

Table titled 'Pressed Brick' listing prices for 'Plain brick, f. o. b. at Milton', 'Hard Building', 'Moulded and Ornamental', etc.

Table titled 'Stone' listing prices for 'Common Rubble, Per Tonne', 'Large flat', 'Foundation Blocks', etc.

Table titled 'Slate: Roofing' listing prices for 'red', 'purple', 'untinting green', 'black slate', etc.

Table titled 'Sand' listing price for 'Per Load of 1 1/2 Cubic Yards'.

Table titled 'PAINTS. (In oil, @ lb.)' listing prices for 'White lead, Can.', 'zinc, Can.', 'Red lead, Eng.', etc.

Table titled 'CEMENT, LIME, etc.' listing prices for 'Lime, Per Barrel of 2 bushels, Grey', 'Plaster, Calcined', etc.

Table titled 'HARDWARE' listing prices for 'Cut Nails: American Pattern', 'Canadian Pattern', 'Finishing nails', etc.

