

inflammable structures' would be destroyed were a general conflagration to occur, while two or three blocks of fire-proof buildings would be practically indestructible. But even where fire-proof building is out of the question, a large measure of fire prevention may be secured by more careful and substantial methods of construction. The main features to be observed to secure this end are: 1st, walls so substantial and of such materials that the whole interior may be destroyed and yet leave them intact; and, 2nd, such a method of constructing posts, beams and joists and of anchoring the same to the walls, that the whole or portions may be destroyed or detached without affecting the stability of the rest of the structure. A large proportion of the extensive conflagrations now only too common would have been confined to one building had such precautions been observed.

Now is the time for our cities and large towns to make wise provisions for protection from disasters which will surely follow in the wake of faulty and poor construction. We can never do it better or to greater advantage than at present. The bulk of our business streets are yet in a formative condition, and occupied by buildings that are, comparatively speaking, only temporary erections which must within a decade or two give place to edifices in keeping with the march of progress.

Montreal and Toronto should lead the way in the preparation of proper building laws. The Architectural Associations of the two provinces would lay the country under lasting obligations could they be instrumental in bringing about this much needed reform.

There was a spasmodic and feeble attempt made by a Committee of the City Council of Toronto about a year ago to re-model the existing by-laws. The Committee were apparently paralyzed by the magnitude of their task. We think the matter should be placed in the hands of experts, else nothing creditable will result. The time has arrived in the history of large cities like Toronto when the duties of the aldermen should be simply legislative, leaving the execution of all practical matters to practical men.

A paid Commission should be appointed to do this work, and having ample time allowed to do it thoroughly. This Commission should be composed of experienced architects as being the class of men best posted in matters of safe building and advanced methods of construction. The Commission should have authority to secure legal advice on legal points. The advice and experience of the City Engineer and any other officials versed in local requirements should be placed at their disposal, and they should be empowered to obtain in the way they deem best the latest data and legislation extant on this all important subject.

#### QUERIES AND ANSWERS.

CHARLOTTETOWN, P. E. I., Nov. 5, 1890.

Editor CANADIAN ARCHITECT AND BUILDER.

DEAR SIR,—Would you kindly give me the addresses of firms in Toronto dealing in architects' supplies—that is, if there are any such. It is a wonder to me such persons don't advertise in the CANADIAN ARCHITECT AND BUILDER.

Yours truly,

C. B. CHAPPELLE.

[Messrs. James Bain & Son, King St. East, Toronto, are dealers in architects' supplies. Doubtless there are others also of whom we have no knowledge.—EDITOR C. A. & B.]

1724 NOTRE DAME STREET,  
MONTREAL, Oct. 29, 1890.

Editor CANADIAN ARCHITECT AND BUILDER.

DEAR SIR,—Would you kindly give me a list of the most useful books you would recommend an architectural student to study.

Yours truly,

STUDENT.

[Gwilt's "Encyclopaedia of Architecture"; T. M. Clark's "Building Superintendence"; Ferguson's "History of Architecture"; Viollet de Duc's "Discourses on Architecture"; Stevenson's "House Architecture"; Rickman's "Architectural Styles"; Paley's "Gothic Mouldings." Most of these works may be obtained by corresponding with Mr. Thos. Henry, book agent, McGill St., Toronto.—EDITOR C. A. & B.]

#### CONTRACT VS. DAY LABOR

MR. Jennings, the newly installed City Engineer of Toronto, has inaugurated the system of constructing public works by day labor under the supervision of the Department of Works, of which he is the head, instead of by contract, as was the practice formerly. It is claimed on behalf of the new system that better results are obtained at less cost in comparison with the practice of letting the work by public competition to contractors.

With the object of gaining information on this important subject, the editor of the CANADIAN ARCHITECT AND BUILDER recently addressed to the city engineers of a number of the principal American cities, the following letter of enquiry:

DEAR SIR,—I would feel grateful for any information which you may be kind enough to furnish me with on the following points:

1. Is the construction of public works, such as sewers and pavements, in your city, performed by day labor under your direction or by contract?
2. Have you given both methods a fair trial?
3. Which method do you consider to be the most satisfactory in the interests of the citizens, and on what do you base your opinion?
4. In the purchase of supplies, is it customary in your city to advertise for tenders for the same, or are the heads of departments authorized to purchase in whatever way they think best, without tenders being asked? Which system would you consider the best?

The replies to these enquiries are as follows:

From Oscar H. Peacock, City Surveyor, Rochester, N. Y.:

1. By contract, under direction of Executive Board and myself.
2. Yes. 3. By contract; more work can be done for less money.
4. Heads of departments purchase. There are cases where a purchasing agent could make better terms, especially where large quantities of any article are required. But as changes are constantly being made in all kinds of manufactured articles, the agent is liable to get overstocked with materials that will remain on his hands. Heads of departments know their needs better than any one else, and ordinarily can buy as close as any one else.

From O. H. Cheney, Acting City Engineer, Chicago:—In this city sewers and paving is done by contract. We have tried doing the work by day's work, and have found that it costs at least 10% more. I find by experience that the city pays higher wages and gets less work out of the men than contractors. Some are employed more for their usefulness at the polls on election day than for hard work. Let your work by contract, place competent and trustworthy men in charge as inspectors, and you will save money for the taxpayers. In purchasing supplies, anything that costs more than \$500, we advertise for bids and award to the lowest bidder. We employ a purchasing agent who shops around and makes the best bargain he can for articles costing less than \$500. Get an honest man for purchasing agent, and follow this rule and be happy.

From S. L. Sweedley, Chief Engineer and Surveyor, Philadelphia:—1. By contract. 2. We have never performed the works you mention by day labor. 3. Our method consists in advertising and giving out to the lowest bidder by contract a specified amount of work to be executed with the liability of the city fixed. With very thorough inspection I believe this may be entirely satisfactory. Not having tried both methods mentioned, I cannot express an opinion from practice. 4. Materials and labor are not purchased separately.

From H. D. Sudden, City Engineer, Detroit, Mich.:—1. The construction of all public work is let by contract, except catch basins. 2. The other plan has never been given a trial. 3. I have no doubt that if improvements were made by day labor, better work would be secured, provided political influence did not intervene. I also think that the work would be more expensive than under the contract system. 4. In the matter of supplies, the same system prevails generally, viz., the contract system. The Board of Public Works have power under the charter to do work or purchase supplies up to the amount of \$200 without advertising for bids. I consider the contract system the best under the last head.

From Mr. G. Mann, City Engineer, Buffalo, N. Y.:—1. By contract. 2. No; everything has been by contract. 3. Through an efficient Board is in my judgment much the best way. 4. We advertise for everything, excepting small purchases for office use.