FIRE RESISTING CONSTRUCTION.

Just ten years ago the British Fire Prevention Committee inaugurated its important series of tests —at once scientific and practical—relating to fire preventing and fire combating. Much has since been accomplished in Great Britain by the recognition, in building practice, of the principles explicated through the committee's experimenting and summed up at the London Fire Protection Congress held in 1903.

A recent writer in the engineering supplement of the London Times refers to the interesting discussion which took place at that congress relating to the loose use of the term fireproof. As an outcome of that discussion, relative fire-resistant standards were more or less exactly defined—the general distinction being that "full" and "partial" protection should signify capacity to resist respectively a four-hour and two-hour fire at high temperature, "temporary" protection being the term applied where only one-hour resistance to a moderate fire could be looked for.

The man who has but a vague idea of so-termed fire-proof buildings, of their great expense, and also of their occasional demolition by fire, is apt to conclude hastily that the matter is not worth considering in his own particular case. There is little doubt that the popular application of the term "fire-proof" to buildings of vastly differing grades has done something to retard the progress of fire-resisting construction, by shaking faith in its efficacy. A more discriminating recognition by the public—and by some architects—of the relative protection afforded by various classes of construction is greatly to be desired. And to this end underwriters are making continued effort. Let builders and occupants look more carefully to the exact needs of their own business, exposure and locality—weighing carefully not only their architects' views, but whatever advice experts of the underwriting business have to offer.

It is an encouraging sign that the daily press in Canada is beginning to take a more important part in educating property-owners along such lines. The Montreal Gazette, in commenting recently upon above-mentioned experiments, urges the importance of builders and users of buildings, as well as their professional advisers, realizing more clearly the practicability of economical fire-resisting construction. Reference is made to the growing use of concrete, both in Europe and America. Honest construction of concrete either plain or reinforced has proved itself highly fire-resistant; while expert opinion is now unanimous as to the advisability of protecting steel structural work by a covering of two or three inches of concrete.

But the securing of a highly fire-resistant outer structure is not everything—and the experts frankly admit that they themselves have yet something to learn as regards interior fittings, openings, and so forth. Granting that "a fire in a steel frame building need at the most mean only a burn-out of the contents and finishings of the individual storeys," such a happening is far from desirable—to tenants, owners or insurance companies. Necessary openings in floors and walls are weak points that are too seldom effectually guarded. As the Times' article points out, the need is for an incombustible door that will resist both flame and heat. The old well-made iron door properly hung and fitted to allow for a certain amount of expansion, is still to be looked upon as the best device, not made under patented process, for resisting serious fires; while the simple hardwood door of two inches in thickness is the most useful for minor fires of comparatively short duration. For large openings, roller metal shutters are commended, when so constructed as to allow for heat expansion.

Almost as noteworthy as growth in the structural use of concrete during recent years, has been the increasing employment of asbestos in interior finish and equipment. Those responsible for the erection of the new Engineering Building at McGill University are seeking to make assurance of fire resistance doubly sure by using asbestos boards for panelling, as well as for drawers and cupboards. From such attention to details—too often overlooked hitherto—a great advance in fire-resisting provisions is to be looked for during the next few years. The recent occurrence in Montreal of a serious and costly fire in a building of high-class fire-resisting construction emphasizes the need for realizing that "small things" overlooked may sometimes assume portentous proportions. A more prevalent use of asbestos in insulation of wires and for cut-outs, fuses, switch-boards, etc., would do much, either to lessen the number of fires of mysterious origin, or else to shift the blame from electric wiring to some other general scape-goat.

Alike in the increasing use of concrete and of asbestos the Province of Quebec is interested, apart from all bearing on local fire losses. The manufacture of cement is now established as one of the staple and important industries of the province; while the world's principal, and in point of quality best, supply of asbestos is acknowledged to be from Quebec.

THE CANADIAN PACIFIC RAILWAY, with characteristic enterprise, is instituting an industrial department, under the direction of Mr. F. W. Peters, which should do much to upbuild the towns and cities of the West. It will systematically supply information to all classes of people who desire to locate in the country, whether for the purpose of trade or manufacture. The co-operation of boards of trade will be utilized. Towns adapted to the profitable operation of industrial institutions will have the fullest support of the company in the endeavor to secure the location of such plants.