

from the floors and the structural steel beams and pillars, leaving the latter in a veritable furnace that reduced them to melted scrap and caused the complete destruction of the structures that architects and the public had believed to be fireproof. Had these buildings been constructed of solid concrete even so fierce a fire as the Baltimore conflagration would have had no more effect upon them than a possible blackening from the smoke. In fact, those parts of buildings built of concrete were not affected by the fire at all.

A striking example of how reinforced concrete stood the heat in the great fire in Baltimore is afforded by the annex building of the United States Fidelity & Guarantee Co., in that city, regarding which the Manufacturers' Record says :

Here remain the floors and roof of a five-story building, one wall and the front almost entirely gone, and the other walls but half standing, the floors resting on concrete columns independently of the walls. Although the transformer station of the United States Electric & Power Co. passed through the thick of the fire without serious injury, the floors and roof here being of concrete, and the International Trust Co's. building shows a concrete floor intact, on which the walls of the building adjoining fell a distance of 35 feet.

Until last week no load test had been applied to the floors of the annex building, although their substantial condition was evidenced by the failure of the wreckers to bring any force to bear on it sufficient to move the columns or floors. Last Thursday the load test was made under the supervision of Captain John Stephen Sewell, of the United States Engineer Corps, a recognized expert on reinforced concrete. The test was made on the second floor, where 300 pounds per square foot were laid on one span, in the form of bricks piled three feet high and covering a space 20x11 feet. The floors were designed for a superimposed load of 150 pounds per square foot. Under the test made the deflection of the beam was one-sixteenth of an inch. Additional load was then applied, making the total about 400 pounds to the square foot, with practically no change in results. A test load of 200 pounds per square foot was applied to the cantilever, with no resultant deflection. With such a notably favorable result from these tests, verifying the apparent success with which reinforced concrete withstood the heat, the advocates of this material are certain that its use will be enormously increased for floors and walls wherever fire-resisting construction is contemplated.

The uses to which cement, or concrete, can be put are innumerable. It includes all branches of construction, embracing all kinds of buildings, grain elevators, chimneys and stacks, water towers, bridges, culverts, columns, fire and retaining walls, wharves, docks, piers, dykes, breakwaters, mine shafts, tunnels, subways, foundations, railroad ties, etc. In the water it has no equal, as the material resists moisture completely and grows harder and more resistant under its effects. The advantages of concrete are so manifold and important that it is evidently but a matter of a short time when it will be adopted universally. The materials are abundant and cheap, quickly procured and easily assembled, can be handled by ordinary labor, and can be moulded to any form: Structures thus made are exempt from corrosion and destruction by the elements, absolutely fireproof, unaffected

by changes of temperature, and require no paint to preserve them or maintain their beauty of appearance.

He would be a bold prognosticator who would attempt to define a limit for the future uses of concrete. We are walking on it, riding on it, eating our daily bread from grain stored in concrete elevators, taking our drinking water from concrete reservoirs and cisterns, living and doing business in houses constructed of concrete, sanitating our cities with sewers of concrete, and last, but not least, enterprising undertakers are offering us the opportunity of taking our final rest in concrete burial cases deposited in concrete tombs, surmounted by concrete monuments, sacred to our evanescent memories.

EDITORIAL NOTES.

The Dominion Exhibition at Winnipeg was successfully inaugurated at the grounds of the Winnipeg Industrial Exhibition July 26. Canadian manufacturers are making excellent displays there.

The thirty-third annual meeting of the Canadian Manufacturers' Association will be held in Montreal beginning September 20 and continuing through 21 and 22, under the able direction of Mr. George E. Drummond, the president, who is also the president and manager of the Canada Iron Furnace Co., and who is interested in many of the more important iron and steel industries of Canada, including the Lake Superior Corporation, the Association is in prosperous condition.

Dr. J. O. Orr, manager and secretary of the Toronto Exhibition, writes to newspapers as follows: "It has been brought to my attention that some party or parties are soliciting advertisements for a so-called Industrial Exhibition programme. There will be only one official programme, and the Exhibition Association have decided to publish it this year themselves, and will not allow any other programme to be sold or distributed upon the grounds. No person has any authority from the Exhibition Association to solicit advertisements, and those who are doing so are acting on their own account without any authority whatever from the association."

Last week in the House of Commons, in discussing the cost of operating the Intercolonial Railway, Dr. Kendall complained that the Intercolonial had to pay more for coal at Sydney, Cumberland and other points in Nova Scotia where it was produced, than the Canadian Pacific Railway and Grand Trunk had to pay at Montreal, 800 miles away. Mr. Logan defended the high price of coal in Nova Scotia; said that the reason coal was cheap in Montreal was because it is a competitive point for American coal.

The new administration building on the grounds of the Canadian National Exhibition in Toronto, will prove a great convenience to exhibitors. In one large room have been grouped the representatives of all the buildings and