

Reinforced Concrete.

(Mr. C. F. Macdonald's Letter concluded.)

Continuing, Mr. Lewis writes:—"Reinforced concrete is said to be fireproof but everyone connected with the building industry knows that it is not."

Surely this statement is not made seriously, but I shall refrain from comment and submit the following evidence:—

After the San Francisco fire and earthquake, the National Board of Fire Underwriters called for a report, which was supplied by Mr. Albert Reed, the Board's Consulting Engineer. According to this report, there were 31 fireproof buildings in San Francisco built of ferro-concrete all of which went through the fire with but very slight damage.

The *Age* (Melbourne) commenting upon this subject, says:—"San Francisco is at present being largely re-built with this new material, as it is admitted that the fire, more than the earthquake, which was the main cause of that city's disaster, could not have occurred had the city been built with reinforced concrete."

The *Daily Telegraph* (Napier) April, 3rd, 1908:—"The value of ferro-concrete buildings from the point of view of protection from fire was testified to yesterday, by Captain Hennah, Government Fire Inspector, in connection with the new Caledonian Hotel. Learning that Captain Hennah was in town, a representative of this journal asked him if he had seen the new building, and, if so, what he thought of it as a fireproof building.

Captain Hennah replied that he happened to have thoroughly inspected the new hotel, and had formed the conclusion that it was the most up-to-date fireproof building south of the line.

"Of course," he said, "the absolutely ideal fireproof building has yet to be evolved, for in that, no portion, however small, would be combustible. In the new building, it seems to me that all that science has been able to achieve in that direction has been carried out. I would have preferred

no fireplaces," he continued, "all the warming being carried out by a system of circulating hot water, but people like fireplaces, and with that reservation, I think the new Caledonian is as perfectly fireproof as it is possible for a building to be."

Under date March 13th, 1908, Mr Frank B. Ramby, Chief Fire Department, Department of Public Safety, Dayton, Ohio, writes:—

"In reply to your favour of the 10th in which you refer to the recent fire in the new Reinforced Concrete Building at the Dayton Motor Co.'s plant, I would state that this being the first fire we have had in a building of concrete construction, I am very highly pleased with the results of this fire. When I arrived on the scene, the fire had extended over the entire fourth floor. The entire contents of this floor were destroyed. The building, however, escaped with slight damage.

"Through the absence of fire doors and the inability of our Department being able to withstand the intense heat and smoke, the fire communicated itself through an opening into the adjoining five-story brick building, and was confined to the two upper floors. The biggest fight was carried on here, and it was in this building that the greatest loss was sustained. The lower floors being occupied by the offices and warehouses of the Company, suffered greatly from water.

"The new building being of concrete construction aided us greatly in preventing the fire from wiping out the entire plant, as we were able to concentrate practically our entire force on the old building, it requiring but a small force to subdue the fire in the concrete building."

Mr. Lewis says, "Actual photographs tell the truth," and I enclose a photo of the buildings above described, taken after the fire.

I am tempted to continue, but must not encroach further upon your space. I leave



BIRMINGHAM TELEGRAPH STORES. Built of Kahn Bars throughout (Under construction.)

the evidence produced to bear testimony as to the value of this material, and as further evidence of its worth is made manifest by the erection of other buildings in our midst. Mr. Lewis will have his best answer.

Yours faithfully,
C. FLEMING McDONALD.

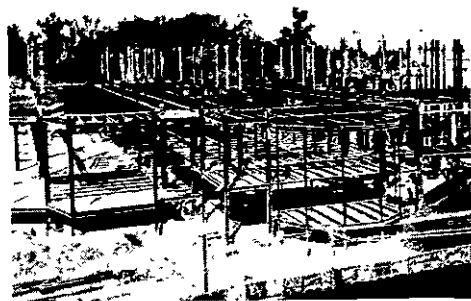
Dunedin, July 28, 1908

[The photograph shows the result of a very remarkable and complete fire test for Reinforced Concrete. It shows how the fire started on the fourth floor of a reinforced concrete building, and burnt itself out as narrated in the text without spreading to the floors above and below.—Ed. P.]

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