

BATTLING AGAINST TRADITIONS.

The reinforced concrete building to the uninitiated is a decidedly dangerous-looking erection. The lay mind cannot conceive how concrete, applied in slight thicknesses and in small dimensions, can sustain the weight of a skyscraper of many storeys. On account of the failures in this form of construction, which, comparatively speaking, have been very few, indeed, the public frequently views with suspicion, and sometimes alarm, the rapidity with which this form of construction is gaining ground. The cement and concrete industry is battling against traditions. We live in a conservative age. People tell us that brick was good enough for constructional purposes a decade ago, and that there is no need for new-fangled methods.

Whenever new ideas are promulgated there is invariably an outcry from those who would rather starve than witness an innovation. Wooden buildings naturally predominate in timber countries. There is much freedom from building restrictions in Canada. A man may buy in many districts his land just without the limits of the city, and can erect there whatever kind of structure he desires. The wooden building is cheap; it is quickly put up. But it is neither durable nor able to resist fire.

In years to come, when Canada is adequately populated, these timber villages will create a problem. Colonies of shacks, which are now without the city limits, must, in the course of time, come under proper municipal jurisdiction. As a rule, the builder of the wooden house owns his building site. This means that in time within the heart of Canadian cities will exist not a few dwellings which will create a fire danger to the whole community. The timber supply of the country must in the course of events become exhausted. As lumber becomes more scarce prices will advance. This will mean that the advantage of cheapness claimed for the wooden building will be less important.

When a man builds, especially in a country such as this, he should not build selfishly. Canada offers him more advantages, probably, than any other country in the world. It is his duty to see that he assists in its proper development. The wooden building is out of date. Every new erection of this class means a step backward instead of forward.

In many instances cost is not a primary consideration. A landowner may desire a large dwelling. He not infrequently chooses a wooden residence, which must necessarily be in constant danger from fire. "If we go forward we die; if we go backward we die; better go forward and die." These are good sentiments, not only for every man, but for all industries.

With the passing away of the timber building has come the era of concrete construction. It has innumerable advantages over plain or ordinary masonry. When reinforced, it may be designed and used very much in the same manner as wood or steel. This form of construction must win out in the end. Its merits will assure that. Strength, durability, flexibility, fire resistance, economy and ease of application are some of its advantages.

FIREPROOF STAIRCASES FOR SCHOOLS.

The town of Hochelaga, which is to all intents and purposes part of the city of Montreal, last month suffered a terrible calamity. Sixteen little children and the lady principal of a school met death in the fire which destroyed the schoolhouse. The fire is supposed to have started from a heap of rubbish in the basement. It made such rapid headway that by the time the children on the first floor were marching down stairs the dense smoke turned many of them back. Had it not been for outside assistance, the deaths would have been doubled or trebled.

The kindergarten classes, instead of being on the ground floor, were on the top, and were caught like rats in a trap. The firemen were quickly on the spot, and the principal, breaking the panes of glass with her hands, handed out some twenty-five of the little tots to the firemen, who had raised a ladder. Refusing to leave her post, even when the flames were burning the ladders, she continued the work of rescue until, becoming suffocated, she reappeared no more at the window with her little burdens.

That such a terrible holocaust could have occurred in a school in the heart of a city, supposed to be provided with all the means for the extinguishing of fires and for rescuing people from burning buildings, is a sad commentary on conditions as they actually exist. It is a warning of what may occur to a very large percentage of Canadian schools.

Much blame is attached to the Protestant School Commissioners for not having carried out the instructions of the building inspector to provide the school with fire escapes. The Rev. Dr. Shaw, one of the commissioners, says that fire escapes would be the cause of more deaths than a fire, if the children could be prevailed upon to trust themselves to them. The chief of the fire brigade, in reply, says that if the school had been properly provided with these escapes, all the children could have been rescued by the firemen. While each department endeavors to escape responsibility, it is time for engineers and architects to come forward with a plan which will make another occurrence of this nature absolutely impossible. It is not enough to have a good fire brigade, an adequate water pressure, fire escapes fitted to the windows, a fire drill, and the various devices commonly adopted. It is really surprising that even worse calamities than that which took place at the Hochelaga school have not occurred more frequently. It is criminal almost on the part of those in authority to permit the safety of the children to hang upon any such slender precautionary measures as commonly exist.

The question of cost has to be met at the threshold. The amount of money placed at the disposal of the trustees is seldom sufficient to build a fireproof school. But it is not necessary that the class-rooms and the entire school should be fireproof. The danger lies in descending from the different floors to the ground. There is little likelihood of a scholar being burned in the classroom. As a rule the child can reach the stairs. It would seem that with a reasonably commodious fireproof staircase leading direct from each floor to the exit at the street that danger would be greatly minimized.