

mortar prepared with slag. It is stipulated that the test-samples of pure cement should develop a strength of at least 330 lbs. per square inch after being exposed to the air for one day and then immersed in water for a week, and that when this latter period was increased to some twenty-five days, the strength should be augmented to 480 lbs. It was conclusively proved that this condition was both worthless and out of date, without taking into consideration that cement is seldom used in a pure state, but, on the contrary, mixed with a certain proportion of sand, which imparts to it the necessary strength. Ordinary cement-mortar generally consists of one part of cement and three of sand, both by weight, and this was the composition of the specimens submitted to trial. At the end of 28 days these specimens were capable of supporting a stress of compression equal to 1,060 lbs. per square inch."

**The Cost of Building.**

The Carpenters' Union of Toronto have recently demanded that eight hours shall in future constitute a working day. Last year this reduction of hours was granted to the masons and bricklayers, so that it cannot well be refused the carpenters. The cost of this concession must ultimately come out of the pockets of those who put up buildings, and further enhance the expense of building, which has already been considerably increased by the rapid advance in price of land and materials. What will be the effect upon building enterprise remains to be seen. It is argued, not without reason, that, as a result of the prevailing prosperity, the people have more money and can afford to spend it. Certain it is that during the dull times, when land, materials and labor might all have been purchased below par, very little building was done, while coincident with an all round increase in values, came renewed activity in building. While this principle may operate up to a certain point, it is nevertheless possible to so encumber enterprise as to check its progress.

**Ancient vs. Modern Systems of Heating.**

Canadians who have visited Great Britain have been impressed with the inefficiency of the heating methods employed there in when contrasted with the hot air, steam and hot water systems so generally used and which are such a source of comfort in Canada and the United States. In recent years the advantages of the heating apparatus manufactured in Canada have been brought before public notice in Great Britain and on the continent of Europe. As a result, many important public buildings have been fitted up with modern apparatus, a constantly increasing quantity of which is being exported. The need for improvement in heating methods is thus expressed by the Building News: "The hot water and steam or hot-air systems of scientific arrangements for warming have yet found no place in our architectural arrangements and all we have attempted is to incase the pipes, and provide cast-iron ornamental cases for the coils and radiators. But we cannot reckon without them in our public buildings, and before very long these systems will have to be expressed."

**Architectural Practice in Canada.**

UNDER this title, the "London Architect and Contract Reporter" of February 9th indulges in a lengthy criticism of the Ontario Association of Architects, particular reference being made to the proceedings of the recent

annual convention of that body. The "Architect" sets out with the statement: "Why there should be congresses or conventions in such places (colonial towns) is not always plain. As a rule, architects have to act during the greater part of their lives individually, and occasion for co-operation with other architects rarely occurs. Painters and sculptors do not hold congresses, although it would be as easy for them to find topics to talk about as it has been for several years for architects." In answer to this, it can be said that architects stand on entirely different ground from either painters or sculptors. The practice of architecture is, to a large extent, a commercial pursuit. The architect must know how to handle structural materials in such a way as to give his clients buildings perfectly adapted to their purpose, securely constructed, and with the least amount of material necessary to this end. He is called upon to invest wisely his client's money, and in addition has constantly to deal with manufacturers and dealers in all classes of materials, and with contractors in a dozen or more trades, who must receive from him their instructions as to the manner in which these materials should be employed. There is no such commercial side to the work of the painter or sculptor, hence there does not exist the necessity for associations to consider and compare experiences and methods.

The inference is deduced that the Ontario Association of Architects cannot exert any influence or achieve any useful purpose because of its limited financial resources, and it is called a shabby genteel imitation of the American and British Institutes. On this point the Association's critic says: "It was found necessary, owing to financial straits of the Association, that the office of registrar and librarian would have, for a time at least, to be honorary. Poverty may be creditable, but the people of Toronto are sure to conclude that a society that is unable to pay a single official has no right to exercise influence upon them." No sensible man will admit that a society is useless because it does not see fit to employ a paid officer. We have for example the Toronto Guild of Civic Art, which has no paid officer, but which nevertheless has exerted an influence in connection with the decoration of the new municipal buildings, the conduct of School Art Leagues, and other matters of equal importance.

The action of the Ontario Association of Architects in soliciting subscriptions from prominent citizens of Toronto to establish a fund to found a travelling studentship is ironically referred to as an example of courage, "which would hardly be paralleled by a member of any other society or calling in the city, and as illustrating the hardihood required by a man when he becomes a member of an architectural society." We fail to see the matter in this light. In Canada we have no great public museums and art galleries to be centers of education for our students, who are therefore compelled to go abroad to secure the education which would fit them for their future work. Neither have we a leisure class who can devote their time to the promotion of art education. Under these circumstances, the Ontario Association of Architects, being desirous of providing for the education of the on-coming generation of architects, considered that business men who might not be able to devote time and thought from their