

to give ample expenditure of time and money to the project. Such being the case, the best results would seem likely to be achieved by restricting the competition to architects in America and Europe who can meet these requirements.

**Effect of Limestone
on Metal.**

GREAT importance attaches to the statement made by Mr. L. L. Buck at the last meeting of the American Society of Civil Engineers, that deep corrosion results from the contact of limestone in concrete with metal. This fact is said to have become apparent in the anchorage of the railroad suspension bridge at Niagara, the main cables of which are imbedded in a concrete made of limestone. The discovery was recently made that at the points of contact between the spalls and the wires, the latter were badly corroded and in some instances entirely severed.

**Signatures of Archi-
tects on Buildings.**

In Belgium it has become the practice for architects to inscribe their names in small capitals at the right hand corner of the principal front of their buildings. To the younger members of the profession in that country is ascribed the credit for the introduction of this practice. The interest taken by the Belgians in architecture, and their ability to discriminate between good and bad work, has had much to do with bringing the practice into general use. A prominent Belgian architect wishes that there should be a regulation making it compulsory upon architects to "sign" their buildings, in order that the designer of monstrosities might soon find his occupation gone.

Building Disputes.

FIVE years ago the City Council of Boston appointed a board of appeal, to which disputes arising between architects, owners or contractors and the City Building Department, are referred for settlement. The board is composed of an architect, a builder and a lawyer. Nearly 200 cases have come before it for adjudication. The success which has attended its deliberations and conclusions can be judged by the fact that in only one or two instances have appeals been made to the courts from its findings. The establishment of such a board in every city of importance would be of great advantage to architects and builders who in the absence of such a body must in all cases submit to the Building Inspector, whose decisions may or may not be founded on common sense and a correct knowledge of the building laws. It would also be the means of effecting a considerable yearly saving in law costs, not to speak of the time and worry incident to proceedings in the courts.

**Fireproof Construc-
tion for Mercan-
tile buildings.**

MR. W. L. B. Jenney, the well known architect of Chicago, recently presented a somewhat lengthy paper on this subject before the Chicago Fire Underwriters' Association. Having given due consideration to all available data, including the lessons taught by the recent fire in the Horne and Methodist Book Buildings at Pittsburgh, he suggests as the best method of rendering a mercantile building fireproof, a steel construction with an adequate foundation, the exterior walls of brick with terra cotta trimmings; the fire proofing and the floors to be of porous terra cotta that has been thoroughly tested, or with concrete strengthened with square rods

twisted; the floors to be of smooth concrete; the doors to be of metal. These doors can be ornamental or as plain as desired. Mr. Jenney is of the opinion that in such a building the stock can be entirely consumed with but little injury to the building other than smoking the walls and ceilings and the blistering of the paint, and that if the building is protected from external fires by outside shutters then the windows will be destroyed, but if there is no danger from outside fires the shutters can be on the inside of the building, and if closed will save the windows. The author states that when substantial iron window frames and sashes shall be available, as probably they soon will be, the loss to the building will be little more than the glass, the interior painting and calcimining. For the preservation of the contents of the building strictly fireproof division walls, with shutters to all outside openings where there is danger from other buildings, and to light shafts and stairways connecting the different stories of the building, are recommended. It is claimed that if these methods are intelligently applied, they will add but a small percentage to the cost of the usual fireproof building.

**The Manufacture of
Cement in Canada.**

TRADE statistics show that although the production of Portland cement in Canada increased by 154 per cent. between the years 1894 and 1896, there remains a wide gap between total production and demand in the home market. During the fiscal year ending June 30th, 1896, the importations of foreign manufactured cement into Canada amounted to 210,065 barrels, valued at a quarter of a million dollars. The use in recent years of concrete for foundations for street paving, as well as in the construction of sidewalks, basement floors and for many other purposes, has greatly increased the demand for cement. Inasmuch as this increase in demand seems likely to be a permanent one, there appears to be room for a large extension of our cement manufacturing facilities. The annual reports of the United States Geological Survey contain evidence of the exceedingly rapid growth in recent years of the cement manufacturing industry in that country. In 1890 there existed sixteen factories, having a total capacity of 335,500 barrels of Portland cement; in 1894 the number of factories had increased to twenty-four, and the total production to 798,755 barrels; in 1896 twenty-six factories produced 1,543,023 barrels, showing a greatly enlarged capacity; the number of factories has now reached thirty, and the estimated production for the current year is 2,304,000 barrels. These figures would appear to indicate that home manufacture in the United States has more nearly kept pace with the requirements of the home market than has been the case in Canada. The present companies are entitled to much credit for the courageous manner in which they invested capital in an industry which many averred could not be successfully conducted in this country. These companies have overcome one difficulty after another, until at the present time they are able to produce cement which is in every particular the equal of what can be made abroad. One of the greatest obstacles which they have had to encounter has been the prejudice existing in favor of the foreign made article. The reason of this prejudice is to some extent obvious from the fact that until within the last ten years our total supply of Portland cement was imported from abroad, as up to that time no attempt had been made to