

stone beds, should, before going to the expense of opening quarries, have his rock beds examined by an expert, whose report should show all the defects as well as all the good qualities of the material. Usually this can be done without any great outlay of labor or money, for the experienced geologist or engineer can quickly discover from the stone and its surroundings the nature of the deposit, and very simple chemical and mechanical tests will settle the question of strength and durability. There are beds of magnificent building-stone lying undeveloped in many places, simply for the reason that the owners are not aware of the treasure that they possess. In other places quarries are being industriously worked and the stone used in the erection of costly buildings, where, in fact, the material is wholly unfit for use on account of its lack of durability. I have examined many extensive structures whose stone was fast crumbling away. True, a few years will not show much decay, but in the long future the result will certainly be disastrous. The constant action of the atmosphere, the expansion and contraction consequent upon extremes of heat and cold, and the disintegrating effect of rain-water, slowly but surely tell upon the integrity of the exposed parts.

The invitation extended to visitors to the Toronto Industrial Exhibition by the Gurney Foundry Co., to visit their extensive show rooms on King street west, and inspect their Oxford boilers and radiators, and other heating appliances, drew a large number of visitors to their establishment during the Fair.

A new kind of insulating and non-conducting material for covering heating apparatus, etc., consisting of flakes of mica, enclosed between covers of wire netting and canvass, forming mats of any size or shape, has recently been placed on the market by the Mica Boiler Covering Co., of No. 2 Bay street, Toronto.

The high price of hard wall plasters heretofore has prevented the adoption of them generally in Canada. The Alabastine Company, of Paris, Ont., announce in another column their "Paristone Wall Plaster," which they claim to be superior to anything now on the market, and at a price within reach of all. Architects who are interested in bringing the cost of buildings within the amount of their estimates might do well to investigate this new plaster. Situated as they are near to the central Canadian cities, and having their own mills and mines, it would seem that this firm might be able to produce the goods at a low price. The agency for this city has been established with the Toronto Salt Works, 128 Adelaide street east.

TESTING STRUCTURAL MATERIALS.

THE following are the subjects which appear on the program of an international conference, at Zurich, Switzerland, to be held on September 9, 10 and 11, to consider the adoption of standard uniform methods of testing structural materials. The conclusions of the conference will be watched with interest by architects and builders all over the world.

1. Future promotion of uniform methods of testing materials and important technical products.
2. Establishment of uniform methods of testing rust-preventing processes.
3. Relation of chemical composition of natural stones and their resistance to climatic changes; influence of smoke and sulphuric acid upon stones.
4. Method of determining quality and climatic resistance of roofing slates.
5. Methods of securing normal consistency and uniform density of cement test briquettes.
6. Investigation of methods of determining the constancy of volume of hydraulic cements.
7. Quick methods of determining quality of cement.
8. Adhesive strength of hydraulic mortars.
9. Technical value and physical tests of puzzolanas.
10. Investigation of anomalous phenomena of cements, especially of time of setting.
11. Investigation of influence of fecal matter on hydraulic mortars.
12. Processes of testing ordinary wrought iron, uniform methods.
13. Comparative tests, most simple measurements and expressions for flexibility of metals.
14. Influence of corrosion, wire tests for corrosion.
15. Tests of microscopic structure of metals, uniformity of methods.
16. Investigation of effect of very low temperatures on wrought iron.
17. Experiments on solder and soldering.
18. Compression tests of iron.
19. Cast iron tests.
20. Tests of iron and steel railroad material, axles, tires, &c.

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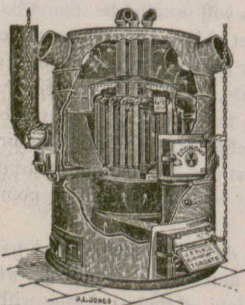
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