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to seismic disturbance communities do not build their houses with an eye to the occurrence of earthquakes. If that were so, the ideal material would be the Japanese arrangement of matchboard and paper. But undoubtedly this fact from Messina is another triumph for a material which is slowly but surely making its way. Two of the many advantages claimed for this treatment of concrete, in which iron wire or thin slips of steel are embedded, are illustrated by a subsidence—producing an earthquake effect on a small scale—and by a fire. In the one case the building as a whole would settle down, perhaps with a lateral tilt, without any danger of collapse. And against fire ferro-concrete is proof. Its steel skeleton is protected from the heat, and there are no immense steel beams or girders to warp under fire and pull the building to pieces.—Glasgow Herald.

The recent formation of the Concrete Institute in Great Britain directs attention anew to the rapid increase in the use of concrete. Probably it is not too soon already to say that this quarter century marks the beginning of an age of concrete. It is an age rather than the age, because it has been proved that the Egyptian pyramids were laid in concrete. There was a time not so long ago that superficial thought had it that concrete was a menace to the use of steel, but no thought of a succession of ages in the modern development of the use of materials is reasonable. The developments which bring about the use of these materials do not spring of the materials, but arise from without, from the demand for materials suited to the achievement of ends already conceived. Concrete is not used, and steel is not used, because the material has recently been discovered, but because it has come to the minds of men to do certain things for which it readily appears these materials are adapted. As it is with structural steel in particular that concrete would compete if there were general competition at all, it is to be noted that statistics of tonnage production of structural shapes would show the effect, if there were a tendency to curtail the use of steel. The production of structural shapes, however, in 1907 showed only about the decrease, from 1906, which could be expected from the sudden slowing down in industry towards the close of the year. The decrease was only 9 per cent., while the production of 1907 was more than double that of any year previous to 1900. No observable inroad, therefore, was made in the consumption of structural shapes, despite the fact that steel in this form probably wears less, and involves less need of replacement, than steel in any other form, so that nearly all the work done in past years remains.—Toronto World.

CANADIAN PATENTS RECENTLY ISSUED FOR IMPROVEMENTS IN CONCRETE STRUCTURES, APPLIANCES, ETC.*

Manufacture of hydraulic cement, B. Enright, No. 113851, Sept. 1, 1908; cement-applying machine, W. F. Lambenschlager, No. 113853, Sept. 1, 1908; cement, T. Jones, No. 114007, Sept. 8, 1908; process for the manufacture of cement, W. E. Snyder, No. 115900, Dec. 29,

* Furnished by Messrs. Fetherstonhaugh, Dennison & Blackmore, Star Building, 18 King Street West, Toronto.

1908; reinforcing device for concrete structures, J. F. Sempson, No. 113864, Sept. 1, 1908; truss for reinforcing concrete construction, Owens & Wright, No. 113927, Sept. 8, 1908; reinforced concrete structure, S. Burrows, No. 114316, Sept. 29, 1908; concrete mixer, P. A. Kœhring, No. 114591, Oct. 13, 1908; concrete mixing drum, P. A. Kœhring, No. 114592, Oct. 13, 1908; reinforced concrete, Skinner to Oneida Community, Limited, No. 114640, Oct. 20, 1908; concrete forms, apparatus for raising, Towell & Sinks, No. 114796, Oct. 2, 1908; reinforced concrete, Oneida Community, Limited, No. 114909, Nov. 3, 1908; reinforced concrete construction, R. H. Aitken, No. 114972, Nov. 3, 1908; truss for concrete construction, Maxwell to Maxwell Concrete Steel Co., No. 115040, Nov. 10, 1908; concrete mixer, S. Knisley, No. 115210, Nov. 17, 1908; concrete conveyor, Buzzel & Larkin, No. 115476, Dec. 8, 1908; concrete constructions, reinforced, T. Timaksiam, No. 115519, Dec. 8, 1908; concrete constructions, reinforced, R. T. Byers, No. 115520, Dec. 8, 1908; reinforcement for concrete or cement construction, W. C. Gabriel, No. 115957, Jan. 5, 1909; concrete cart, Baker to Sterling Wheelbarrow Co., No. 116113, Jan. 19, 1909; concrete mixer, Goold, Shapley & Muir Co., Limited, No. 116117, Jan. 19, 1909.

CORRESPONDENCE.

WHITE CEMENT AND SAND.

Sirs,—Why do not those dealers in sand, lime, crushed stone, etc., who advertise in "Canadian Cement and Concrete Review" deal in and advertise white sand and white Portland cement, as, from reading your journal, I see those goods are procurable in this world of ours, and why are business men so slow in procuring and advertising the same? If some of them do not look after these materials I will be compelled to go into a new business myself as sand and cement dealer. Why does not our Chicago friend, who signs "P. F.", advertise his enamel for concrete bricks? To the above dealers I would say, Wake up!

Peterboro', Ont.

F. M.

INCREASED ECONOMY AND EFFICIENCY.

Sirs,—Any suggestions tending to increased economy and increased efficiency in the connections tabulated below will be greatly appreciated. The cost of ascertaining the merits of the various new materials advertised by personal experiment makes this course prohibitive. Special needs in my case are in the use of these materials for small concrete cottages, stores, all one and one-half and two storeys in height:—

Roofing—Is the shingle still "secundus nulli?"

Floors, walls, partitions, outside upper storey walls and gables—stucco vs. block.

Fireplaces, bathroom floors, heating, waterproofing—Is this necessary in block manufacture?

Continuous vs. single air-space block. In Canada has the former given satisfaction claimed when used without lath and plaster; that is, plastering "direct?"

Pincher Creek, Alta.

G. W. H.