

**WATERPROOFING CONCRETE.**

In an article read before the Detroit Engineering Society by Clarence M. Barber, C. E., the problem of waterproofing concrete was discussed in detail, from which the following has been condensed:

Concrete can be made practically waterproof by making the aggregate as dense as practicable and using about one-half as much cement as sand. It is also claimed that a little thoroughly hydrated lime is an advantage. In the case of blocks, however, the quantity of cement required for a 2 to 1 mixture in the body of the block is generally prohibitive on account of its cost.

The most recent and, we believe, the best, method is to make the body of the block of a good strong concrete with properly graduated sizes of pebbles or broken stone and sand, together with cement enough to make a thoroughly strong concrete and then face the block with a thoroughly dense and waterproof mixture by using 1 to 2 cement and sand and 1 per cent of a good waterproof compound. This protects not only the inside face but the entire block and practically no moisture is absorbed even by the outer face.

A glass of water inverted on the face of such a block will hold the water for weeks with practically no absorption by the block. The writer has a glass of water inverted on a piece of a block that has been standing four weeks. About one-third of the water has escaped in that time. On an ordinary clay

brick the water passed wholly out of the glass in an hour.

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factory the freshly made blocks are kept for a time in rooms where the atmosphere is saturated with moisture and generally a sufficient quantity of steam is admitted to hold the moisture above the dew point. This treatment gives sharp, hard corners and edges to the blocks, and together with a little heat, it hastens the setting.

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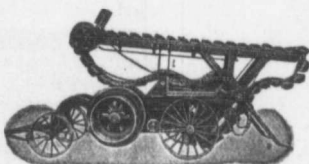
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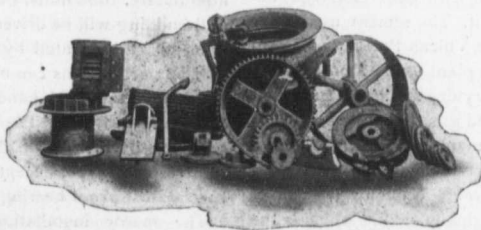
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