

The following special tests were made besides the regular ones called for by specifications, but had no bearing as regards the acceptance of the cements:—

LOT I.

Four briquettes were made by filling moulds with water, and then shovelling in dry cement with a small spatula, without ramming. The briquettes were placed in water when 24 hours old, and were taken from the water when test was due and broken immediately—2 at 7 days old and 2 at 28 days old; the results were:— 7 days old, 222 and 214 lbs. per sq. inch; 28 days old, 445 and 337 lbs. per sq. inch. tensile strength.

LOT II.

Four briquettes were made by filling moulds with water and sifting in cement without ramming. They were placed in water when 24 hours old. One of the briquettes scaled off slightly after being in the water for 24 hours. Two briquettes were broken when taken from water after 7 days, and two at 28 days, and showed a tensile strength per square inch, as follows: 7 days old, 132 and 232, 212 lbs., and at 28 days old 257, 254 lbs. per sq. inch. tensile strength.

LOT III.

Four briquettes were made by filling moulds with dry cement and pouring in all the water they would absorb but without tamping. When treated similar to lot II, the results at 7 days old were 232, 212 lbs., and at 28 days old 257, 254 lbs. per sq. inch tensile strength.

LOT IV.

Four briquettes were made by mixing cement with 20 per cent. of water and tamping into moulds with a 1 lb. nail hammer. When 24 hours old they were placed in water until ready for testing. Two were tested when 7 days old and showed a tensile strength of 722 and 738 lbs., and two at 26 days old showed 707 and 747 lbs. per sq. inch.

LOT V.

Four briquettes were made by mixing cement with 20 per cent. of water and placing in moulds without any tamping whatever. When 24 hours old, they were placed in water until ready for testing. The results of this test were very poor; at 7 days old they broke at 28 and 32 lbs. per sq. in., and at 28 days old at 41 and 47 lbs. per square inch.

LOT VI.

Four briquettes were made by mixing the cement very wet (about 30 per cent. water), and placing in moulds without ramming, then letting them stand with a pressure of about 3 lbs. per sq. inch for 24 hours. They were then submerged in water until