SANDS AND CONSISTENCY OF CONCRETE

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(Continued from last week's issue.)

Tests of Mortar Briquettes and Cubes.-The tests of mortar briquettes and cubes were undertaken with the primary object of securing information relative to the mortar values of the 12 test sands. The secondary object of the tests was to discover the relation, if any, existing between the results obtained from the testing of 2-in. mortar cubes and those obtained from the testing of 6 by 12-in. cylinders. The mortars were composed of 1 part cement to 3 parts sand.

Standard briquettes and 2-in. cubes were prepared in the laboratory from the "mixer produced" samples of



Fig. No. 7.—Details of Reinforced Concrete Beam Used in Tests

the test sands. The methods and equipment used for this work were in accord with the standards of the Society, and the mortars were of normal consistency. The work in the laboratory was entirely performed by one operator.

Tests of Cylinders and Beams .- The two series of tests upon concrete cylinders and beams were originally planned as follows:

For tests for grading of sand, the test specimens were cylinders, 6 ins. in diameter by 12 ins. long. Five speci-



Fig. No. 9.—Relative Compressive Strengths of Test Cylinders, 1:2:4 Mix. Based on Compressive Strength of Sand No. 2 at 90 Days

mens were tested at each age of 7, 30, 60, 90 days and one year.

For tests for consistency of mix, the test specimens were cylinders, 6 ins. in diameter by 12 ins. long, and reinforced-concrete beams, 4 by 6 ins. in cross-section by 4 ft. long, reinforced as shown in Fig. 7. Five cylinders



Fig. No. 8.—Compressive Strengths of Test Cylinders