



# Organization, Equipment and Operation of the Structural-Materials Testing Laboratories at St. Louis, Mo

Richard Lewis Humphrey



This historic book may have numerous typos and missing text. Purchasers can download a free scanned copy of the original book (without typos) from the publisher. Not indexed. Not illustrated. 1908 Excerpt: ...from the gross loads read at the machine and the averages of the three tests in each case. DENSITY TESTS. Apparatus.--The implements used in the density tests are shown in Pl. VIII, A. Two sizes of molds are used in order to determine which size gives the more uniform results. After this has been decided, it is proposed to abandon the one giving the less consistent results. The molds are sections of wrought-iron pipe capped at one end. One is 3 inches in diameter and 4 inches deep, while the other is 4 inches in diameter and 5A inches deep, inside dimensions. The diameter of the tamper head is one-half the diameter of the cylinder in each case, so that when the tamper is moved around the inner circumference of the cylinder and kept in contact with the mold the entire surface of the mortar in the cylinder will be tamped. The table top is of slate. Method.--The required proportions of the dry material are carefully weighed out, and water is added to form a normal consistency. The mixing is continued for two minutes and the mortar placed in the molds in layers about 1 inch thick and thoroughly and uniformly tamped. The top surface is troweled off even with the top of the mold and allowed to stand one-half hour. The weight of the full mold is then taken. The amount of shrinkage of the mortar from the top of the mold is measured by a steel rule. Computations.--The weight of each ingredient in the mixture multiplied by the ratio of the weight of the mortar in the mold to the total weight of the mixture gives the weight of the cement and sand entering the cylinder. The absolute volume of the sand and cement in the molds is computed by dividing their weights in grams by the respective specific gravities. The sum of these absolute volumes is then divided...

- [Organized Cook](#)
- [Orphans of History: The Pictish Chronicle Pt. 2 : Twelve Hundred and Fifty Years of Anglo-Irish Synthetic History](#)
- [Orjentacja wewnętrzna](#)
- [Original Rags for Eb Clarinet and Cello - Pure Duet Sheet Music by Lars Christian Lundholm](#)
- [The Organization of Critical Care: An Evidence-Based Approach to Improving Quality](#)
- [Origin, History, and Genealogy of the Buck Family Including ... Branches in America ... Descendant of James Buck and Elizabeth Sherman, His Wife](#)