

**CONCRETE FROM SAND MOLDS: A  
PRACTICAL TREATISE EXPLAINING A  
SIMPLE SYSTEM OF  
MOLDING ORNAMENTAL AND PLAIN  
CONCRETE OR "CAST STONE" WITH  
MOLDS OF WET SAND**

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Concrete from Sand Molds: A Practical Treatise Explaining a Simple System of Molding  
Ornamental and Plain Concrete Or "Cast Stone" with Molds of Wet Sand by A. A. Houghton

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**A. A. HOUGHTON**

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# CONCRETE FROM SAND MOLDS

A Practical Treatise  
Explaining a Simple System of Molding Ornamental and Plain Concrete or "Cast Stone" with Molds of Wet Sand. This process heretofore held as a Trade Secret will successfully Mold every class of Ornamental Concrete work desired.

By A. A. HOUGHTON

*Author of "Ornamental Concrete Without Molds," "Clay Models and Plaster Molds for Ornamental Concrete," "Practical Use of Concrete," Etc.*



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## PREFACE

It is not the purpose of the writer to make this a book filled with technical explanations, that cannot be grasped by the average reader, but to give in the plainest language a complete and comprehensive explanation of the process of molding every class of concrete work or "cast stone" with the use of molds made from wet sand. Every care has been used to make the exact meaning clear, as the writer must assume that the reader is entirely unacquainted with the principia of this process, and wants information that will enable him to apply it to his every-day work.

The work that can be accomplished with sand molds is unlimited in scope, the undeniable fact that the combination of a clay pattern with an easily separable material for the mold places at the command of anyone, a means for the reproduction in concrete of any work, without limit to the size, shape, or the degree of ornamentation upon its surface. The sand of mold permits it to be broken up and removed from the center of a vase or jug, the inside of a ball or any work

## Preface

even where the opening is but an inch and a half in diameter; it permits the removal of cores from a design that has under-cutting extending horizontally with the face of the work; these features alone which are possible in no other class of material available for concrete molds, make the wet sand mold process ideal for every class of ornamental concrete work.

The low cost of molds, using simply the cheapest and most common of materials; the ease and rapidity with which work may be produced; the increased density and strength of the concrete; perfect details to the lines of ornamental designs, together with the perfect curing of the work without the least attention, as it remains enclosed by the wet sand until the final set or hardening of the cement has taken place; these facts alone are convincing that this process is not only the one probably first employed in this work, to produce ornamental effects in concrete, but will be the *first* in efficiency at the present day to enable the concrete worker to mold any design he may desire, without restrictions as to releasing the mold from the finished work.

A. A. HOUGHTON.

MAY, 1910.



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# CONCRETE FROM SAND MOLDS

## CHAPTER I

### THE ORIGIN OF THE SAND MOLD PROCESS OF MOLDING CONCRETE AND THE VALUE OF SAME

THERE is a wide difference of opinion among concrete men as to the exact origin of this method of producing "cast stone" or concrete. To all those who have made it a subject of study everything points to the apparent fact that it is but a modern adaptation of one of the arts of the first Roman architects; this is well within reason, for it is an established fact that the Romans employed wood forms in molding concrete work, and, as the many examples of intricate ornamentation appearing upon these works show positively that they could not have been produced with wood molds, and in many exam-