

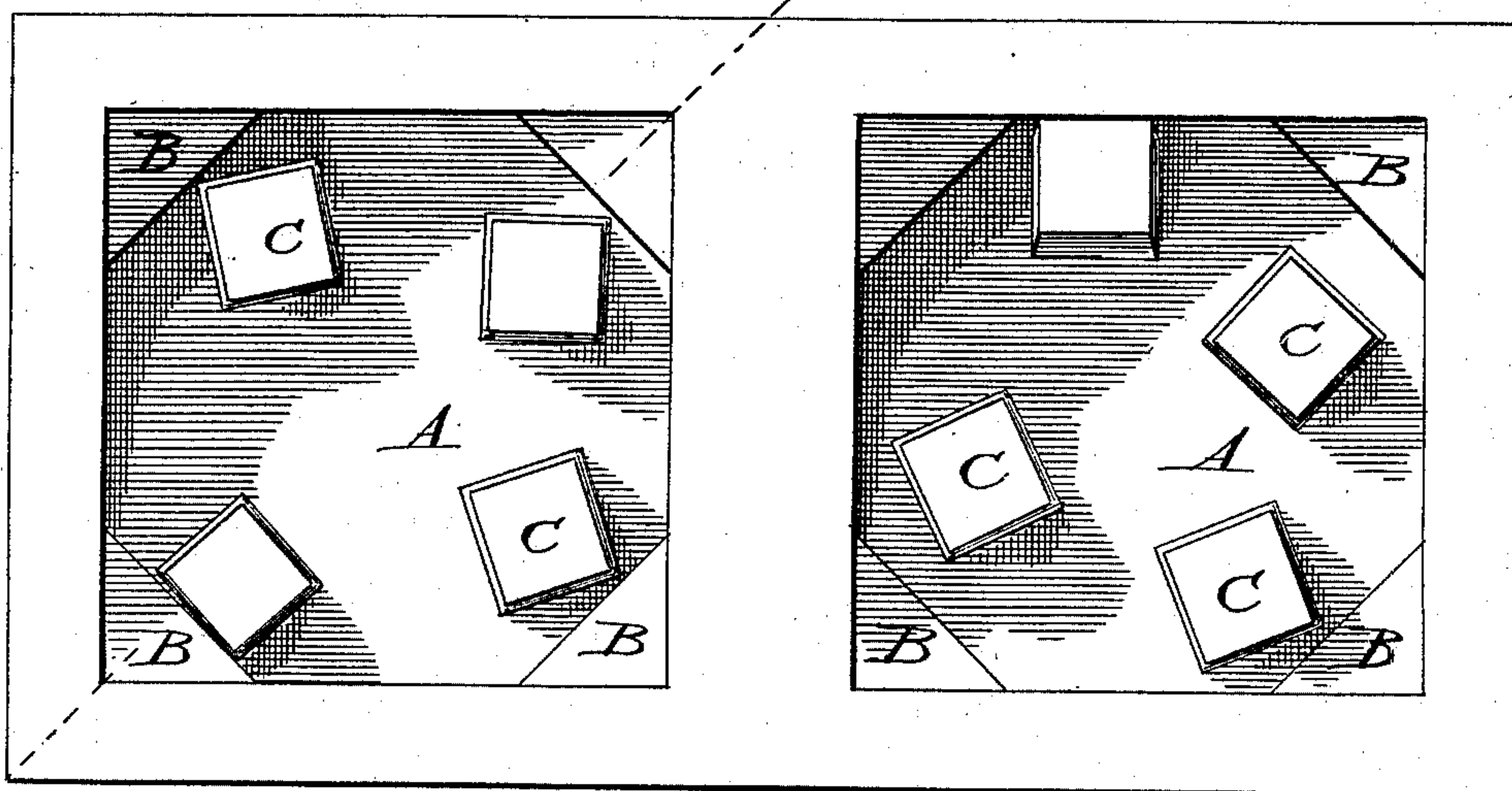
(No Model.)

A. J. SHAW.  
SOAKING PIT FOR STEEL INGOTS.

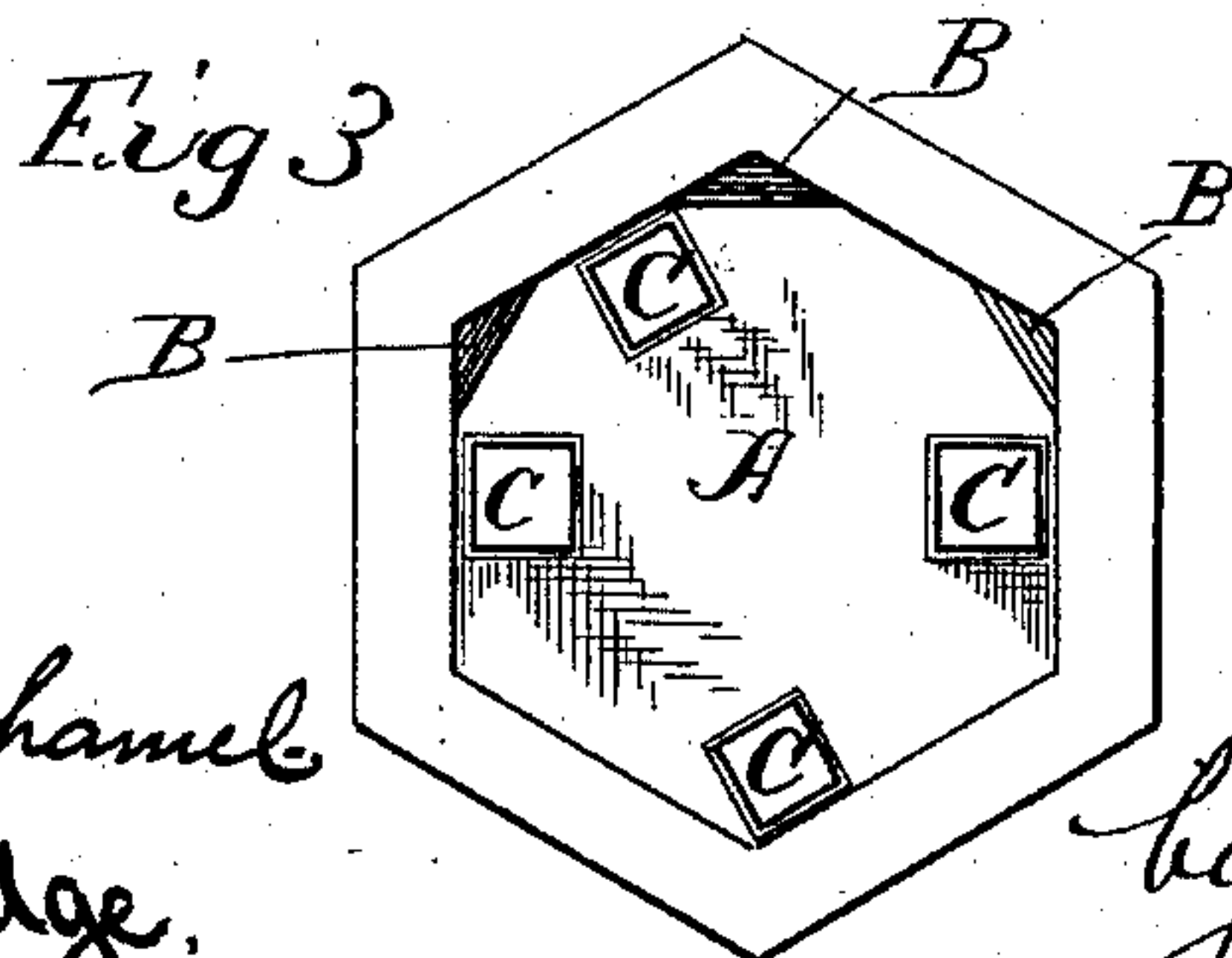
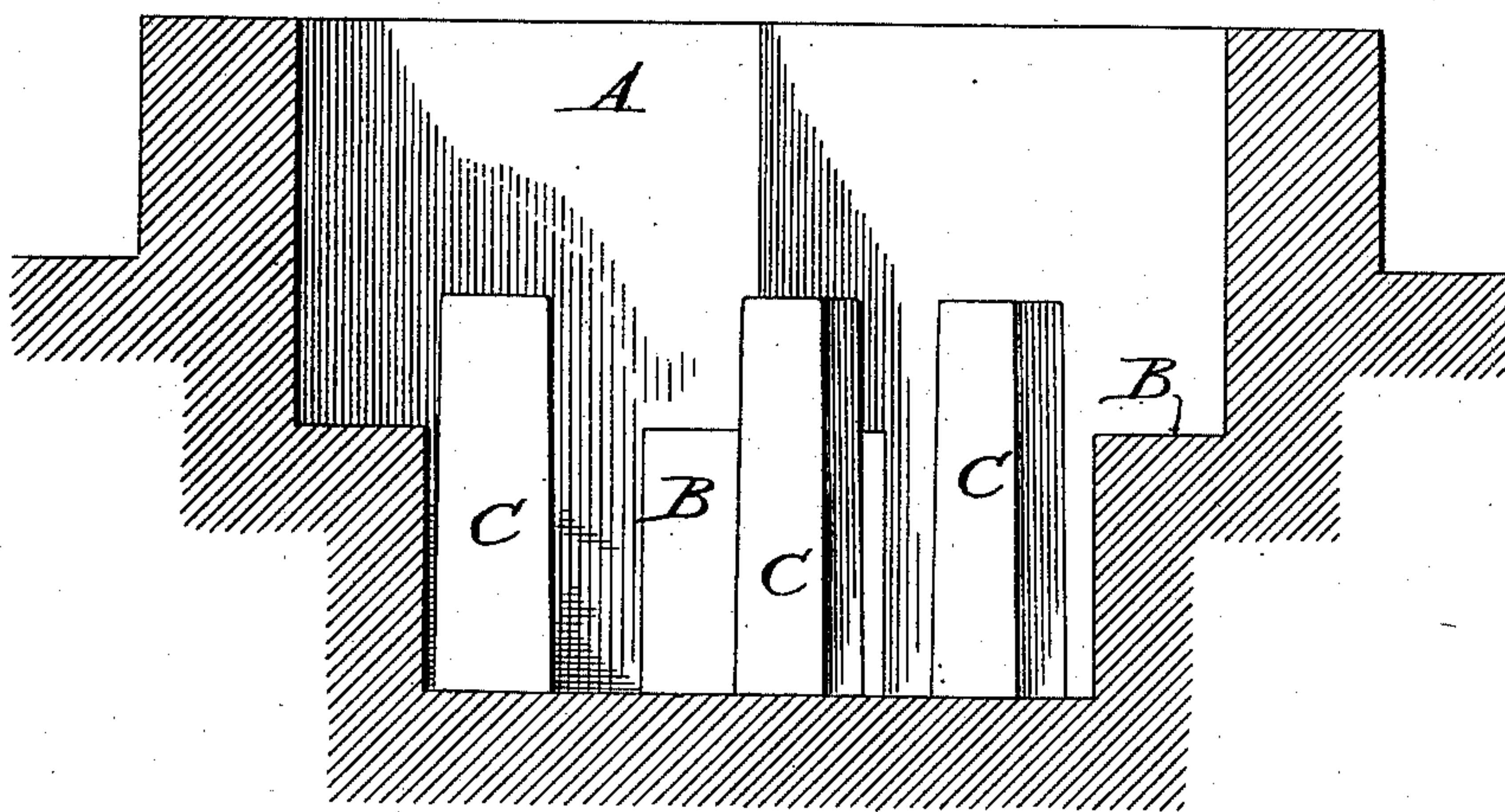
No. 505,728.

Patented Sept. 26, 1893.

*Fig. 1.*



*Fig. 2.*



Witnesses:

James F. Duhamel  
Horace A. Dodge.

ALTON J. SHAW,  
Inventor,

by *Dodges Sons,*  
Attys.



# UNITED STATES PATENT OFFICE.

ALTON J. SHAW, OF MUSKEGON, MICHIGAN, ASSIGNOR TO THE SHAW  
ELECTRIC CRANE COMPANY, OF SAME PLACE.

## SOAKING-PIT FOR STEEL INGOTS.

SPECIFICATION forming part of Letters Patent No. 505,728, dated September 26, 1893.

Application filed February 11, 1893. Serial No. 461,866. (No model.)

*To all whom it may concern:*

Be it known that I, ALTON J. SHAW, a citizen of the United States, residing at Muskegon, in the county of Muskegon and State of Michigan, have invented certain new and useful Improvements in Soaking-Pits for Steel Ingots, &c., of which the following is a specification.

My invention relates to the construction of so-called "soaking pits," now commonly employed to receive steel ingots as they come from the molds, and to maintain them at a sufficiently high temperature to permit rolling or manipulation without intermediate reheating.

The invention consists first in constructing the pits with walls meeting each other at an obtuse angle through the whole or a part of their height; and secondly, in forming said walls with an offset or ledge at a point somewhat below the level reached by the upper ends of the ingots.

Figure 1 is a top plan view; and Fig. 2, a vertical sectional view of a pit, showing my invention in its preferred embodiment; Fig. 3, a top plan view showing a slightly different form of the pit, but embodying the same essential feature of construction.

Soaking pits are at the present time generally constructed of rectangular form and with vertical walls, free from break or offset of any kind. The ingots placed in such pits are of rectangular cross section, and it therefore happens not unfrequently that in attempting to deposit or remove an ingot, its upper end falls into a corner of the pit, where it cannot be grasped by the tongs commonly employed in handling them. It therefore becomes necessary for workmen to employ rods, bars or hooks to work the ingot away from the corner and into a position in which it may be properly grasped by the tongs. This work involves loss of time, cools the pit, and is severe upon the workmen.

My invention is designed to overcome the difficulty noted and to prevent the ingots from assuming a position in which they may not be properly grasped by the tongs. This end I attain, preferably, by filling in the corners of the pits for about two thirds or three quarters of the height of the ingots, so as to make the lower portion of the pit an octagon instead of a square. By so doing, I

cause the walls to meet at an obtuse angle, (one hundred and thirty-five degrees,) so that in whatever position the ingot may fall, it will be impossible for two adjoining side faces to rest flatly against two walls or faces of the pit at the same time. This construction is represented in the drawings, wherein A indicates the pit, B the corner filling, and C the ingots. The corner fillings B are shown rising to about three fourths the height of the ingots,—by which arrangement an open space is maintained on all sides of their upper ends, and the tongs are enabled to grasp them in either direction, as the tongs chance to stand when lowered into the pit.

In Fig. 3 I have represented a pit with six side walls, and with fillings C in some of the angles, the result being the production of obtuse angles, where the walls meet each other and where the fillings meet the side walls. It will be obvious from this, that the form of the pit may vary considerably, so long as flat upright wall faces are produced, each as wide as or wider than the ingots. So too, a ledge or projecting ridge may be carried entirely around the interior of the pit, at a suitable height, and extending to whatever depth desired. The construction illustrated is, however, that which experience demonstrates to be the best under ordinary conditions.

Having thus described my invention, what I claim is—

1. A soaking pit for ingots, the vertical side walls of which are composed of a series of well defined flat or plane surfaces meeting one another at an obtuse angle, substantially as and for the purpose set forth.

2. A soaking pit for ingots, having an inwardly projecting portion at a point below the level of the upper ends of the ingots, whereby the tops of the ingots are kept away from the walls, substantially as described.

3. The herein described soaking pit, having main walls A meeting at right angles, and the fillings B meeting the walls A at obtuse angles.

In witness whereof I hereunto set my hand in the presence of two witnesses.

ALTON J. SHAW.

Witnesses:

I. J. POCHER,

J. J. O'REILLY.