

No. 710,391.

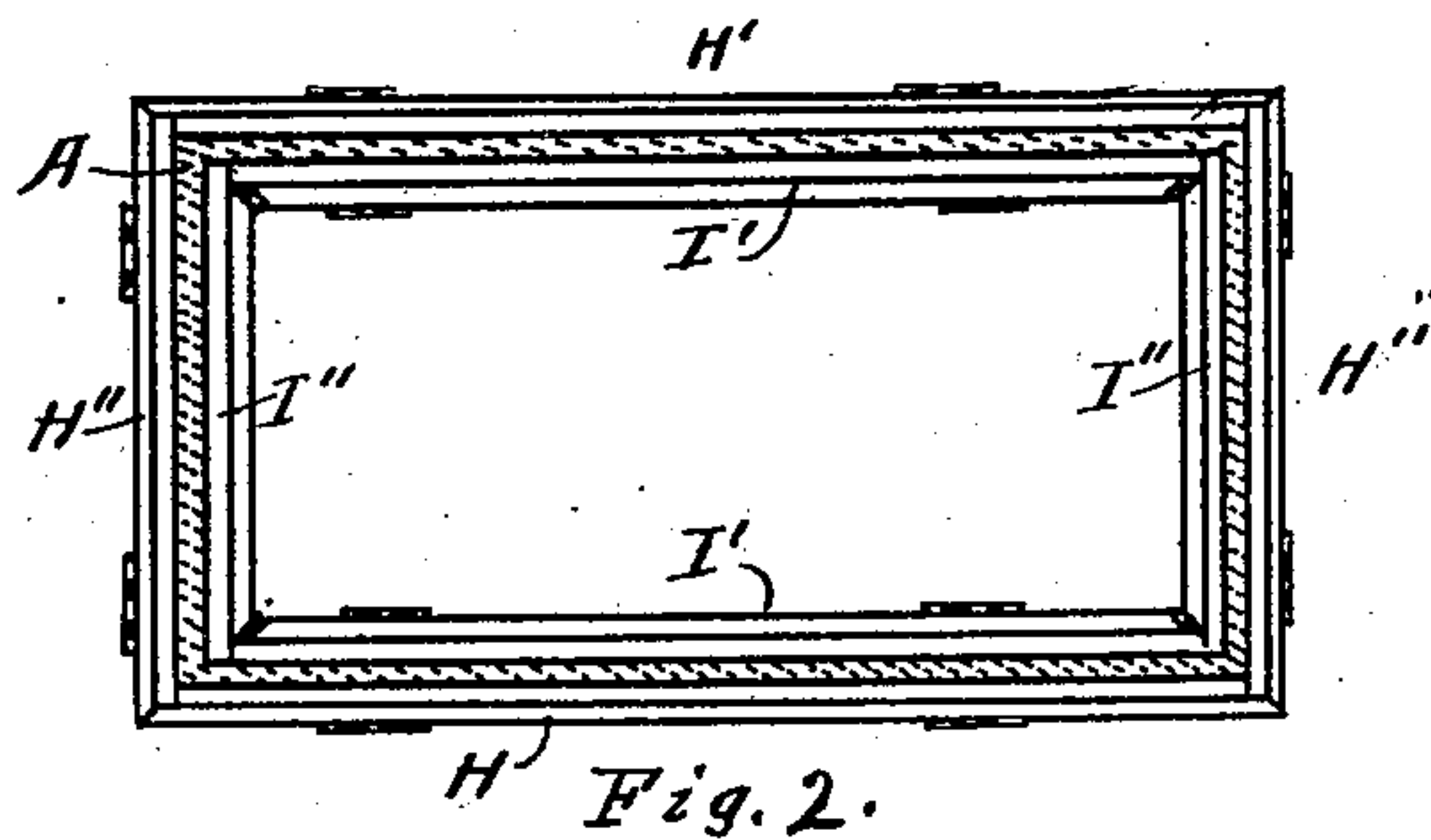
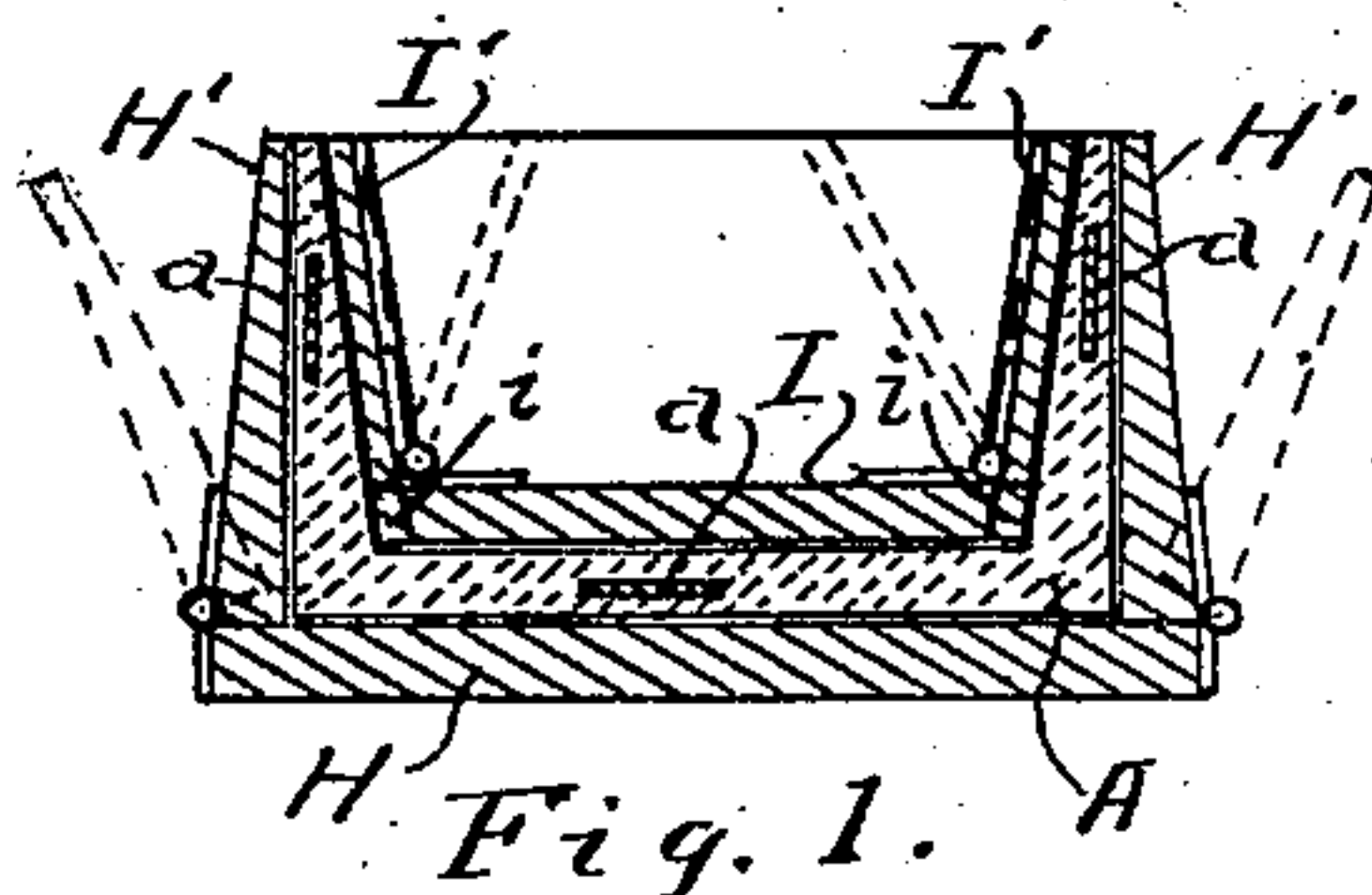
Patented Sept. 30, 1902.

I. HAWS.

MOLD FOR FORMING CONCRETE TROUGHS OR OTHER ARTICLES.

(Application filed Sept. 12, 1901.)

(No Model.)



Witnesses.

U. L. Cillery  
Spreenaw Lathrop

Inventor.

Isaac Haws.  
By Ethel J. Cillery  
Attorney.

# UNITED STATES PATENT OFFICE.

ISAAC HAWS, OF HANNIBAL, NEW YORK.

MOLD FOR FORMING CONCRETE TROUGHS OR OTHER ARTICLES.

SPECIFICATION forming part of Letters Patent No. 710,391, dated September 30, 1902.

Application filed September 12, 1901. Serial No. 75,231. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC HAWS, a citizen of the United States, residing at Hannibal, in the county of Oswego and State of New York, have invented certain new and useful Improvements in Molds for Forming Concrete Troughs or other Articles, of which the following is a specification.

My invention relates to improvements in animal-troughs, and more particularly to troughs for feeding swine; and its object is to produce a practically indestructible trough at small expense. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a transverse section of the trough and the molds, and Fig. 2 is a plan of the same.

Similar letters refer to similar parts throughout the several views.

I construct the trough of concrete, and for the purpose of successfully molding the trough A, I form molds like those shown in Figs. 1 and 2, in which H indicates the bottom of the outside mold, to which I hinge the sides H' and the ends H'', so that they may be opened out, as indicated in Fig. 1, and I indicates the bottom of the inner mold, which has sides I' hinged to it, so that they may be swung in, as indicated by the dotted lines in Fig. 1, and the ends I'' are arranged to draw up out of the mold after the end is formed.

*i i* represent side projections to the bottom, that are so arranged that they will fill the space from the edge of the bottom to the outside of the sides and are designed to retain their place when the bottom is removed and to be afterward removed, by which means I am able to remove the entire inner mold without danger of marring the inside of the trough.

*a* represents metal bars embedded in the concrete to reinforce the manufactured article.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

As a new article of manufacture, a mold for forming concrete troughs or bins consisting of an outer case having a bottom with sides and ends hinged thereto to open outward, and an inner case having a bottom with sides hinged thereto to open inward, detached extensions to the bottom covering the thickness of the sides, and ends that may be slid out vertically, substantially as and for the purpose set forth.

Signed at Grand Rapids, Michigan, September 6, 1901.

ISAAC HAWS.

In presence of—

ITHIEL J. CILLEY,  
URL CILLEY.