

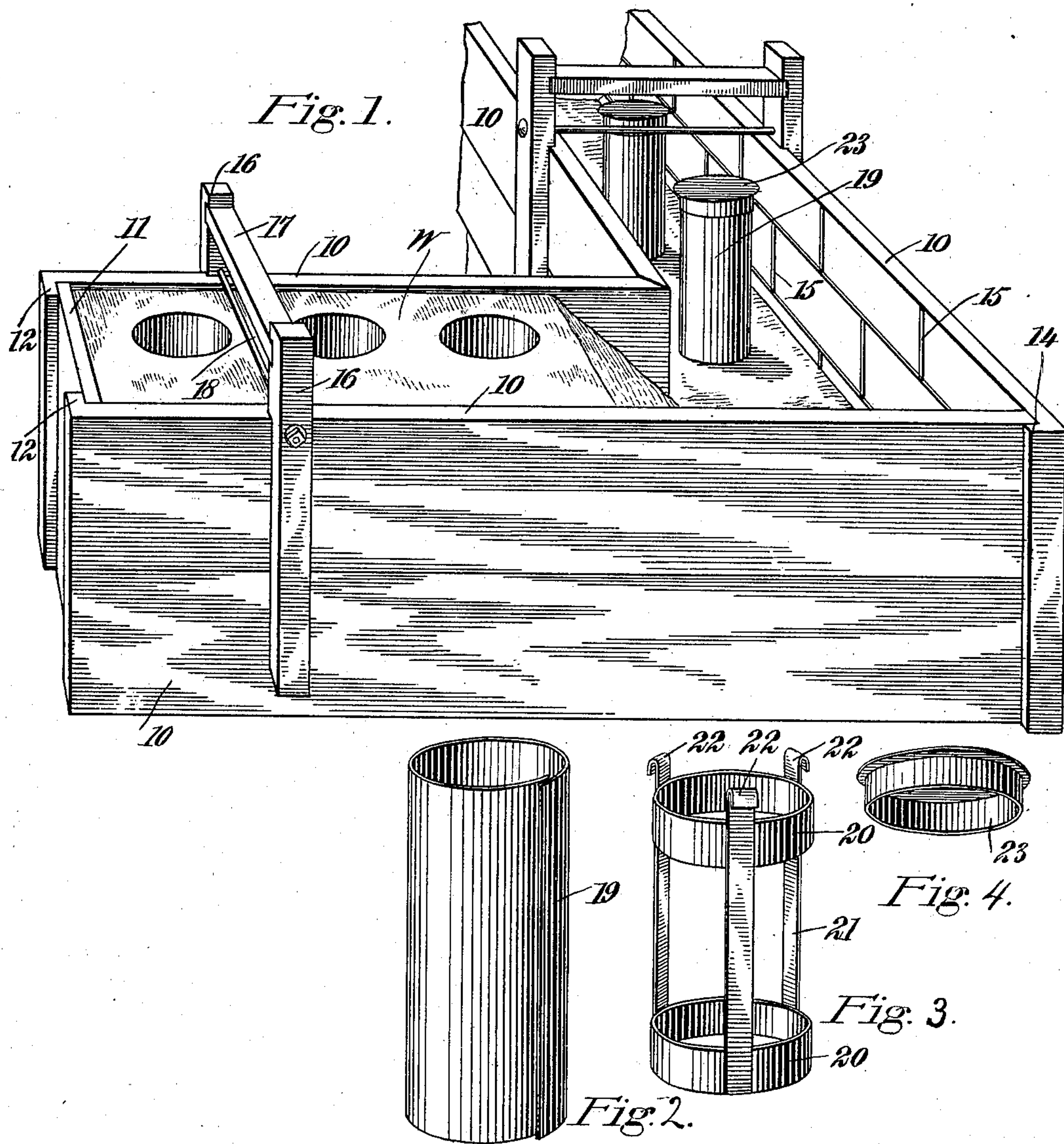
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PATENTED DEC. 8, 1903.

A. T. BOISE.  
CORE FOR USE IN WALL MOLDS.

APPLICATION FILED NOV. 1, 1902.

NO MODEL.



WITNESSES:

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## UNITED STATES PATENT OFFICE.

ALVARADO T. BOISE, OF BOYNE, MICHIGAN.

## CORE FOR USE IN WALL-MOLDS.

SPECIFICATION forming part of Letters Patent No. 746,445, dated December 8, 1903.

Application filed November 1, 1902. Serial No. 129,874. (No model.)

*To all whom it may concern:*

Be it known that I, ALVARADO T. BOISE, a citizen of the United States, and a resident of Boyne city, in the county of Charlevoix and State of Michigan, have invented a new and Improved Core for Use in Wall-Molds, of which the following is a full, clear, and exact description.

This invention relates to an apparatus for facilitating the building of walls from concrete, cement, or other plastic material. The invention is especially useful in house-building, although it is obvious that it could be employed to much advantage in other connections.

The invention resides particularly in an improved collapsible core around which the plastic material is molded, so as to form cavities in the walls when the cores are removed. These cores comprise, briefly stated, a relatively rigid frame or body and a contractible shell formed of an integral sheet of flexible material curved around the frame or body and having its ends overlapped or otherwise engaged, the frame or body having means for holding it in proper connection with the frame.

This specification is an exact description of one example of my invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view showing the invention in use. Fig. 2 shows the shell of the core. Fig. 3 shows the frame of the core. Fig. 4 is a view of the cap of the core.

In Fig. 1, W indicates the wall which is in the process of construction. For the purpose of illustration this wall has been shown with a corner therein, thus illustrating the mold adapted for corner-work, although it is apparent that long stretches of wall may be formed in a straight line or at any desired angle or curve by merely varying the form of the mold.

The mold comprises side walls 10, which may be made up of wooden planks, if so desired, and end walls 11. On the ends of the side walls 10 beads 12 are formed, these beads engaging the end walls to hold them in place.

At the corners one of the side walls may be formed with a bead, such as the bead 14 in Fig. 1, to overlap the meeting side wall, this being the preferred construction at the outer angle of the corner, and at the inner angle the side walls may be made to abut together with a miter-joint, as shown. The inner faces of the side walls 10 are formed with ribs thereon, these ribs being of any desired arrangement. For example, they may be arranged as shown in Fig. 1, and said ribs serve when the plastic material is molded against them to give the wall the form of separate blocks cemented together, thus representing ordinary masonry.

The side walls are held in place by the clamps illustrated in Fig. 1. These clamps are of inverted-U shape, comprising side arms 16, a crossing top piece 17, and a tie-rod 18, arranged slightly below the crossing top piece. The clamps are arranged to straddle the mold, engaging the outer sides of the respective side walls, and are drawn forcibly against them by the tie-rod 18. These clamps are readily removable by relaxing the strain on the rods 18.

For the purpose of forming cavities in the wall, thus reducing the amount of material necessary to build it without reducing the thickness of the wall, I provide the cores illustrated in Figs. 1, 2, 3, and 4. These cores each comprise a contractible and preferably cylindrical outer shell 19. Within this shell is fitted a relatively rigid frame comprising circular end bands 20, connecting-pieces 21 extending between them, and the hooks 22 formed on the upper ends of the connecting-pieces 21. This frame when placed in the shell 19, with its hooks 22 engaged with the upper end of the shell, will hold the shell rigid; but when the frame is withdrawn the shell may be contracted or reduced in diameter for a purpose which will fully appear hereinafter. A cap 23 (shown best in Fig. 4) is adapted to be placed over the end of the core to prevent the plastic material from entering the same.

In the use of the invention the foundation of the wall is laid, and the mold is placed on this foundation in a manner essentially the same as that shown in Fig. 1. The cores are placed in the mold at the desired distance



apart, and then the mold is filled with the plastic material of which the wall is to be formed. This is allowed to set, after which the core-frames are withdrawn, and the contractible shells are then loosened from the wall and lifted out of the core-holes. Then the clamps for the walls of the mold are withdrawn and the several end and side walls are raised above the section of the wall just formed, and the mold is again assembled. This operation is continued both in a vertical and in a horizontal direction until the complete wall has been formed.

Various changes in the form, proportions, and minor details of my invention may be resorted to at will without departing from the spirit and scope thereof. Hence I consider myself entitled to all such variations as may lie within the intent of my claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A core for the purpose specified, com-

prising a relatively rigid frame having hooks at one end, and a contractible shell inclosing the body and having the hooks engaged therewith. 25

2. A core for the purpose specified, comprising a relatively rigid frame having hooks at one end, a contractible shell inclosing the body and having the hooks engaged therewith, and a cap adapted removably to fit in the upper end of the core. 30

3. A core for the purpose specified, comprising a relatively rigid frame formed of end bands and longitudinal connecting-pieces terminating at one end in hooks, and a contractible shell inclosing the frame and engaged by said hooks. 35

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 40

ALVARADO T. BOISE.

Witnesses:

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