No. 803,023. PATENTED OCT. 31, 1905.

O. STALEY.

MOLD FOR FORMING CEMENT RECEPTACLES.

APPLICATION FILED OCT. 31, 1904.

2 SHEETS—SHEET 1.

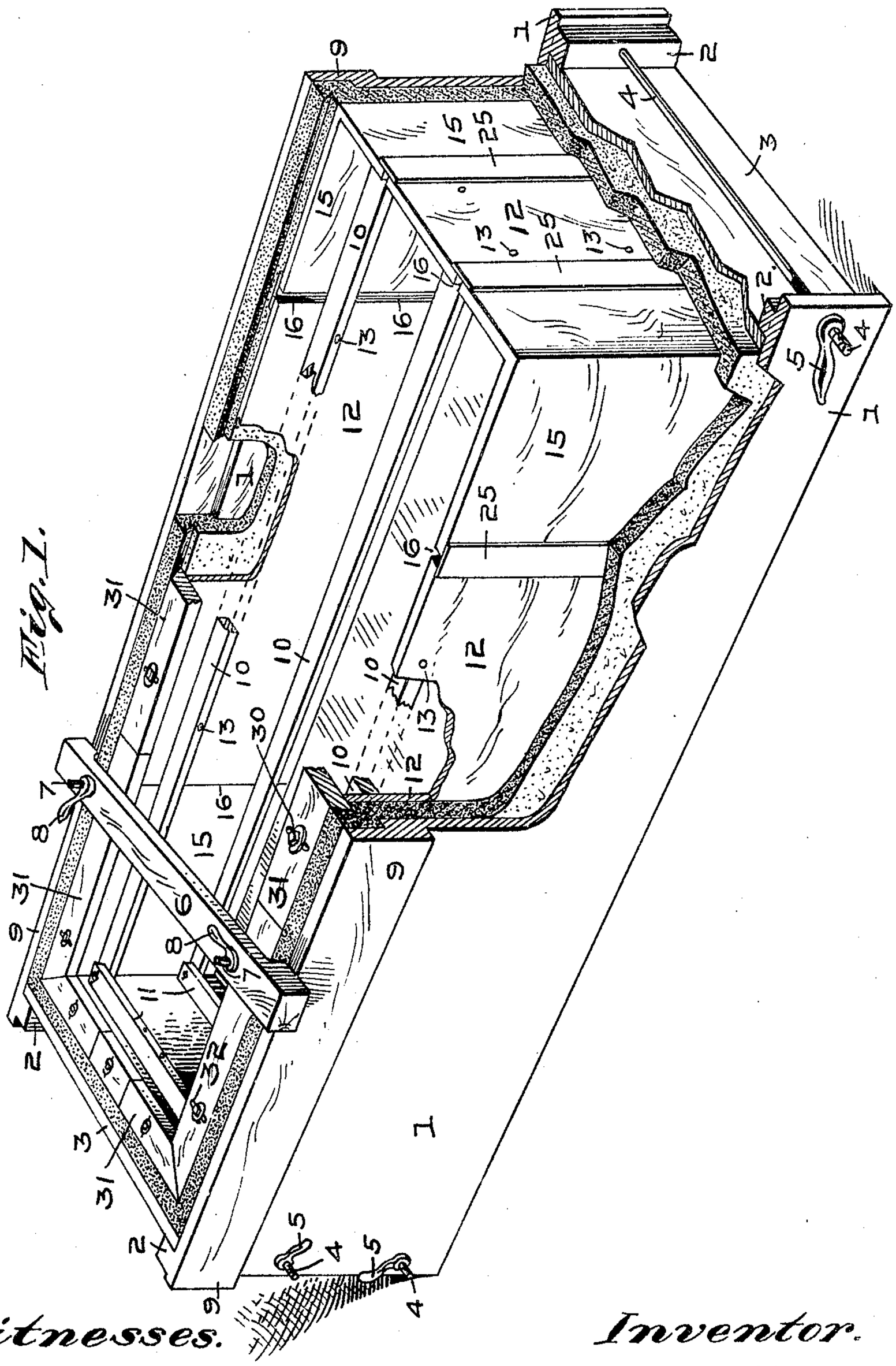

Fig. 1.

Witnesses.

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2 SHEETS—SHEET 2.

Fig. 2.

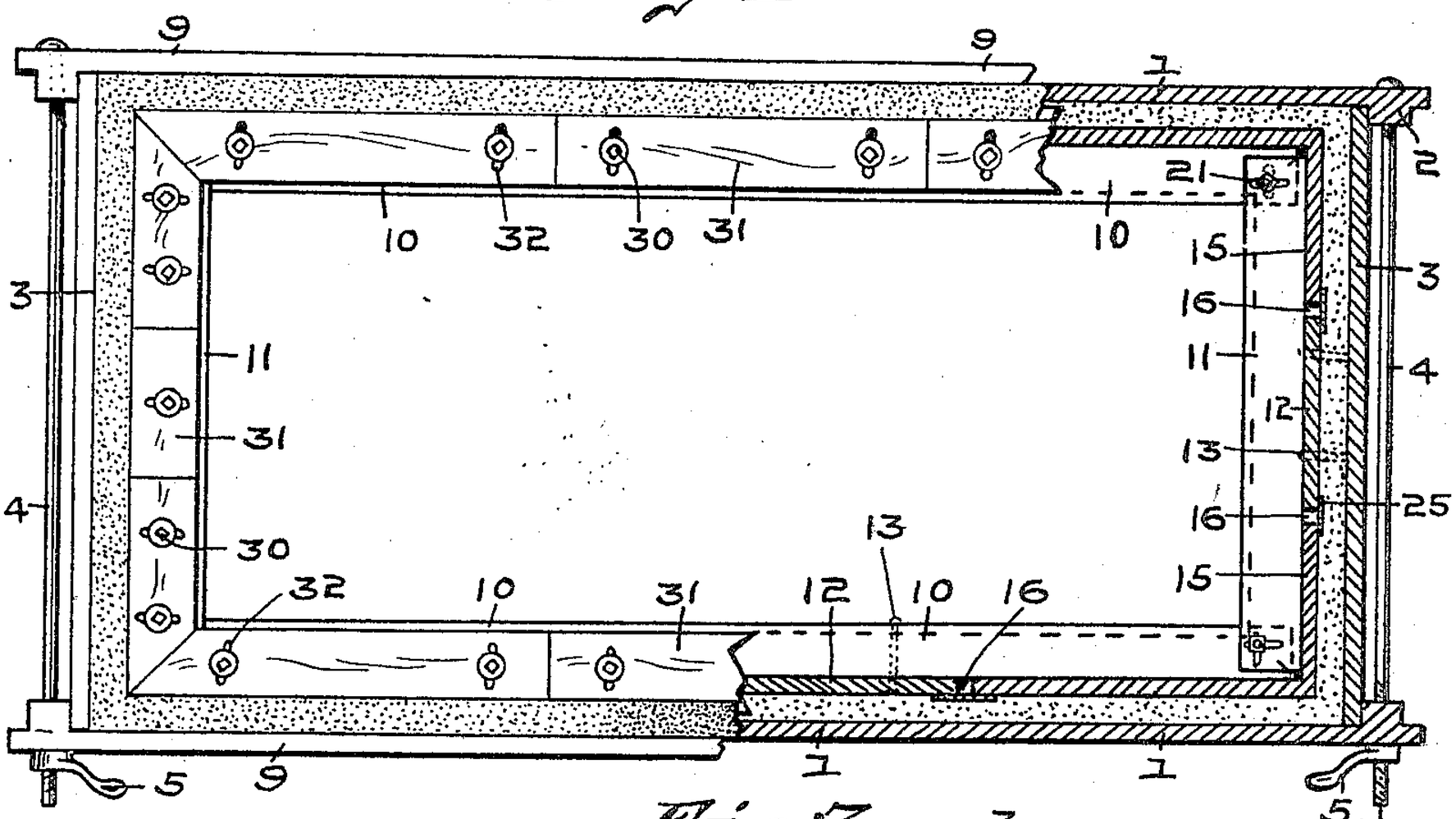


Fig. 3.

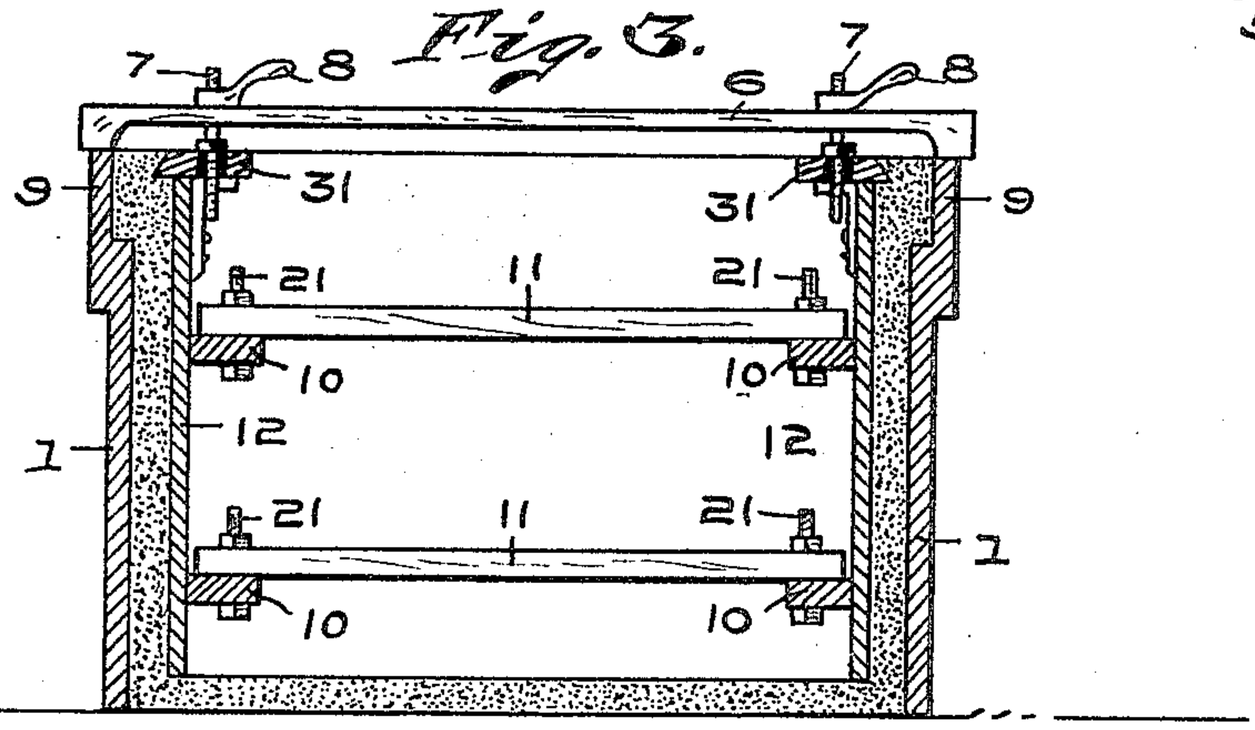
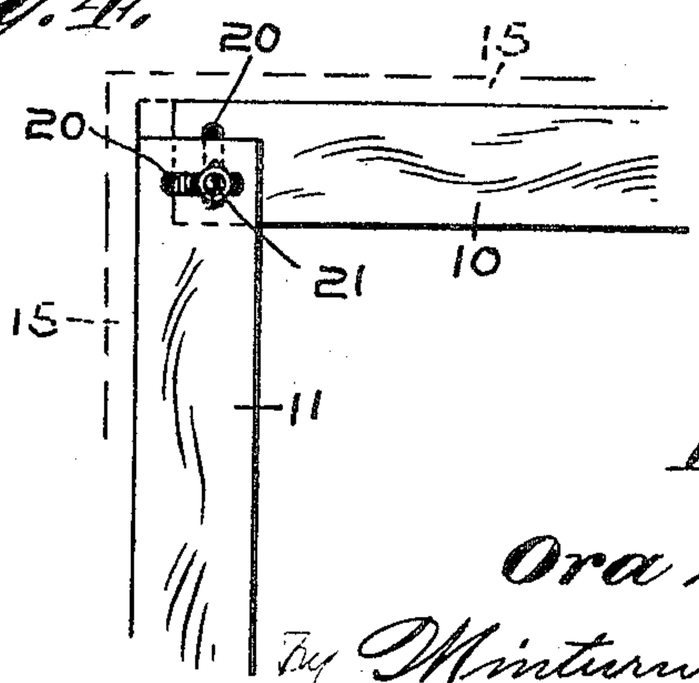


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

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MOLD FOR FORMING CEMENT RECEPTACLES.

No. 803,023. Specification of Letters Patent. Patented Oct. 31, 1905.

Application filed October 31, 1904. Serial No. 230,848.

To all whom it may concern:

Be it known that I, ORA STALEY, a citizen of the United States, residing at Charlottesville, in the county of Hancock and State of Indiana, have invented certain new and useful Improvements in Molds for Forming Cement Receptacles, of which the following is a specification.

This invention relates to improvements in molds for forming concrete receptacles for burial-vaults, water and milk troughs, and the like; and the object of this invention is to provide a mold in sections that can be conveniently assembled and dismembered in the operation of molding the concrete article and in removing the mold therefrom, and particularly with reference to the inside mold.

The object consists, further, in providing a mold that will be adjustable in its horizontal dimensions to permit the mold to adjust itself to the cement or concrete while the latter is settling.

A mold embodying my invention, whereby the advantages sought are attained, will be more particularly described in the annexed specification, and the novel features thereof then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar numerals of reference indicate similar parts, Figure 1 is a view in perspective of the complete invention, showing the concrete receptacle formed therein. The view shows several parts of the mold as broken away and removed in order to more clearly illustrate the various parts of the device. Fig. 2 is a top plan view of the improved mold in operative position and also showing parts of the upper portion of the said mold removed in order to best illustrate the invention. Fig. 3 is a transverse vertical section of the mold, and Fig. 4 is a fragmentary detail in plan view and shows the means for adjustably securing the ends of the members forming the inner frame.

In the drawings, 1 represents the sides of the outer mold, which are composed of one piece and extend from one end to the other of said mold. These sides adjacent to their ends have the vertical cleats 2, against which the end members 3 of the outer mold find their support and bearing. The sides 1 and ends 3 are locked together by bolts 4, which extend from side to side and have the nuts 5, by which they are drawn together by screwing said nuts upon the bolts. The outside mold is first assembled, as above described, in the formation of a concrete receptacle, and a layer of the concrete material of a desired and suitable thickness is first spread evenly between the sides and ends of said outside mold upon a smooth floor or platform upon which the mold is placed. Then its inner mold is placed with its lower edge resting upon the concrete bottom just laid, and said inner mold is suspended in this position from a suitable number of cross-bars 6, resting upon the sides 1 and extending transversely across the outside mold. The inside mold is suspended from and connected with these cross-bars by means of bolts 7, which have screw-threaded top ends on which nuts with handles 8 are screwed to permit of a careful adjustment of the inside mold.

The sides 1 and ends 3 of the outside mold may extend uniformly from the bottom of the line to the top; but the preferable construction will be to form an offset toward the outside adjacent to the top by means of the horizontal strips 9, which are secured in any suitable manner to the outer sides of the lower portion of the mold. This offset gives an additional thickness to the upper edge of the cement receptacle, so as to permit of the formation of a rabbet on the inner edge of receptacle as a seat to receive a lid.

The inner mold comprises a plurality of rectangular frames composed of the members 10 and 11, which are adjustably secured together by means hereinafter described. These rectangular frames form the structure for securing the side walls that provide the surface against which the interior wall of the concrete receptacle is formed. The interior rectangular frames are placed within the outer mold and are secured together by the intermediate plates 12, that form a portion of the inner mold, by means of the bolts or screws 13. 15 represents the corner-plates that form the corners of the inner mold, but which are not secured to the rectangular frames. The corner-plates 15 when in operating position are slightly removed from the intermediate plates 12, thus leaving the intervening space 16, which permits a reduction in the dimensions of the inner mold after the cement receptacle has been formed and set, and thereby permits the ready removal of said mold from the concrete article without breaking or marring the green and fragile walls, and another

very important object is to permit of an adjustment of the inner mold with the cement. This adjustment is made possible by the adjustable screwing of the inner rectangular frames 10 and 11, which are provided at the ends with slots 20 and the bolts 21, as plainly shown in Fig. 4 of the drawings.

It will be noted that the members 10 and 11, that form the rectangular structure of the inner frames, are of somewhat less length than the inner mold-walls as formed by the corner-plates 15 and the intermediate plates 12, and that by terminating as they do permit them to be moved outward against the interior wall of the corner-plates 15, which is permitted by the slots 20 in the ends of the members 10 and 11, that compose the rectangular frames, as heretofore described. The corner-plates 15 are squared at perfect right angles, which permit a proper "truing" of the said rectangular frames. The space 16 existing between the corner-plates 15 and the intermediate plates 12 is covered by sheet-metal strips 25. The interior wall of the outer mold and the exterior surface of the inner mold may be covered with sheet metal in order to give a smooth finish to the cement receptacle.

Resting upon the top of the inner mold and secured by means of screws or bolts 30 are the rabbet-forming strips 31. These strips have transverse slots 32 to receive the bolts 30 and to allow the strips to be adjusted transversely, so as to permit the rabbets of variable depths to be secured. The strips 31, that form the rabbet, are composed of a series of sections, so that the intermediate sections may first be removed when it is desired to remove the whole strip. It will be readily understood that when these central sections of said strip are removed it permits the ready removal of the corner-sections, which are obviously more difficult to remove without injuring the corners of the cement receptacle. This sectional construction of the rabbet-forming strips 31 is particularly necessary when the same is provided with oblique outer edges, such as are shown in the drawings, and which produce an inwardly-disposed oblique wall of the rabbet. This beveled construction is preferable for the reason that it provides a means for securing and sealing the lid of the body of the receptacle by the introduction of cement around the edges of the lid which are formed on a line parallel with the oblique wall of the rabbet, and the overhanging wall of the rabbet forms an obstruction to prevent the transverse removal of the lid.

It is apparent that the parts forming the inside mold are readily separable, and thus can be easily removed without injury to the concrete receptacle, which separable nature of the mold makes it capable of being handled by a single workman without the aid of hoisting-derricks or other help.

Having thus fully described my invention, what is claimed as new, and desired to be secured by Letters Patent of the United States, is—

1. In a mold for forming cement receptacles, an outside mold comprising parallel side pieces having transverse cleats on their inner faces adjacent to their ends and parallel end pieces between said sides bearing against the inner edges of the cleats, means for removably securing said parts to each other, transverse bars supported upon the top edges of the mold thus formed, and an inside mold suspended from said transverse bars and comprising a plurality of members that form rectangular frames, intermediate plates securing the rectangular frames together, slots in the members that comprise the rectangular frames, bolts passing through said slots, nuts on said bolts, and outside angle corner-plates placed loosely against the inner mold thus formed.

2. In a mold for forming cement receptacles, an outside mold having side and end pieces forming a rectangular construction, horizontal strips secured to the outside of said mold adjacent to its upper edge to form an offset for the purpose of widening the molded article, and an inner mold and means for suspending it in suitable position within the outer mold, said inner mold comprising a plurality of members adjustably secured together, means for adjustably securing said members together, and rabbet-forming strips secured to the top edges of said inner mold.

3. In a mold for forming cement receptacles, an outside mold having side and end pieces, means for removably uniting the parts of said mold, said mold having an offset adjacent to its upper edges, cross-bars resting upon and supported by the walls of said outer mold, an inner mold suspended by bolts from said cross-bars, said inner mold comprising a plurality of rectangular frames, slots in the ends of the members comprising the rectangular frames, bolts passing through said slots, and outside angle corner-plates placed loosely against the outer corners of the rectangular frames, intermediate plates between the ends of said corner-plates to fill out the thickness of the walls of the inner molds so as to make its outer face flush with the corner-plates, and a rabbet-forming strip resting upon the top edge of said mold.

4. In a mold for forming cement receptacles, an outside mold having side and end pieces, means for removably uniting the parts of said mold, said mold having an offset adjacent to its upper edges, an inner mold supported within the outer mold, said inner mold comprising a series of rectangular frames, slots in the ends of the members that form the rectangular frame, bolts passing through said slots and adapted to permit the adjusting of said members, angle-plates placed loosely against the outer corners of the rectangular

frames, and a rabbet-forming strip on the top edge of said inner mold, said strip having an oblique outer face to form a bevel in said rabbet.

5. In a mold for forming cement receptacles, an inner mold, a strip resting upon the top edges of said mold, said strip having transverse slots, and bolts passing through said slots to secure the strips to the mold.

6. In a mold for forming cement receptacles, an inner mold, a strip resting upon the top edges of said mold, said strip having transverse slots and having outer beveled edges, bolts passing through said slots for adjustably securing the strips to the mold.

7. In a mold for forming cement receptacles, an outside mold having said side and end pieces, bolts for removably uniting the parts of said mold, said mold having longitudinal pieces secured adjacent to its upper edges forming an offset to increase the width of the receptacle formed therein, cross-bars supported by this outside mold, an inner mold suspended by bolts from said cross-bars, said inner mold comprising a plurality of rectangular frames, means for adjustably securing the several members forming a frame together, angle-plates placed loosely against the outer corners of this inner mold, intermediate plates secured to and tying the rectangular frames together and adapted to stand flush with the faces of the outside angle-plates, metal strips covering the joints at the ends of said angle-plates, and a rabbet-forming strip projecting outwardly from the top edges of the inner mold.

8. In a mold for forming cement receptacles, an outside mold having side and end pieces, bolts for removably uniting the parts of said mold, said mold having longitudinal pieces secured adjacent to its upper edges to form an offset to increase the width of the receptacle therein molded, cross-bars supported by this outside mold, an inner mold suspended by bolts from said cross-bars, nuts on the threaded ends of said bolts for adjusting the position of the inner mold, said inner mold comprising a plurality of rectangular frames, means for adjustably securing the parts forming said frames together, angle-plates placed loosely against the outer corners of this inner mold, intermediate plates secured to the side and end of the rectangular frames and adapted to stand flush with the faces of the outside angle-plates, metal strips covering the joints at the ends of said angle-plates, and a horizontally-adjustable rabbet-forming strip projecting outwardly from the top edges of the inner mold, said strip having oblique outer edges.

9. In a mold for forming cement receptacles, an inner mold, a strip projecting outwardly from the upper edge of said inner mold to form a rabbet having an oblique face the line of inclination of the oppositely-positioned portions of the strip intersecting above the top of the molded receptacle, and means for securing said strip to the mold.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 22d day of October, A. D. 1904.

ORA STALEY. [L. S.]

Witnesses:
J. A. MINTURN,
F. W. WOERNER.