

J. M. BOTTCHER.

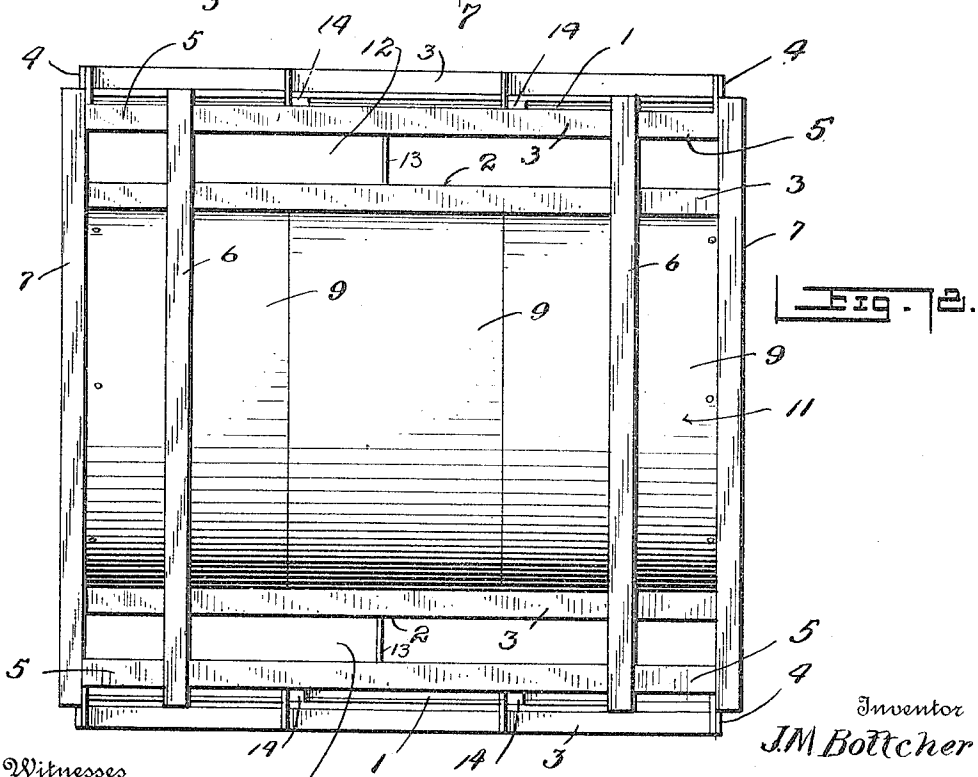
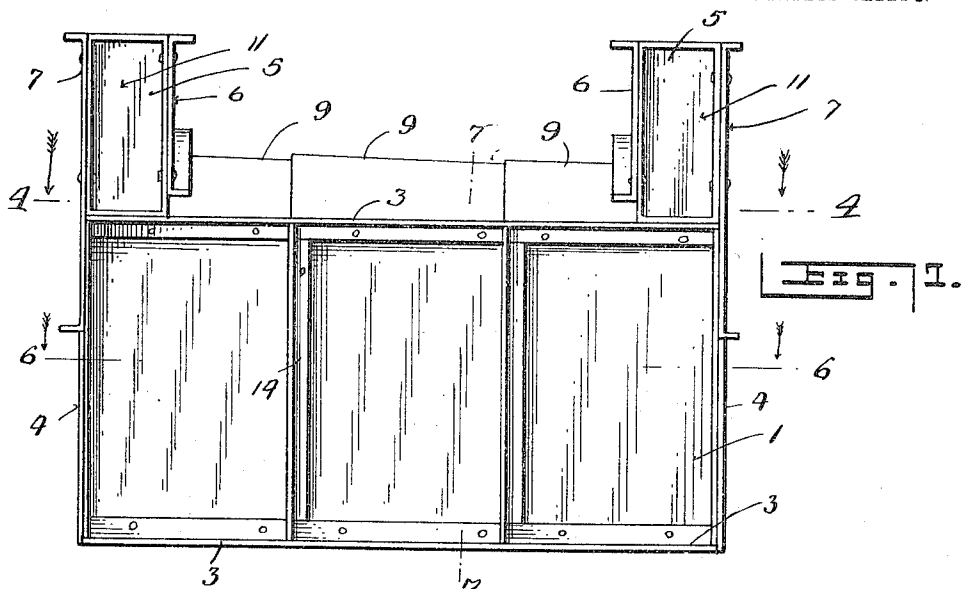
MOLD.

APPLICATION FILED OCT. 21, 1912.

1,123,473.

Patented Jan. 5, 1915.

3 SHEETS-SHEET 1.



Witnesses

R. J. Mac Carter
J. J. Jones

By

Donald Chandler

Attorneys

J. M. BOTTCER.

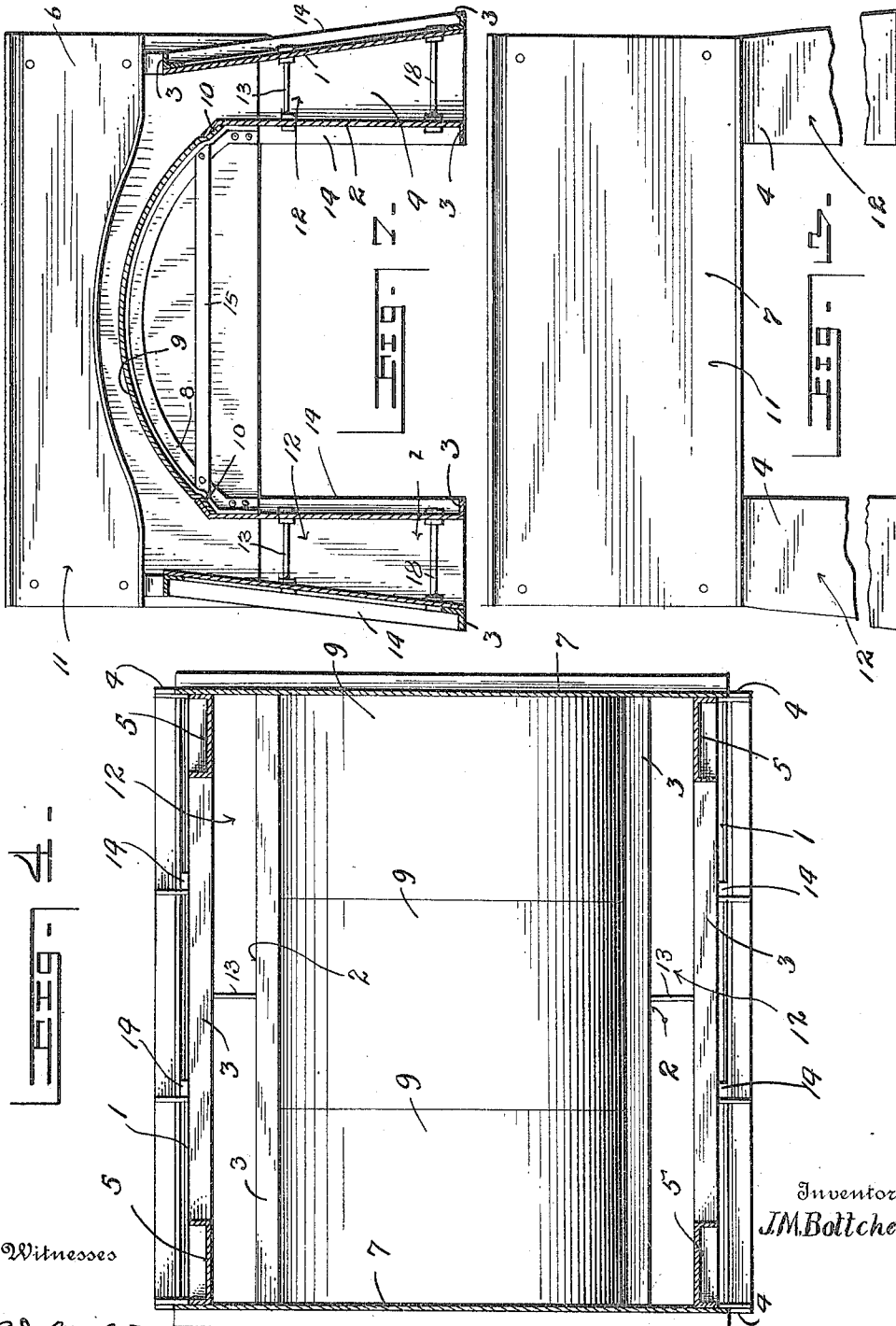
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Witnesses

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J. W. Shaw

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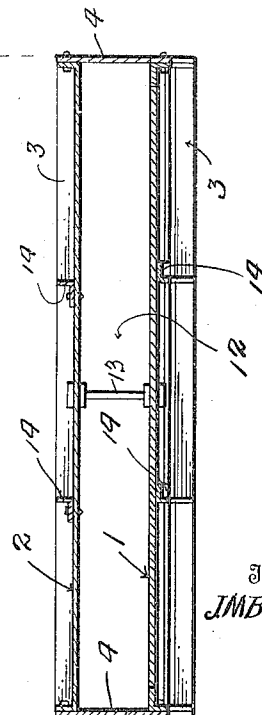
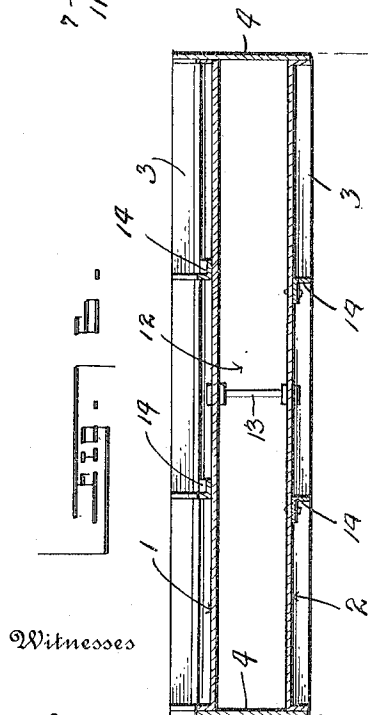
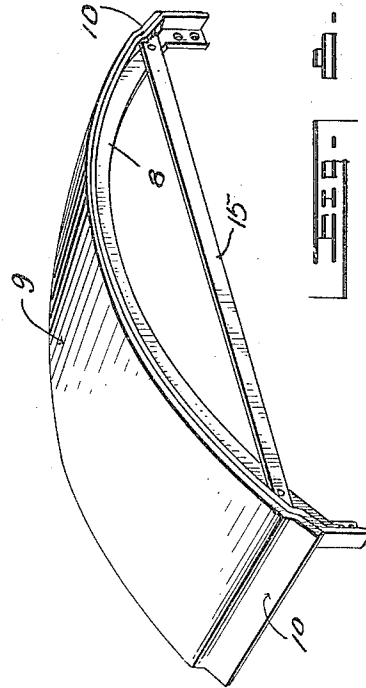
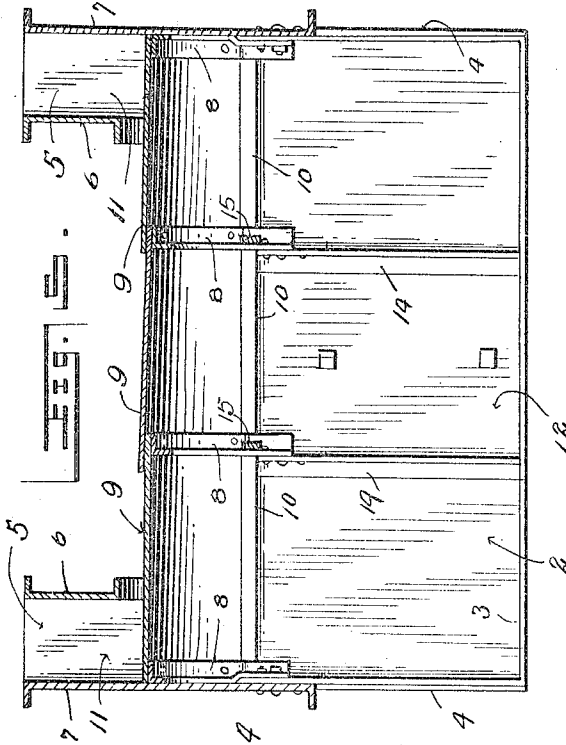
Inventor
J. M. Bottcher

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3 SHEETS-SHEET 3.



Witnesses

R. J. [Signature]

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UNITED STATES PATENT OFFICE.

JOHN M. BOTTCHER, OF HIGHMORE, SOUTH DAKOTA.

MOLD.

1,123,473.

Specification of Letters Patent.

Patented Jan. 5, 1915.

Application filed October 21, 1912. Serial No. 726,957.

To all whom it may concern:

Be it known that I, JOHN M. BOTTCHER, a citizen of the United States, residing at Highmore, in the county of Hyde, State of South Dakota, have invented certain new and useful Improvements in Molds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention is directed to improvements in molds.

The invention has for its object to provide a mold particularly adapted for forming cement culverts, the same being so constructed that it may be readily set up and knocked down when desired.

With these and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawing, in which:—

Figure 1 is a side elevation of the device. Fig. 2 is a top plan view. Fig. 3 is an end view. Fig. 4 is a sectional view on line 4—4 of Fig. 1. Fig. 5 is a central longitudinal sectional view. Fig. 6 is a sectional view on line 6—6 of Fig. 1. Fig. 7 is a similar view on line 7—7 of Fig. 1. Fig. 8 is a perspective view of one of the arch sections.

Referring to the drawings, the numerals 1 and 2 designate inner and outer plates, respectively, the edges of which are provided with continuous flanges 3. The plates 1 and 2 are held in spaced relation by end plates 4, which are detachably connected in any suitable manner to the flanges formed upon the ends of the respective side plates, or inner and outer plates 1 and 2. Secured to the corner of the upper edges of the plates 1 are plates 5 which are connected to the outer ends of sections 6 and 7, the sections 7 being of such dimensions that the lower edges thereof rest upon the upper edges of the end plates 4. Having their opposite ends secured to the inner upper edges of the inner plates 2 are arched bars

8. It will be noted that the arched bars 8 have their ends connected to the upper edge flange of the plates 2. A plurality of arch sections 9 are provided and have their side edges formed with flanges 10 which engage under the upper edge flange of the plates 2, and have their adjacent edges arranged in overlapping relation, thereby effectually supporting the arch sections for receiving the cement. By constructing the mold in this manner end molds 11, and side molds 12 are provided, so that when cement is poured in the end molds it will also fill the side molds, thus producing a culvert of great strength. If desired reinforcing elements 13 may be placed in the molds 11 and 12 during the process of making the culvert. The outer faces of the side plates 1 and the inner faces of the plates 2 are provided with vertically disposed angle iron braces 14. Spacers 15 connect the side portions of the arch members 9 as shown. Furthermore, as will be seen the inner side members 2 and outer side members 1 are connected together by bolts 18 the removal of which permit of disassembling of the members.

What is claimed is:—

A knock-down mold for forming cement culverts, comprising side members each comprising an inner and an outer plate spaced apart, bolts connecting said plates removably together, arched members overlapping each other and removably secured to said inner plates of both side members, spacers bridging said arched members, vertical members at the ends of said side members forming means for feeding the cement between the side plates of the side members, means removably securing said vertical members to said side members, and reinforcing angle iron flanges extending along the upper edges of the side members.

In testimony whereof, I affix my signature, in presence of two witnesses.

JOHN M. BOTTCHER.

Witnesses:

CHARLES P. SWANSON,
L. W. CARTER.