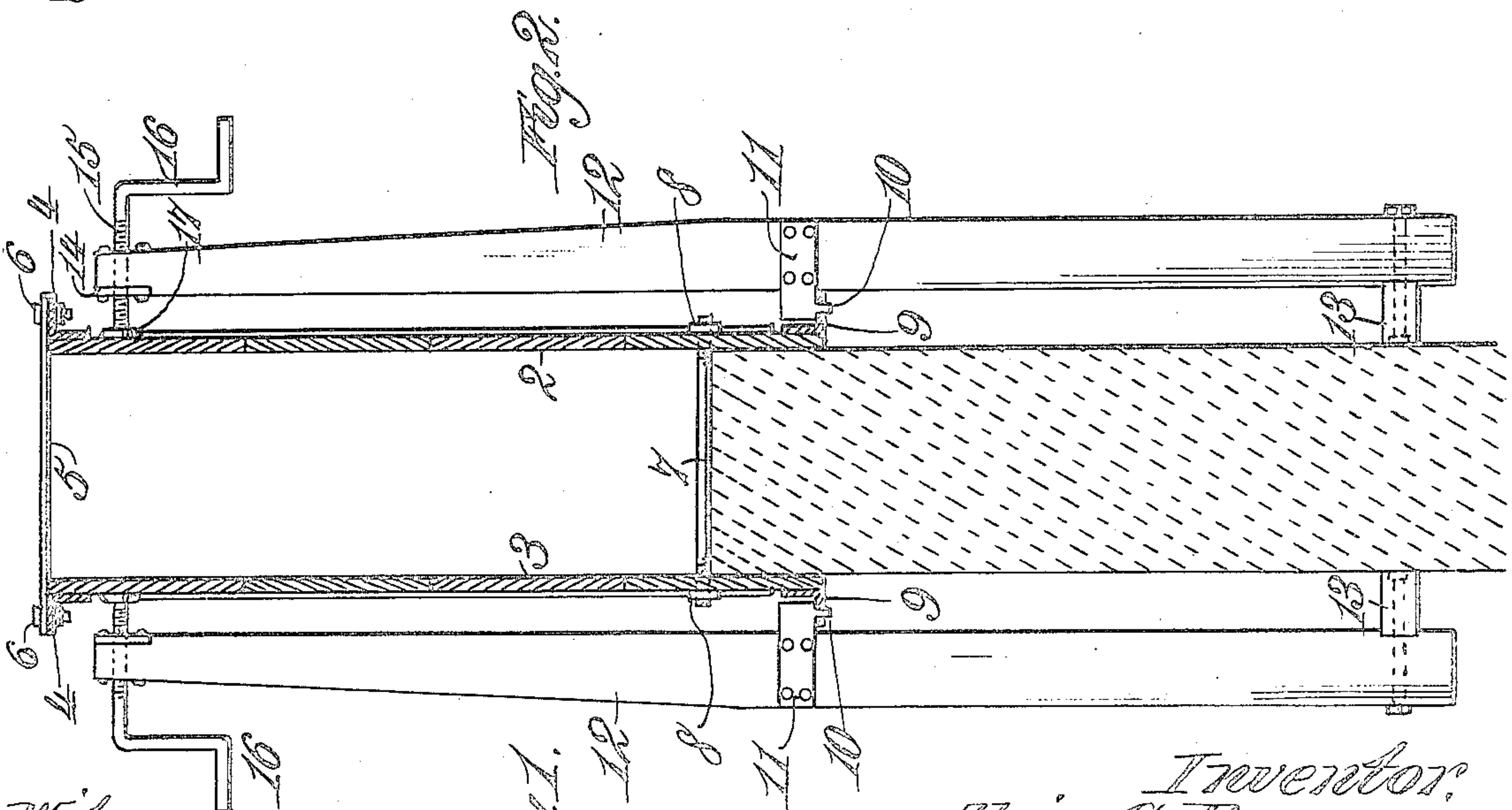
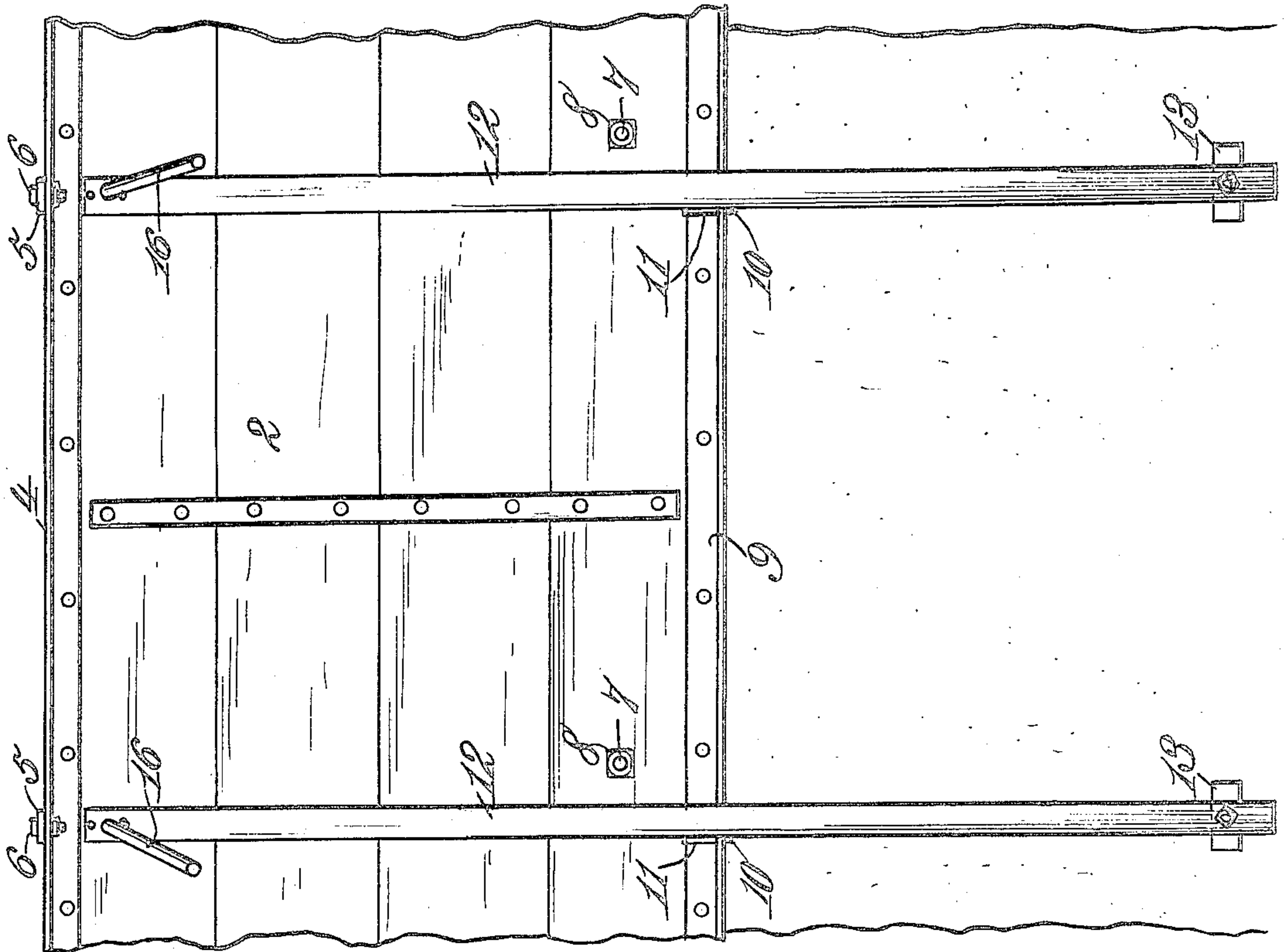


No. 836,667.

PATENTED NOV. 27, 1906.

A. C. BURNS.  
CONCRETE WALL MOLD.  
APPLICATION FILED JUNE 11, 1906.



Witnesses:  
Robert Conant,  
Charles Kester

Fig. 1.

Inventor:  
Alvin C. Burns,  
By Robert W. Johnston Jr.



# UNITED STATES PATENT OFFICE.

ALVIN C. BURNS, OF EAST LAKE, ALABAMA.

## CONCRETE-WALL MOLD.

No. 836,667.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed June 11, 1906. Serial No. 321,166.

*To all whom it may concern:*

Be it known that I, ALVIN C. BURNS, a citizen of the United States, residing at East Lake, in the county of Jefferson and State of Alabama, have invented new and useful Improvements in Concrete-Wall Molds, of which the following is a specification.

My invention relates to an apparatus for the construction of molded or concrete walls. One of the greatest difficulties connected with the construction of walls of this character, particularly when detachable molds are employed which are attached to the wall as it rises for the purpose of forming successive layers of cement, lies in the tendency of the wall to sag or get out of alinement. Where the molds are supported entirely by the wall itself, it follows that any irregularity occurring tends to exaggerate itself, and to meet this difficulty it has been necessary to go to considerable expense and trouble propping and bracing the molds from the ground. It is my purpose to avoid this difficulty by providing a detachable molding apparatus designed to be connected to the wall and provided with alining standards rigidly held in parallelism with the wall and provided with adjusting devices which engage the top of the mold-boxes and enable them to be adjusted and held in true alinement throughout the length of the wall, the standards being placed at suitable intervals along the mold-boxes for the purposes of bracing and adjusting. In this manner the top line of each layer of the wall is brought to a correct alinement and the difficulties above referred to avoided.

My improved apparatus is illustrated in the accompanying drawings, wherein—

Figure 1 is a vertical sectional view through the wall, showing the molding apparatus in end elevation. Fig. 2 represents a side view of a section of the wall and my apparatus in position.

Similar reference-numerals refer to similar parts throughout the drawings.

The wall 1 may be constructed of any desired material, it being my purpose to construct it in layers by the provision of the molding apparatus, which comprises a mold-box formed by sides 2 and 3, which are provided along their upper and outer edges with angle-irons 4, to which the distance-pieces 5 are connected by bolts 6. These distance-pieces may be placed at any desired intervals necessary to secure the proper spacing and

bracing of the box-sections together along their upper edges. The sides of the mold-box are clamped to the upper portion of the finished wall by means of bolts 7, which pass through the sides about a foot from their lower edges and when the box is in position rest upon the top of the finished wall. The nuts 8 on these bolts may be adjusted so as to clamp the mold-box to the wall with desired firmness and rigidity. At intervals of about six feet along the bottom edges of the sides 2 and 3 I provide oppositely-disposed pairs of angle-irons 9, provided with socket-openings to receive pins 10 on metal plates 11, bolted or otherwise secured to the alining standards 12. These standards rise approximately to the height of the mold-box and extend for a considerable distance below the angle-irons 9, being provided at or near their lower ends with distance-blocks 13, bolted or otherwise secured thereto. These pieces 13 and the plates 11 serve to hold the standards in parallelism with the finished wall. At their upper ends the standards are each provided with a plate 14, bolted thereto and having a threaded opening therethrough to receive the threaded end 15 of an adjusting-crank 16. The threaded end 15 passes through the top of the standard and is reduced at its inner end to make a loose fit in a presser-plate 17, which engages the mold-box.

In operation the first or ground layer of the wall is formed in the usual manner. After the ground layer has set the sides 2 and 3 of the mold are clamped thereto by the bolts 7 and are spaced along their upper edges by the distance-pieces 5. A standard 12 is then connected to each of the angle-irons 9. By grasping the cranks 16 of each pair of oppositely-disposed standards and turning them their presser-plates may be brought into engagement with the sides of the mold-box. Then if it is discovered that the box is slightly out of alinement at any point the cranks adjacent to that point may be given a reverse movement and the top of the box adjusted to bring it into proper alinement. This same adjustment may be made with the cranks of each pair of standards, it being evident that this may be done rapidly and that the mold-box may thus be brought into true alinement before the second layer of the wall is formed. The apparatus is simple in its operation, is comparatively inexpensive, and will both aline and brace the mold-box in a



manner that will greatly facilitate the proper construction of concrete walls.

What I claim as new, and desire to secure by Letters Patent, is—

5 1. In a wall-mold, the combination with side bodies, of means to clamp said bodies to the wall, means to space said bodies apart at their upper edges, vertical standards supported at an intermediate point by said  
10 bodies so as to stand parallel with said wall with which their lower ends engage, and adjusting members on said standards which engage said side bodies near their upper edges for the purpose of adjusting the wall-mold to  
15 a position of vertical alinement with the wall substantially as described.

2. In a wall-mold, the combination with a mold-box comprising side bodies, and means to clamp said bodies to the wall, of distance-  
20 pieces to space the upper portions of the bodies, a pair of vertical alining standards, means to detachably support said standards from the wall in parallelism therewith, and adjustable members on said standards which  
25 engage and adjustably hold the upper part of the mold-box in alinement with the wall.

3. In a wall-mold, a mold-box formed by side bodies detachably clamped to a wall, supporting members connected to said bodies  
30 at intervals along their lower edges, standards which are supported by said members, means to hold said standards in parallelism with the wall, adjusting-screws which pass through the upper ends of the standards and  
35 engage the side bodies near their upper edges,

and means to space the upper portions of said bodies apart.

4. In a wall-mold, a box comprising sides, bolts to clamp said sides to the wall and which rest on top of the finished wall, distance-pieces between the sides to space their  
40 upper portions, standards detachably connected to said sides, a spacing-shoulder at or near the lower end of each standard which engages the wall and holds the standard parallel therewith, and set-screws carried by  
45 said standards for adjusting the mold-box, substantially as described.

5. In a wall-mold, side bodies, transverse bolts adapted to clamp said bodies to a wall, angle-irons connected to said bodies and disposed at intervals along their lower edges, standards, a stud connected to each standard at an intermediate point and adapted to engage an angle-iron, projections, at or near the  
50 lower end of the standards, which engage the wall and hold the standards in vertical position, an adjusting-screw carried by each standard and adapted to engage said bodies near their upper edges, loose presser-plates  
55 on said screws, and distance-pieces to hold the top portions of the bodies apart.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALVIN C. BURNS.

Witnesses:

NOMIE WELSH,

THOS. J. WINGFIELD.