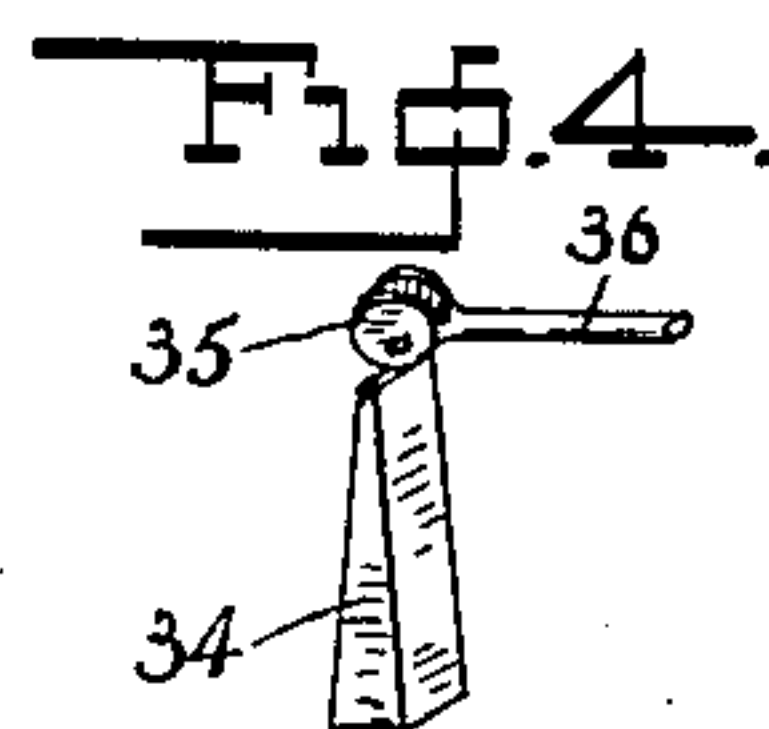
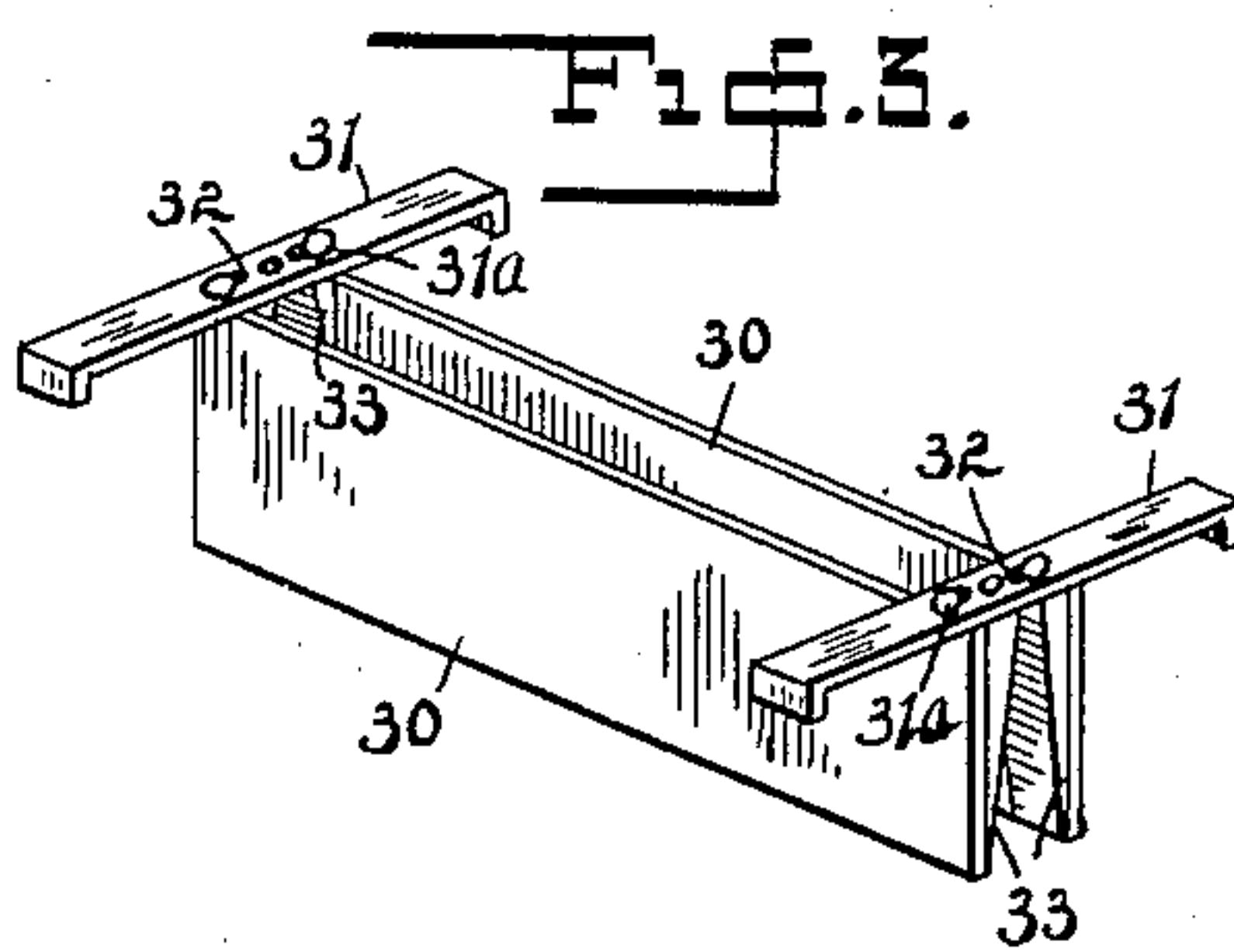
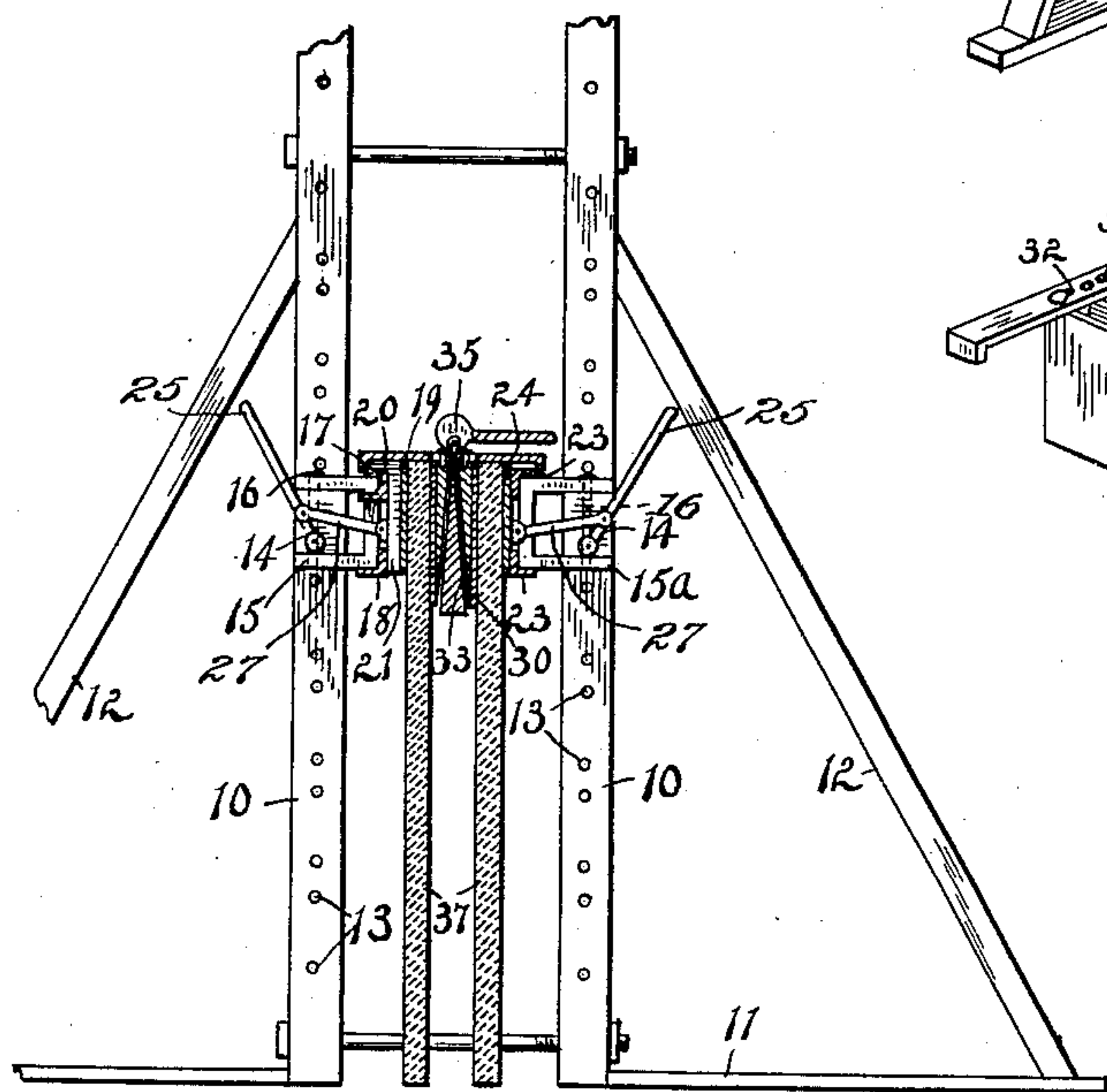
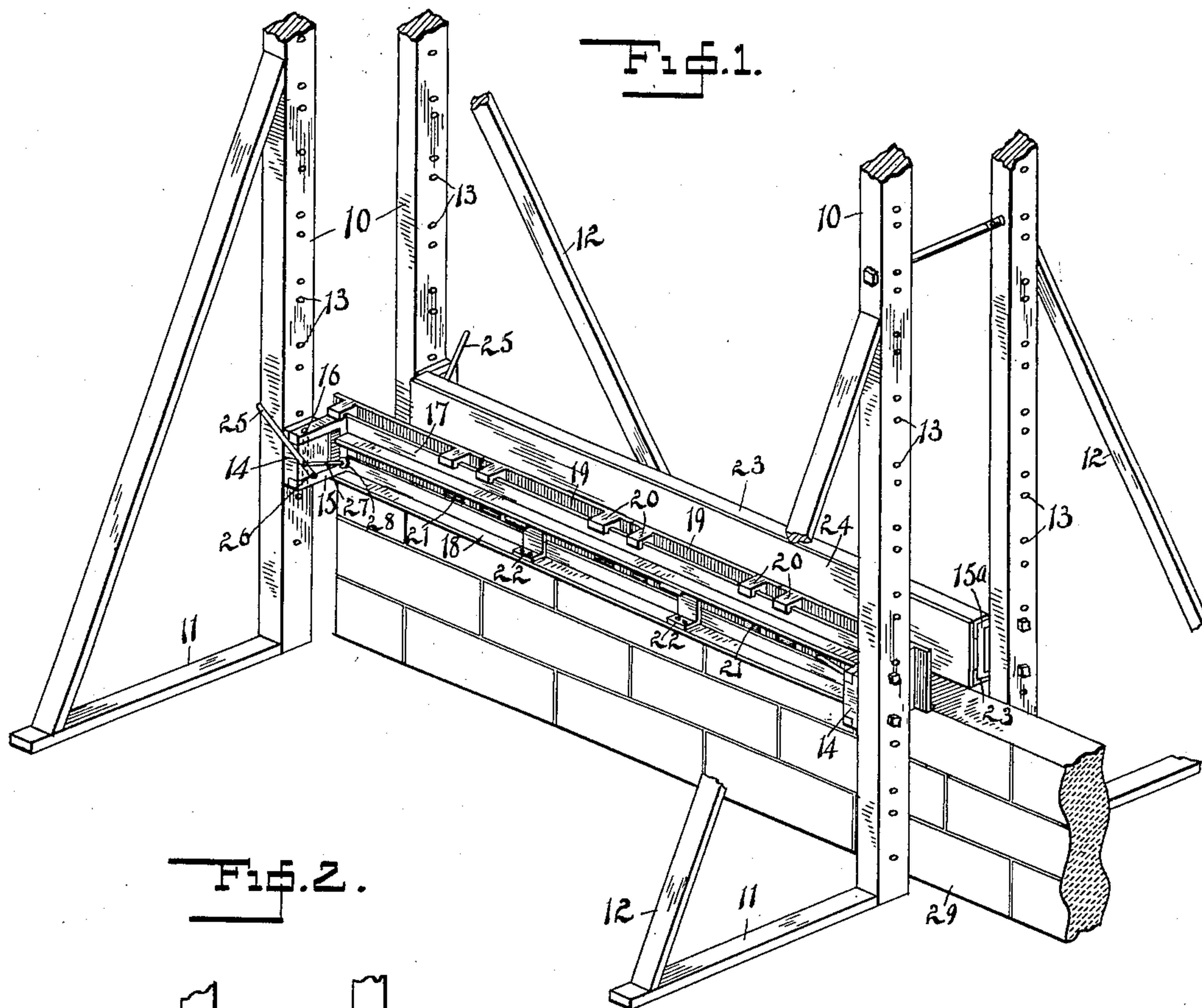


No. 894,177.

PATENTED JULY 28, 1908.

J. W. ALEXANDER.  
MOLD FOR CEMENT WALLS.  
APPLICATION FILED JULY 1, 1907.



WITNESSES:

Mathew J. Marty  
M. A. Milord

INVENTOR  
Jesse W. Alexander  
By Frederick Benjamin  
ATTY.



# UNITED STATES PATENT OFFICE.

JESSE W. ALEXANDER, OF BIRMINGHAM, ALABAMA.

## MOLD FOR CEMENT WALLS.

No. 894,177.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed July 1, 1907. Serial No. 381,671.

*To all whom it may concern:*

Be it known that I, JESSE W. ALEXANDER, a citizen of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Molds for Cement Walls, of which the following is a specification.

My invention relates to the manufacture of artificial stone and refers more particularly to concrete construction as applied to house building and similar work where the cement mixture is molded in the position in which it is to remain permanently.

For many reasons and particularly on the score of economy and permanency it is desirable to construct the walls of a concrete edifice by means of a mold of considerable size, which, being movable, requires special appliances to facilitate its handling.

The chief objects of my invention are to construct a mold for the purpose specified, that can be applied with equally good results to the building of both solid and hollow walls; to produce a mold for cement work of this class that can be easily raised from one tier to another as required during the progress of the work, and that will furnish a strong and substantial device for producing sections of wall of considerable extent.

Further objects of my invention are to produce a frame for the purpose stated that will permit of the use of a core provision being made to manipulate the latter with ease and despatch; to supply means for moving the frame laterally so as to release the face plates, and thus permit of the removal of the frame without danger of breaking or injuring the design; and to so design the mold and its supports that several such molds can be used in conjunction to facilitate the operation of wall building, permitting the removal of the lower frame when they are superimposed, without disturbing the upper one or removing the supporting structure.

I accomplish the above and other objects of importance by the employment of the apparatus illustrated in the accompanying drawing which forms a part of this specification and in which:—

Figure 1 is a perspective view of a section of wall with one of my improved molding frames in position to add another tier to the portion of wall already molded; Fig. 2 is an end view of a hollow wall in process of erection with my apparatus applied; Fig. 3 is a

perspective view of a core with the wedges and cams removed, and Fig. 4 is a perspective view of one of the core wedges with its operating cam.

Referring more particularly to the drawing, the numeral 10 indicates upright posts, resting on foot plates 11, and supported by diagonal braces 12. The said posts are furnished with series of holes 13 to admit the bolts of supporting blocks 14, and thus allow of their being adjusted at different elevations. The said blocks 14 are rabbeted above and below to receive the horizontal arms 15 of yokes 15<sup>a</sup>, removably secured to said blocks by bolts or pins 16. To said yokes are fastened angle irons 17, 18, spaced apart and strengthened by brackets 22. Internally to said angle irons are located face plates 19 suspended from the upper angle 17 by bracket hooks 20 which are formed integral with strengthening ribs 21 attached to or cast integral with the face plates 19. The frame for the rear, or blank face of the wall is constructed in a manner similar to the front frame, the yoke shaped brackets 15<sup>a</sup> supporting angle pieces 23 to which is attached a continuous plate 24, instead of the plural plates 19 of the front frame. As the said frames have considerable weight I provide a lever mechanism for sliding the frame and attached plates away from the wall to avoid injuring the design and to allow the mold side, constituted by the frame and plates, to be moved higher up for a continuation of the wall vertically. This device consists of an operating lever 25, pivoted at 26 to the block 14 and connected by a link 27 to the frame at 28.

To construct a hollow wall it is necessary to employ a core which is shown in Figs. 2 and 3. This consists of a pair of side plates 30 supported by cross bars 31 by means of lugs or bolts 31<sup>a</sup> which project through slots 32 in the cross bars. The plates are provided on their inner faces directly beneath the said cross bars by inclines 33 with which wedges 34 are adapted to engage. To the apex of each wedge is attached a link which passes through the cross bar 31 and is pivotally connected with a cam 35 which has an operating handle 36 by means of which the said wedge can be drawn vertically between the inclines 33 and thus force the plates apart to the required distance before the cement is placed in the mold. When the material is properly tamped the said wedges are lowered



by operating the cams and the plates 30 will be freed sufficiently to permit their removal without disturbing the double wall 37.

It is obvious that changes may be made in the devices of my invention without departing from the spirit and scope thereof, and I do not wish, therefore to be limited to the precise construction set forth.

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

1. An apparatus for building concrete walls, including uprights, blocks adjustably secured to the uprights, yokes secured to said blocks, a plurality of frames carried by said yokes, a face plate removably supported upon one of said frames, a lever attached to said block, link connection between the lever and said frame and an adjustable core supported upon the frames.

2. An apparatus for building concrete walls, including a plurality of uprights, blocks adjustably secured to the uprights, yokes slidably mounted upon said blocks, a plurality of frames composed of angle bars carried by said yokes, face plates removably supported upon one of said frames, operating levers pivotally attached to said blocks, a flexible connection between each lever and a frame, and an adjustable core supported upon the frames.

3. An apparatus for building concrete walls, including a plurality of uprights, blocks adjustably secured to the uprights, a plurality of frames mounted to slide upon said blocks, face plates carried by said frames, means for sliding said frames, an adjustable core composed of side plates supported upon cross bars, inclines fixed to the side plates, wedges adapted to engage said

inclines and cam levers for operating said wedges.

4. In an apparatus for building concrete walls, the combination with a mold, a support for said mold, and means for adjusting said mold vertically and laterally upon said support, of a core consisting of movable side plates, cross bars supporting said plates, inclines attached to the plates, wedges adapted to engage said inclines, and cam levers operatively attached to said wedges.

5. In an apparatus for building concrete walls, the combination of a supporting frame consisting of braced uprights, rabbeted blocks adjustably secured to the uprights, yokes slidably mounted upon said blocks, frames carried by said yokes, a plurality of face plates supported upon one of said frames, operating levers pivotally attached to said blocks, flexible connections between said levers and the frames, a core carried by cross bars supported on said frames, said core consisting of side plates, inclines on said plates, wedges adapted to engage said inclines, and operating levers for said wedges.

6. In an apparatus for building concrete walls, the combination with a support, of blocks adjustably secured to the uprights, frames slidably mounted upon said blocks, levers pivoted to said blocks, and attached to said frames, an adjustable core, consisting of movable side plates, inclined planes carried by said plates, and cam operated wedges adapted to engage said inclined planes.

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

JESSE W. ALEXANDER.

Witnesses:

WILL LOVE,  
B. B. GLASGOW.