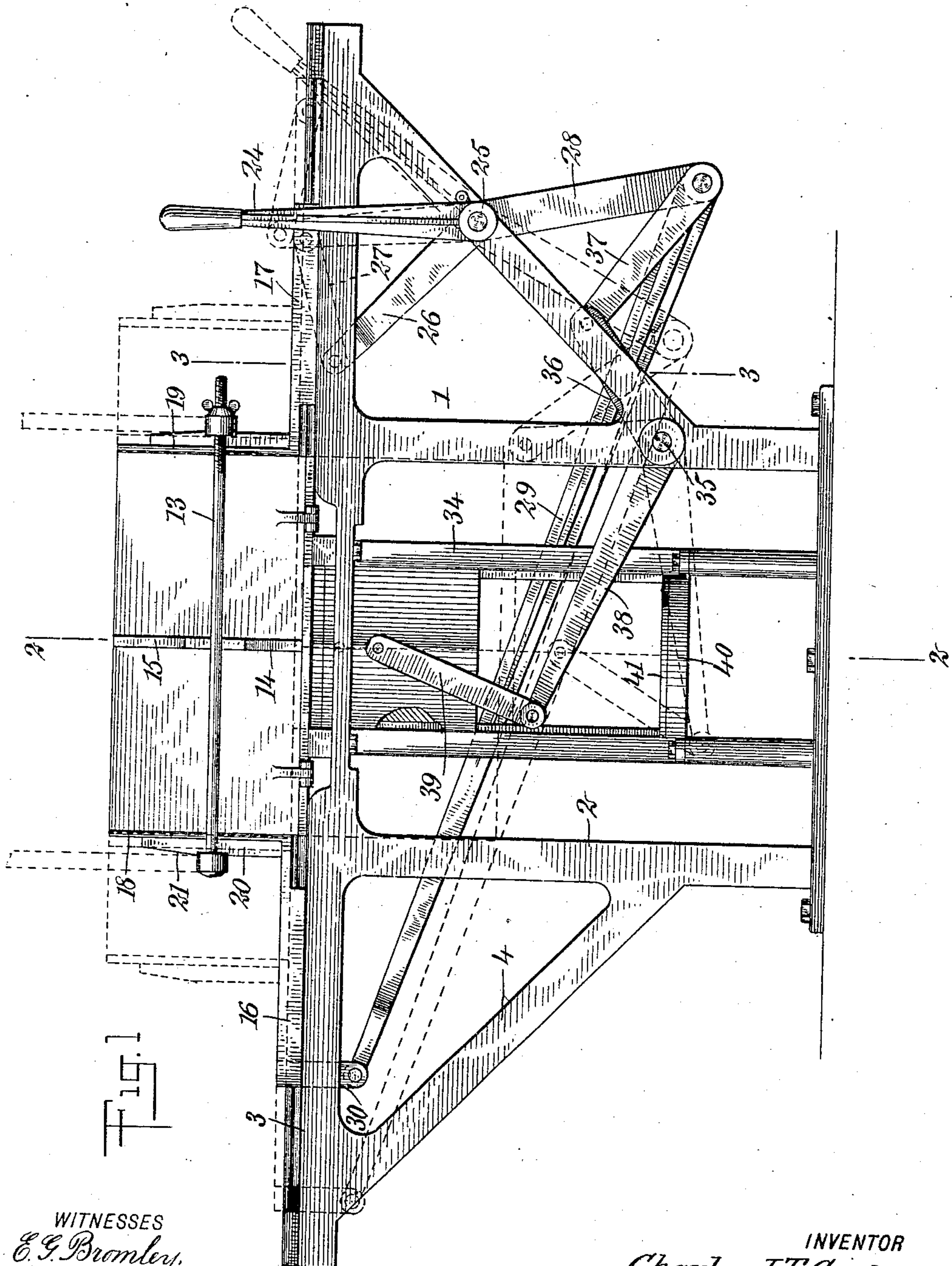


No. 869,828.

PATENTED OCT. 29, 1907.

G. J. T. CORDES.
BUILDING BLOCK MOLD.
APPLICATION FILED MAY 11, 1907.

3 SHEETS—SHEET 1.



WITNESSES
E. G. Bromley
J. D. Munn

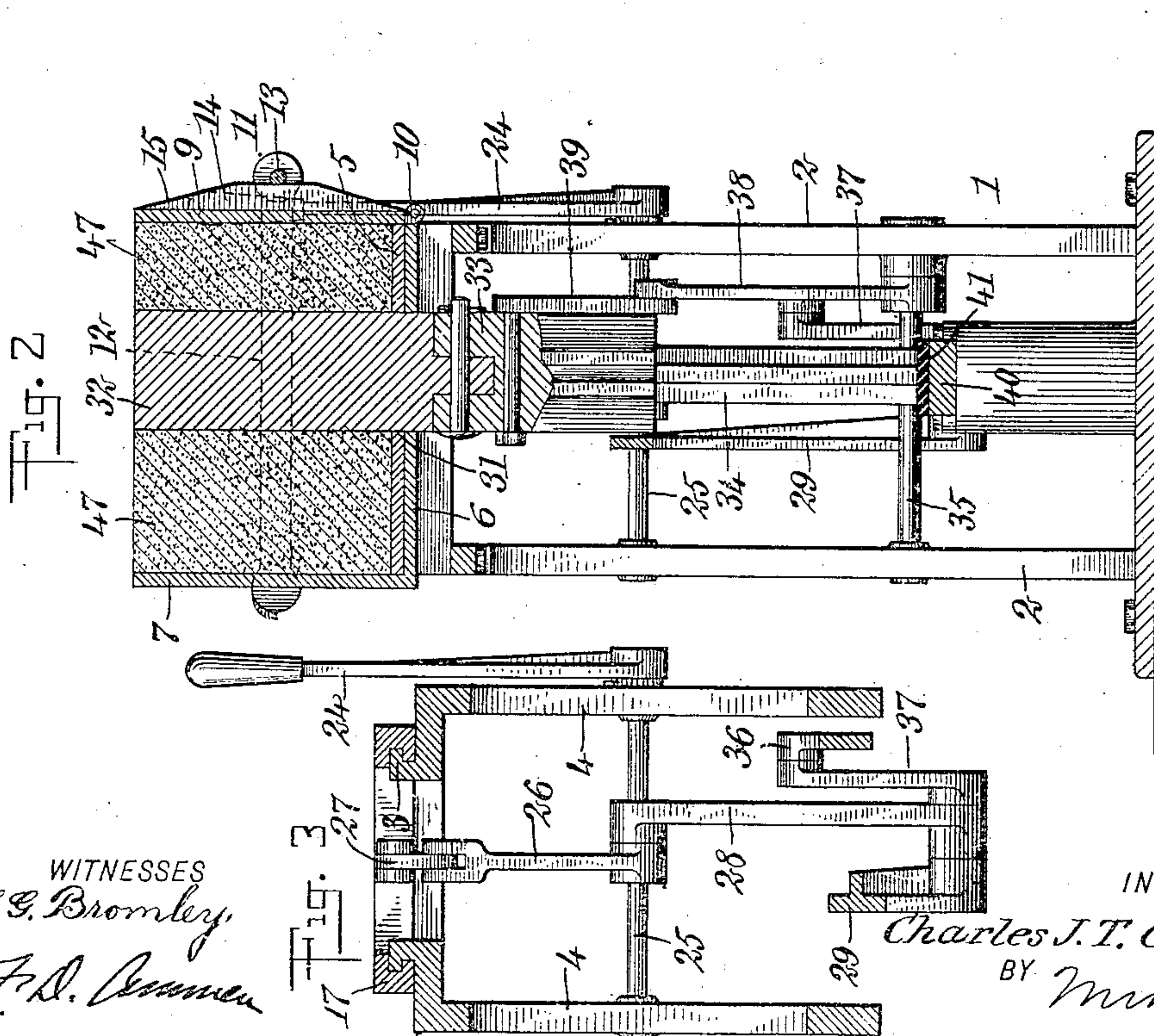
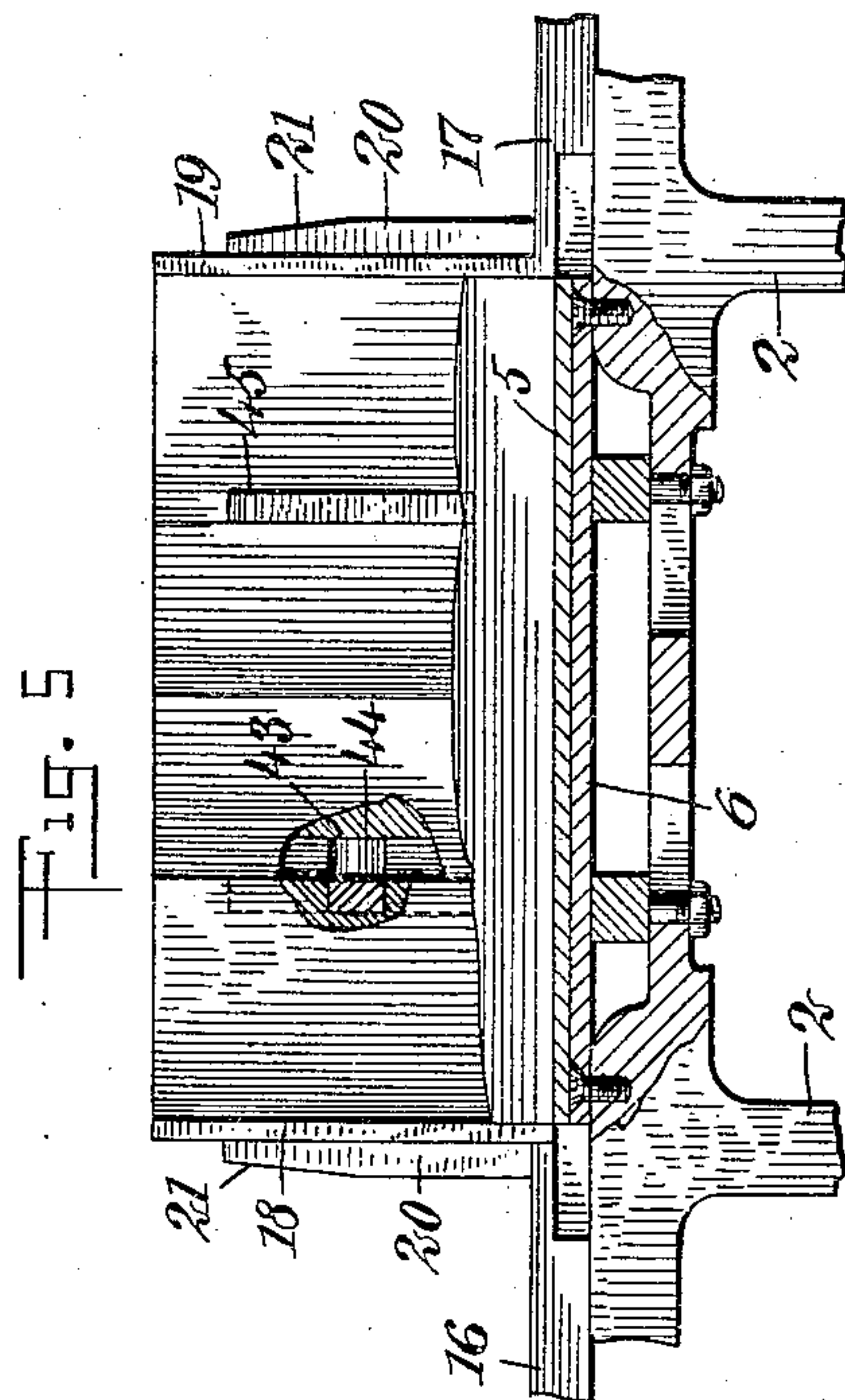
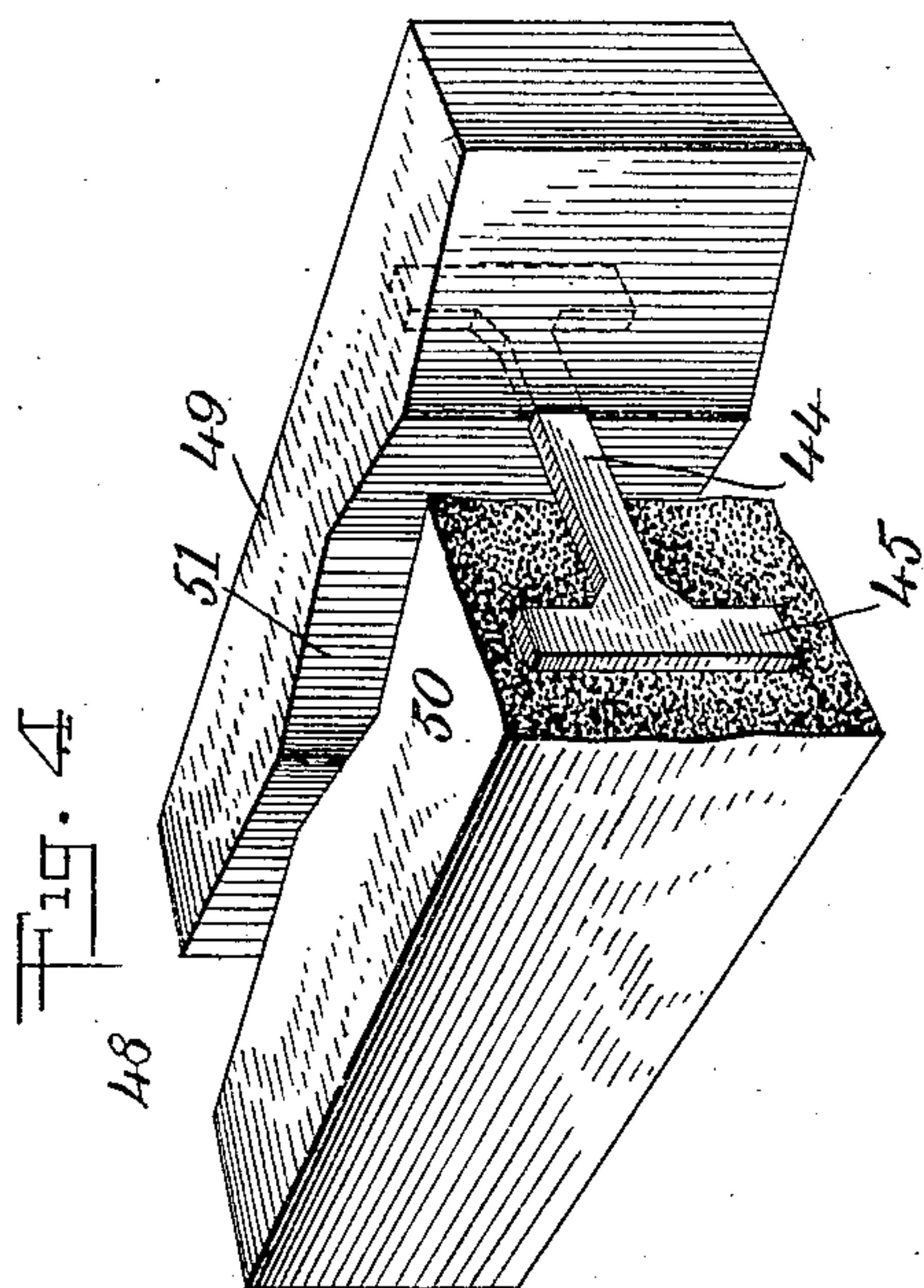
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3 SHEETS—SHEET 2.



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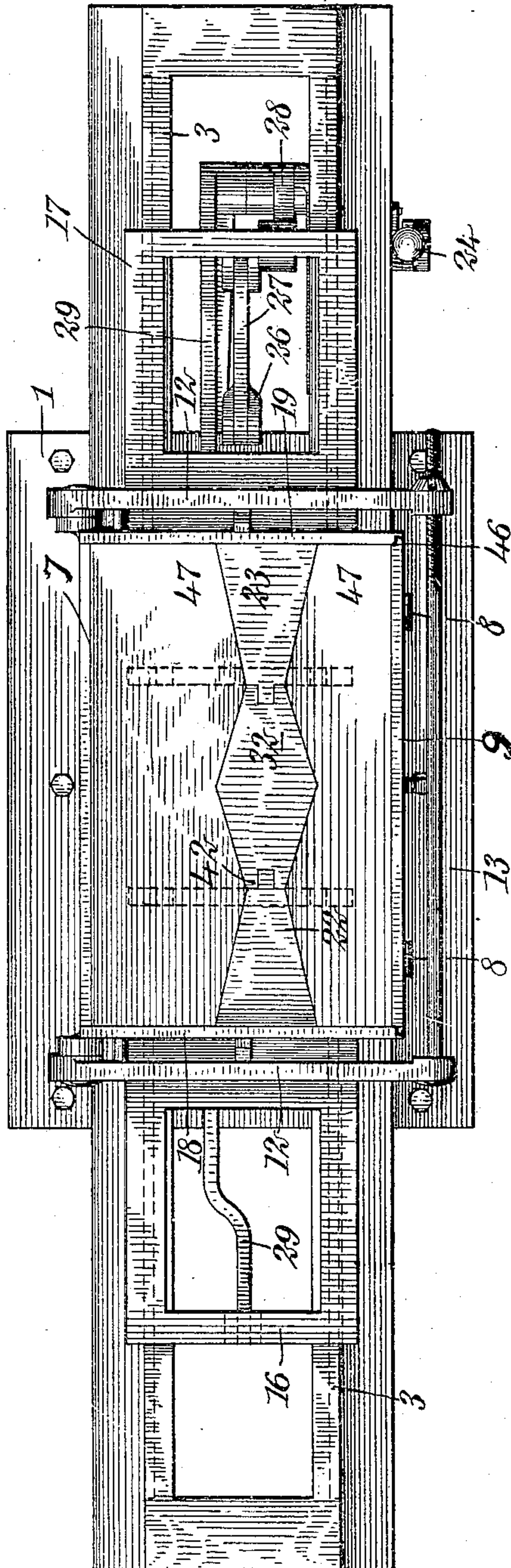
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3 SHEETS—SHEET 3.

Fig. 6



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UNITED STATES PATENT OFFICE.

CHARLES J. T. CORDES, OF WALDWICK, NEW JERSEY.

BUILDING-BLOCK MOLD.

No. 869,828.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed May 11, 1907. Serial No. 373,027.

To all whom it may concern:

Be it known that I, CHARLES J. T. CORDES, a citizen of the United States, and a resident of Waldwick, in the county of Bergen and State of New Jersey, have invented a new and Improved Building-Block Mold, of which the following is a full, clear, and exact description.

This invention relates to molds or molding machines for forming building blocks of concrete or similar material.

The object of the invention is to produce a machine of this class which is simple in construction and which is intended to mold divided building blocks.

A machine constructed according to this invention may be readily operated by one man.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

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 figures.

Figure 1 is a side elevation of a molding machine constructed according to my invention; Fig. 2 is a vertical cross section through this machine, taken on the line 2—2 of Fig. 1; Fig. 3 is a vertical section on the line 3—3 of Fig. 1; Fig. 4 is a perspective of a block formed in the machine, a portion of the block being broken away; Fig. 5 is a longitudinal section through a portion of the mold, certain parts being broken away and shown in elevation; and Fig. 6 is a plan of the machine.

Referring more particularly to the parts, 1 represents the frame of the machine, which comprises standards 2 supporting oppositely projecting horizontal guides 3. The outer portions of the guides are supported from the standards 2 by diagonals or braces 4, as indicated. On the middle portion of the frame between the standards 2 a removable pallet 5 is placed, resting upon a suitable bottom 6. To the rear edge of this bottom 6 the back wall 7 is attached, and to the forward edge of the bottom 6 the forward wall 9 is attached by a hinge connection 10. Near the middle point of the back wall 7 a yoke 11 is attached pivotally. This yoke comprises arms 12 disposed at the end of the mold, and these arms are connected at their free ends by a bar 13. It should be understood that in forming the mold for the block, the walls 7 and 9 are set in an upright position and the yoke is then forced down over the mold, as indicated in Fig. 2. This yoke affords means for bringing the walls 7 and 9 into their proper position, and in order to effect this, the outer side of the wall 9 is provided with a cleat 14 having an inclined upper edge 15 down which the bar 13 slides when coming into the position shown in Fig. 2.

Movably mounted on the guides 3 I provide slides

16 and 17; the slide 16 is formed with a rigid end wall 18, and the slide 17 is similarly provided with a rigid end wall 19. These end walls 18 and 19 are provided on their outer sides with cleats 20, presenting inclined upper edges 21 for a purpose which will appear more fully hereinafter.

On the inner face of the end wall 18 I provide a core print 22, and on the inner face of the end wall 19 I provide a similar core print 23. By means of a lever 24 the end walls 18 and 19 may be withdrawn or advanced; this lever is mounted rigidly upon a rock shaft 25 at the right of the machine. This rock shaft has an upwardly inclined arm 26 which is attached by means of a link 27 to the slide 17. In addition to this, the rock shaft 25 has a rigid downwardly extending arm 28 to which is pivotally attached a long link 29 which extends to the opposite end of the machine and forms a pivotal connection with a downwardly projecting post 30 carried by the slide 16. By moving the lever 24 toward the position in which it is indicated in dotted lines in Fig. 1, that is, toward the right, the arm 26 is moved toward the right, which draws the end wall 19 toward the right. The arm 28 moves toward the left, which draws the end wall 18 toward the left.

The pallet 5 is provided with an opening 31, and a similar registering opening is formed in the bottom 6. Through these openings a main core print 32 is adapted to slide. The lower portion of this core print is attached to a slide 33 mounted in vertically disposed guideways 34 arranged between the uprights 2, as indicated in Fig. 1. The lever 24 also affords means for operating this slide and the core print 32 simultaneously with the slides 16 and 17. For this purpose I provide an auxiliary rock shaft 35 which is mounted in the uprights 2 at the right of the machine. To this rock shaft 35 an arm 36 is rigidly attached, which is connected by a link 37 with the end of the arm 28. The rock shaft 35 carries, also, a rigid arm 38, the end whereof is connected pivotally by a link 39 with the slide 33. When the lever 24 is moved toward the right, as indicated in the dotted lines, the rock shaft 35 is rotated toward the left. In this way the arm 38 moves downwardly and causes the link 39 to withdraw the core print 32 through the bottom of the mold.

Between the guides 34 near their lower ends, a cross head 40 is placed, the upper face whereof is provided with a buffer 41 against which the lower end of the slide 33 strikes at the end of its downward movement.

As indicated most clearly in Fig. 6, the core prints 22 and 23 taper toward their outer ends; that is, the ends remote from the walls to which they are attached. The core print 32 has the form of an elongated diamond having flat ends, and these ends form mortise joints 42 with the core prints 22 and 23 as indicated. Near the middle points of the forward edges of the core prints 22 and 23, notches 43 are formed.

In preparing the mold to receive the material which forms the block, before the side and the end walls of the mold are brought into position, I place in the notches 43, anchors or anchor bars 44; one of these anchor bars is clearly illustrated in Fig. 4. They consist of a bar having cross heads 45. These anchors are held in the position shown in Fig. 4; that is, with the cross heads 45 disposed in a vertical plane. Attention is called to the fact that the notches 43 are formed entirely in the edges of the end core prints; that is, the anchors do not project across the edges of the main core prints. On account of this arrangement the anchors do not obstruct the up or down movement of the main core print.

The corners of the mold are preferably formed with mortised joints 46, as indicated in Fig. 6, where the end walls engage the side walls. The cleats 20 on the outer faces of the end walls, operate like the cleat 14 on the side wall. These cleats are engaged by the side bars 12 of the yoke when it is forced down into position. These side bars slide down on the inclined edges of the cleats so as to clamp the end walls in position. When the walls have all been brought into their proper position and locked there by the yoke, the anchors 44 having been placed in the core prints, the interior of the mold is filled with a plastic material 47 such as concrete, which is adapted to harden upon being baked or dried. As soon as the block has been molded in this way, the yoke 11 is forced upwardly so as to release the front and rear walls of the mold, whereupon they swing outwardly and downwardly upon their hinge connections. The lever 24 is then moved toward the right; in doing so, the end walls 18 and 19 are withdrawn and the main core print 32 is withdrawn downwardly through the bottom of the mold. The pallet 5 upon which the molded block rests, is then removed to a place where the drying or baking operation takes place. In this way I am enabled to mold a block 48 formed in two sections 49 and 50 as indicated in Fig. 4, the said sections being separated by an opening or open space 51 across which the anchors 44 extend to connect the sections rigidly together. Building blocks in this form are very useful for building purposes.

While I have represented the mold as constructed in such a way as to enable only two anchors to be formed in the finished blocks, it should be understood that if desired, two or more of the notches 43 may be provided at the meeting points of the core prints, so that the sections may be connected by two anchors at each end, if desired, instead of one.

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

1. In a molding machine, in combination, a frame, a fixed side wall, a second side wall hinged at the lower edge

of said frame, guides formed on said frame between said side walls, slides moving on said guides and having end walls adapted to come into position to form a mold with said side walls, a lever, mechanism connecting said lever with said slides for advancing or withdrawing the same, core prints carried by the inner faces of said end walls, and a yoke affording means for holding all of said walls in position.

2. In a molding machine, in combination, a frame, oppositely disposed guides formed thereupon, slides mounted on said guides and having end walls, core prints on the inner faces thereof, a main core print, means for guiding the same upwardly into the space between said end walls, a lever, mechanism connecting said lever with said main core print and said slides for simultaneously advancing or withdrawing the same, a fixed side wall, a movable side wall, and a yoke adapted to hold all of said walls in position.

3. In a molding machine, in combination, a frame having oppositely disposed guides, slides mounted movably on said guides and having end walls with core prints formed on the inner faces thereof, a main core print, means for guiding the same to advance into position between said first core prints, said core prints having means at the meeting edges thereof for supporting anchors in the interior of the mold, a fixed side wall, a movable side wall hinged to said frame, a lever, mechanism connecting said lever with said slides and said main core print for advancing or withdrawing the same simultaneously, and a yoke adapted to hold said walls in position.

4. In a molding machine, in combination, a frame having oppositely disposed guides, slides mounted on said guides and having end walls with core prints formed on the inner sides thereof, a fixed wall, a side wall hinged between said end walls, a pallet supported on said frame between all of said walls, said pallet having an opening therethrough, a main core print, means for guiding the same to slide through said opening into the interior of the mold, means for advancing said slides and said main core print, said core prints being adapted to meet at their edges to form a division through the mold, the meeting edges of said core prints having notches adapted to support anchors projecting into the divisions of said mold.

5. A molding machine having oppositely disposed end walls mounted to slide inwardly to form the mold, core-prints carried on the inner faces of said walls, a bottom core-print sliding up through the bottom of the mold and adapted to bridge the space between said first core-prints to divide the mold, the meeting edges of said core-prints having notches adapted to support bonding anchors between the divisions of the mold.

6. A molding machine having oppositely disposed walls adapted to slide inwardly to form the mold, core-prints on the inner faces of said molds, a main core-print adapted to slide into the mold from beneath, said core prints having notched edges, which meet together to form a continuous core-print within the mold, said first core-prints having notches in the edges thereof adapted to support bonding anchors beyond the edge of said main core-print whereby said anchors permit the upward sliding movement of said main core-print.

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

CHARLES J. T. CORDES.

Witnesses:

F. D. AMMEN,
EVERARD B. MARSHALL.