

H. MEYER.
TILE MOLDING MACHINE.
APPLICATION FILED FEB. 14, 1905.

2 SHEETS—SHEET 1.

Fig. 6.

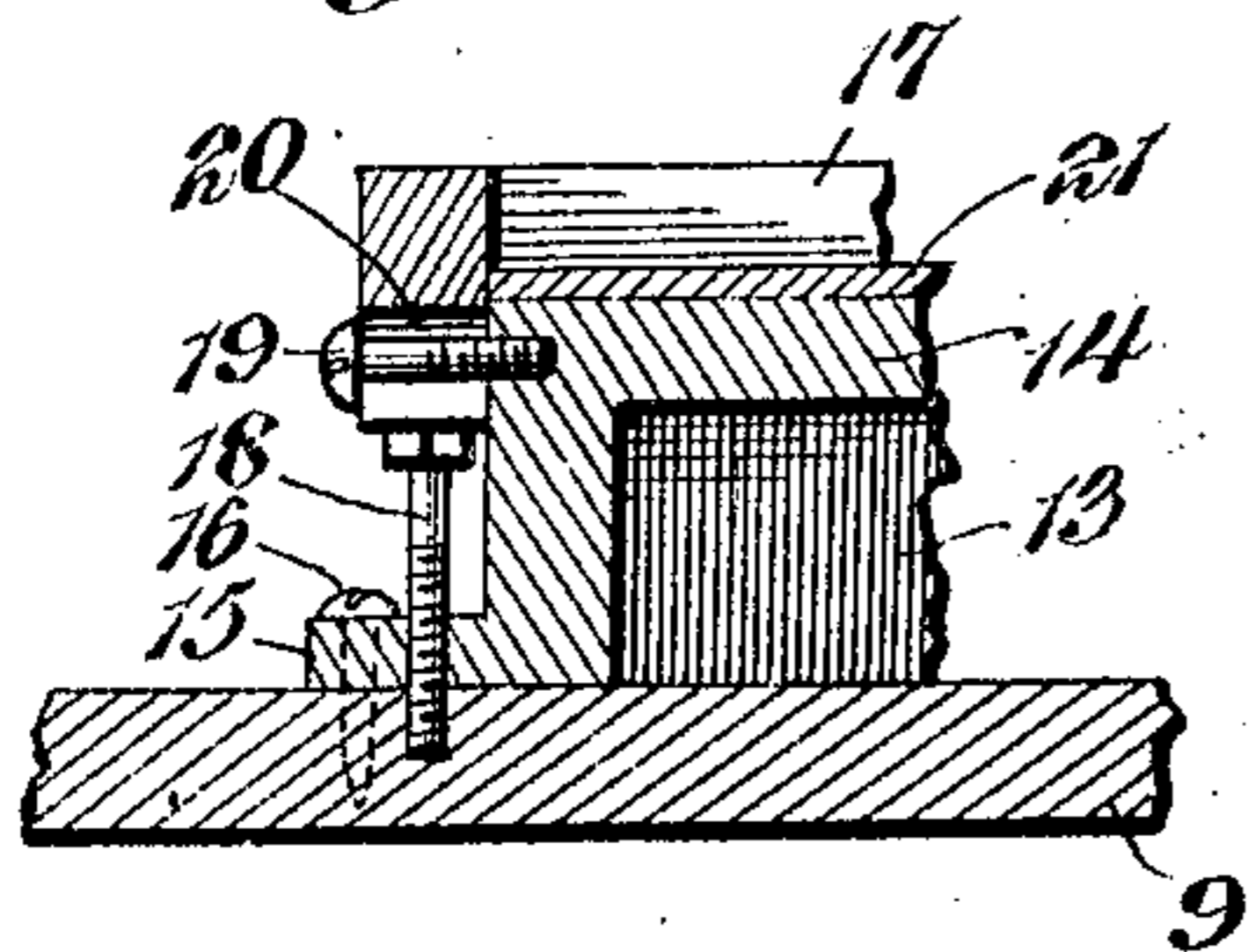


Fig. 1.

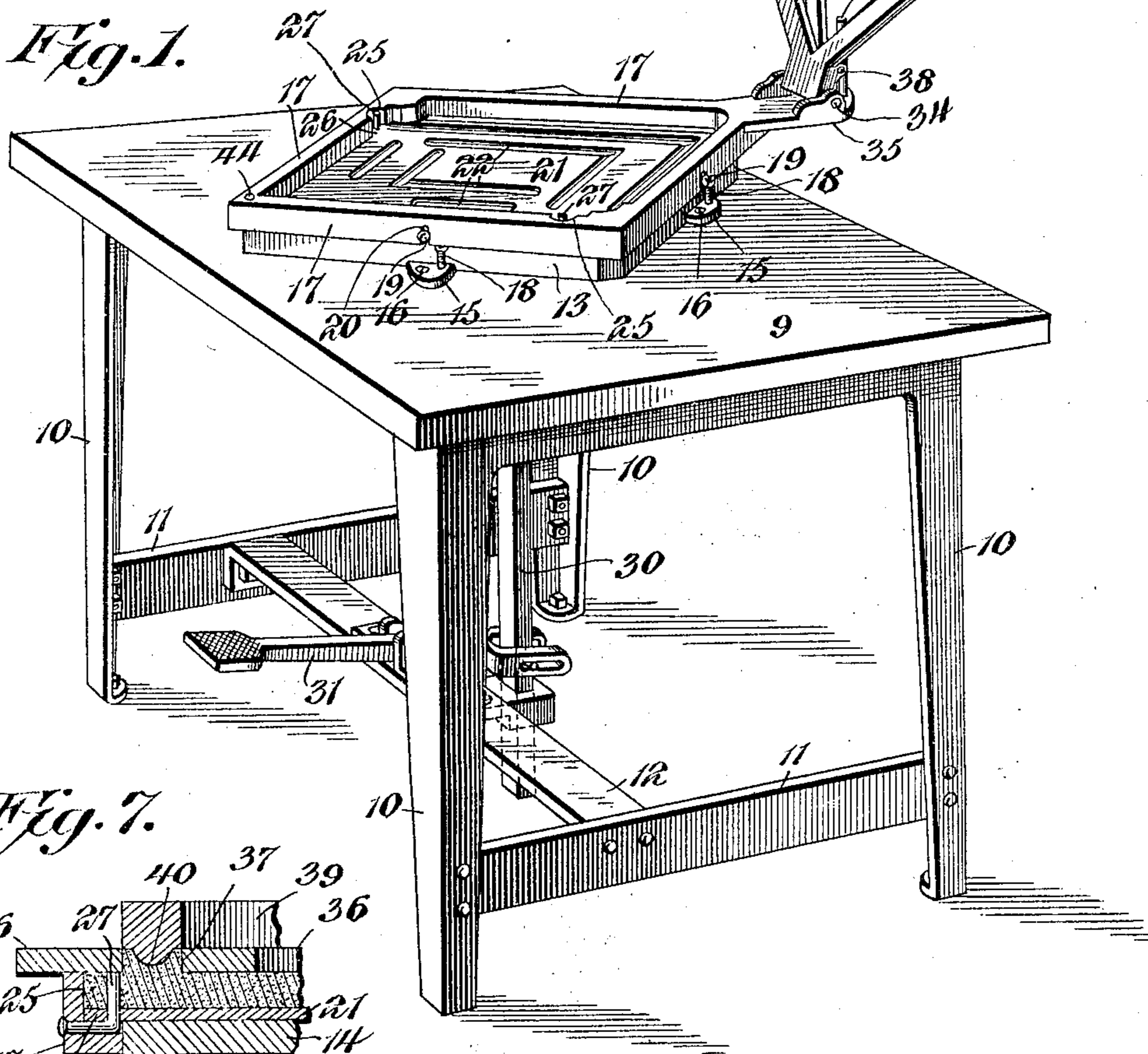
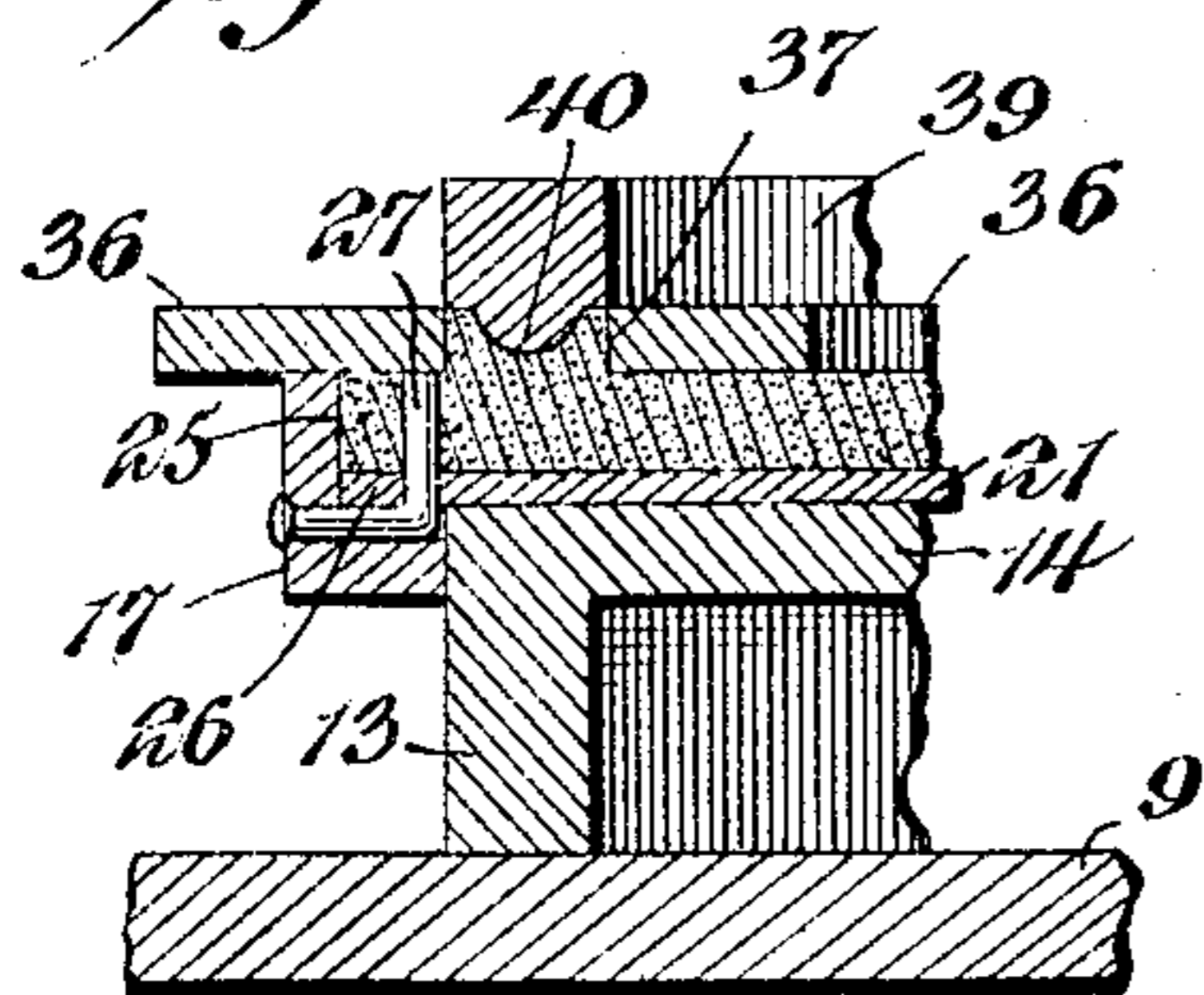


Fig. 7.



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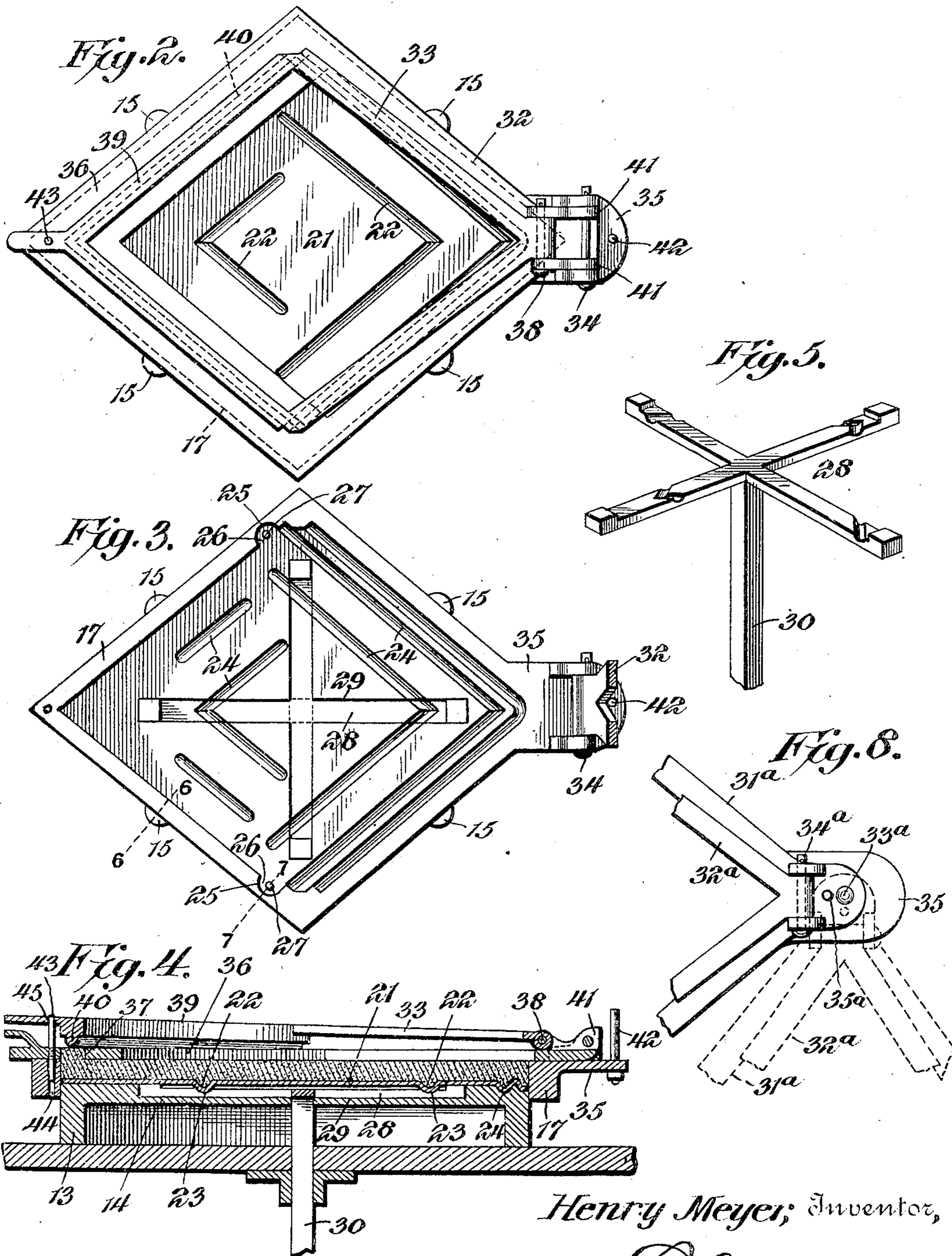
Witnesses

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2 SHEETS—SHEET 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY MEYER, OF DESHLER, OHIO.

TILE-MOLDING MACHINE.

No. 804,753.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed February 14, 1905. Serial No. 245,617.

To all whom it may concern:

Be it known that I, HENRY MEYER, a citizen of the United States, residing at Deshler, in the county of Henry and State of Ohio, have
5 invented a new and useful Tile-Molding Machine, of which the following is a specification.

This invention relates more particularly to improvements in machines for molding roofing-tiles of a cementitious nature, though
10 perhaps useful for other analogous purposes.

The principal object is to provide a simple structure of a novel nature by means of which tiles may be manufactured with accuracy and with comparatively great rapidity, certain
15 parts of said structure being conveniently adjustable in order that the thickness of the tiles may be varied as desired.

The preferred form of construction is illustrated in the accompanying drawings, wherein—
20 in—

Figure 1 is a perspective view of the machine complete. Fig. 2 is a top plan view of the mold. Fig. 3 is a similar view with the face-forming means broken away and the
25 false bottom removed. Fig. 4 is a vertical sectional view through the mold when filled. Fig. 5 is a detail perspective view of a portion of the elevating means for the bottom. Fig. 6 is a detail sectional view on the line 6 6
30 of Fig. 3. Fig. 7 is a detail sectional view on the line 7 7 of Fig. 3, but showing the material in the mold. Fig. 8 is a detail plan view of a slightly-modified form of construction.

Similar reference-numerals designate corresponding parts in all the figures of the drawings.
35 in—

In the embodiment illustrated a suitable table is employed comprising a top 9, supported on legs 10, which may be braced, as
40 shown at 11 and 12. Mounted on this table is the mold, which is constructed as follows: A base is employed comprising sides 13 and a top 14, the sides having ears 15, through which are passed fastening devices
45 16, whereby the base is secured to the table-top. An open-bottomed mold-body comprising side walls 17 snugly receives the base, said side walls surrounding the same and being vertically slidable upon said base. In
50 order to secure the vertical adjustment, screws 18 are interposed between the table-top and the side walls, said screws being threaded into the ears 15 and bearing against the lower

edges of the side walls 17. The mold-body is held in its adjusted position by means of
55 holding-screws 19, passing through slots 20 in the side walls 17 and being threaded into the sides 13 of the base.

A false bottom 21 slidably fits within the mold-body and normally rests upon the top
60 14 of the base. This false bottom is preferably, though not necessarily, constructed of sheet metal and is provided in its upper face with suitable grooves 22 for forming strengthening-ribs on one face of the tile molded there-
65 upon. These grooves 22 of course form corresponding ribs 23 on the under side of the false bottom, said ribs being received in depressed channels or seats 24, formed in the
70 top 14 of the base. For the purpose of forming ears on the article certain of the side walls 17 are provided with recesses 25, and the false bottom has ears 26 extending thereinto. Located in the recesses 25 are upstanding
75 core-pins 27, secured to the side walls 17 and passing upwardly through the false bottom 21, as shown in Fig. 7. For the purpose of elevating the said false bottom 21 a spider-frame
28 is employed, normally located in recesses
80 29, formed in the top 14 of the base and being movable out of the same. This spider-frame is secured to the upper end of a vertical stem 30, slidably passing down through the base and through the table-top and connected at its lower end to a foot-lever 31, ful-
85 crumed upon the cross-brace 12 of the table.

In order to provide the upper tile-faces of the tile with the proper configuration, frames 32 and 33 are employed, the frame 32 being
90 hinged, as shown at 34, to an extension 35, carried by one corner of the mold-body. Said frame 32 is adapted to fit upon the top of the mold-body, and two of the sides 36 thereof extend slightly over the base and are provided with a slot 37. The other frame 33 is
95 hinged, as shown at 38, to the frame 32 contiguous to its hinge 34, and two sides 39 of said frame 33 comprise presser-bars, adapted to enter the slot 37, being provided on their under sides with longitudinally-disposed ribs
100 40. The upward and outward movement of the frame 32 is limited by a projection 41, located contiguous to its hinge-axis and adapted to engage the extension 35. The upward-swinging movement of the frame 33 is limited
105 by a pin 42, carried by said extension 35.

For the purpose of properly positioning the frames upon the mold the frame 32 is provided at the free corner, which is diagonally opposite the hinge, with a positioning-stud 5 43, projecting on opposite sides of said frame, one end of the stud being movable into a recess 44 in the adjacent corner of the mold-body, the other end being received in a socket 45, formed in the handle of the frame 33.

10 In using the machine the body of the mold is adjusted so that the side walls thereof will project a distance above the base equal to the thickness it is desired to make the tile, after which said body is secured by means of the 15 holding-screws 19. The spider-frame is then depressed into its recesses and a false bottom introduced into the mold-body, said bottom thus resting upon the top of the base. The body is then filled with cement, after which 20 the frame 32 is placed upon said body and the groove 37 also filled with cement. Thereupon the frame 33 is moved to the position shown in Fig. 4 and the ribs 40 pressed into the cement in the groove. Then the frame 25 32 is elevated, the frame 33 being held against movement, so that the frame 32 passes from the cement ribs thus formed without breaking or injuring the same. Both frames are afterward thrown into the position shown in 30 Fig. 1, the foot-lever is depressed, thereby elevating the spider-frame with the false bottom and carrying the tile out of the mold. Said tile, still supported on the false bottom, is removed and placed aside to dry. A new 35 false bottom is placed in position and another tile molded.

With this structure tiles of various thicknesses can be made. The parts are simple, the adjustment thereof to secure the desired 40 results can be conveniently and readily made, and said parts are such that there is little liability of derangement.

From the foregoing it is thought that the construction, operation, and many advantages 45 of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction 50 may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention. As an example of how the structure may be modified attention is invited to Fig. 8, wherein is shown a slightly-differ- 55 ent form of connection between the face-forming frames and the mold-body. Said frames are designated, respectively, 31^a and 32^a. The frame 31^a swings horizontally upon a vertical pivot 33^a, mounted on the extension 60 35 of said mold-body. The frame 32^a still swings in a vertical direction, being hinged, as shown at 34^a, to the frame 31^a. In this structure, moreover, the stop for limiting the upward and outward swinging movement

of the frame 32^a is a pin 35^a, carried by the 65 frame 31^a, directly in rear of the hinge 34^a.

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

1. In a molding-machine of the class de- 70 scribed, the combination with a base having a top wall provided with recesses, of an open-bottomed mold-body receiving the base and adjustably secured thereto, a false bottom movably mounted in the body above the top 75 wall of the base, and means for elevating the false bottom, said means including a frame movably located in the recesses and movable upwardly out of the same, and an actuating 80 device connected to the frame and extending through the base.

2. In a molding-machine of the class de- scribed, the combination with a base having a top wall provided with recesses, of a mold- 85 body having an open bottom that receives the base, means for adjustably securing the body at different elevations with respect to the base, a false bottom movably mounted in the body above the top wall of the base, said bottom 90 normally resting on the top of the base, a spider-frame normally located in the recesses of the said top wall and movable upwardly out of the same to elevate the false bottom, a stem secured to the spider-frame and extend- 95 ing downwardly through the base, and means for effecting the upward movement of the stem.

3. In a molding-machine of the class de- scribed, the combination with a table, of a base 100 mounted thereon and projecting above the same, said base having side walls and a top provided with crossed recesses, an open-bot- tomed mold-body having side walls that sur- round the base, means adjustably connecting 105 the side walls and the sides of the base for holding the body at different elevations, face-forming means carried by the upper portion of the mold-body and adjustable therewith, a false bottom movably mounted in the mold- 110 body and normally resting on the top of the base, a spider-frame normally located in the recesses of the base-top and movable upwardly to elevate the false bottom, a stem secured to the spider-frame and extending downwardly 115 through the base and table, and a foot-lever fulcrumed on the table and engaging the lower portion of the stem.

4. In a molding-machine of the class de- scribed, the combination with a base, of a 120 mold-body comprising side walls that surround the base, means for securing the body at different elevations on the base, said side walls having recesses in their inner sides, and upstanding core-pins carried by the side walls and located in the recesses. 125

5. In a molding-machine of the class de- scribed, the combination with a mold having a bottom and side walls, of separately-swing-

ing face-forming frames mounted on the mold,
one of said frames being located over the
other, and a positioning-stud carried by the
under frame and projecting on opposite sides
5 of said frame, the other frame and the adja-
cent mold-wall having sockets to respectively
receive the ends of the stud.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

HENRY MEYER.

Witnesses:

B. G. FOSTER,
JOHN H. SIGGERS.