

L. M. PRATT.
BRICK MACHINE.
APPLICATION FILED APR. 10, 1908.

949,043.

Patented Feb. 15, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

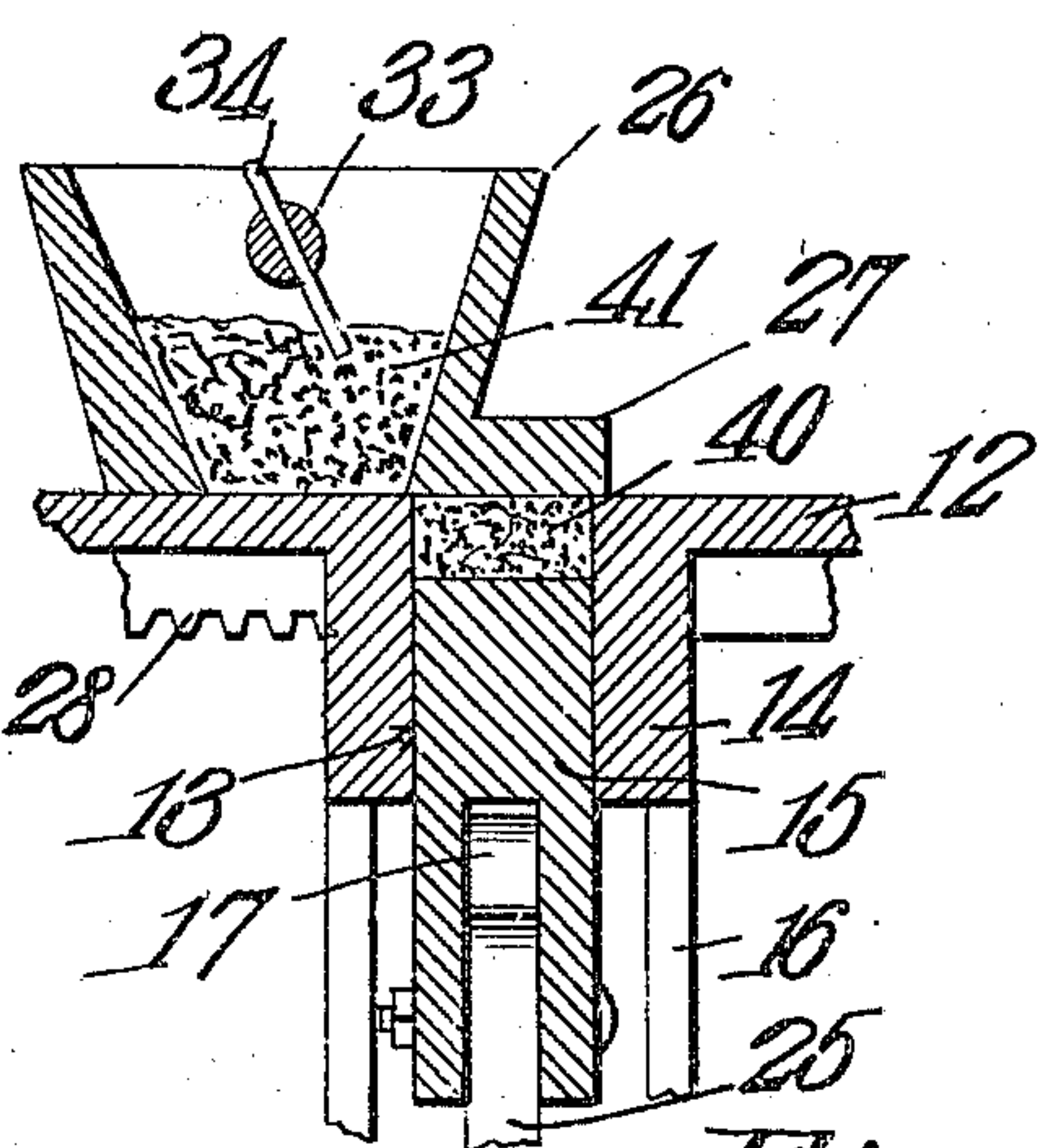
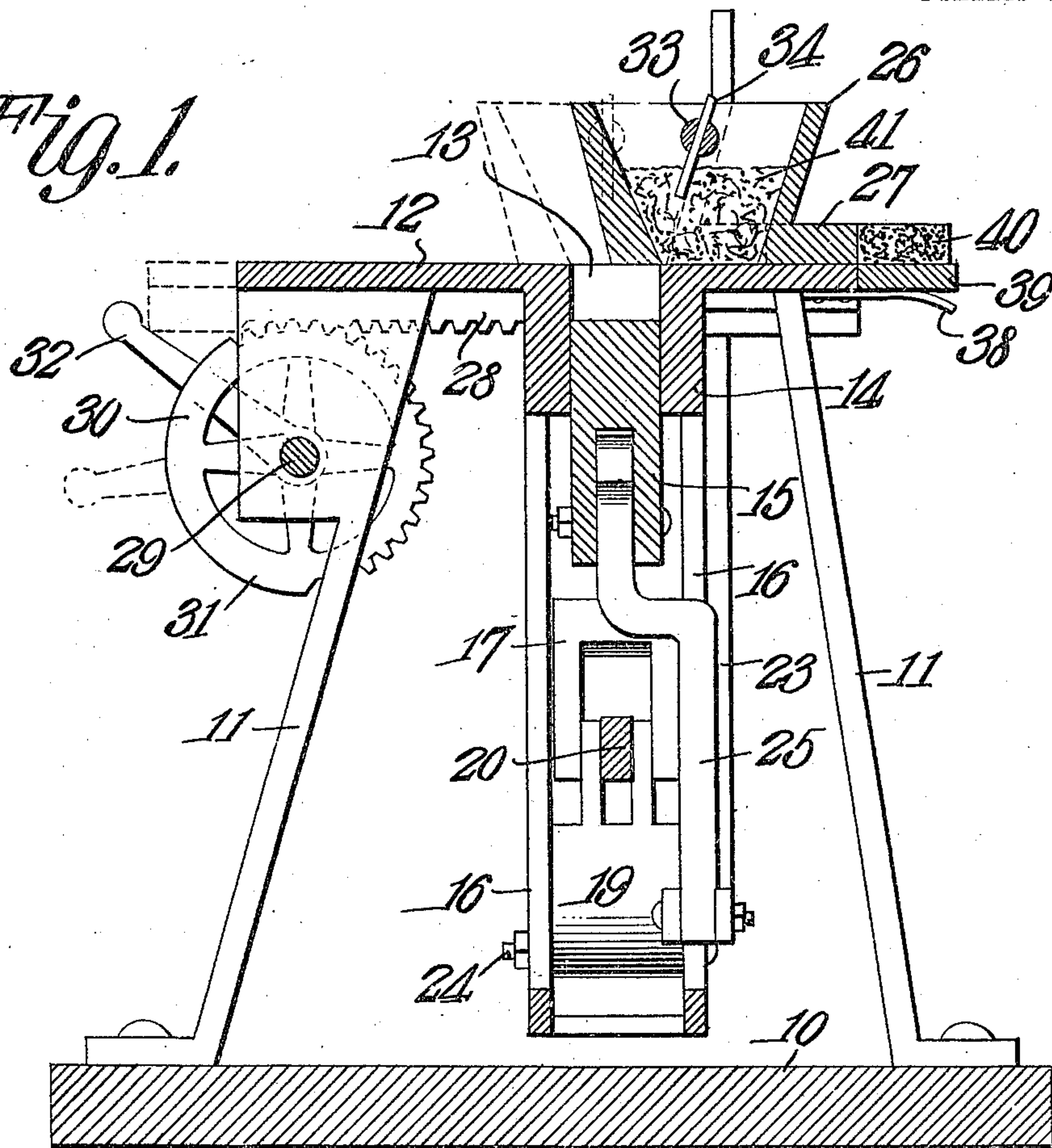


Fig. 2.

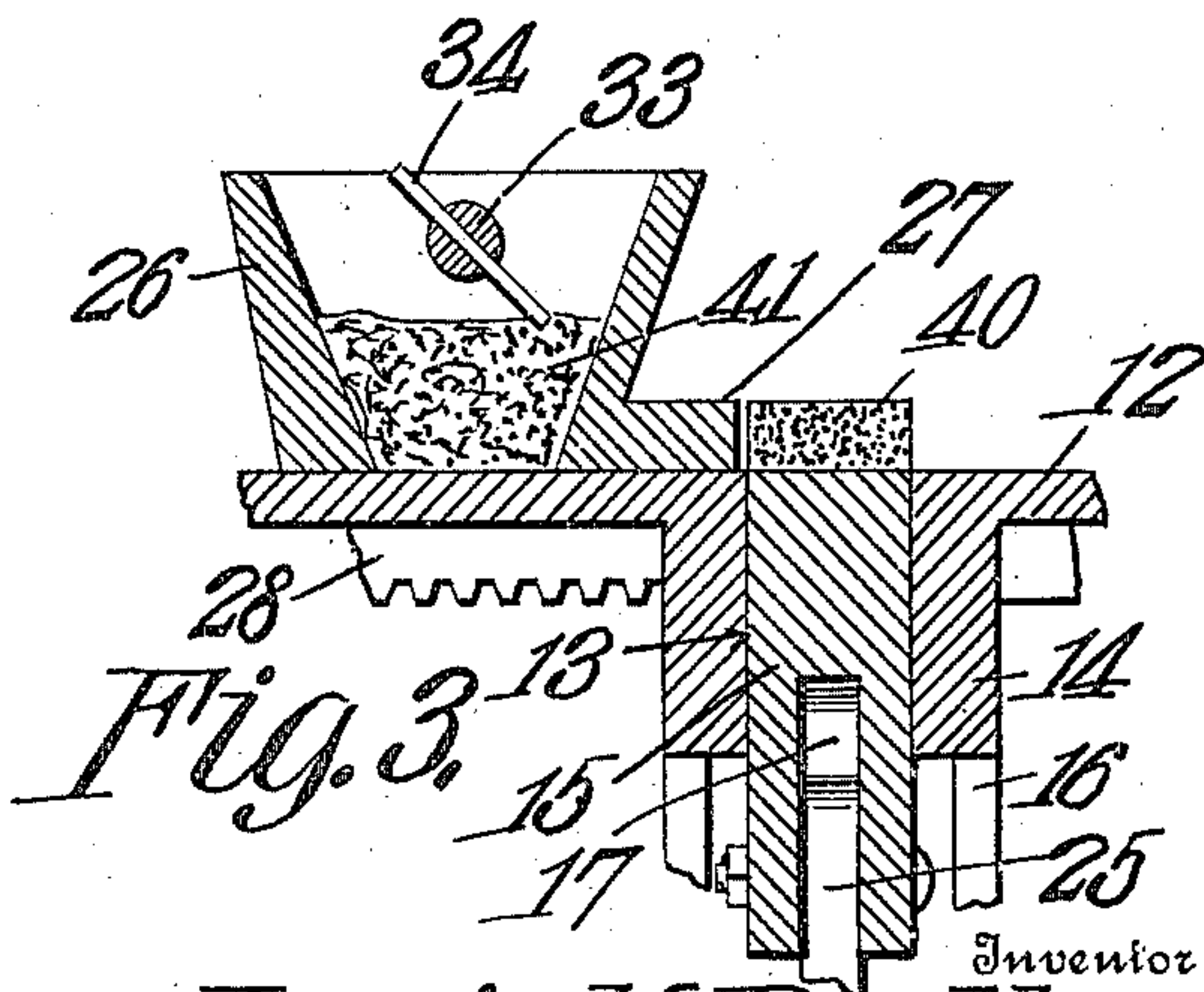


Fig. 3.

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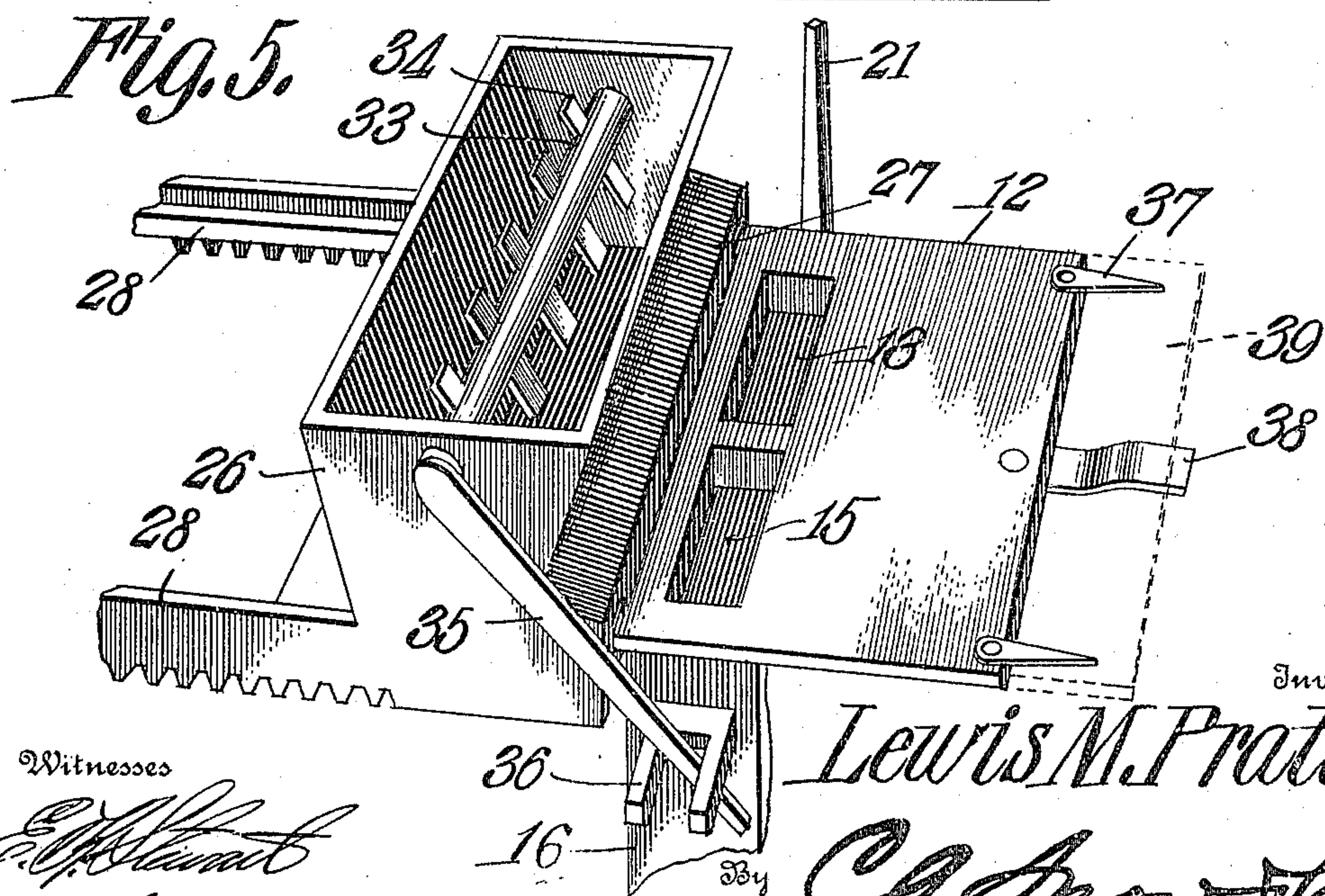
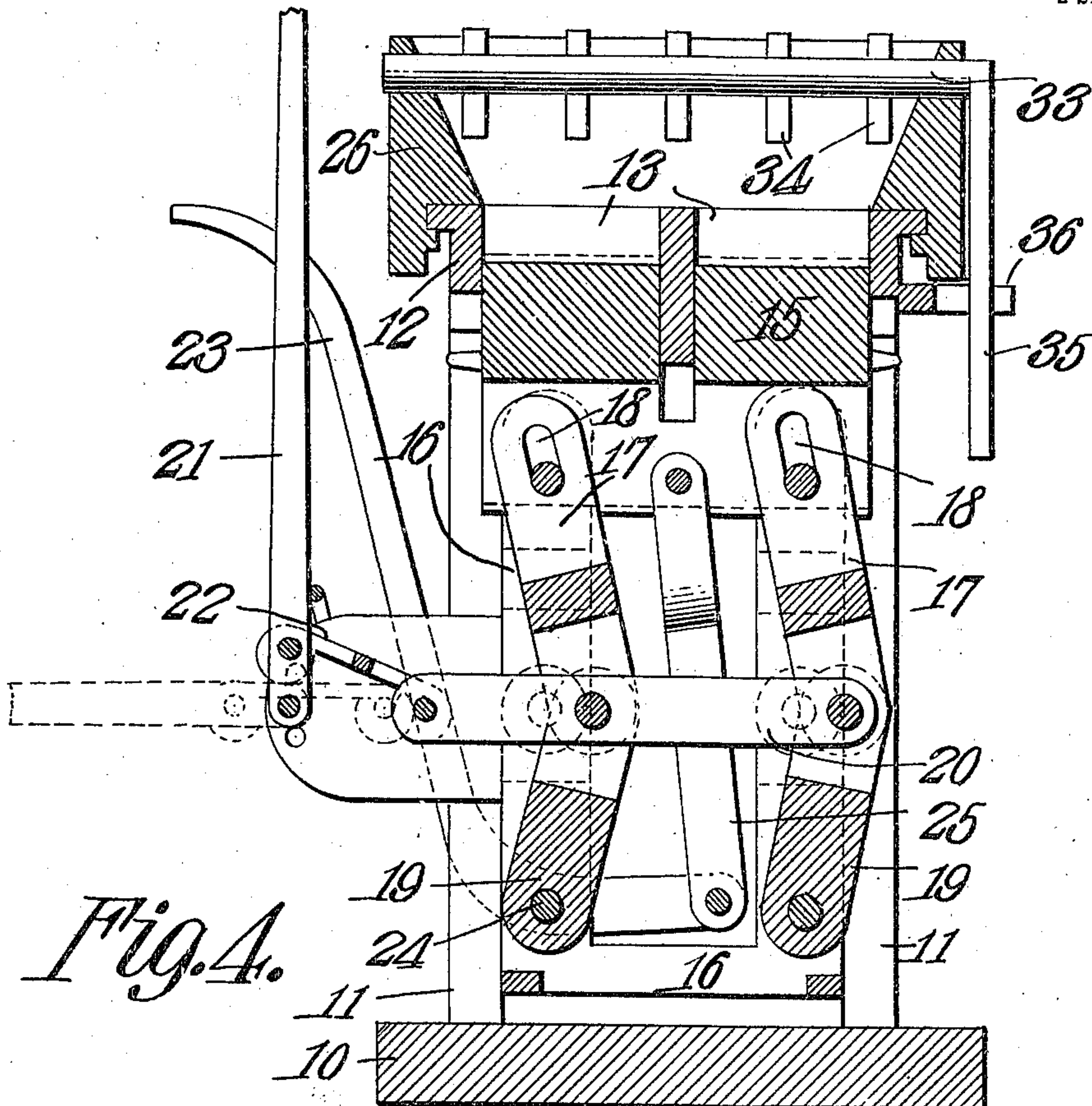
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UNITED STATES PATENT OFFICE

LEWIS M. PRATT, OF ALBUQUERQUE, TERRITORY OF NEW MEXICO, ASSIGNOR OF
ONE-HALF TO OTTO MANN, OF ALBUQUERQUE, TERRITORY OF NEW MEXICO.

BRICK-MACHINE.

949,043.

Specification of Letters Patent.

Patented Feb. 15, 1910.

Application filed April 10, 1908. Serial No. 426,373.

To all whom it may concern:

Be it known that I, LEWIS M. PRATT, a citizen of the United States, residing at Albuquerque, in the county of Bernalillo and Territory of New Mexico, have invented a new and useful Brick-Machine, of which the following is a specification.

This invention relates to brick machines, and more especially to that type of machine used in the manufacture of cement brick.

One object of the invention resides in an improved machine of the character described in which an improved mechanism will be used for the compression of the brick.

Another object of the invention is to provide a machine of the character described with a hopper having an actuating bar actuated by simple mechanism.

The invention consists of certain novel arrangements and combinations of parts hereinafter fully described, illustrated in the drawings, and specifically set forth in the claim.

In the accompanying drawings, like characters of reference refer to like parts throughout the several views, and Figure 1 is a longitudinal median section of the device. Fig. 2 is a detail of the hopper in the position in which it is placed when the bricks are being compressed. Fig. 3 is a similar view of the hopper when in position to permit the bricks to be raised. Fig. 4 is a transverse sectional view showing the knuckle joint employed for compression with the lever connected thereto. Fig. 5 is a detail perspective of the upper part of the machine, showing the hopper and its agitator bar.

In the form of machine here shown, there is mounted upon a floor 10 a frame 11. Attached to the frame 11 is a platen 12 provided with a pair of openings 13. While it is obvious that, in the form of device illustrated, it is preferable to employ a pair of such openings, it is equally obvious that one or more may be employed, as desired, and that the openings may be of any shape desired. Below the platen 12 is carried a mold box 14, and plungers 15 are arranged to reciprocate in said mold box.

Pivotally supported on the platen 12 is an auxiliary frame 16. A pair of links 17, provided with a slot 18 at the upper end thereof, are connected to the plungers 15, as

shown in Fig. 4. A similar pair of links 19 serve to connect the links 17 with the auxiliary frame. A bar 20 is arranged to connect the two pairs of links at the pivotal joint, and is provided with an outwardly extending end, as shown. Pivotally mounted upon the auxiliary frame is a lever 21 connected to the bar 20 by means of a link 22. It will be observed that the arrangement just described forms a double joint whereby parallel motion is given to the plungers. A second lever 23 is also pivotally mounted upon the auxiliary frame, as shown at 24, and the end of the lever is connected with the plunger 15 by means of a suitable link 25.

From an inspection of Fig. 4, it will be apparent that when the lever 21 is actuated, a forward upward movement is given to the plunger 15, but the same will be accomplished by a very considerable movement of the end of the lever, and thus a powerful upward pressure will be developed. It will also be noticed, in the same figure, that when the lever 23 is depressed, the plunger 15 will be raised a considerable distance, this being permitted by the slot and pin connection at the upper end of the link 17.

Slidably mounted upon the platen 12 is a hopper 26 having upon one side thereof an extended face 27. The width of the face 27 is such as to entirely cover the opening 13 when the same is positioned over them. Attached to the hopper 26 are a pair of rack bars 28.

Mounted upon the frame 11 is a shaft 29 which carries a pair of interrupted gears 30. But one of these gears is here illustrated, but it is obvious that there must be a gear for each of the rack bars 28. The interrupted portions of these gears are indicated by the numeral 31. Upon the shaft 29 is also mounted an operating handle 32, the same being pivotally attached thereto for the purpose of rotating the shaft 29.

Mounted in the hopper 26 is an agitator bar 33 provided with a series of agitating fingers 34 arranged thereon. The bar 33 extends through one end of the hopper 26, as shown in Fig. 5, and a lever 35 is rigidly attached to that end. A fork 36 is mounted on the auxiliary frame 16 and receives the end of the lever 35.

Upon one end of the platen 12 is mounted a pair of fingers 37, and beneath the platen is a spring 38. The fingers 37 and the

spring 38 form a means whereby a pallet 39 of any desired size or thickness may be held adjacent the end of the platen 12.

For the purpose of describing the operation of the device, a finished brick will be numbered 40 and the plastic mass 41.

In the operation of the device, the hopper is first positioned, as shown in full lines in Fig. 1. When in this position, it is filled with any suitable plastic material, as indicated at 41. It will be observed from an inspection of this figure that it will be impossible, by reason of the interrupted portion 31 of the gear 30, to move the hopper 26 beyond the point indicated by the full lines. At this stage of the operation, the levers 21 and 23 are in the position shown in full lines in Fig. 4. The operating handle 32 is now turned to cause the hopper 26 to assume the position indicated by dotted lines in Fig. 1. The plastic mass, or a portion thereof sufficient to fill the mold box will then be deposited in the mold box. The continuous movement of the handle 32 will then cause the hopper 26 to assume the position shown in Fig. 2. When the hopper is in this position, it will be observed that the portion 27 covers the openings in the platen 12. The lever 21 actuating the said knuckle joint is then depressed to the position shown in dotted lines in Fig. 4. This causes the plunger 15 to assume the position shown in dotted lines in that figure, and the plastic mass contained in the mold box will be compressed to form the bricks 40 shown in Fig. 2. The operating handle 32 is then again turned, and the hopper is brought to the position shown in Fig. 3. The lever 23 is now depressed, and the bricks 40 raised to the position shown in that figure, thus

making them level with the platen. It is to be observed that the interrupted portion 31 of the gear 30 limits the motion of the hopper 26 in the direction in which it has been described as moving. The motion of the operating handle 32 is now reversed, and the bricks 40 pushed forward upon the pallet, as indicated in Fig. 1. The levers 21 and 23 are now raised to the position shown in full lines in Fig. 4, and the machine is again ready to begin the operation just described.

It is desired to point out that in the peculiar arrangement of rack and gear that is embodied in this invention, the operating handle is always to be found by the operator in the same place. The operator is enabled to stand still while operating the device, this not being a machine where the rack on the platen and the gear is supported on the hopper. A further advantage of this arrangement is that at no time will the gear and rack operate to force the hopper away from the platen, as indicated when the gear is carried on the hopper.

I claim:—

In a device of the class described, a mold box, a hopper mounted to reciprocate above said mold box, an agitator shaft journaled in the hopper, a lever connected with the shaft, and a bracket including spaced fingers between which the end of the lever is confined whereby the shaft will be oscillated upon reciprocation of said hopper.

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

LEWIS M. PRATT.

Witnesses:

WILLIAM BRYCE,
CHAS. C. DAVIS.