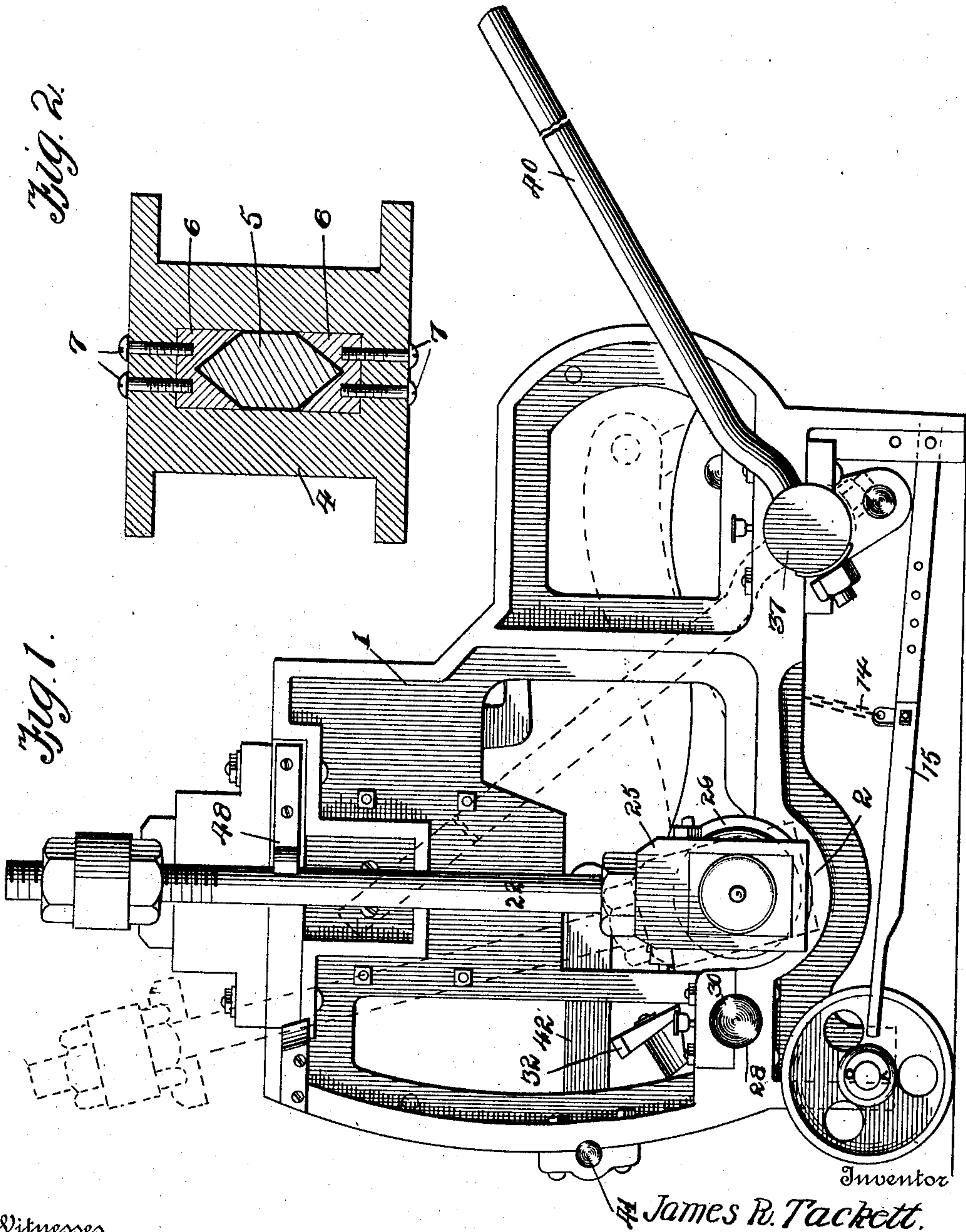


J. R. TACKETT.
BRICK PRESS.
APPLICATION FILED NOV. 10, 1909.

997,162.

Patented July 4, 1911.

3 SHEETS—SHEET 1.



Witnesses
William Smith
K. Allen

James R. Tackett.

By *Victor G. Evans*
Attorney

J. R. TACKETT.
BRICK PRESS.
APPLICATION FILED NOV. 10, 1909.

997,162.

Patented July 4, 1911.

3 SHEETS—SHEET 2.

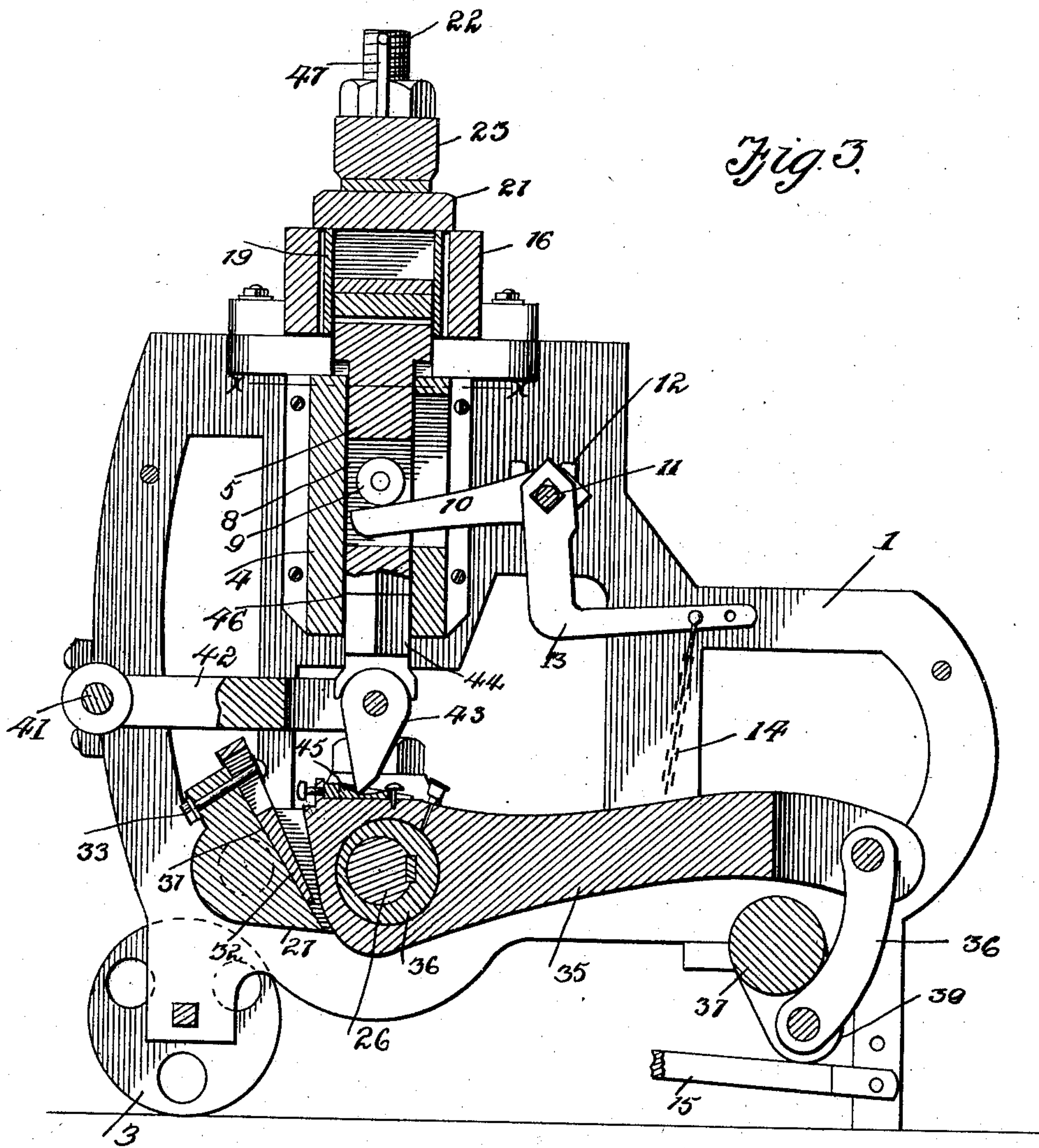


Fig. 3.

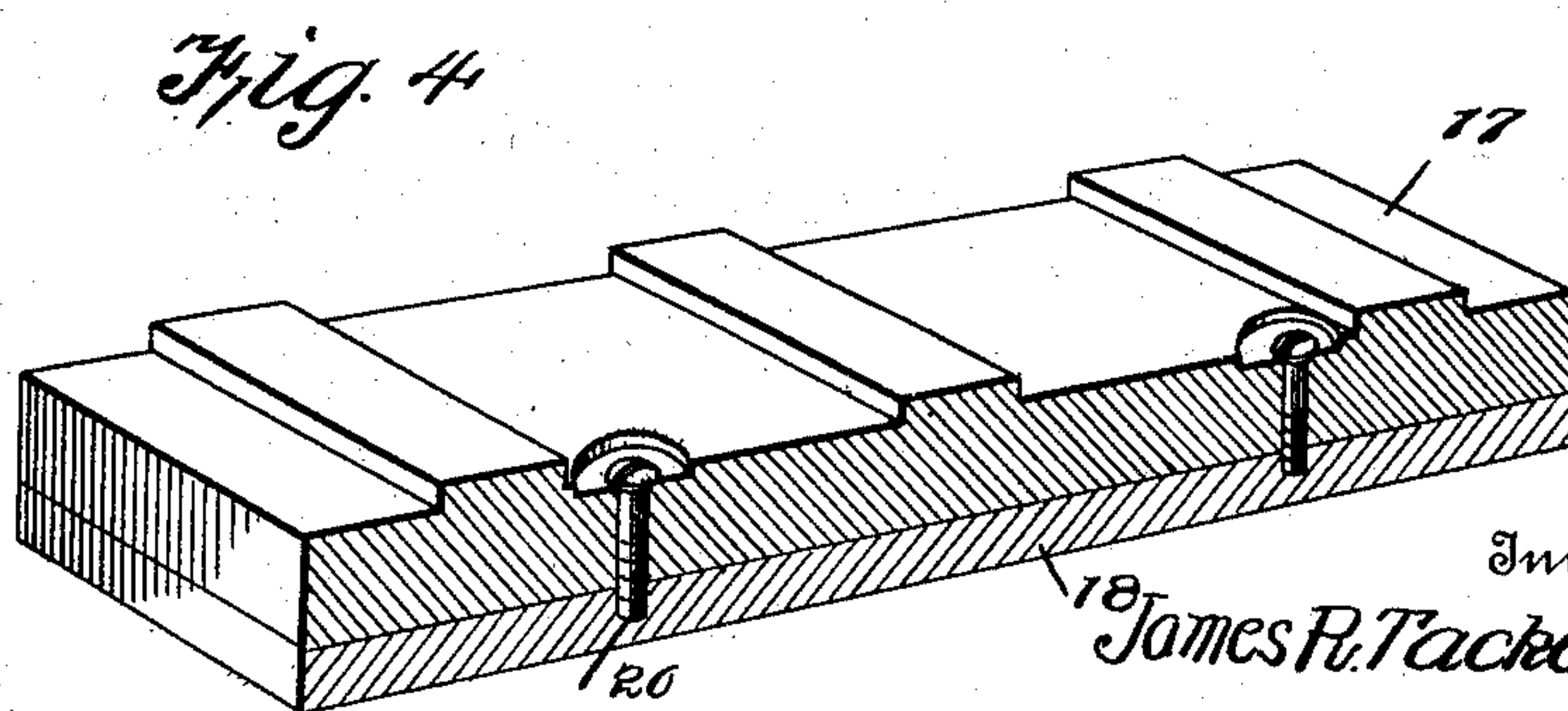


Fig. 4.

Witnesses

William Smith
K. Allen

Inventor

James R. Tackett.

By Victor J. Evans

Attorney

J. R. TACKETT.
BRICK PRESS.
APPLICATION FILED NOV. 10, 1909.

997,162.

Patented July 4, 1911.

3 SHEETS—SHEET 3.

Fig. 5.

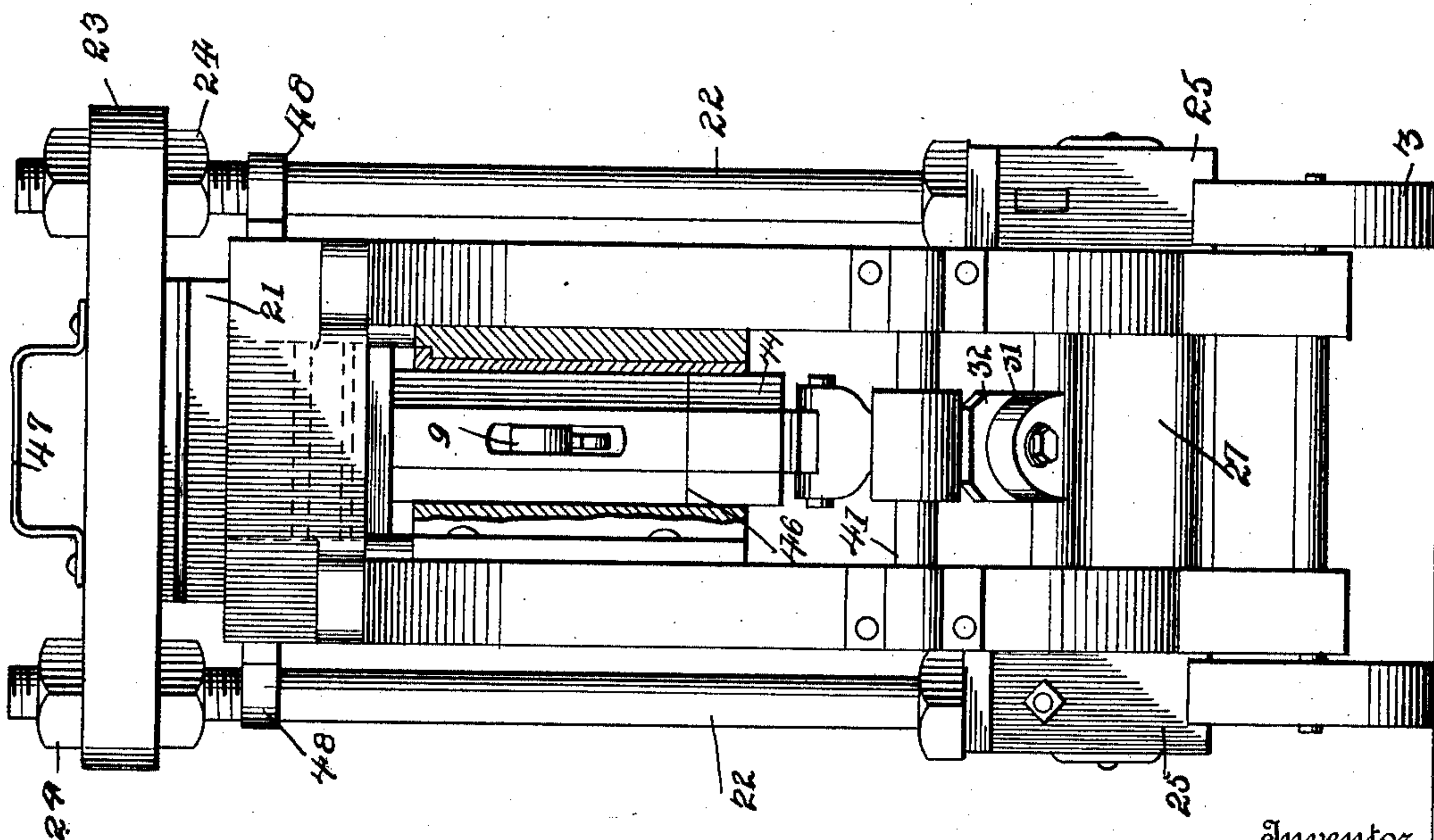
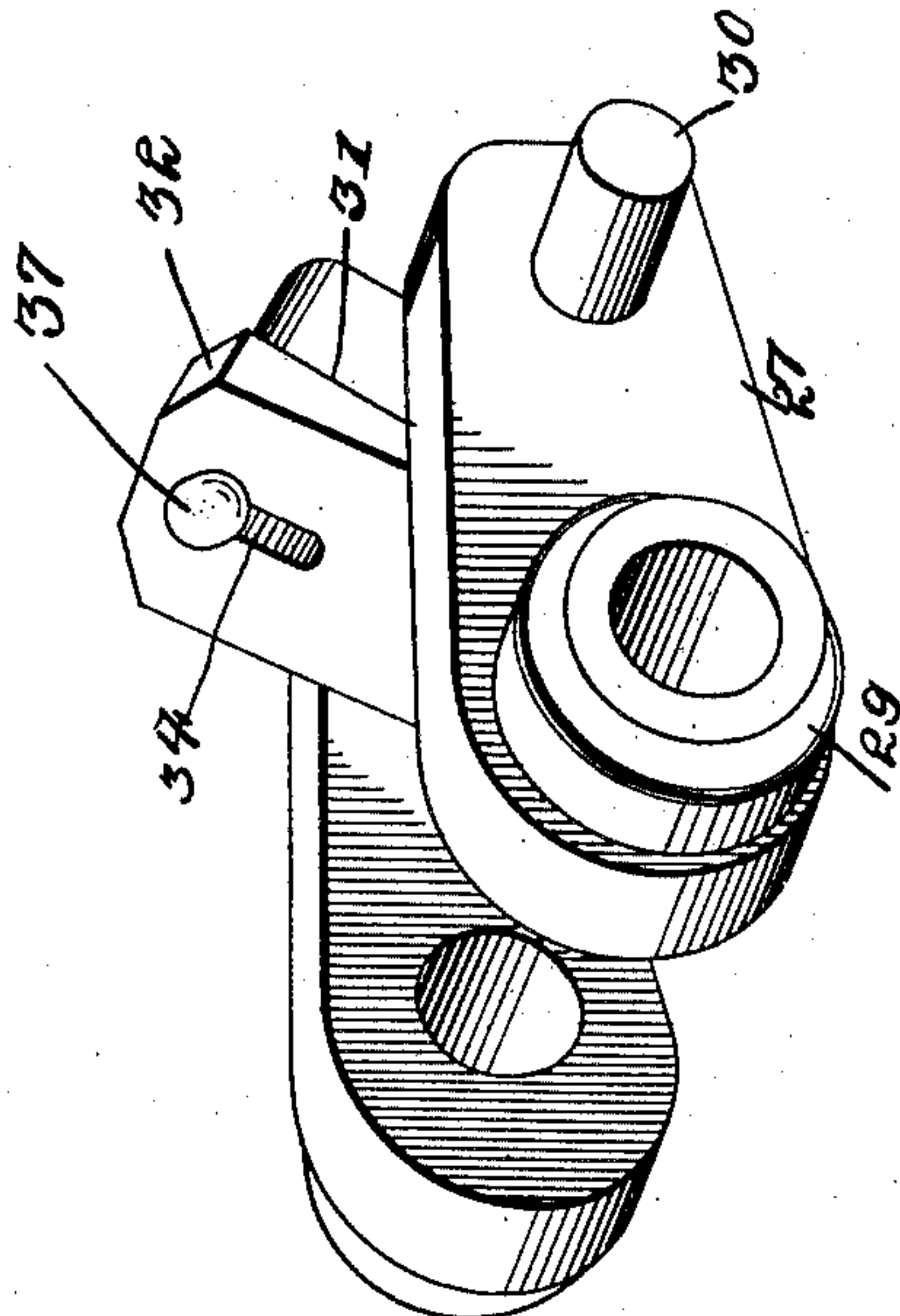


Fig. 6.



Witnesses

William Smith
K. Allen

Inventor
James R. Tackett.

By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

JAMES R. TACKETT, OF OLIVE HILL, KENTUCKY.

BRICK-PRESS.

997,162.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed November 10, 1909. Serial No. 527,237.

To all whom it may concern:

Be it known that I, JAMES R. TACKETT, a citizen of the United States, residing at Olive Hill, in the county of Carter and State of Kentucky, have invented new and useful Improvements in Brick-Presses, of which the following is a specification.

The present invention provides a machine for molding articles from plastic material such as clay, being designed most especially for forming bricks, tiles and like units employed in structural work, such as buildings, pavements, and kindred work.

The purpose of the invention is the provision of a machine which may be operated entirely by hand and which will enable the work to be quickly and effectively performed without producing fatigue or requiring a number of unnecessary movements in the compressing of the material and in the discharge of the product after the same has been compressed into required shape.

The invention consists of the novel features, details of construction and combination of parts, which hereinafter will be more particularly set forth, illustrated in the accompanying drawings, and pointed out in the appended claims.

Referring to the drawings, forming a part of the specification, Figure 1 is a side view of a machine embodying the invention, the dotted lines illustrating the position of the operating and pressure levers and the cap-carrying frame when moved to throw the cap clear of the mold. Fig. 2 is a horizontal section of the guide and plunger on the line $x-x$ of Fig. 3, the parts being illustrated on a larger scale. Fig. 3 is a vertical central section of the machine. Fig. 4 is a detail perspective view of the pad and brand plate arranged to operate in the mold and placed upon the plunger, said pad and plate being in longitudinal section. Fig. 5 is a front view of the machine, parts being broken away. Fig. 6 is a detail perspective view of the yoke to which the pressure lever is pivotally connected.

Corresponding and like parts are referred to in the following description, and indicated in all the views of the drawings, by the same reference characters.

The framework for receiving and supporting the operating parts may be of any design according to the finish and capacity of the machine, said framework being indicated at 1 and comprising longitudinal bars

having depressions 2 forming seats to receive and support the movable end of the yoke to which the pressure lever is pivoted. For convenience of transportation the framework is mounted at one end upon truck wheels 3, which are fitted to an axle supported in pendent portions of the framework.

A guide 4 is secured to the upper portion of the framework in relatively vertical position and receives a plunger 5, which is adapted to move vertically. Opposite edges of the plunger are made in V-form, as illustrated in Fig. 2, and fit correspondingly grooves in wear pieces 6, which are interposed between opposite sides of the guide and the adjacent edges of the plunger, said wear pieces being adjustable to compensate for wear and prevent any relative play of the plunger, thereby insuring uniformity of product in the operation of the machine. Set screws 7 threaded into opposite sides of the guide 4 serve to secure the wear pieces 6 and at the same time provide for adjustment of said wear pieces to take up and prevent play. The plunger has an opening or slot 8 in which is mounted a roller 9, said slot receiving an arm 10 projecting from a shaft 11, which is mounted upon the framework in a manner to admit of the plunger being readily removed from the guide when required for any purpose. Open bearings 12 are provided upon the inner walls of side portions of the framework and receive the shaft 11 and admit of said shaft being easily placed in position or quickly removed when desired. A lever 13 of elbow shape is secured by one of its arms to the shaft 11 and its other arm is connected by means of a chain 14 and a treadle 15. Upon depressing the outer or free end of the treadle 15 the lever 13 is operated to effect a rotary movement of the shaft 11 and an upward movement of the arm 10, with the result that the plunger 5 is elevated, thereby lifting the brick or kindred article from the mold into position for ready removal.

The mold 16 is secured to the guide 4, thereby preventing any relative movement between the mold and guide, whereby the plunger may operate freely without binding. The head of the plunger is arranged to operate in the mold 16 and supports a pad 17 and a brand plate 18. The mold 16 has a lining 19, which receives the wear, said lining being formed of plates which are

removable to admit of the reversal of the plates when the inner surfaces become worn. The mold 16 is open at the top and at the bottom, the latter being closed by the pad 5 and brand plate which are secured in any manner, as by screws or fastenings 20, as illustrated most clearly in Fig. 4. The upper end of the mold is closed by means of a cap piece 21, which is attached to a cap-carrying frame mounted to swing to admit of the cap piece being thrown into or out of operative position, as indicated by the full and dotted lines in Fig. 1. The cap-carrying frame comprises vertical rods or bars 15 22 and a transverse bar 23, the latter having the cap piece 21 attached thereto in any manner. The transverse bar 23 is adjustable upon the rods or bars 22, the latter having their upper ends threaded and receiving pairs of nuts 24 between which the bar 23 is held. The lower ends of the rods or bars 22 are let into frames 25, the latter in turn being provided with brasses or like parts constituting bearings for the outer ends of a transverse shaft 26. The shaft 26 is mounted in the arms or members of a yoke 27, which latter is mounted at one end upon the framework at 28. The opposite end of the yoke is free to have a limited movement and the arms are provided upon their outer side with bosses 29, which are adapted to obtain a purchase in the sides or depressions 2 of the longitudinal bars of the framework. The bosses 29 also provide extended bearings for the shaft 26. The yoke 35 27 is provided at its outer or front end with trunnions 30, which are mounted in the bearings 28. An inclined seat 31 is provided at the outer or closed end of the yoke and receives a wedge 32, which is adjustable upon the seat, being secured in the located position by means of a bolt or fastening 33, the latter passing through an extension of the seat and through a longitudinal slot 34 formed in the wedge 32. A pressure lever 35 is mounted upon the transverse shaft 26 between the members of the yoke 27 and its inner or front end is made straight to abut against the wedge 32 when the pressure lever is elevated to the required distance at its outer or rear end, thereby causing both the yoke and pressure lever to move together, so as to lift the cap-carrying frame and move the cap piece upward to clear the mold preliminary to removing the brick or other molded article. The pressure lever 35 when operated receives a two-fold movement, the one resulting from its pivotal mounting upon the shaft 26 and the other being effected by means of an eccentric 36 keyed upon the shaft 26 between the arms or members of the yoke 27. The pressure lever 35 when turned upon the eccentric 36 receives both a pivotal and a longitudinal movement, the resultant effect of

which is to elevate the plunger and to apply the lifting force in substantially vertical alinement with the center of the plunger. The outer or rear end of the pressure lever 35 is connected to a transverse shaft 37 by means of a link 38 and arms 39, the latter projecting from the shaft 37. An operating lever 40 is secured to the outer end of the shaft 37 and serves as convenient means for application of the power expended for actuating the machine.

A shaft 41 is mounted in bearings at the front of the framework and is provided with a rearwardly extending arm 42, which is forked at its rear end and pivotally supports a pressure transmitting link 43. The plunger comprises sections, the lower section 44 having a rounded recess in its lower end forming a socket to receive the upper rounded end of the pressure transmitting link 43. The link 43 is tapered, its lower end being pointed and entering a recess formed in a wedge 45 adjustably mounted upon the upper rear portion of the pressure lever 35. By proper adjustment of the wedge 45 the point of application of the power to the link 43 may be varied. By having the plunger formed of sections, the upper section may be elevated to discharge or remove the brick from the mold without disturbing the lower section. Moreover, a spacer 46 may be interposed between the upper and lower sections to raise the plunger to vary the effective mold space to meet existing conditions.

In the operation of the machine the lever 40 is moved to lift the rear end of the pressure lever 35 and to bring its forward end into engagement with the wedge 32 when both the pressure lever and yoke 27 move together about the trunnions 30 as an axis, thereby elevating the cap-carrying frame, so that the same may be thrown forward, as indicated by the dotted lines in Fig. 1. As the rear end of the pressure lever 35 is elevated the lower end of the link 43 is thrown forward, thereby preventing upward movement of the plunger. After the cap piece has been thrown aside the mold is supplied with material and the lever 40 is moved rearward and downward and the cap-carrying frame swung into vertical position by means of a handle 47 applied to the cross piece 23 and as the outer or rear end of the lever 35 is moved downward the lower end of the link 43 is brought into vertical position, thereby causing the bosses 29 of the yoke to enter the seats or depressions 2 in the side bars of the framework. A continued downward movement of the outer end of the pressure lever 35 causes the plunger to move upward and compress the material in the mold between the cap piece and the brand plate 18 or plunger. After the brick or other article has been molded the lever 40

is thrown upward and forward at its rear end, thereby lifting the rear end of the pressure lever 35 in the manner stated and causing its front end to abut against the wedge 5 32 with the result of loosening the cap-carrying frame, which is thrown forward. After the cap piece has cleared the mold pressure is applied to the treadle 15 to cause rotation of the shaft 11 and an upward movement of the forward end of the arm 10, with the result of lifting the plunger and removing the brick or molded article from the mold. When the cap-carrying frame is in operative position, as shown by the full lines 15 in Fig. 1, it is supported by stops 48 projecting outward from the frame engaging the rods or bars 22.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the 25 invention, together with the device which I now consider to be the embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claims appended hereto.

Having thus described the invention what is claimed as new, is:—

1. In combination a mold, a plunger arranged to operate in the mold, a pressure lever, a wedge adjustably mounted upon the pressure lever, and a link between the pressure lever and plunger and adapted to engage the said wedge.

2. In combination a mold, a plunger arranged to operate in the mold, a pressure lever, a pressure transmitting link between the pressure lever and plunger, and a pivoted arm carrying said link.

3. In combination a mold, a plunger arranged to operate in the mold, a pressure lever, a tapered link having one end pointed to engage the pressure lever and having its opposite end made rounding to engage a

rounded seat or depression of the plunger, 50 and a pivoted arm supporting said link.

4. In combination a mold, a sectional plunger arranged to operate in the mold, actuating means for moving the upper section of the plunger independently of the lower 55 section, a pressure lever, a pressure transmitting link between the pressure lever and lower section of the plunger, and pivoted supporting means for said pressure transmitting link.

5. In combination a mold, a plunger arranged to operate therein, a cap piece for closing said mold, a frame carrying said cap piece, a yoke, a pressure lever mounted upon the yoke to move therewith and to have movement independently thereof, 65 connecting means between the yoke, pressure lever, and cap-carrying frame, and adjustable means between the yoke and pressure lever whereby upon movement of the pressure lever in one direction the point of contact between said pressure lever and yoke may be varied to effect release of the cap piece at a given point in the movement of said pressure lever.

6. In combination a mold, a plunger arranged to operate therein, a pressure lever, means for transmitting power from the pressure lever to the plunger, and an eccentric forming a support for said pressure 80 lever whereby the latter receives a combined pivotal and longitudinal movement.

7. In combination a mold, a plunger arranged to operate therein, a pivotally mounted yoke having an inclined seat, a 85 wedge adjustable upon said seat, a pressure lever mounted upon the yoke to move independently thereof or to move therewith, a cap piece for closing said mold, a cap-carrying frame, and connecting means between 90 said cap-carrying frame, yoke and pressure lever.

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

JAMES R. TACKETT.

Witnesses:

C. M. ERWIN,
J. H. HAMMONS.