

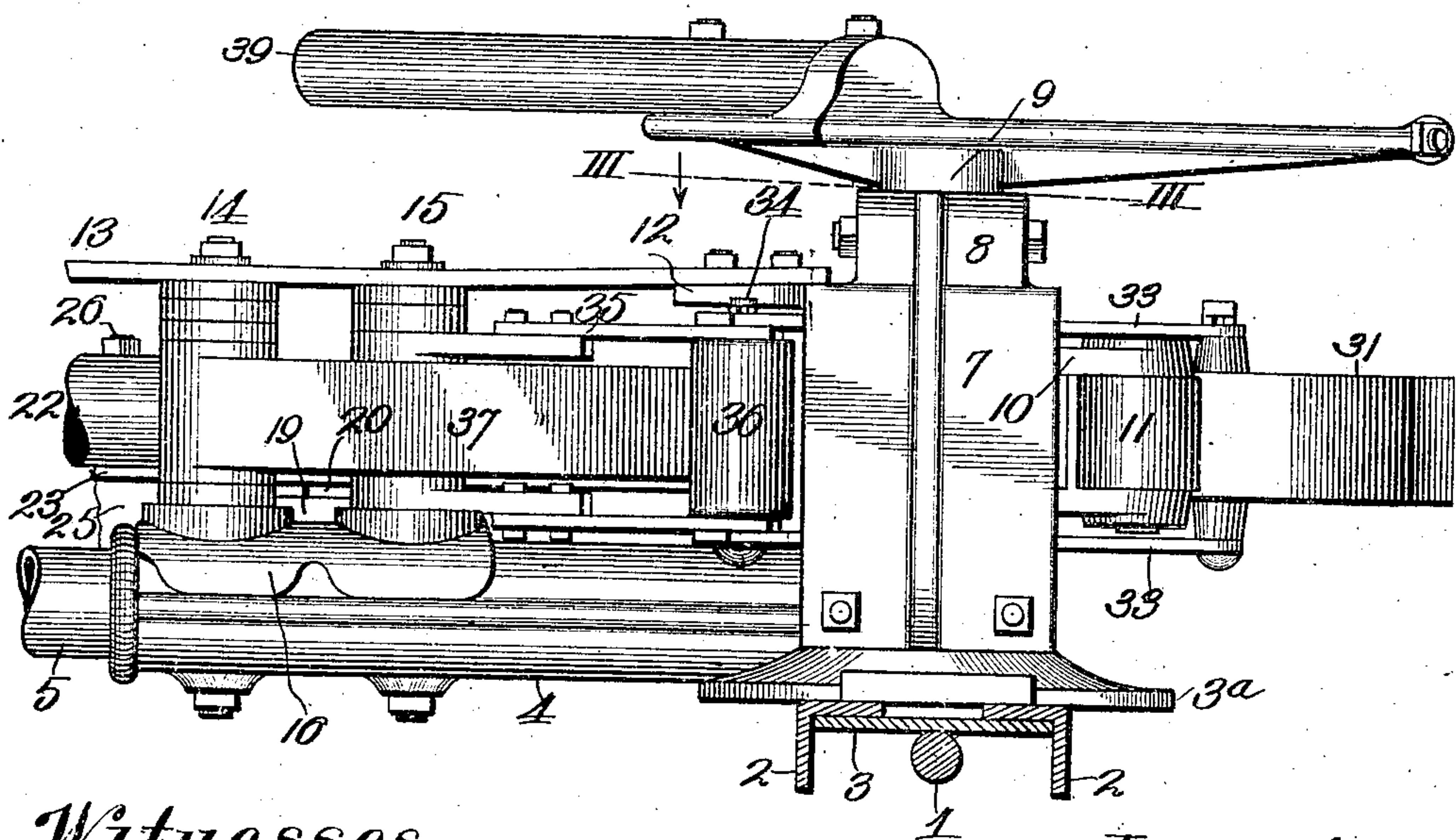
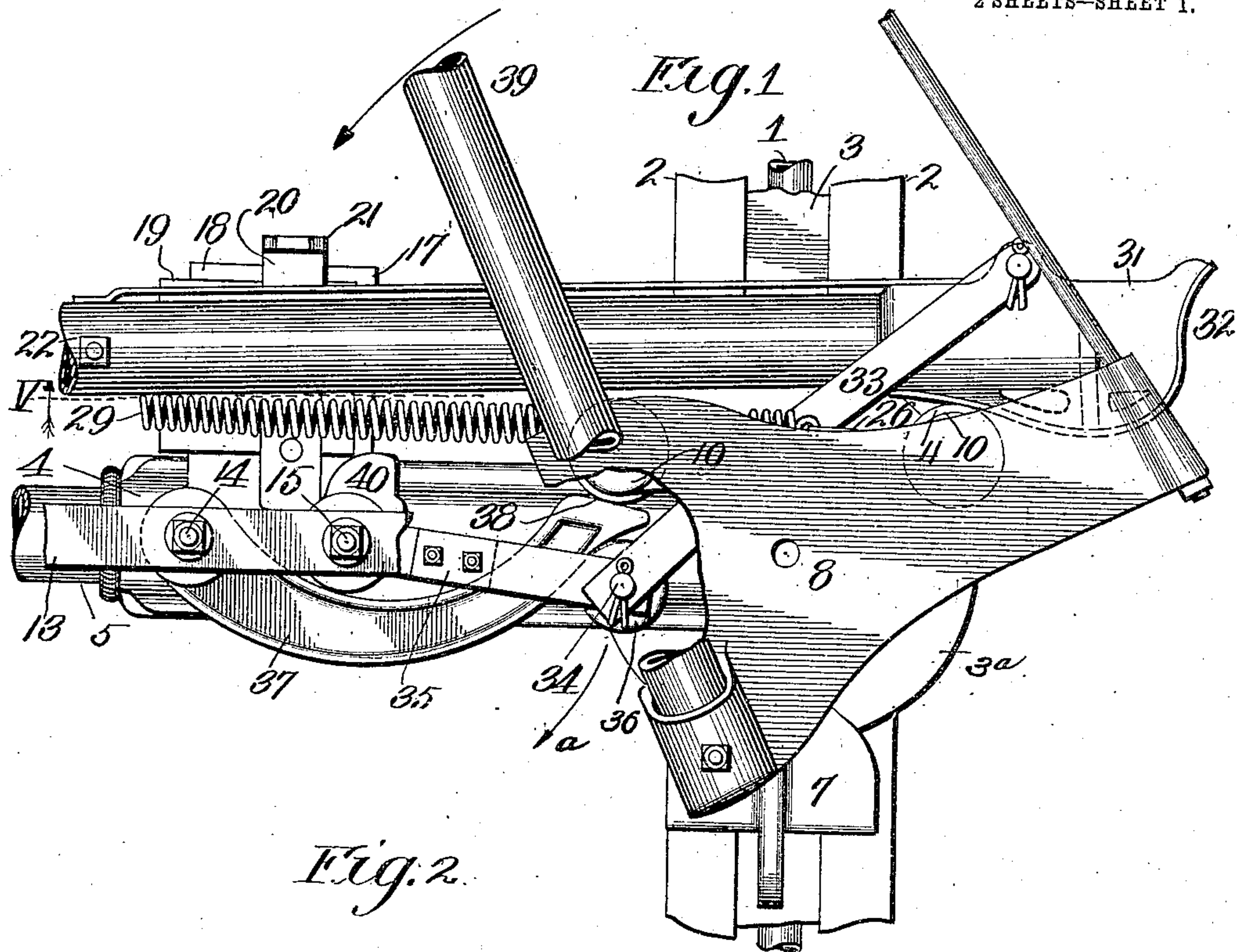
No. 848,412.

PATENTED MAR. 26, 1907.

J. S. TUTTLE.
BALING PRESS.

APPLICATION FILED MAY 8, 1906.

2 SHEETS—SHEET 1.



Witnesses
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H. C. Rodgers.

Inventor
J. S. Tuttle
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2 SHEETS—SHEET 2.

Fig. 3.

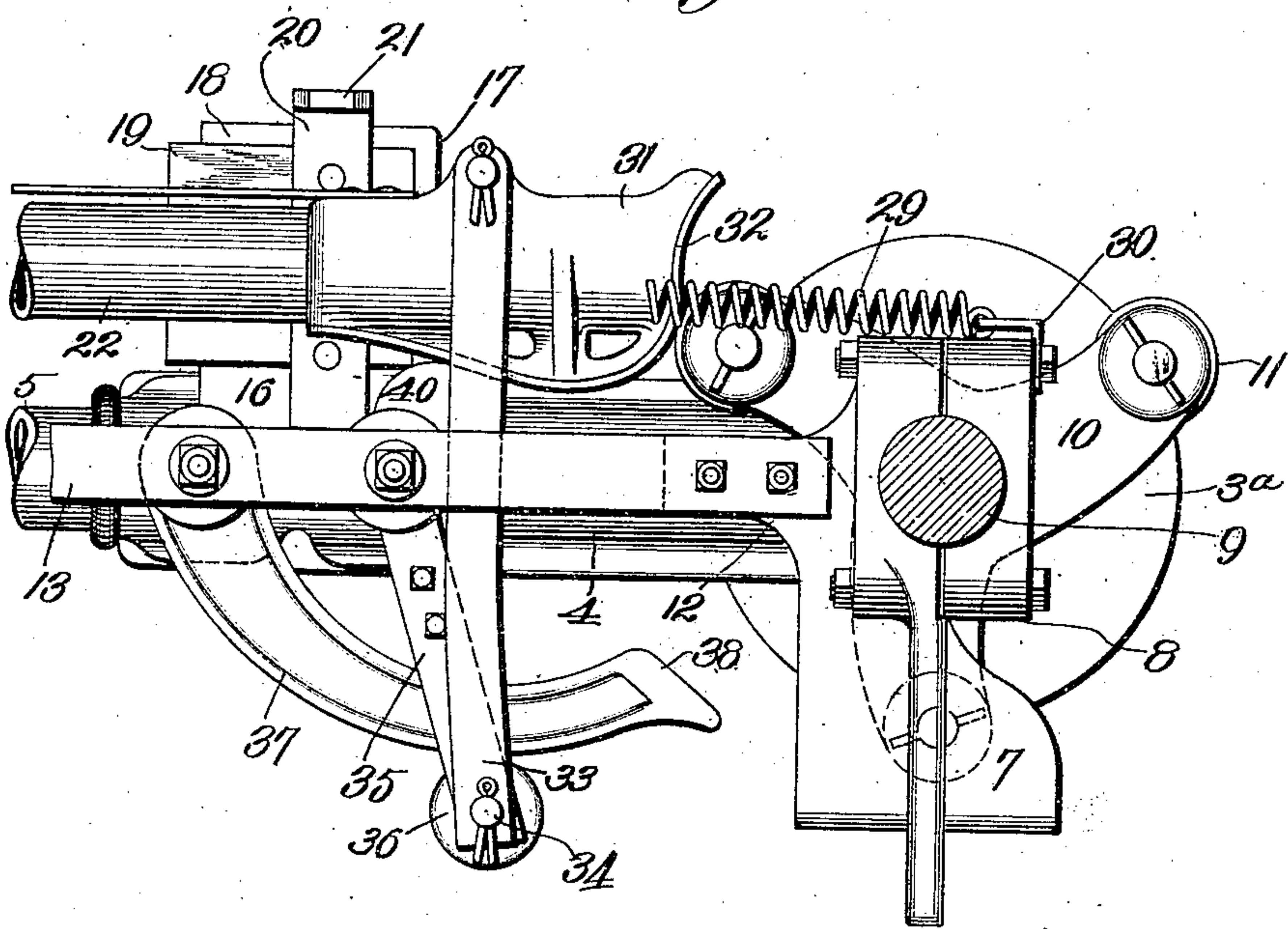


Fig. 4.

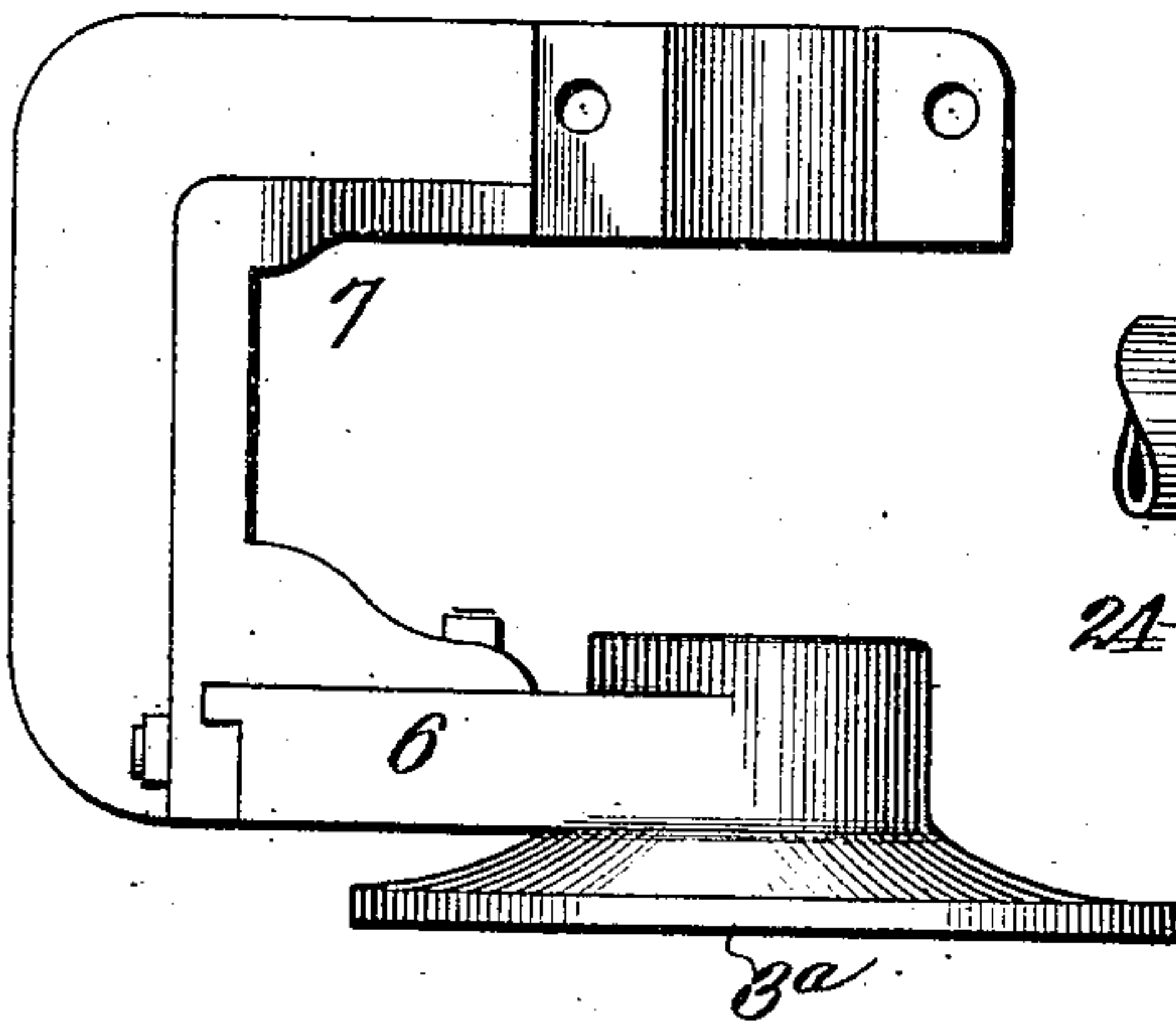
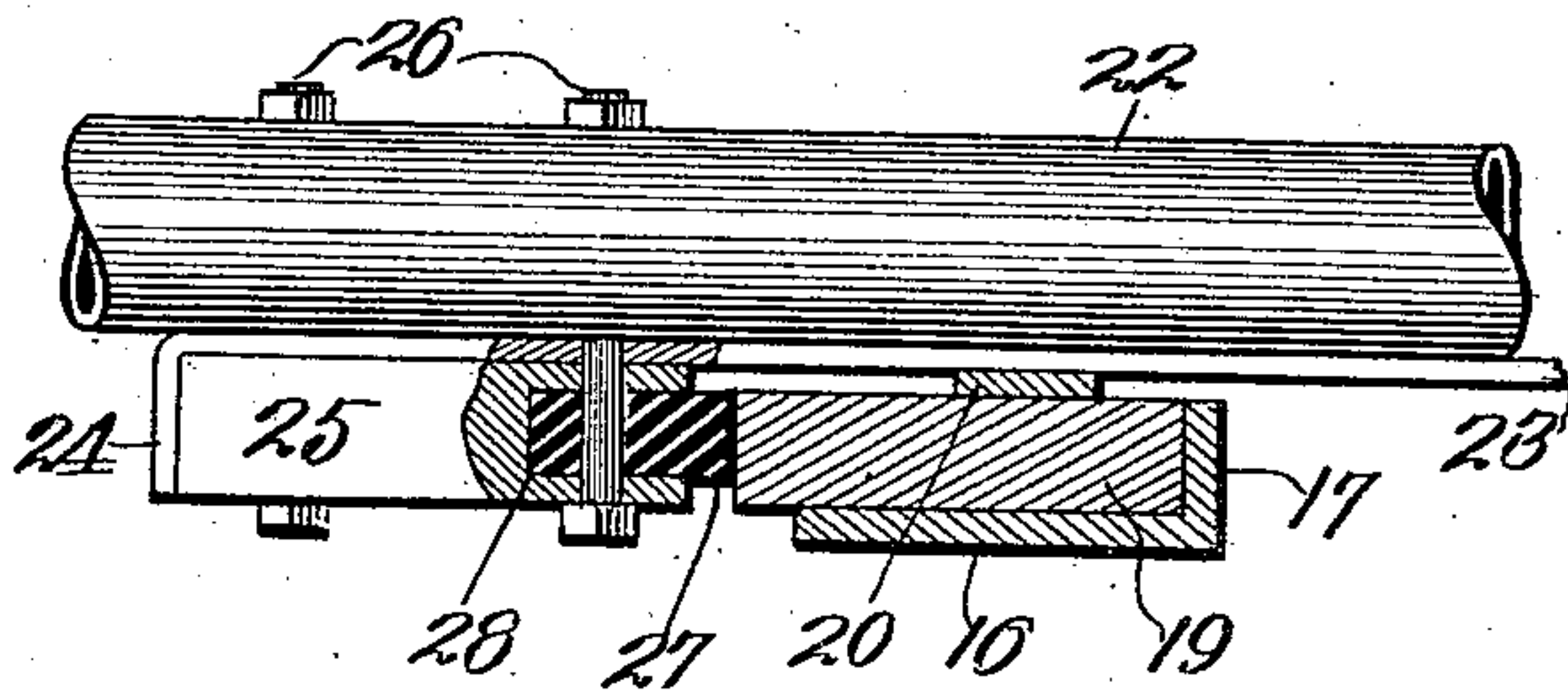


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOSIAH S. TUTTLE, OF KANSAS CITY, MISSOURI, ASSIGNOR TO THE OHIO CULTIVATOR CO., OF BELLEVUE, OHIO, A CORPORATION OF OHIO.

BALING-PRESS.

No. 848,412.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed May 8, 1906. Serial No. 315,755.

To all whom it may concern:

Be it known that I, JOSIAH S. TUTTLE, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Baling-Presses, of which the following is a specification.

This invention relates to baling-presses; and my object is to produce an efficient and reliable power mechanism for imparting to the plunger the usual comparatively long and quick preliminary or condensing portion of the stroke and the shorter and slower movement whereby the condensed baling material is compressed to the required degree in the baling-chamber.

A further object is to produce a mechanism of the character named which operates with a minimum of friction and which embodies the desirable features of simplicity, strength, durability, and cheapness of construction.

With these general objects in view and others, as hereinafter appear, the invention consists in certain novel and peculiar features of construction and organization, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a top plan view of a power mechanism embodying my invention, the head of the power-shaft being broken away to disclose parts below. Fig. 2 is a side view of the same. Fig. 3 is a horizontal section taken on the line III III of Fig. 2 with the parts in the positions they occupy at the end of the power-stroke. Fig. 4 is a front view of the power-shaft frame. Fig. 5 is a section taken on the dotted line V of Fig. 1.

In the said drawings, 1 indicates the axle, reinforced, preferably, by angle-braces 2 and plate 3, connecting and interposed between the angle-braces and the axle. 3^a indicates a circular casting secured upon the axle-frame and provided with a rearwardly-projecting sleeve 4, wherein is secured the front end of the reach 5. The casting 3^a is also provided, by preference, with a laterally-projecting arm 6, secured to an angle-bracket 7 and forming in conjunction with cap 8 a bearing for the power-shaft 9, provided with the usual trip-lever 10, said lever in this instance being

shown as of the triple-arm type, with each arm equipped with an antifriction-roller 11. 55

12 indicates an arm projecting rearwardly from the upper part of bracket 7, and connecting said arm with the baling-case (not shown) is a tie-bar 13, said bar being also engaged by the upper ends of vertical bolts 14 60 15, extending through a shelf-casting 16, fitting upon the sleeve and projecting laterally therefrom in the opposite direction to bracket 7, said shelf having vertical flanges 17 and 18 at its front and outer margins, respectively. 65

19 indicates a block, preferably of wood, secured upon the shelf and against said flanges, and 20 is a wear-plate secured to the block and provided with an upwardly-projecting arm 21 at its outer end. 70

22 indicates the plunger-beam, preferably of cylindrical form, as shown, and provided at its under side with a wear-strip 23, resting upon the wear-plate 20, and provided at its rear end with a depending arm 24 to engage 75 the corresponding edge of the block 25, secured against the under side of strip 23 by bolts 26, carried by the beam, one of the bolts 26 also extending through a rubber block or cushion 27, occupying and projecting forwardly from a socket 28 in said block 25 and adapted when the plunger recoils to strike the abutment-block 19, the recoil of the plunger being effected in the usual manner by a retractile spring 29, secured at its front end, 85 by preference, to the angle-plate 30, secured to bearing-cap 8.

31 indicates the plunger-head of the usual configuration in this type of press and provided with the usual end pocket 32, said 90 head initially occupying the relation to the trip-lever shown in Fig. 1, and pivotally connected to said head and occupying planes above and below it and the trip-lever are links 33, pivotally connected at their opposite ends by a vertical bolt 34 to the swing-frame 35, pivoted on bolt 15, and journaled on bolt 34 between the arms of said swing-frame is a roller 36, engaging the convex side 100 of the swinging track-arm 37, pivoted on bolt 14, the hub of the swinging frame 35 tending to limit the swinging movement of the track-arm in one direction and the roller 36 limiting such movement in the opposite direction. The swinging track-arm also has a tread or 105 track portion 38 at its extreme end, which

converges with respect to the track-surface engaged by roller 36.

In practice the parts normally occupy the positions shown in Fig. 1, so that when the team hitched to the sweep 39 travels in the direction indicated by the arrow one roller of the trip-lever will engage the plunger-head and push the same outward slightly, while the roller in advance by engagement with tread-surface 38 of the swinging track-arm 37 will cause said arm to swing outward in the direction indicated by the arrow *a* and by its engagement with roller 36 will cause the swing-frame to operate and impart to the plunger-beam its rapid preliminary or condensing movement. By the time the plunger-beam has made approximately three-fifths of its stroke the first-named antifriction-roller will be entering the plunger-pocket 32 and the trip-lever roller in advance will be riding off the extreme end of the swinging track-arm, so as to clear the same by the time the other roller is imparting direct endwise pressure on the beam to complete the movement of the latter and compress the baling material tightly in the baling-case. When the stroke of the plunger is finished, it occupies the position shown in Fig. 3 and is arrested by the trip-off lug 40 to permit the engaging roller to ride out of the pocket and alinement with the beam, and thus permit the latter under the power of spring 29 to recoil to its original position and in such recoil return the swing-frame and swinging track-arm to their original positions, it being understood in this connection that during the power-stroke of the plunger-beam the roller 36 rolls rearwardly upon the swinging track-arm and then rolls forwardly thereon under the recoiling movement of the beam. The recoil movement of the beam may be arrested in any suitable manner, but preferably by the mechanism shown most clearly in Fig. 5, the cushion 27 by engagement with the abutment-block 19 cushioning such recoil movement in an obvious manner. All future operations are repetitions of those described.

From the above description it will be apparent that I have produced a power mechanism for baling-presses embodying the features of advantage enumerated as desirable in the statement of the object of the invention,

and I wish it to be understood that I do not desire to be restricted to the exact construction shown and described, as various changes may be made in the form, proportion, detail construction, and arrangement of the parts without departing from the principle of construction involved.

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

1. A power mechanism for baling-presses, comprising a power-shaft having a plurality of trip-arms, a plunger-beam, a swing-frame pivoted to the framework of the press rearward of the power-shaft and extending toward the latter, a link connecting the swing-frame with the plunger-beam, and a curved swinging track-arm pivoted to the framework rearward of the swing-frame and extending through the latter and having a tread portion at its end for successive engagement by the trip-arms and adapted under the pressure of said trip-arms to swing away from the plunger-beam and impart like movement to the swing-frame.

2. In a baling-press, a suitable framework, a power-shaft journaled therein and provided with a sweep, a brace-bar secured to and extending rearwardly from the framework, a pair of vertical bolts mounted in the framework and said bar, a swing-frame pivoted for horizontal movement on the foremost bolt and projecting forwardly therefrom and provided with a roller, a curved swinging track-arm pivoted on the other of said bolts and having its convex edge engaging said roller and provided at its extreme end with a tread portion, a plunger-beam, links connecting the plunger-beam with the swing-frame, and a plurality of trip lever-arms movable with the power-shaft and adapted to successively engage the tread portion of and operate the swinging track-arm and cause the same to operate the swing-frame.

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

JOSIAH S. TUTTLE.

Witnesses:

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