

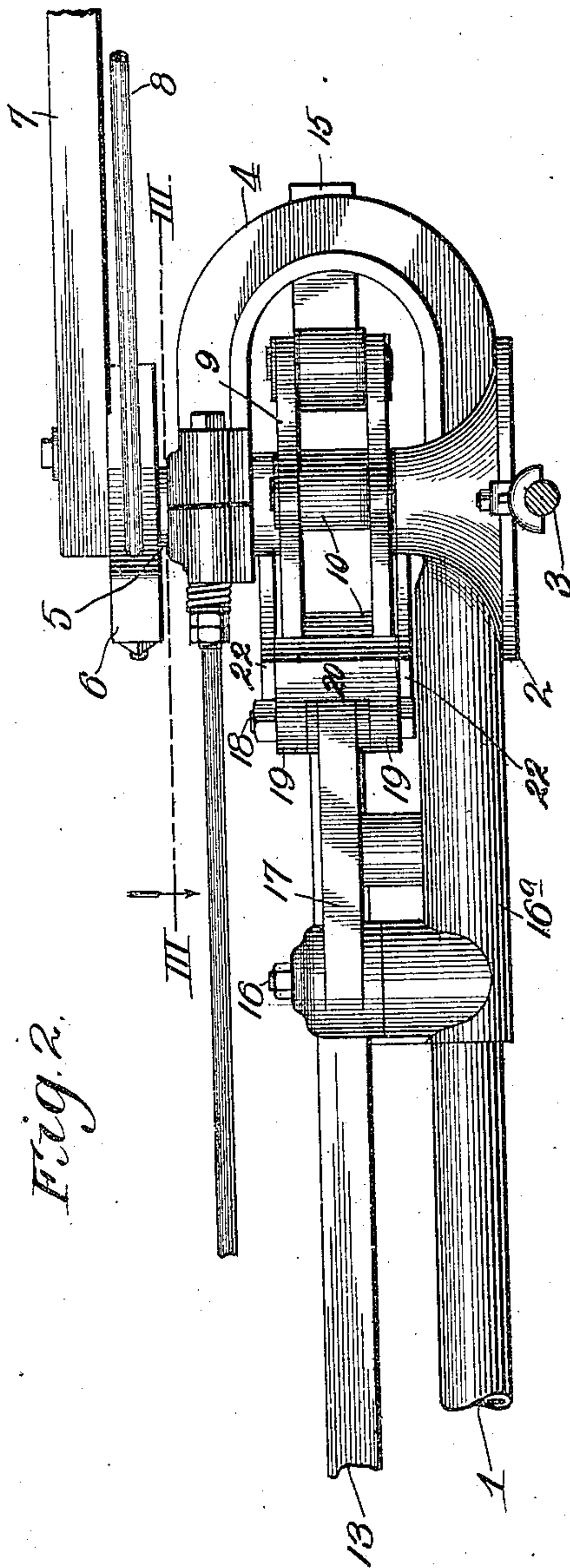
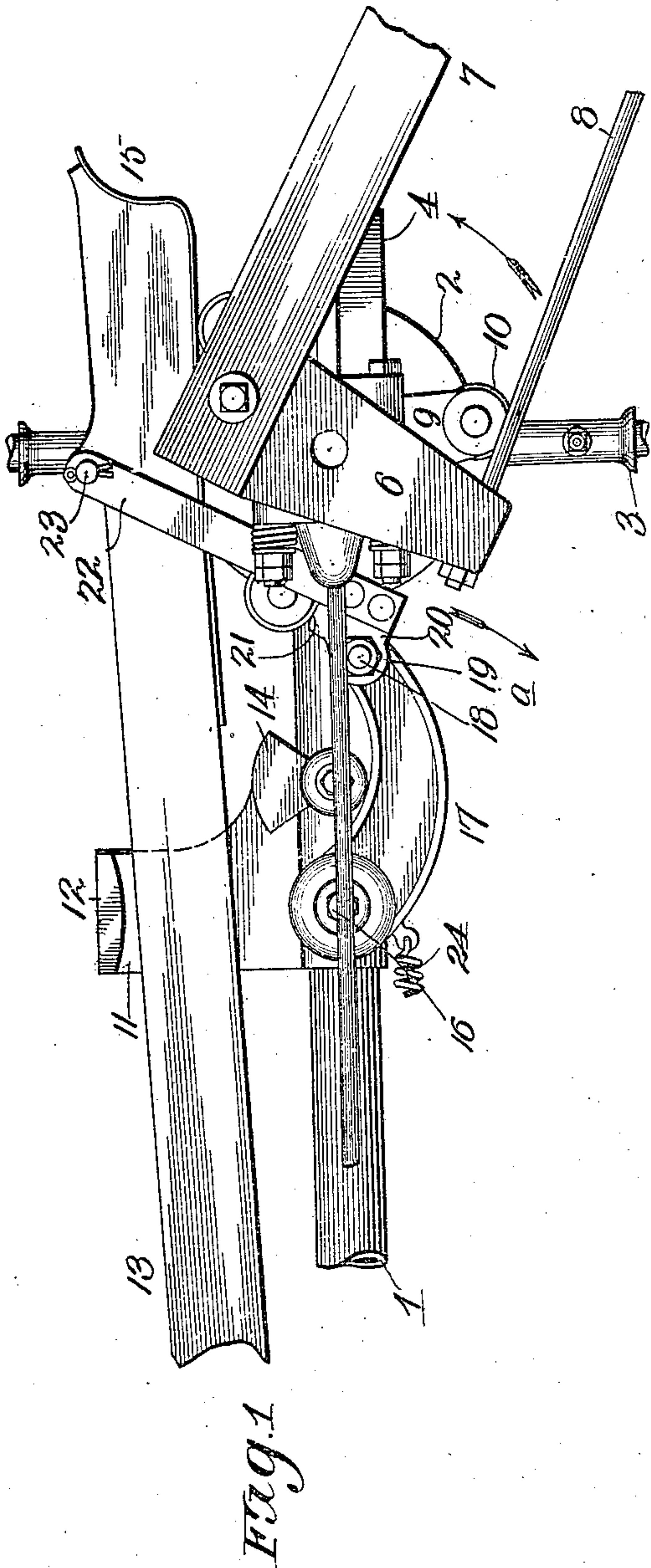
No. 848,411.

PATENTED MAR. 26, 1907.

J. S. TUTTLE.
BALING PRESS.

APPLICATION FILED APR. 27, 1906.

2 SHEETS—SHEET 1.



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Inventor
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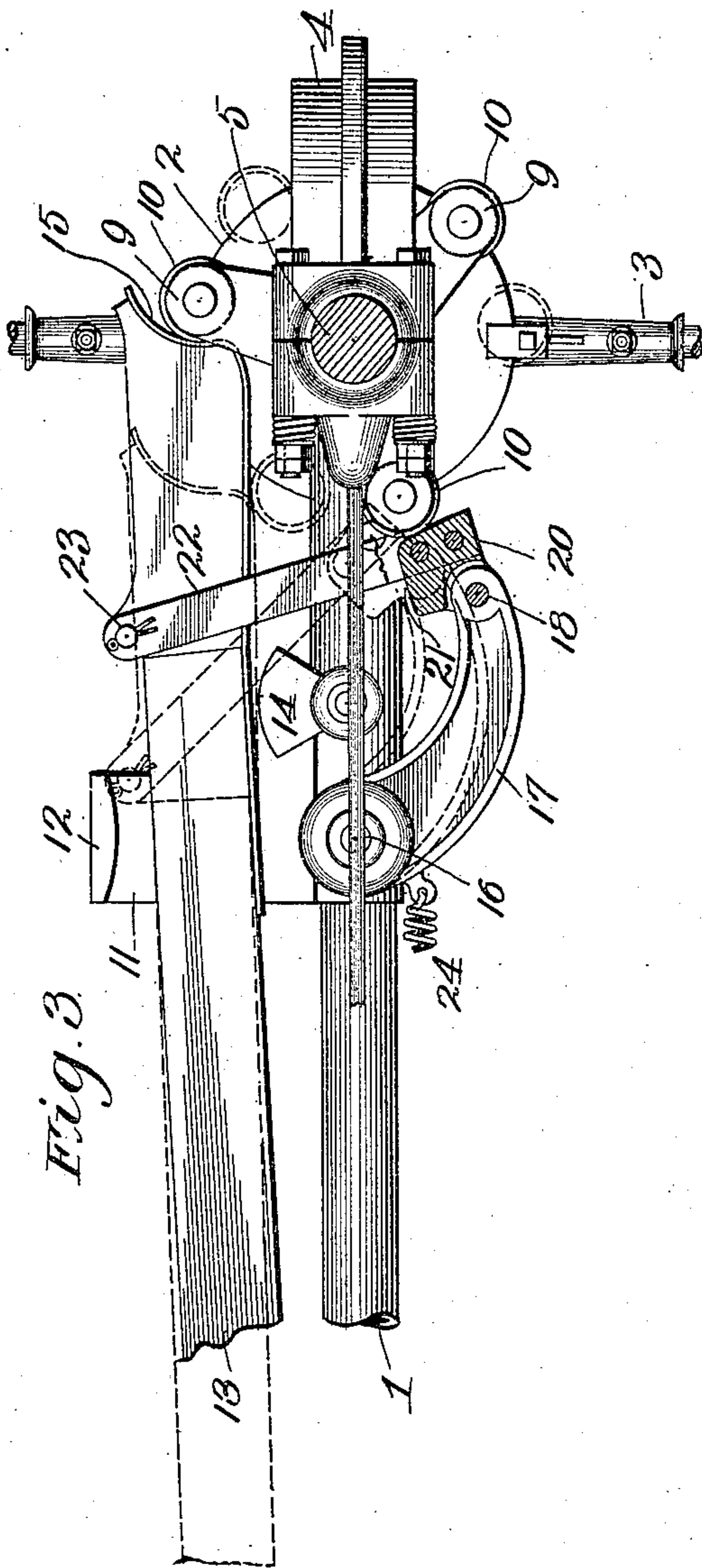


Fig. 5.

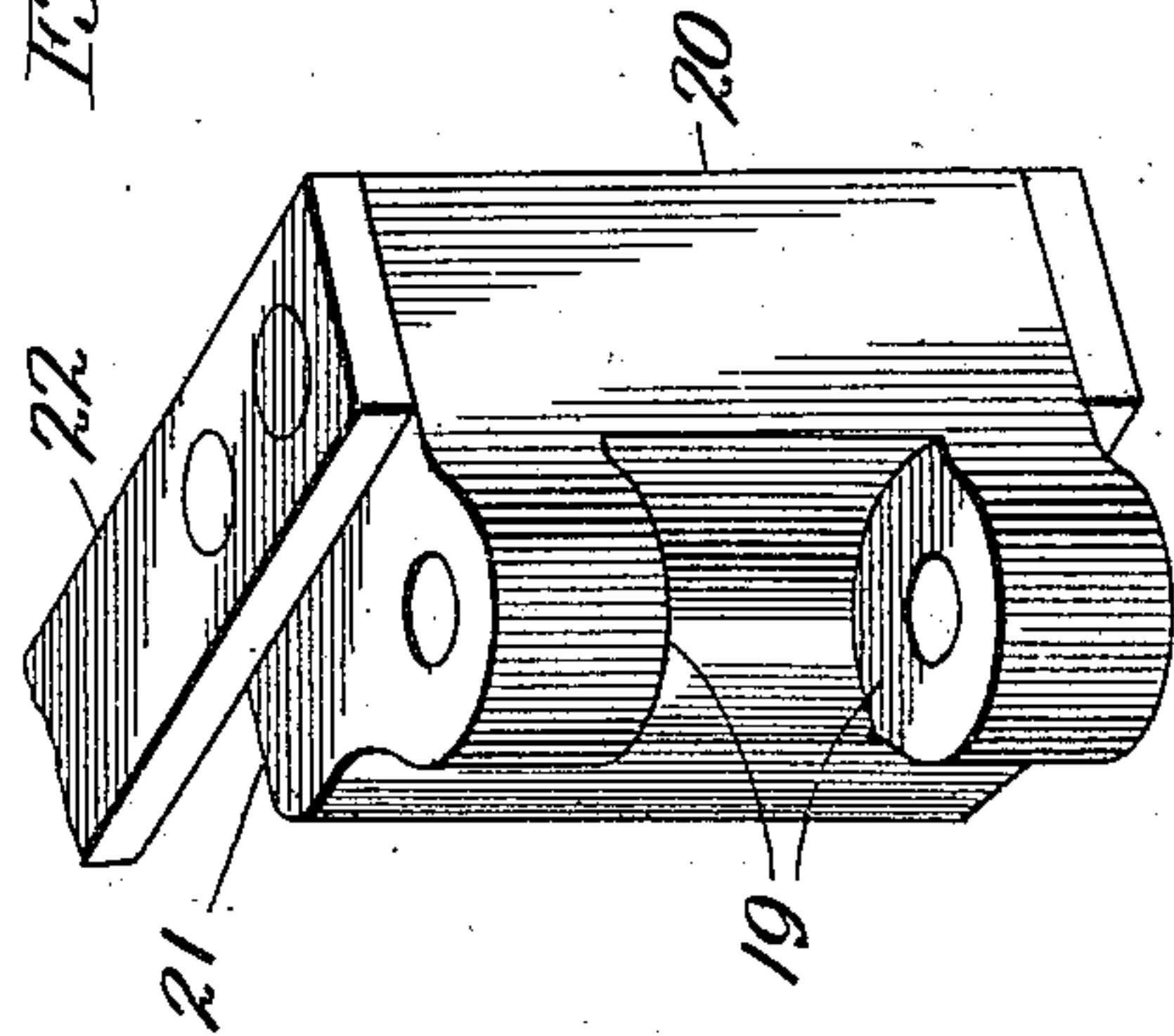
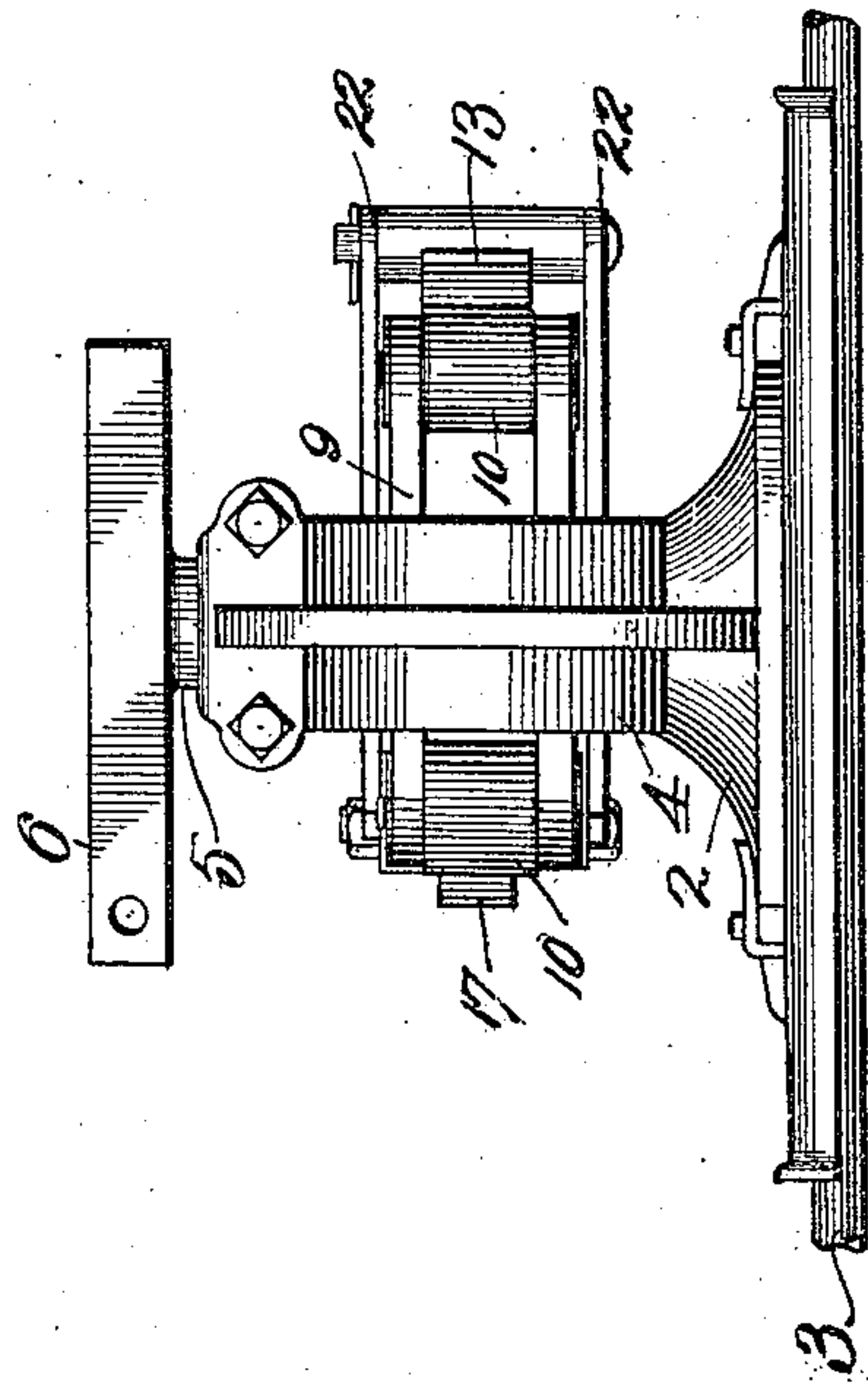


Fig. 4.



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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. 848,411.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed April 27, 1906. Serial No. 313,942.

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.

My invention relates to baling-presses; and my object is to produce an efficient and reliable power mechanism of extremely simple, strong, durable, compact, and comparatively inexpensive construction, giving a quick and long preliminary plunger movement to compress the baling material while offering but little resistance, the latter portion of the power stroke being effected by the direct pressure of the trip-lever on the end of the plunger-beam.

To this end 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 plan view of a power mechanism embodying my invention with the plunger-beam in its initial position. 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 plunger-beam in the position it occupies after its preliminary quick movement has occurred and with certain parts broken away. Fig. 4 is an end view of the mechanism in the position shown in Fig. 3. Fig. 5 is an enlarged detail perspective view of a portion of the mechanism.

In the said drawings, 1 indicates the reach, which extends from the baling-case (not shown) and is secured in any suitable manner to a base 2, secured upon the axle 3.

4 indicates a gooseneck, cast with or otherwise secured to the base, which forms a journal for the power-shaft 5, provided with a sweep-head 6, to which is secured the sweep 7 and a brace-rod 8 therefor.

9 indicates the trip-lever, which in this instance is shown as a triple-arm trip-lever, and 10 are antifriction-rollers, mounted in the outer ends of said arms. 11 is a shelf or support projecting laterally from and bearing a rigid relation to the reach, and 12 an upwardly-projecting flange at the outer end of said arm to limit the outward movement of the plunger-beam 13, the inward movement of said beam being limited by the trip-off

lug 14, also rigid with the reach, the plunger-beam being provided at its front end with the usual pocket 15.

The parts thus far described are well known in baling-press construction.

Pivoted, as at 16, to the extension 16^a, utilized, by preference, as a means for securing the reach to base 2, is a swing-arm 17, the front end of said arm being pivoted, as at 18, to and between the lugs 19 of a head 20, having a tread-surface 21, and bolted rigidly or otherwise secured to a pair of links 22, arranged above and below the plunger-beam and trip-lever and pivoted to the former, as at 23.

When the plunger-beam occupies its initial position, it projects forwardly beyond the trip-lever, and the links 22 extend at an angle, substantially as shown in Fig. 1, so that the tread-surface 21 of the head 20 shall be disposed in the path of one of the trip-lever arms. As the trip-lever is turned in the direction indicated by the arrow, Fig. 1, by the team attached to the sweep in the usual manner (not shown) the antifriction-roller 10 of the trip-lever arm last referred to presses against the tread-surface of head 20 and at about the same time another trip-lever-arm roller engages the inner edge of the plunger-beam to compel the latter under the movement of the trip-lever to travel endwise with but little lateral movement, the pressure of said trip-lever arm on the head pushing the latter in the direction indicated by the arrow *a*, the swing-arm 17 swinging to effect this movement. By reference to Fig. 3 it will be apparent that the very short movement of the trip-lever and said arm 17 and head 20 results in a comparatively long preliminary movement of the plunger-beam. In such movement the trip-lever roller referred to rolls forward on the tread-surface 21 and clears the front end of said surface at about the same time the succeeding trip-lever roller enters the pocket 15 of the plunger-beam and continues the movement of the latter until it has moved from substantially the position shown in full lines, Fig. 3, to the position shown in dotted lines, same figure, this continued movement of the beam compelling the swing-arm, the head 20, and the links 22 to assume the positions shown in dotted lines in said figure. As the beam reaches the position shown in dotted lines in said figure its lateral movement toward the vertical plane

of the reach is arrested by the trip-off lug, so that the trip-lever roller in the pocket may ride out of the latter, as indicated by dotted lines in Fig. 3. As this disengagement between the trip-lever and the plunger-beam takes place the latter is caused to recoil through the instrumentality of a spring 24 or otherwise in the usual manner, and such recoil is so rapid that it redispenses the tread-surface 21 of head 20 in the path of the trip-lever roller last referred to, because the latter moves very slowly as compared with the recoil movement of the beam. As a result almost immediately after the recoil is effected said last-named roller comes into engagement with the tread-surface and effects the second preliminary advance of the plunger-beam in a manner hereinbefore described, the third trip-lever roller being utilized as a guide in such movement and to effect the power portion of the stroke by direct engagement with the plunger after said preliminary movement has been completed. All future actions are repetitions of those described.

From the above description it will be apparent that one skilled in the art to which this invention pertains could readily so proportion the parts as to adapt the invention for use upon a "two-stroke" press, and I wish it to be understood that I do not desire to be limited to the exact construction shown and described, as various changes in the form, proportion, detail construction, and arrangement of the parts may be made 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. In a baling-press, a trip-lever, a plunger-beam, a movable head having a tread-surface for the trip-lever, a link connecting said head pivotally to the plunger-beam, and movable means for guiding said head when moved by the trip-lever.

2. In a baling-press, a trip-lever, a plunger-beam, a movable head having a tread-surface for the trip-lever, a link connecting said head pivotally to the plunger-beam, and movable means pivotally carrying said head.

3. In a baling-press, a trip-lever, a plunger-beam, a movable head having a tread-surface for the trip-lever, a link rigidly secured at one end to said head and pivotally secured at the other to the plunger-beam, and means pivotally supporting said head and guiding it in the movement imparted to it by the trip-lever.

4. In a baling-press, a trip-lever, a plunger-beam, a movable head having a tread-surface for the trip-lever, a link rigidly secured at one end to said head and pivotally secured at the other to the plunger-beam, and movable means pivotally carrying said head.

5. In a baling-press the combination of a power-shaft having trip-arms, a plunger-beam, a swing-arm, and a link pivotally connecting said swing-arm with the plunger-beam and having a head in the plane of movement of and adapted to be engaged by one of said trip-arms to impart preliminary movement to the plunger-beam.

6. In a baling-press the combination of a power-shaft having trip-arms, a plunger-beam, a swing-arm, a link pivotally connecting said swing-arm with the plunger-beam and having a head in the plane of movement of and adapted to be engaged by one of said trip-arms to impart preliminary movement to the plunger-beam, and means to effect the recoil of the plunger-beam and restore the head to its initial position.

7. In a baling-press, the combination of a suitable frame, a vertical power-shaft journaled therein and provided with trip-arms, a plunger-beam, a swing-arm pivoted on said frame, a trip-off lug rigid with said frame, a shelf rigid with the frame and underlying the beam, a head pivoted to said swing-arm and provided with a tread-surface adapted to occupy the path of movement of the trip-arms, and links secured rigidly to said head and pivotally to said beam.

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

JOSIAH S. TUTTLE.

Witnesses:

D. V. BOOKER,

D. I. HART.