

No. 660,671.

Patented Oct. 30, 1900.

J. S. TUTTLE.
BALING PRESS.

(Application filed Dec. 15, 1899.)

(No Model.)

Fig. 1.

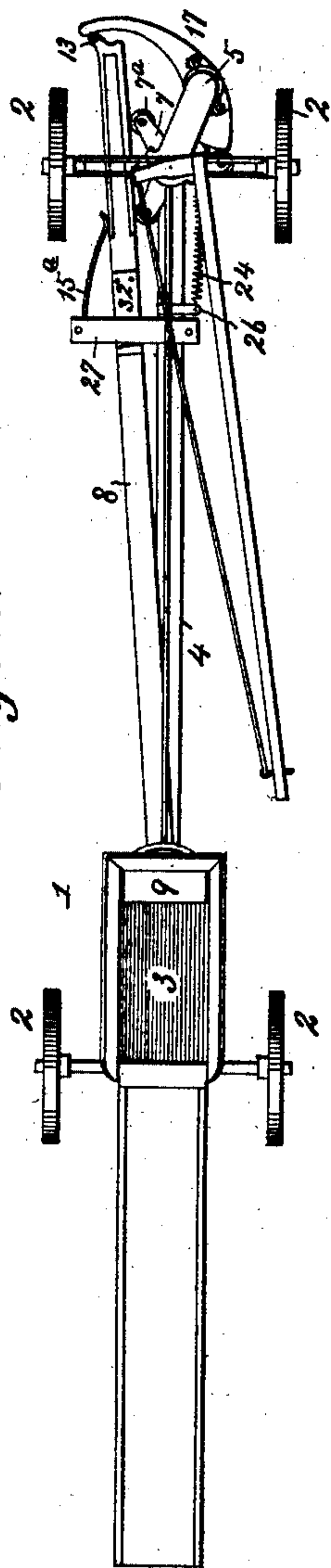


Fig. 2.

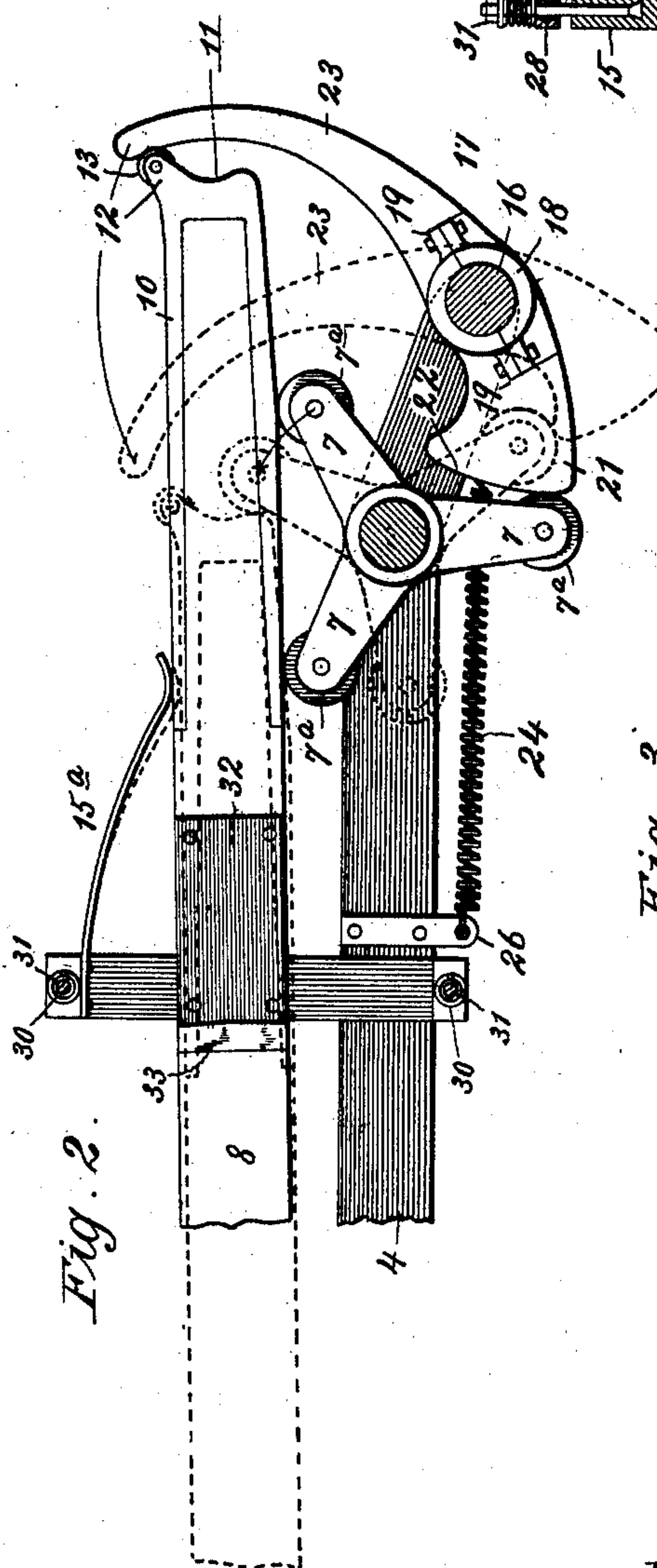


Fig. 4.

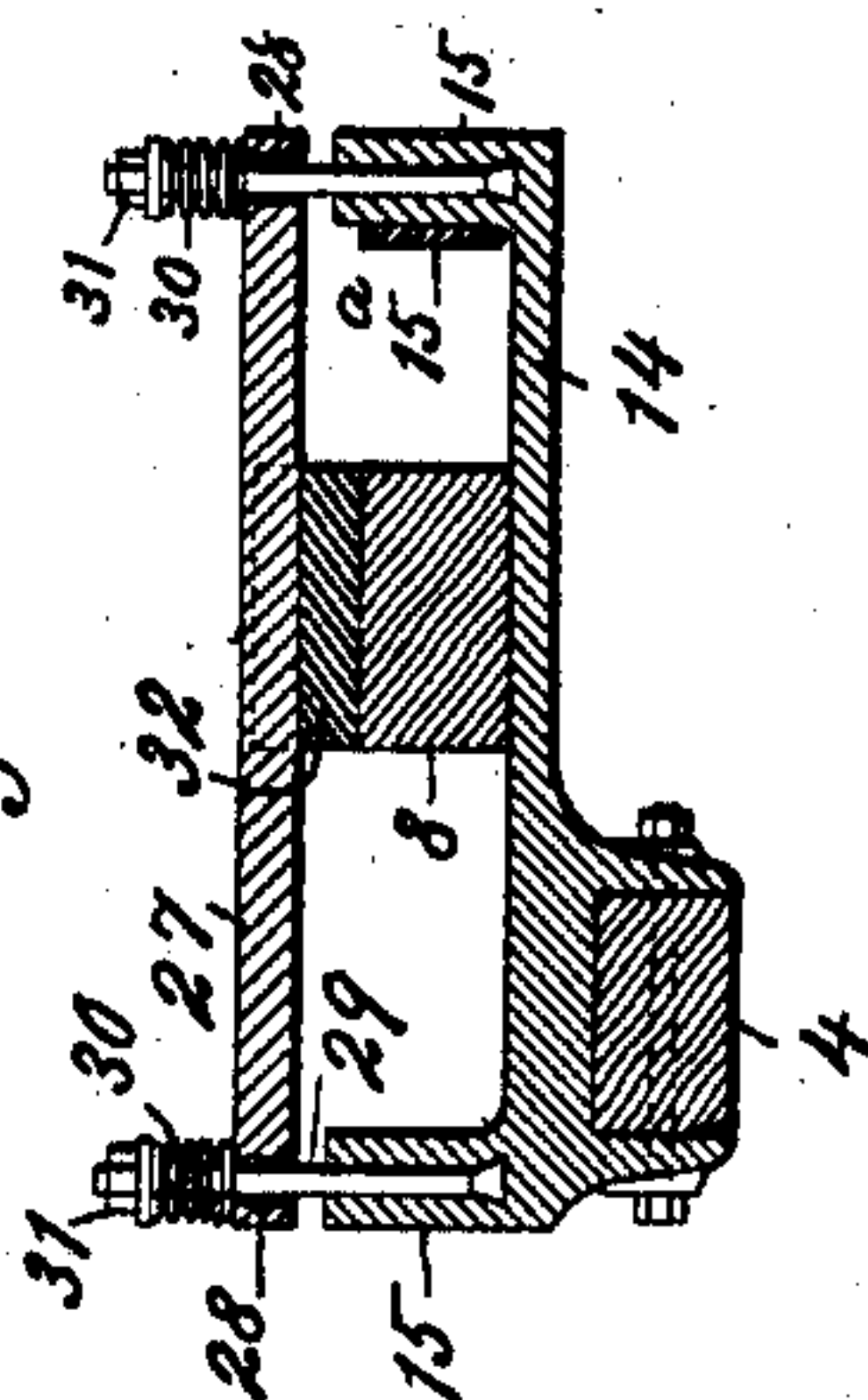
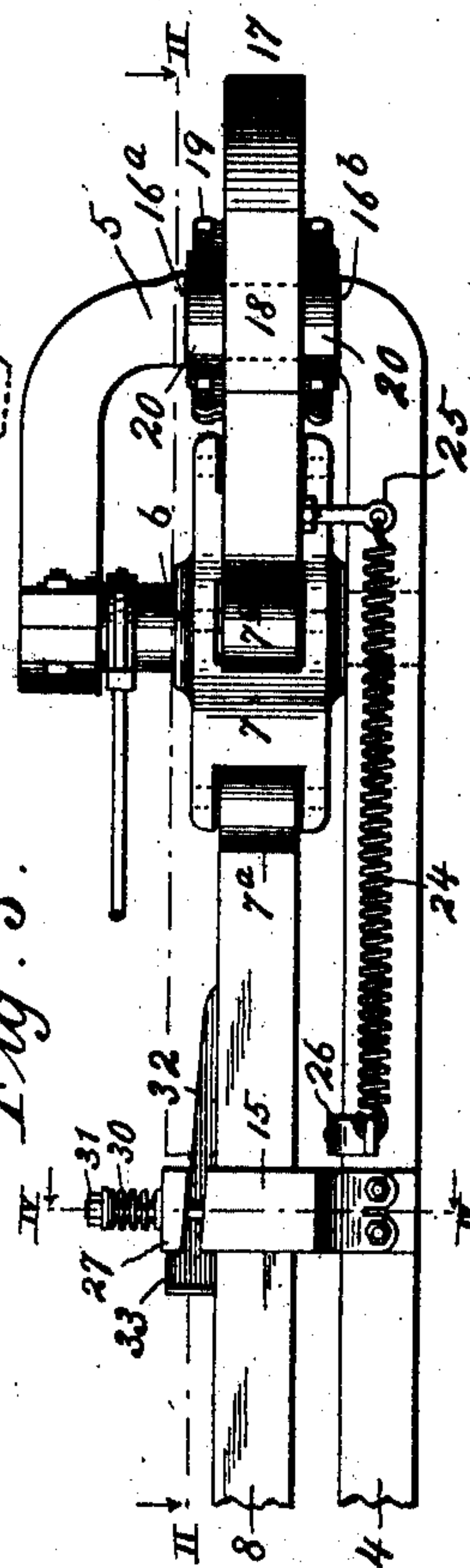


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSIAH S. TUTTLE, OF KANSAS CITY, KANSAS, ASSIGNOR TO J. M. WILSON, OF SAME PLACE, AND E. P. ROSS AND J. W. LOWE, OF KANSAS CITY, MISSOURI.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 660,671, dated October 30, 1900.

Application filed December 15, 1899. Serial No. 740,397. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH S. TUTTLE, of Kansas City, Wyandotte county, State of Kansas, have invented a new and useful Baling-Press, of which the following is a specification.

My invention relates to improvements in baling-presses; and my primary object is to provide a simple mechanism for transmitting power from the rotating power-shaft to the end of the pitman for the purpose of accelerating the first half of its stroke at a minimum expenditure of power.

Another object is to provide a simple arrangement for checking the recoil of the pitman.

In order that the invention may be fully understood, reference will now be made to the accompanying drawings, in which—

Figure 1 represents a plan view of a full-circle baling-press embodying my invention. Fig. 2 is an enlarged plan view of the invention, taken on line II II of Fig. 3. Fig. 3 is a side elevation of same. Fig. 4 is a cross-section of the brake, taken on line IV IV of Fig. 2.

In the drawings, 1 indicates a baling-press of any usual or preferred construction mounted on carrying-wheels 2 and provided with a baling-chamber 3.

4 indicates a longitudinal bed-plate of suitable length connected at one end to the baling-case and terminating at its opposite end in a gooseneck 5.

6 indicates a vertical power-shaft journaled at its opposite ends in the bed-plate and upper terminal of the gooseneck. Said shaft is rotated through the medium of a sweep 6^a, which is rigidly secured at its inner end to the top of the shaft. Rigidly secured to the lower portion of said shaft is a triple-arm trip-lever 7, having friction-rollers 7^a journaled in the outer ends thereof.

8 indicates a pitman pivotally secured at its forward end to a head-block 9 and is provided at its rear end with an approximately V-shaped casting 10, having a pocket 11, adapted to be engaged by one of rollers 7^a during the latter portion of the forward stroke of the pitman. The rear outer corner of this

casting terminates in bearings 12, in which is journaled a friction-roller 13. The rear portion of the pitman is supported by a transverse arm 14, secured near its inner terminal to the upper surface of the bed-plate, its ends being provided with vertically-extending shoulders 15, to one of which a spring 15^a is rigidly secured. Its opposite end bears with a yielding pressure against the rear portion of the pitman, and thereby holds it in contact with one or more of the rollers on the trip-lever.

The gooseneck 5 extends at an oblique angle from the longitudinal portion of the bed-plate, and its vertical portion 16 is rounded to form a fulcrum for a lever 17 operatively mounted thereon. Said fulcrum has shoulders 16^a 16^b at its opposite ends to prevent vertical movement of the lever when in operation. Lever 17 is retained in position on its fulcrum by a bearing-cap 18, bolted to lugs 19 on a boss 20, formed integral with the lever. Said lever consists of a short arm 21, having a curved vertical face 22, with which one of the rollers 7^a contacts during a portion of the rotation of the trip-lever, and a long curved arm 23. Lever 17 is held in its normal position, as shown in Fig. 2, by a retractile spring 24, attached at one end to an eye-bolt 25, secured to the lever, and at its opposite end to a bar 26, secured to the bed-plate.

The recoil of the pitman is checked by a brake consisting of a transverse friction-bar 27, extending over the pitman and having holes 28 near its opposite ends for the passage of bolts 29, projecting vertically from shoulders 15. The upper portions of said bolts being encircled by coiled springs 30 are pressed against bar 27 by adjusting-nuts 31, located on the threaded ends of bolts 29. Said springs force the bar 27 in frictional contact with a brake-shoe 32, secured to the upper surface of the pitman, as the latter is completing its backward stroke.

In order that the recoil of the pitman may be gradually checked near the end of its backward stroke, I taper brake-shoe 32 down toward its rear end, so that as it moves back with the pitman the friction between it and bar 27 increases until shoulder 33 on the

front end of the brake-shoe finally contacts with bar 27 and stops the backward movement of the pitman.

The operation is substantially as follows:

- 5 Assuming that the several parts occupy the positions shown in Fig. 2, when the trip-lever is rotated power is transmitted therefrom to the rear end of the pitman through the instrumentality of lever 17, the transmitting-arm of which being longer than the
- 10 power-arm rapidly moves the pitman on its forward stroke until its pocket 11 is engaged by one of the rollers on the trip-lever, when the balance of the stroke is completed at the
- 15 ordinary rate of speed. By thus directing the power against the end of the pitman in this manner it will be readily understood that the first half of its advance stroke will be more rapid and require less power than
- 20 when the pressure of the trip-lever against the side of the pitman is alone depended on. By employing the above-described arrangement I also obtain a long stroke of the pitman without loss of time, and thus insure a
- 25 large opening in the baling-chamber for the reception of each charge, which is a very desirable feature for the party feeding the press and one that also increases its capacity.

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

1. In a baling-press, a longitudinal bed-plate, a gooseneck formed integral therewith, a power-shaft journaled at its lower end in the
- 35 bed-plate and its upper end in the terminal of the gooseneck, a trip-lever rigidly mounted thereon, a lever fulcrumed on the forward

portion of the gooseneck and adapted to be engaged and operated by the trip-lever, and a pitman adapted to be engaged by the op- 40
posite end of said lever and advanced on its power stroke, substantially as described.

2. In a baling-press, a longitudinal bed-plate, a gooseneck formed integral with the rear portion thereof, a lever fulcrumed on the 45
gooseneck, and consisting of a short arm terminating in a curved vertical face portion, and a longer arm of suitable form, a trip-lever adapted to exert power on said shorter arm, and a reciprocatory pitman adapted to 50
be engaged and advanced on its compression stroke by the longer arm of the lever, substantially as described.

3. In a baling-press, a longitudinal bed-plate, a gooseneck formed on the outer end 55
thereof, a power-shaft journaled at its opposite terminals in the bed-plate and upper end of the gooseneck, a trip-lever rigidly mounted thereon, a reciprocatory pitman, and a lever 60
of the first class fulcrumed on the gooseneck and adapted to receive power at its short arm from the trip-lever and transmit it through its longer arm to the rear wall of the pitman to advance it on its compression stroke, and a retractile spring secured at its opposite 65
ends to the bed-plate and short arm of the lever, to return the latter to its normal position.

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

JOSIAH S. TUTTLE.

Witnesses:

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H. C. RODGERS.