No. 790,249. PATENTED MAY 16, 1905.

W. A. BOOKOUT.

BALING PRESS.

APPLICATION FILED NOV. 17, 1904.

Fig. 1.

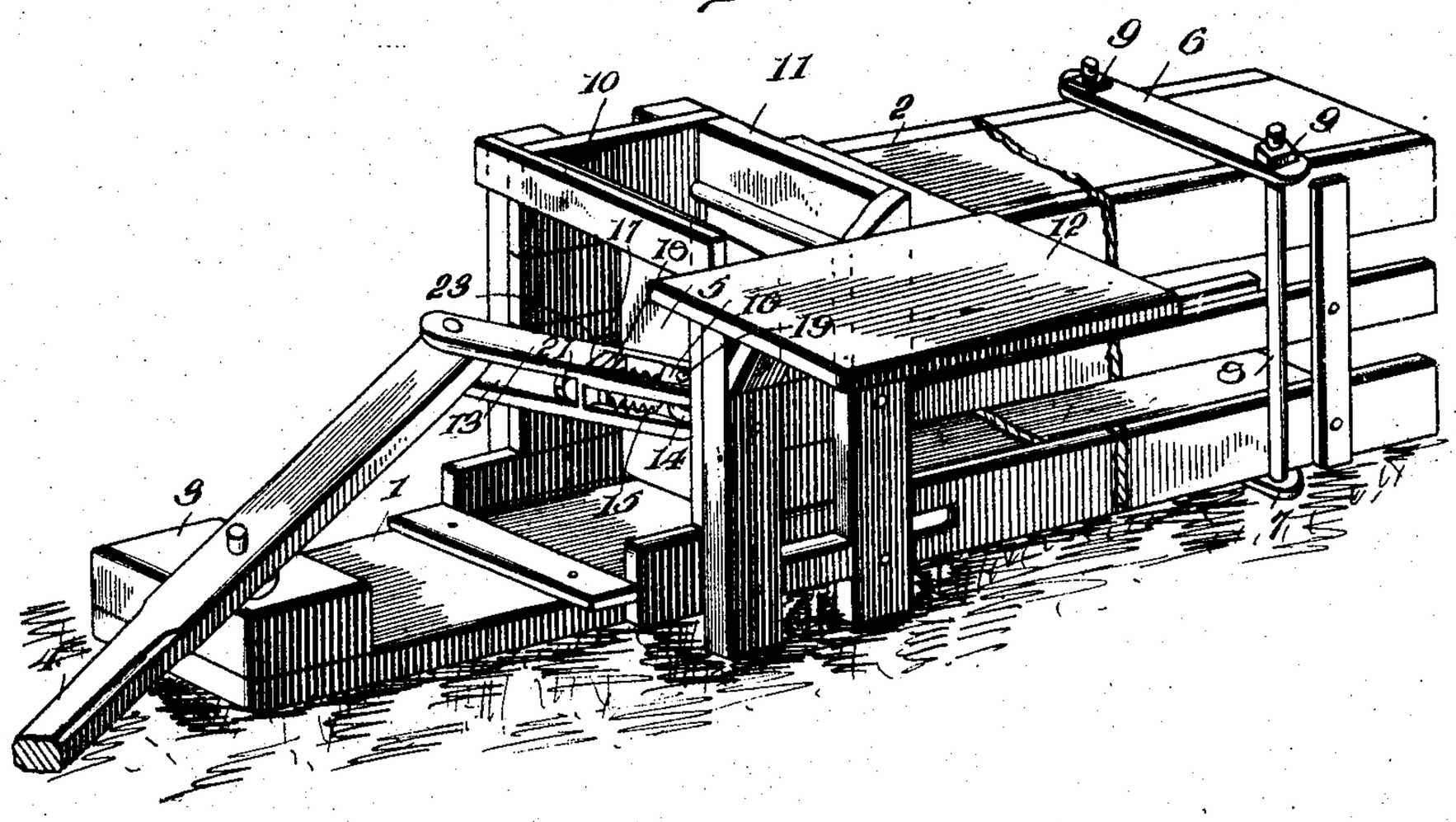


Fig. 2.

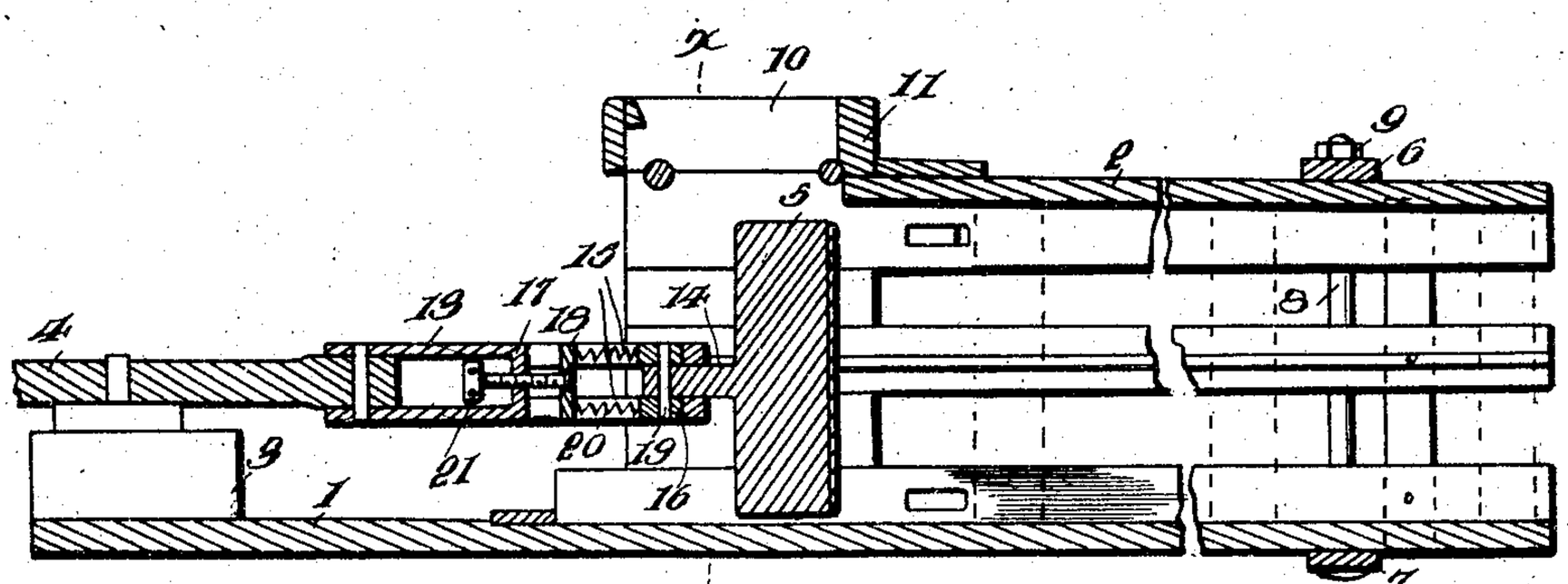
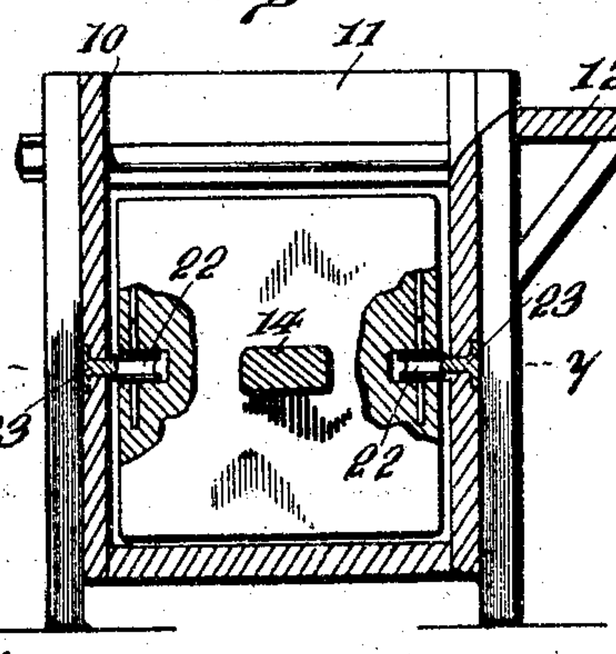
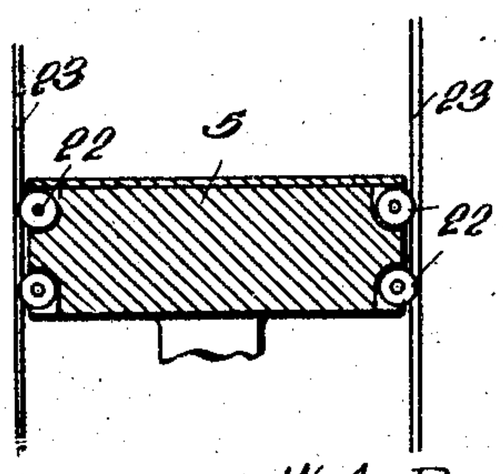


Fig. 3. Fig. 4.





Witnesses

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No. 790,249. Patented May 16, 1905.

UNITED STATES PATENT OFFICE.

WILLIAM A. BOOKOUT, OF PEARIDGE, ARKANSAS, ASSIGNOR OF ONE-THIRD TO J. W. BANKS AND ONE-THIRD TO G. T. NORTHCUT, OF MOUNTAIN, MISSOURI.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 790,249, dated May 16, 1905.

Application filed November 17, 1904. Serial No. 233,186.

To all whom it may concern:

Be it known that I, WILLIAM A. BOOKOUT, a citizen of the United States, residing at Pearidge, in the county of Benton and State of Arkansas, have invented certain new and useful Improvements in Baling-Presses, of which the following is a specification.

This invention relates to presses designed for baling hay, straw, or other material usually handled in compact form, and is of the continuous-operating type, one bale being in course of formation, one binding, and a third discharging.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a press embodying the invention, an intermediate portion of the baling-chamber being broken away. Fig. 2 is a central vertical longitudinal section thereof. Fig. 3 is a cross-section of the press on the line *x x* of Fig. 2. Fig. 4 is a section on the line *y y* of Fig. 3.

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 press comprises a base 1, upon which the operating parts are mounted, an end portion forming a side of the baling-chamber 2. A block 3 is provided upon the opposite end portion of the base and the operating-lever 4 is fulcrumed thereto and is adapted to receive an oscillatory movement, power being applied thereto from any suitable source.

The baling-chamber 2 is of square form in cross-section and is of a length and size depending upon the dimensions of the completed bale. The vertical sides of the baling-chamber are formed with longitudinal slots to provide for proper binding of the bale when completed. Opposite ends of the baling-chamber are open, the one to admit of free operation of the plunger 5 and the other to provide unobstructed passage for the discharge of the bale when bound. The delivery end of the baling-chamber is contracted, so as to offer a resistance to the discharge of the completed bale, thereby insuring proper compression of the forming bale. The degree of contraction may be regulated by means of a clamp applied to the rear or delivery portion of said baling-chamber. This clamp consists of companion upper and lower bars 6 and 7 and tie-rods 8, arranged at opposite sides of the baling-chamber and passed through openings in the projecting ends of the bars 6 and 7. An end portion of the tie-rods 8 is threaded and receives set-nuts 9. By proper adjustment of the set-nuts 9 the distance between the bars 6 and 7 may be regulated, thereby varying the degree of contraction of the baling-chamber at its delivery end, as will be readily comprehended. The receiving end of the baling-chamber is formed in its top side with an opening 10, through which the material is fed in any determinate quantity, each charge being compressed by means of the plunger 5. A rim 11 surrounds the feed-opening 10, so as to retain the material when placed in position. A platform 12 is arranged at one side of the baling-chamber opposite to the feed-opening 10 and the operator stands thereon when feeding the hay or material to the press.

The plunger 5 in the operation of the press receives a reciprocating motion across the feed-opening 10. A link connection 13 couples the plunger to the inner end of the operating-lever 4 and is preferably composed of spaced companion members, between the end portions of which are received the inner end of the operating-lever 4 and the stem 14, projected from the plunger 5. As the operating-lever 4 is oscillated the plunger 5 has a re-

ciprocating movement imparted thereto, and when said plunger is out or near the limit of its outward movement a quantity of material is fed to the press through the opening 10 and is compressed upon the inward movement of the plunger. It frequently happens that abnormal resistance is offered to the discharge of the completed bale and to the inward movement of the plunger, and to prevent injury to the press it is contemplated to interpose a yielding connection between the plunger and the operating-lever. As shown, the companion members of the link connection 13 are formed with longitudinal slots 15, in which are fitted lugs 16 and plates 17 and 18. The blocks 16 are connected by pin 19 to the stem 14, and tension-springs 20 are interposed between the blocks 16 and the bar 18 and are arranged in the slots 15. A set-screw 21, threaded into the plate 17 and having a swivel connection with the plate 18, is adapted to move the latter to a greater or less distance from the plate 17, thereby regulating the tension of the springs 20. When the resistance to the forward movement of the plunger exceeds the tension of the springs 20, the latter yield and admit of the operating-lever 4 having free movement without disabling the mechanism of the press.

To prevent binding of the plunger in the baling-chamber and to reduce the friction between it and the sides of said chamber, grooved wheels 22 are let into opposite corners of the plunger at a point intermediate of its upper and lower edges and are adapted to travel upon short rails 23, secured to opposite sides of the baling-chamber at or near its receiving end. The grooves of the wheels 22 receive the tread portions of the rails 23, and thereby hold the plunger 5 in suspension and prevent it resting upon the base 1.

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

1. In a press, the combination of a baling-chamber having a lateral feed-opening at one end and a contracted discharge at the opposite end, a plunger arranged to reciprocate in the receiving end of the baling-chamber across the feed-opening, a link comprising spaced members having corresponding longitudinal slots, blocks mounted in the slots of the link members, a pin connecting said blocks with the part to which the link is coupled, parallel plates having their end portions fitted into the said slots, springs interposed between the aforesaid blocks and the proximal plate, and a set-screw interposed between the parallel plates for regulating the tension of the springs, substantially as specified.

2. In a press, the combination of a baling-chamber having a lateral feed-opening, a plunger arranged to reciprocate within the baling-chamber across its feed-opening, parallel rails at opposite sides of the baling-chamber, and grooved wheels let into opposite corners of the plunger and adapted to receive the tread portions of the rails and hold the plunger in suspension and prevent binding thereof in its reciprocating movement, substantially as set forth.

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

WILLIAM A. BOOKOUT. [L. S.]

Witnesses:
J. J. RETMAN,
J. A. BONE.