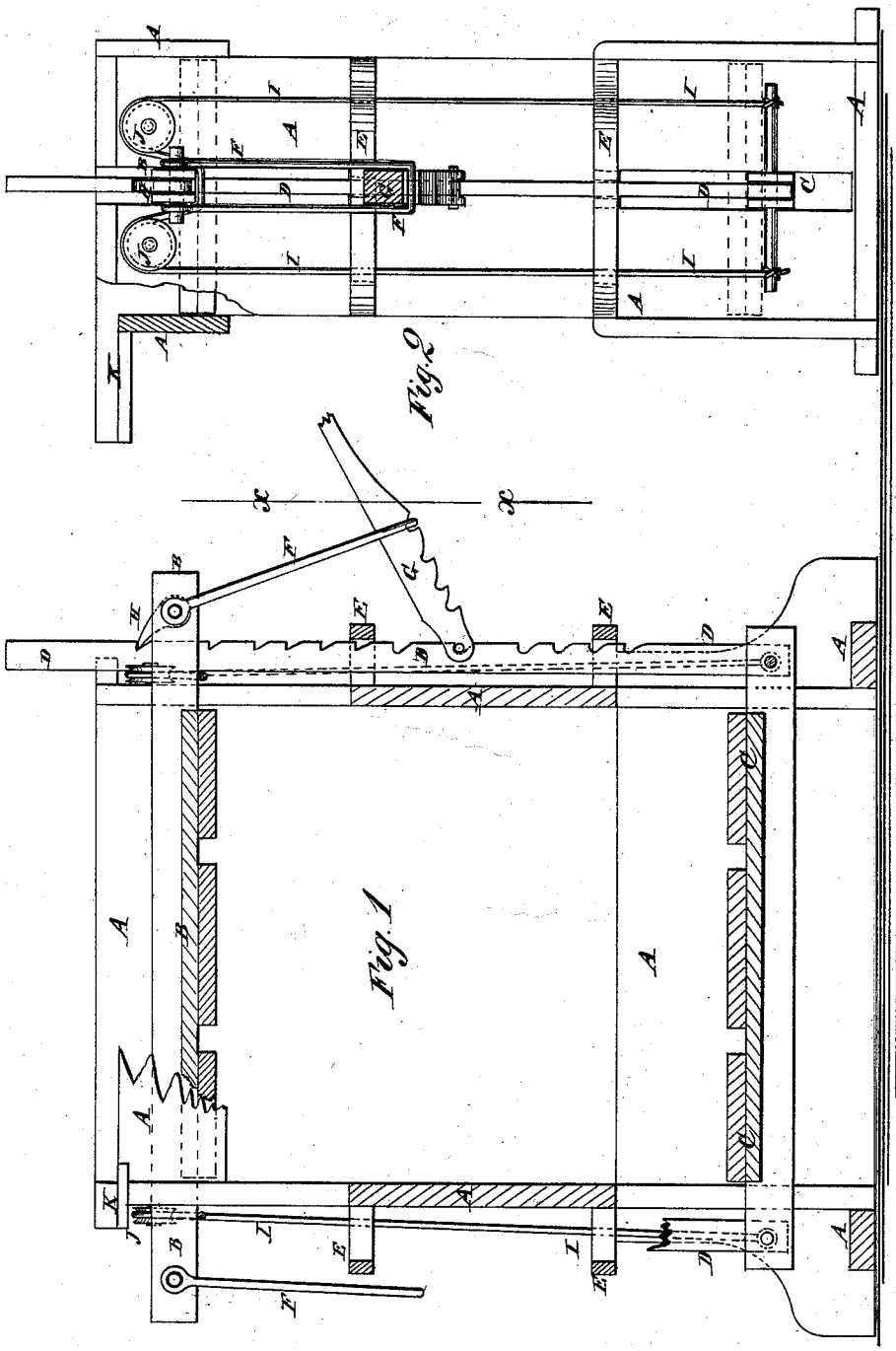
J. H. SIMONSON
Baling-Press.

No. 203,082. Patented April 30, 1878.



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UNITED STATES PATENT OFFICE.

JOHN H. SIMONSON, OF EAST NORWICH, NEW YORK.

IMPROVEMENT IN BALING-PRESSES.

Specification forming part of Letters Patent No. **203,082**, dated April 30, 1878; application filed October 16, 1877.

To all whom it may concern:

Be it known that I, JOHN H. SIMONSON, of East Norwich, in the county of Queens and State of New York, have invented a new and useful Improvement in Baling-Presses, of which the following is a specification:

Figure 1 is a side view of my improved baling-press, partly in section to show the construction. Fig. 2 is an end view of the same, the lever being shown in section through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved press for baling hay, straw, cotton, and other things that require to be compressed into bales, which shall be so constructed that the power and resistance may both be applied to compressing the bale, and in which the upper follower will be raised automatically when the power is removed.

The invention consists in the levers provided with four (more or less) graduated notches in the lower sides of their inner ends, in combination with the loops, the toothed racks, and the two movable followers; and in the combination of the ropes and the guide-pulleys with the upper follower and the lower follower, or equivalent weights, as hereinafter fully described.

A represents the baling-box, which is inclosed and provided with doors for the removal of the bale in the usual way. B C are the followers, which are both movable, and the ends of the beams of which project through slots in the upper and lower parts of the ends of the baling-box A. D are the rack-bars, the lower ends of which are pivoted to the ends of the lower follower C. The rack-bars D pass up through slots in the ends of the upper follower B, and are kept in position by guide-cleats E, attached to the ends of the box A, and through holes in which the said racks pass. To the ends of the upper follower B are pivoted loops F, through the bends of which the levers G pass, and which serve as fulcrums for said levers. In the lower side of the inner parts of the levers G are formed four notches, to receive the loops F, the outer notches being farthest apart, and the inner ones becoming gradually nearer together. In the lower parts of bars D are formed notches to receive the ends of the levers G, and in the upper parts of said bars are formed notches to receive the pawls H, pivoted to the ends of the upper follower B. The distance apart of the notches of the two sets is graduated, the upper notches being farthest apart.

The ends of the upper follower B rest upon a rope, I, which passes over two pulleys, J, pivoted to the upper part of the ends of the box A. The ends of the ropes I are attached to the ends of the lower follower C, or to the ends of cross-bars attached to said ends. To the top of the ends of the box A are attached cross-bars K, to receive the ends of the follower B when raised out of the box A, so that it may be slipped to one side to serve as a platform when putting in the material to be pressed.

In using the press, when the material has been put into the box A, the follower B is slid inward until its ends enter the slots in the ends of the said box A above the ropes I. The levers G are then passed through the loops F, and their ends are inserted in the upper notches of the lower sets in the rack-bars D, the loop F being in the outer notches of the said levers. The outer ends of the levers G are then pressed downward, at the same time or alternately, to draw the followers B C toward each other, where they are held by the pawls H. The outer ends of the levers G are then raised, and the inner ends are moved down into the next notch in the racks D, and the outer ends are again raised sufficiently to allow the loops F to swing inward one notch. The said levers are then ready to be again operated.

It will be observed that the entire strain in compressing the bale is sustained by the loops F and levers G, the object of the ropes I being to raise the upper follower when the bale has been tied and the pawls H turned back by the weight of the lower follower C. The same thing may be accomplished by attaching weights to the ends of the ropes I. It will also be observed that there is no movement of the ropes

I beneath the ends of the follower B, so that there will be no wear upon said ropes.

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

1. The levers G, provided with four, more or less, graduated notches in the lower sides of their inner ends, in combination with the loops F, the toothed racks D, and the two movable followers B C, substantially as herein shown and described.

2. The combination of the ropes I and the guide-pulleys J with the upper follower B and the lower follower C, or equivalent weights, substantially as herein shown and described.

JOHN H. SIMONSON.

Witnesses:
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