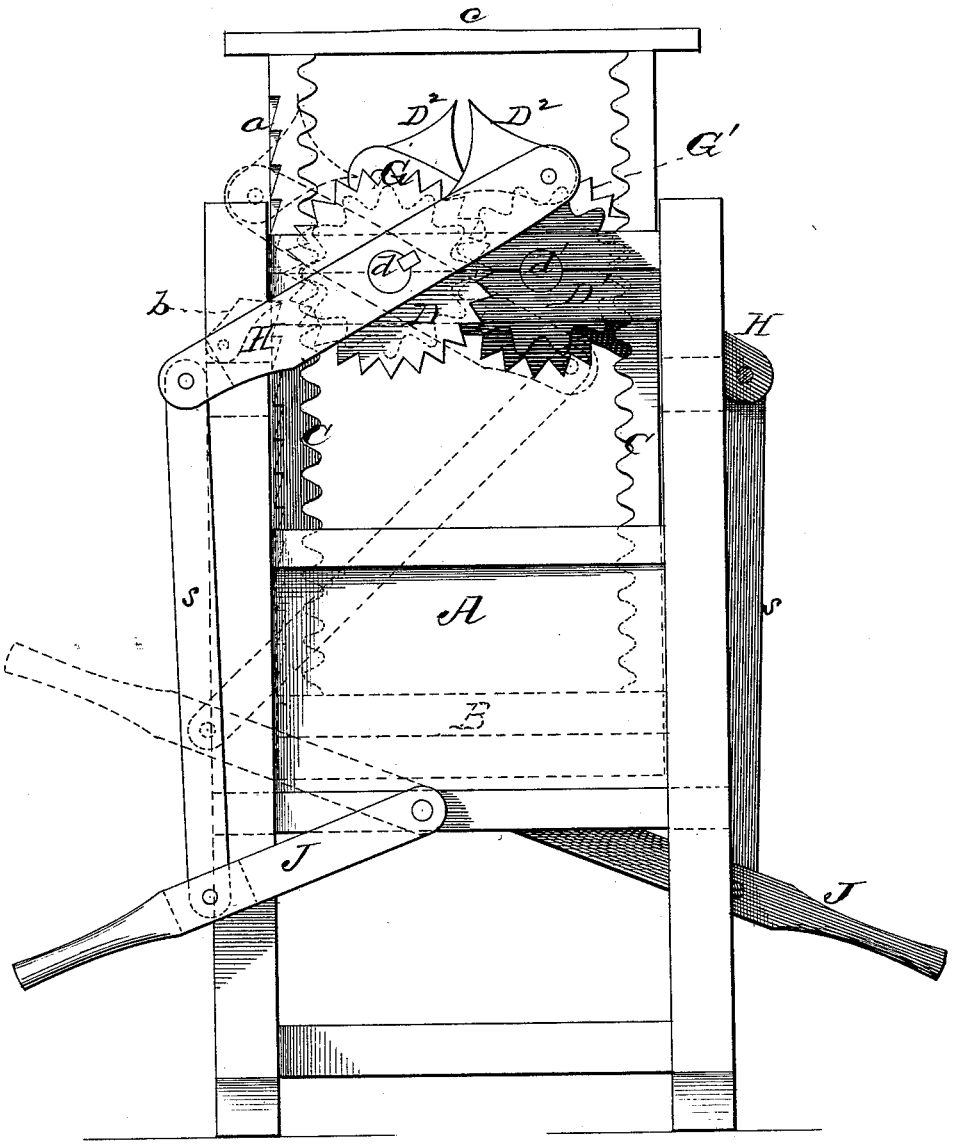
W. L. MORRIS.
Baling-Press.

No. 220,859. Patented Oct. 21, 1879.



WITNESSES
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UNITED STATES PATENT OFFICE.

WARREN L. MORRIS, OF VICTORY, GEORGIA.

IMPROVEMENT IN BALING-PRESSES.

Specification forming part of Letters Patent No. **220,859**, dated October 21, 1879; application filed July 12, 1879.

To all whom it may concern:

Be it known that I, WARREN L. MORRIS, of Victory, in the county of Carroll and State of Georgia, have invented a new and valuable Improvement in Baling-Presses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

The figure of the drawing is a representation of a side elevation of my improved baling-press.

This invention has relation to improvements in presses for cotton, hay, and other like compressible materials; and the nature of the invention consists in certain novel combinations of parts, all as hereinafter shown and described, and specifically pointed out in the claims.

In the annexed drawing, the letter A designates the chest or box of my improved cotton or hay press, not differing essentially in construction from those in common use, and having arranged therein the usual plunger or follower B, secured to the ends of which are two parallel rack-bars, C. The teeth of these latter are upon their inner faces, while upon their outer surfaces are formed grooves, engaging similarly-shaped ribs upon the main frame, by means of which the follower is guided and prevented from jamming. Upon one of the outer edges of one of the racks is a second rack, *a*, the teeth of which bite downward, which rack is engaged by a gravitating pawl, *b*, the object of which will appear hereinafter. The upper ends of these rack-bars are strongly braced together, as shown at *c*. D D′ indicate gear-wheels, arranged in line with each other between the rack-bars C, and meshing into the teeth of said bars, and engaging each other, being rigidly keyed upon the parallel shafts *d d′*, having their bearings in the top of the frame. It is clear that by the rotation of these shafts, or of one of them, the follower will be raised. G G′ represent gear-wheels and H pawl-carrying levers arranged at opposite sides of the casing. The levers are longitudinally slotted to receive the ratchet-wheels, and they are passed onto the ends of shafts *d d′* simultaneously, the former being secured to their respective shafts by a key or other equivalent, but the latter allowed to vibrate freely thereon. At the upper end of each of levers H is pivoted a double pawl, D^2, which may be swung around so as to engage the ratchets on either side of the said levers. J indicates other levers, pivoted at one end to lower part of the casing, and connected with the power end of the pawl-carrying levers by means of the rods *s*. These are pivoted at their lower ends to the middle of the length of the hand-levers J, and by working the latter the follower may be run up or down, as the case may be.

The illustration shows, in full lines, the pawl-carriers and the actuating-pawls in position for running down the follower; but by disengaging the actuating-pawls from the ratchets, thrusting the pawl-carriers into the position shown in dotted lines, re-engaging the pawls with the ratchets, and disengaging the pawl *b* from the rack *a*, a similar movement of the levers will run the follower up.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a baling-press, the combination, with a chest, A, and follower B having rack-arms C, of the gear-wheels D D′, interlocking each other and meshing with the rack-bars, their shafts *d d′*, pawl-carriers H H, ratchet-wheels G G′, double reversible pawls D^2 D^2, operating-levers J, and connecting-rods *s*, substantially as specified.

2. The combination, with a chest, A, the follower B, bars C, having interior racks, and an exterior ratchet, *a*, and the gravitating pawl *b* of the gear-wheels D D′, shafts *d d′*, ratchet-wheels G G′, pawl-carriers H, double reversible pawls D^2, operating-levers J, and connecting-rods *s*, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WARREN LAWRENCE MORRIS.

Witnesses:

GEORGE S. SWING,

JOSEPH M. WIDNER.