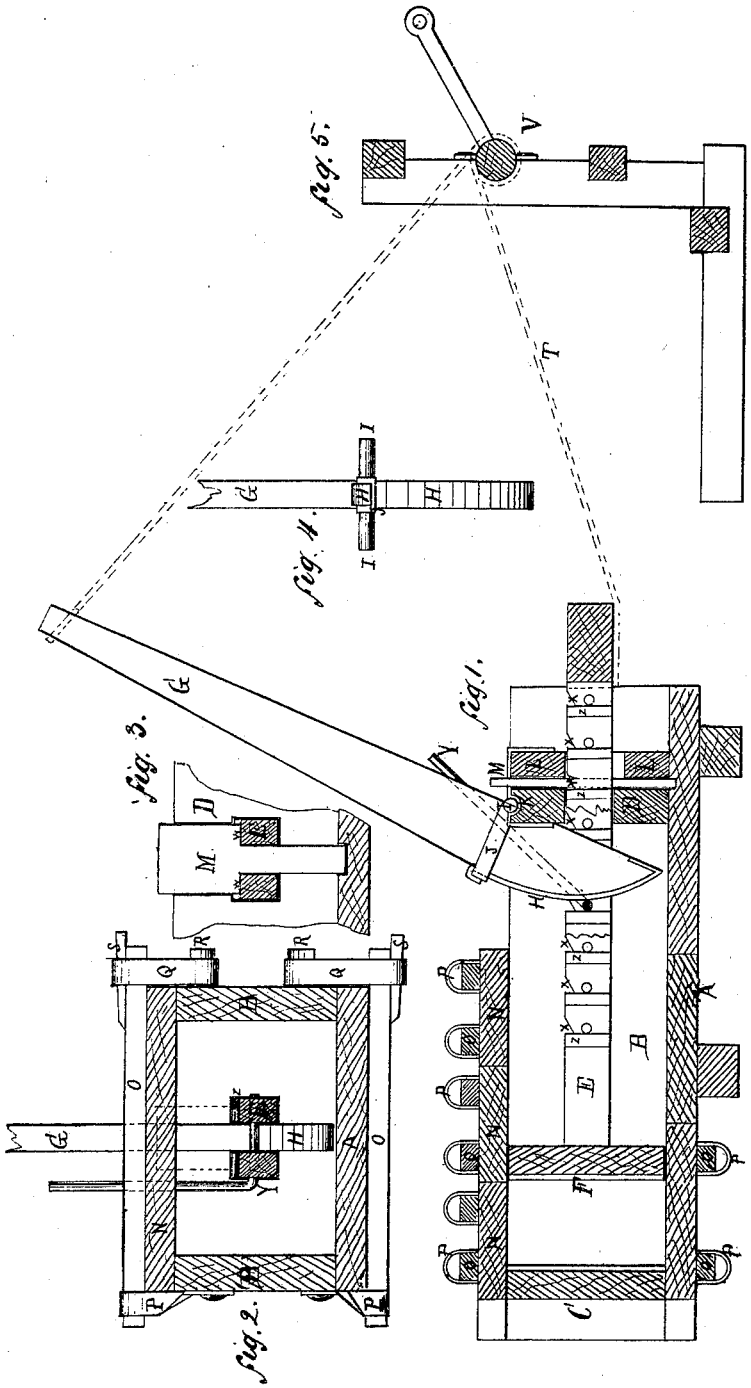
R. J. Harrison,

Cotton Press.

No. 111,840. Patented Feb. 14. 1871.



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ROBERT J. HARRISON, OF RALEIGH, NORTH CAROLINA.

Letters Patent No. 111,840, dated February 14, 1871.

IMPROVEMENT IN COTTON-PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ROBERT J. HARRISON, of Raleigh, in the county of Wake and State of North Carolina, have invented a new and improved Cotton-Press; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved press;

Figure 2 is a transverse section of the same in the line *x x*, fig. 1;

Figure 3 is a detached section of the press, showing the locking-plate in position;

Figure 4 is an edge view of the lower end of the operating-lever; and

Figure 5 is a vertical section of the windlass for operating the lever and withdrawing the platen from the press.

Similar letters of reference in the drawing indicate corresponding parts.

My invention has for its object to simplify the construction of cotton and other baling-presses, and at the same time render them more economical and efficient. To this end,

The invention consists in the construction of parts, as will be hereinafter more fully described.

In the accompanying drawing—

A is the bottom;

B B, the sides; and

C, the closed end of the press.

These parts are keyed or bolted firmly together, and constitute a rectangular box or case to receive the cotton or hay to be baled.

D is the end of the press through which the horizontal arm E of the pressing-platen passes, and is secured in place by bolts or keys.

F is the pressing-platen, firmly connected to the inner end of the arm E, and fitting within the press with easy contact.

G is the lever for operating the platen, placed in an upright position within the space left between the end D and top of the press, as shown, with its lower end entering the longitudinal slot or opening formed in the platen-arm E.

The lower end of this lever is rounded upon its inner or operating edge, and faced with a stout strap or band of iron, H, to strengthen it and to prevent its becoming worn or abraded by use.

The fulcrum of the lever is formed by a short metal bar, I, fastened to its back edge by means of a strap, J, to which the upper end of the strap H is attached, as shown.

The object of this construction is to avoid weakening the lever by the passage of the bar I through it, and to adapt the bar to the bearings formed in the end D of the press without cutting entirely through the latter. By this method of attachment the whole strength of the wood forming the lever is preserved, as the strain through it is from edge to edge at its widest part.

K K are the bearings for the fulcrum-bar I, formed in the upper edge of the end D and faced with metal, if preferred, to prevent their wear by friction.

It will be understood that by this connection of the lever with the press the former can be lifted out of its bearings for removal at any time.

L L are cross-bars at the upper and lower edges of the end D, serving to strengthen the latter and to furnish supports for the T-shaped locking-plate M.

The top of the press is formed of a series of removable doors or sections, each composed of one or more strips, N, of a length equal to the width of the press, and provided upon their upper sides with two or more parallel bars, O.

The projecting ends of these bars fit within metal loops P, fastened to one side of the press, and over their opposite projecting ends metal loops Q are slipped, which also fit over studs R, secured to the opposite sides of the press.

The loops Q are tightened, to hold the doors in place, by means of wedges S S, driven between them and the bars O, as shown.

The operation is as follows:

The doors, one or more, are first removed by knocking out the wedges and slipping off the loops Q. The platen is then drawn toward the end D by means of a rope or chain, T, attached to a windlass, V, placed a short distance from the end of the press, as shown in the drawing.

The press is then filled with the requisite quantity of cotton to form a bale, the door or doors replaced, being tightened by the wedges as previously mentioned, and the rope T released from the windlass.

The upper end of the lever is now moved toward the press, and a pin or bolt, Y, passed through the platen-arm in front of the rounded lower end of the lever, and the upper end of the latter pulled toward the windlass either by grasping the rope or by attaching it to the windlass, as will be readily understood. This movement forces the platen against the cotton, and when the throw of the lever has reached its limit, the beveled shoulders *w* of the T-shaped locking-plate M drop into corresponding notches *x*, formed in the proximate upper edges of the platen-arm, and hold the platen in place, while the lever is being moved back for a second throw. This operation is continued until the bale is complete, when the doors are removed, the bale strapped, and the platen again drawn out by the rope and windlass, the locking-plate M being previously raised.

It will be seen that the position of the bevels upon

the shoulders of the locking-plate and in the platen-arm permit the inward movement of the platen, but prevent its withdrawal until the locking-plate is raised.

The bales are discharged from the press through a door held in its bottom in the manner previously described for the top doors.

I prefer to make the bolt Y, against which the lever presses, right-angular in form, so that its vertical arm shall extend above the press in a position to be easily reached for changing from one hole to another in the platen-arm as the lever is operated.

Metallic strips *z* may be placed around the sides of the platen-arms to strengthen the edges of the beveled notches and prevent the wood from becoming worn or injured.

Having thus described my invention,

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

1. The combination of the upright removable lever G, the adjustable locking-plate M, and angular bolt Y, with the end D of the press, and the notched and slotted platen-arm E, all operating substantially as described for the purpose specified.

2. The lever G, constructed with the rounded metal face H, bar I, and strap J, arranged in bearings as described, for the purpose specified.

3. The arraugement of the lever G and horizontal platen-arm E, with relation to each other and the press, whereby both are adapted to be operated by the same windlass, as herein shown and described.

4. The doors of the press, composed of the strips N and parallel bars O, in combination with the fixed metal loops P, removable metal loops Q, studs R, and wedges S, when arranged as herein described for the purpose specified.

ROBERT J. his × mark. HARRISON.

Witnesses:

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