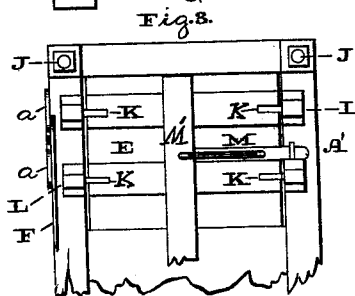
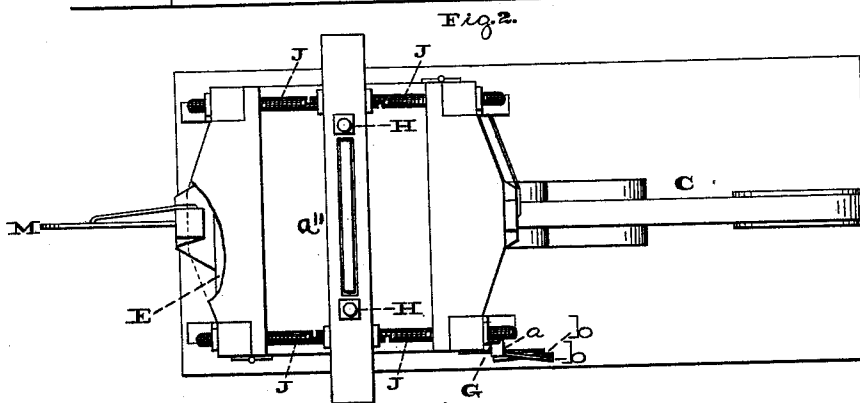
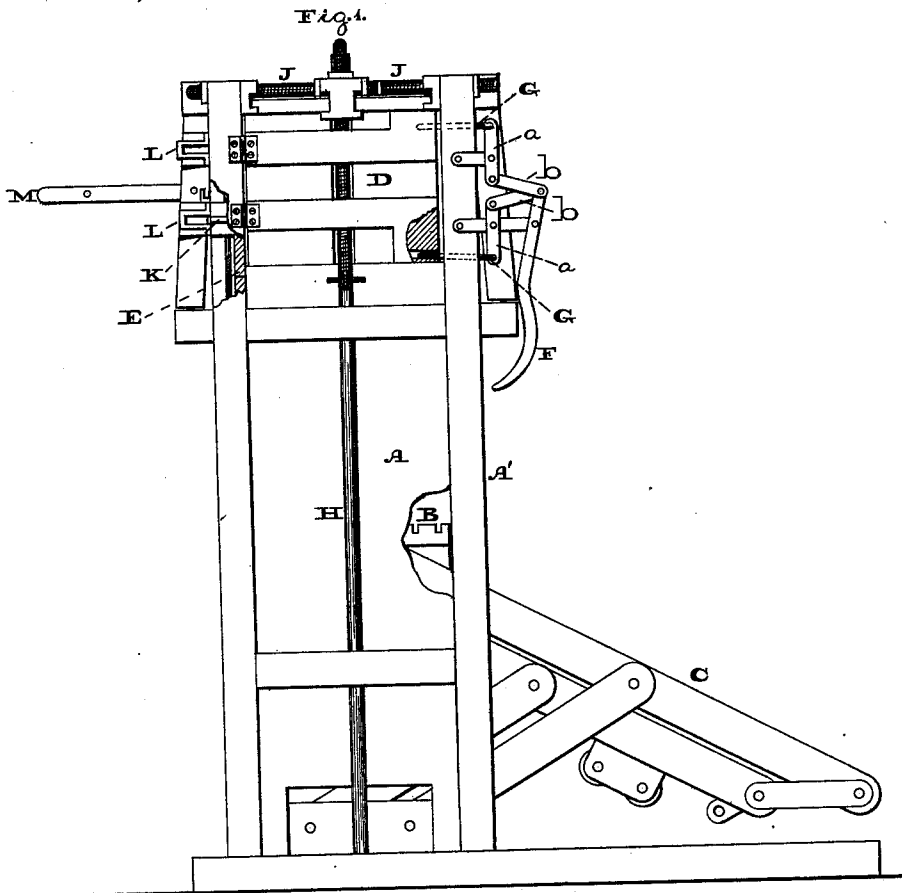


I. R. KULP.
Hay-Press.

No. 208,526.

Patented Oct. 1, 1878.



Witnesses:

A. P. Grant,

H. F. Fisher

Inventor:

Isaac R. Kulp,

by *John Diederheime*
ATTORNEY.

UNITED STATES PATENT OFFICE.

ISAAC R. KULP, OF HATFIELD, PENNSYLVANIA.

IMPROVEMENT IN HAY-PRESSES.

Specification forming part of Letters Patent No. **208,526**, dated October 1, 1878; application filed August 28, 1878.

To all whom it may concern:

Be it known that I, ISAAC R. KULP, of Hatfield, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Improvement in Hay and other Presses, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of the press embodying my invention. Fig. 2 is a top or plan view thereof. Fig. 3 is a side elevation of a portion thereof.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of levers for simultaneously opening and closing the upper and lower bolts of the doors of the press-box.

It also consists of guides for causing the movable sides of the box to open and close without binding.

It further consists of screws for tightening and bracing the double box and frame, the vertical screws whereof being made of detachable parts to permit the formation and subsequent removal of a single bale.

Referring to the drawings, A represents the box; B, the follower; C, the operating-levers; D, the doors, and E the movable sides of the box.

To the upper ends of uprights A' of the box there are pivoted two levers, *a*, to the inner ends of which are pivoted two levers, *b*, whose outer ends are connected to an operating or hand lever or arm, F.

Bolts G are connected to the inner ends of the levers *a*, and they pass through the uprights A', and are adapted to enter the upper and lower openings or keepers of the doors D. By moving the lever F in one direction, both bolts G move from the doors D, whereby the latter may be opened. By moving the lever in the other direction, both bolts move in, and thus the doors will be secured.

H represents rods which pass from the base or bottom of the press through the side and top beams of the press. The upper ends of the rods are screw-threaded to receive nuts,

whereby the parts of the box and frame of the press may be braced and tightened. Horizontally-arranged screw-rods J, with nuts, are passed through the upper end of the box for bracing and tightening the same.

To the sides E of the box there are secured pins or bars K, which enter guides L, secured to and projecting from the uprights of the box; and a cam-lever, M M', is pivoted to proper pieces of the frame of the box, whereby said sides may be moved in and held during the pressing operation, which being performed, the lever is rotated and the sides are permitted to expand or open, whereby the bale may be more readily removed.

During the movements of the sides E the pins or bars K play in the guides L, thus uniformly guiding the upper and lower portions of the sides and preventing binding thereof.

The box has a central partition to permit two bales to be pressed at one operation; but when a large or single bale is pressed, the upper part of the rods H and the horizontal rods J are removed in order to permit displacement of the top beam, *a*.

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

1. The combination, with the sliding bolts, of the two levers *a*, pivoted to the two levers *b*, and the hand lever F, having a common connection to the levers *b*, substantially as and for the purpose set forth.

2. The movable sides E, provided with pins or bars K, in combination with the guides L, projecting from the uprights of the box, substantially as and for the purpose set forth.

3. The box and frame, in combination with the vertical screw-rods H, formed of detachable parts, and the horizontal screw-rods J, formed of lap-jointed parts, substantially as and for the purpose set forth.

ISAAC R. KULP.

Witnesses:

JOHN A. WIEDERSHEIM,
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