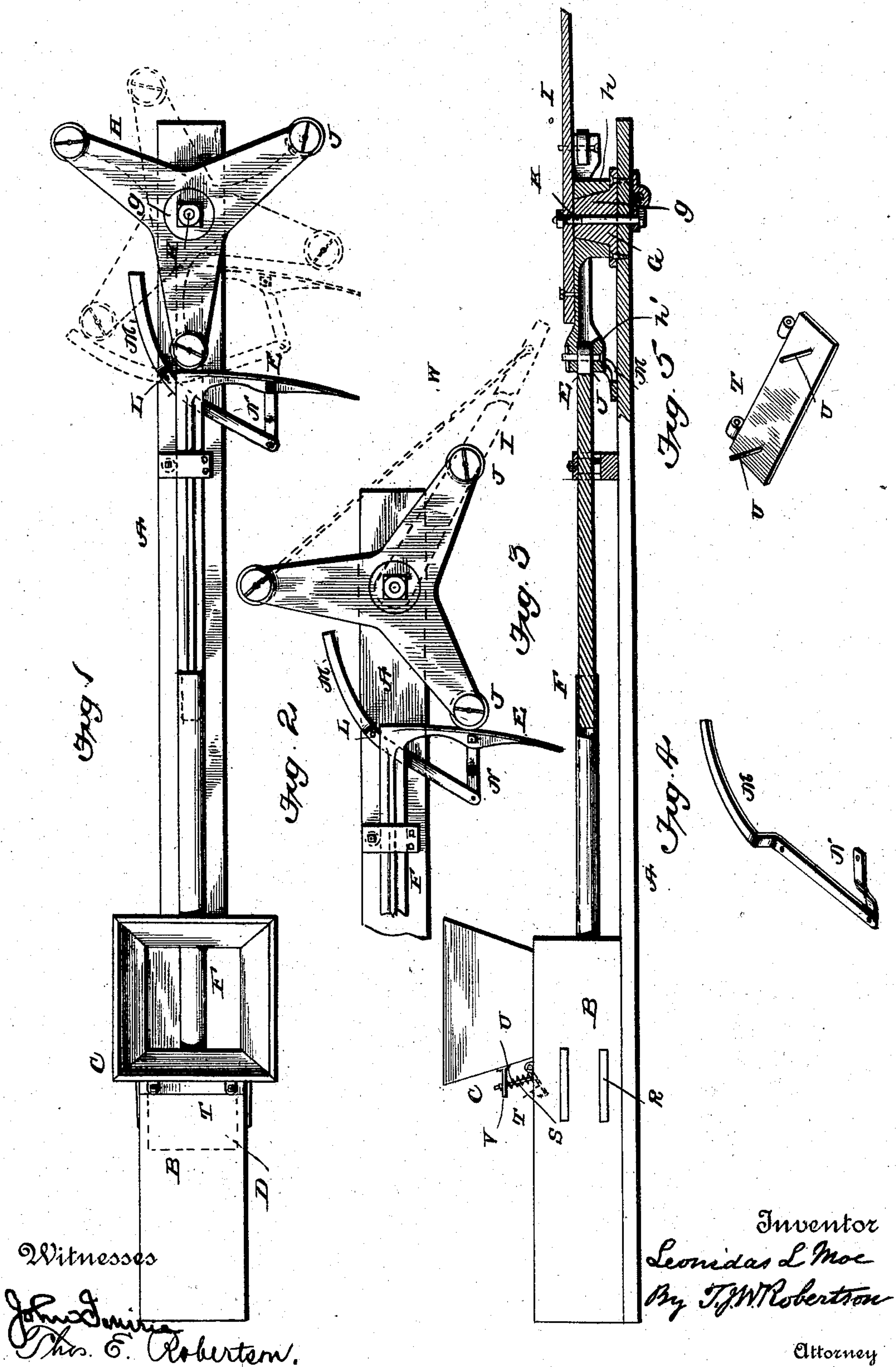


(No Model.)

L. L. MOE.
HAY PRESS.

No. 505,224.

Patented Sept. 19, 1893.



UNITED STATES PATENT OFFICE.

LEONIDAS L. MOE, OF DENVER, COLORADO.

HAY-PRESS.

SPECIFICATION forming part of Letters Patent No. 505,224, dated September 19, 1893.

Application filed May 26, 1893. Serial No. 475,823. (No model.)

To all whom it may concern:

Be it known that I, LEONIDAS L. MOE, a citizen of the United States of America, residing at Denver, Arapahoe county, Colorado, have invented certain new and useful Improvements in Hay-Presses, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention is an improvement on the press shown in my Patent No. 416,416, dated December 3, 1889, and it consists in the peculiar construction, arrangement and combinations of parts hereinafter more particularly described and then definitely claimed.

In the accompanying drawings—Figure 1 is a plan of a press constructed according to my improvement without the sweep and showing some of the parts in different positions. Fig. 2 is another plan, in still another position, with the sweep in place. Fig. 3 is a side view partly in section. Fig. 4 is a detail of a lever and link. Fig. 5 is an enlarged view of the tucking device.

Referring now to the details of the drawings by letter, A represents the base of the press on which is mounted the press chamber B having the hopper C, and in which works the plunger D connected to the head E of the press by the follower stem F.

Secured to the base A is a cast standard G on which is mounted the spider H which carries the sweep I and the rollers J, and the latter act upon the head E to push the follower into the chamber B and compress the charge. The ends of the arms of the spider are forked as shown at *h'* so as to receive the rollers in the fork, thus distributing the strain equally on the pin or bolt connecting said rollers with the spider. The under side of the hub of the spider is extended downward in the form of a sleeve *h* inclosing the perpendicular part *g* of the standard, and the spider and standard are secured together by a king-bolt K, and the whole is so arranged that the king-bolt and sleeve strengthen each other, so that there is no likelihood of their breaking, and in fact if the king-bolt were left off, the spider and standard would so cooperate together that the press could be used without the king-bolt, and if the vertical part of the standard broke off, the king-bolt would hold the parts together in operative condition.

Pivoted to the base at L is a lever M, one end of which is connected to the head E by a link N and the other end is curved and bent in such shape as to be acted on by the friction-rollers J in their revolution after leaving the head E, and by their action is pushed outward and downward until the plunger has been drawn backward by the connection between the opposite end of the lever and the head.

At T is shown a tucker which is set slightly in the rear of the retainers R, and is held down by springs S encircling the bolts U, the upper ends of which pass through guides V as shown and their lower ends are connected to the tucker.

The sweep I is preferably attached to one of the arms of the spider and provided with a stay W which runs from said sweep to another of the arms.

It is evident that the number of rollers J may be increased or diminished at will, as desired by the makers or users, and that instead of a spider a disk may be used to carry the rollers. In case a disk is used, the rollers cannot be secured thereto as strongly as in the forked arms of a spider, as the pins on which they turn can only be supported on one side of the roller, while by the use of the forked arms said pins or bolts are supported on both sides of the rollers. To enable me to do this, I have found it necessary to cut away the under side of arms, as shown by the curved dotted lines in Fig. 1, and in full lines in Fig. 2, as otherwise the head E would come in contact with the under side of the arms in rebounding.

The operation is as follows: The hay is fed into the hopper and motion being given to the sweep, one of the rollers comes into contact with the head E and pushes it forward or toward the press chamber, driving the plunger into said chamber, compressing the hay therein and pushing it past the tucker and retainers, the latter holding it while the former bends downward, as shown in Fig. 5, the ragged ends usually left at the upper corner of each feed. As soon as the roller leaves the head, it comes in contact with the lever M and by acting on it returns the plunger as before described. When the next charge of hay is fed into the hopper, the ragged ends of the

hay which have been bent down by the tucker are carried downward and held down by the succeeding charge as the above operation is repeated, and thus the bale is smooth on all 5 sides, whereas where the tucker is not employed the top of the bale is usually quite rough. These operations are repeated until the hay in the chamber has reached the required density, when the bale is ready for 10 tying in the usual manner.

What I claim as new is—

1. The combination in a press, of the lower stem F, the head E projecting from one side thereof, the roller carrier H and the lever 15 M pivoted to the base and in operative connection with the head E, substantially as described.

2. The combination in a press, of the head E, the roller carrier H operating on the head, the lever M pivoted to the base, and the link 20 N connecting the head and lever, substantially as described.

3. The combination in a press, of the head E, spider H, having forked arms cut away on one side, and the rollers set into said arms, 25 and acting on the head E, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 19th day of May, 1893.

LEONIDAS L. MOE.

Witnesses:

GEORGE T. MOE,
HARRY K. FRIES.