

P. K. DEDERICK.
Baling-Presses.

No. 205,737.

Patented July 9, 1878.

Fig 2.

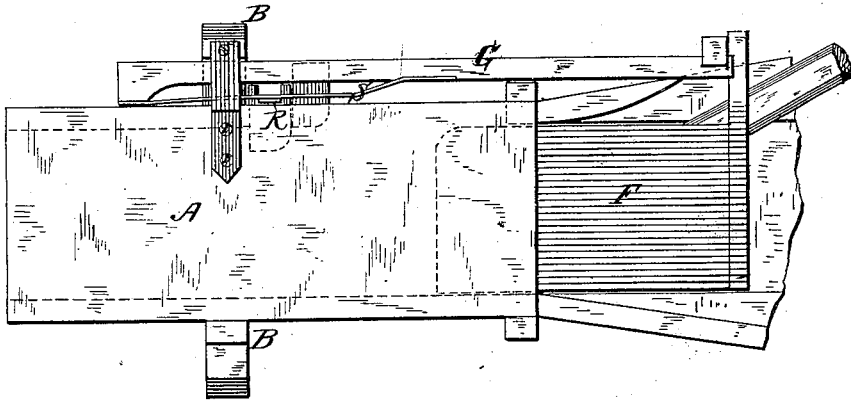
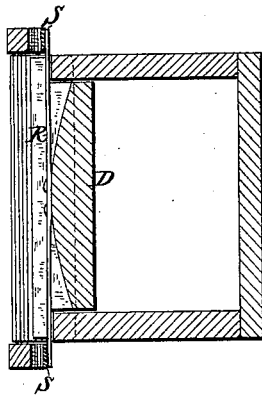


Fig 3.



Witnesses

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IMPROVEMENT IN BALING-PRESSES.

Specification forming part of Letters Patent No. **205,737**, dated July 9, 1878; application filed December 21, 1877.

To all whom it may concern:

Be it known that I, PETER K. DEDERICK, of Albany, New York, have invented certain improvements in Baling-Presses, of which the following is a specification:

My invention consists, first, in the manner of operating the folding device through means of springs; second, in the manner of attaching the sweep or horse-lever to the crank, and the manner of operating the same; third, the rollers under the traverser, to diminish the friction, in connection with the power.

Figure 1 is top-plan view of the machine, partly in section. Fig. 2 is a plan view of the press-box; and Fig. 3 is a sectional view, showing the folding devices.

In the drawings, A is the horizontal or nearly horizontal baling-chamber, although it may be placed upright, if desired, and is constructed in the ordinary manner of this class of presses.

B are posts; C, slots for tying the bale; E, the feed-orifice; D, the folder for folding the hay overlapping the traverser F; G, the slides attached to the traverser and operating the folder. H is a toggle. I is a crank; J, the pitman connecting the crank with the toggle, and which might be a rod or chain with the same effect; and K is the sweep or horse-lever, which may be used either on the shafts at M or N. This latter arrangement, however, is shown and described in Letters Patent No. 151,477, issued to me June 2, 1874.

To the shaft of the crank there is attached a plate or wheel, M, provided with lugs, so that the sweep, when loosely attached to the center, may be brought to bear on either side against such lugs when reversed.

The device N is the same as the plate M in construction and operation, and is secured to the shaft formed on the toggle, so that the horse-lever may be used at either point, although the power will not be as great when it is used at N as it will be when used at M, in consequence of the advantage derived from the crank I.

One end of the toggle H is attached to the frame of the press and the other end to the traverser F. The traverser is provided with two rollers or wheels, O, at its forward end, which project from it far enough to carry it

clear of contact with the press-box, and thus reduce the friction along the bottom thereof.

A series of rollers, P, is secured to the frame at each side, as shown, so as to carry the traverser when withdrawn.

D is the folder, the beveled edge of which projects about three inches within the working machine when pressed into the chamber. A spring, R, is secured to the center of the folder by means of a bolt. The slides G are secured to the traverser, so that they must move with it, and are provided with springs S, secured at such an angle as to form a wedge to force the folder down by engaging with the outer ends of the springs R.

The object of these springs is to provide a yielding device, so as to avoid breakages in case the follower or any unyielding substance prevents the folder from passing into the box. This same device may be used with the feed-orifice at the top of the press, with the same effect.

In operation, the material to be baled is pitched into the feed-orifice E, the traverser being withdrawn. The horse-lever K is then vibrated a half turn, which forces the traverser F forward through means of the toggle H and crank I, and crowds the hay within the chamber, forcing the folder back. The traverser is then withdrawn by a reverse half-turn, the folder turning down the overlapping ends. The operation is thus continued until the hay becomes compact in the chamber, when the baling may commence by inserting one of the partition-followers, such as are ordinarily used in this class of presses. The loose material is now fed in as before, and the horse-lever, through means of the crank and toggle, forces it in by a half-turn, as before; but as soon as the crank passes a line with the pitman J the expansive force of the pressed material forces the power back, carrying the crank with it, and the lugs on the plate M are brought in position, so as to commence the pressing operation again as soon as the horse is reversed.

In this manner the lever is vibrated back and forth about a half-turn, and at each half-turn one stroke of the traverser is secured, as the power reverses itself as soon as the crank passes the center. A weight may be used to

reverse the traverser, instead of relying on the expansive force of the hay; or the press may be set at such an angle that the traverser will run or drop back of its own gravity after the crank has passed its center.

If, during the operation, any unyielding substance blocks the folder, the springs on the slides and folder yield, so that no damage is done the press. The bales are secured in the ordinary manner of this class of presses.

Having thus fully described my improvements, I claim—

1. The combination of the folder D and slides G with the springs R S, separately or together, for the purpose specified.

2. The combination of the toggle H and crank I, connected, as set forth, when adjustably connected to the sweep or horse-lever, for the purpose specified.

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Witnesses:

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