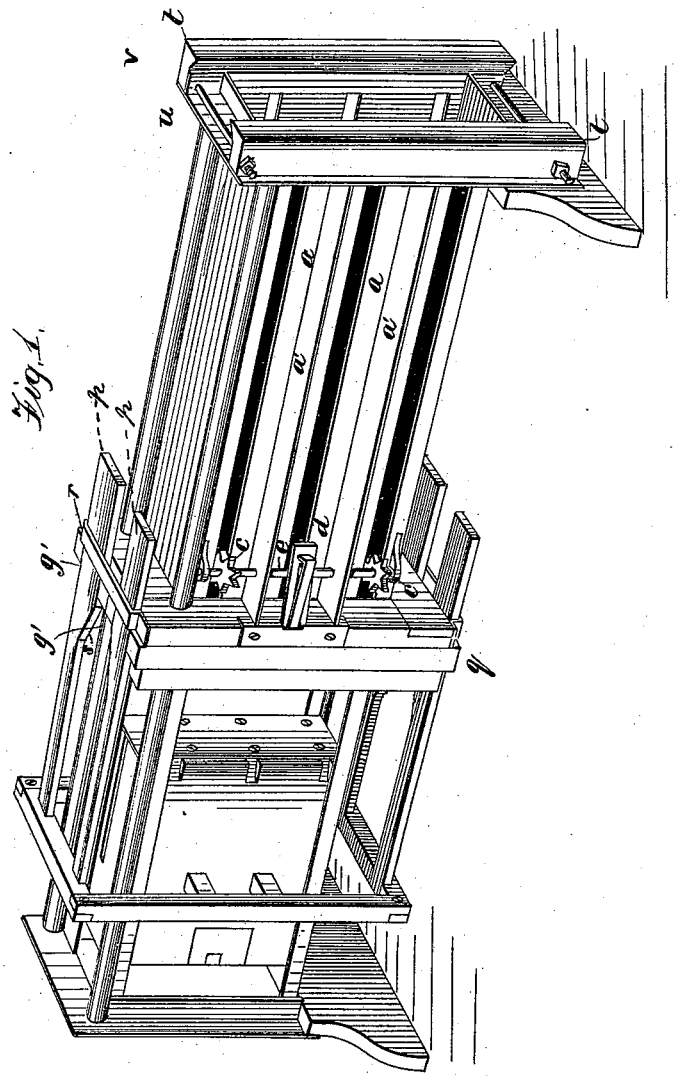
2 Sheets—Sheet 1.

P. K. DEDERICK.

HAY-PRESS.

No. 187,220. Patented Feb. 13, 1877.



Witnesses
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Peter K. Dederick
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His attys.

2 Sheets—Sheet 2.

P. K. DEDERICK.

HAY-PRESS.

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Fig. 2.

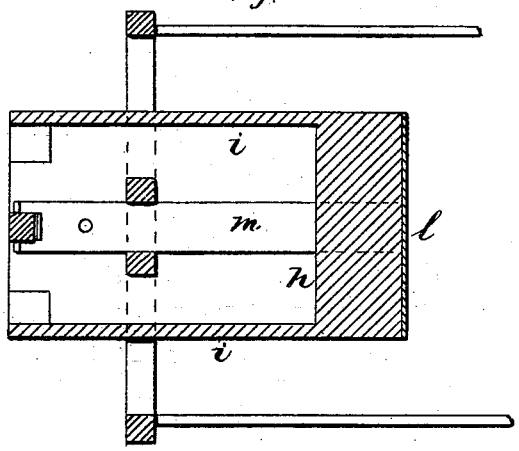


Fig. 3.

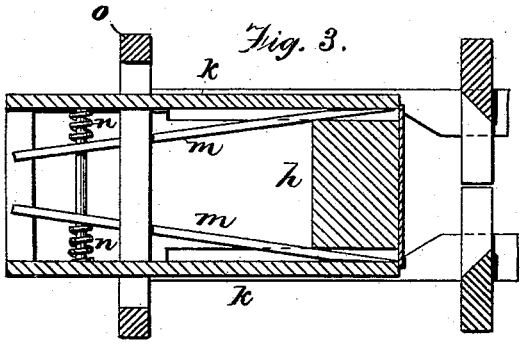


Fig. 4

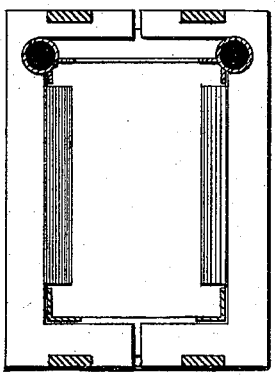
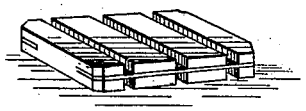


Fig. 5.



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UNITED STATES PATENT OFFICE.

PETER K. DEDERICK, OF ALBANY, NEW YORK.

IMPROVEMENT IN HAY-PRESSES.

Specification forming part of Letters Patent No. **187,220**, dated February 13, 1877; application filed January 3, 1877.

To all whom it may concern:

Be it known that I, PETER K. DEDERICK, of Albany, in the county of Albany and State of New York, have invented a new and useful Improvement in Hay-Presses; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to self-feeding presses for hay, cotton, and like substances; and consists of an improved construction of the frame; of an improved retainer, to retain the hay or other material after pressing; of an improvement in the traverser; of an improvement in the folders, for folding the hay which overlaps the follower, and in the adjustable retarders at the discharge end.

Figure 1 represents a perspective view of the machine. Fig. 2 is a vertical longitudinal section of the follower; Fig. 3, a horizontal section of the same; Fig. 4, a transverse section, showing the folder; and Fig. 5 is a view of the follower.

The construction of the frame is represented in Fig. 1. That part in which the follower moves and is guided may be made of ordinary angle-iron, there being one at each corner. The press-box is formed at the side, mainly of ordinary T-iron. This is arranged as shown at *a a*, *a' a'* representing the central flange, which projects outward, adding great strength to the structure, while the other flanges form the inner face. These bars may be held at the ends of the press-box by any suitable connections, either of wood or metal. In order to firmly connect the press-box and the extension of the frame in which the follower moves, I use ordinary gas-pipe, (shown at *b b*.) These pass through the frame-work at the inner end of the press-box, and are secured on the one end to the end of the frame, and on the other to the delivery end of the press-box.

This gas-pipe, like the T-iron, is readily found in the market, and is a strong and cheap material.

My improved retainer (shown at *c c* in Fig. 1) consists of spur-wheels, which may, if desired, all be arranged on the same shaft *e*, and there may be one at each slot, or less, as may be required. The spurs project inward far enough to come in contact with the hay as it is pressed past them. They turn freely with the hay, but are held against returning by a pawl, *d*, and thereby the hay is held against any tendency to move backward.

The rod *e* may pass through the flanges *a'*, and have its bearings in suitable lugs or ears above and below.

The traverser is represented, as before stated, in Figs. 2 and 3. The central part thereof (marked *h*) carries the face-plate, which comes directly in contact with the hay. The top and bottom *i i* are directly fixed to this; but the sides *k k*, connected at the rear, as shown in Fig. 3, rest at the ends against the face-plate *l*, and have space between their inner surfaces and the central block *h*, so that the sides may be allowed to spring inward. In order to hold them out by an elastic force, levers *m m* and springs *n n* may be used, though the springs may be applied in other ways. These elastic sides act in the ordinary way, and are notched to pass the retainer. A frame, *o*, carried by the follower, moves cam-bars *p p*, two above and two below. These cam-bars pass through properly-arranged mortises or notches in the upper and lower edges of the folder-bars *q q*. The cam-bars lie in the notches, as shown at *g' g'*, and are held down by a strip *r*. The folders have free motion in and out, and are moved equally by the cam-bars above and below. The inner edges of these bars, being inclined, as shown at *s*, when they are drawn back in the withdrawal of the traverser, draw in the folders. The inner edges of these are beveled, so that the advance of the traverser may push them back.

Instead of the diminished discharge end of the bale-chamber, I have provided another form of retainer, which is simple in its application. It is shown in Fig. 1, and consists of two bars, *t t*, one on each side, held together by means of rods *u u*, which pass through flanges *v v*. The bars *t t* are beveled, as shown, and may be drawn securely inward, with the amount of force required, by means of nuts on the rods *u u*. The bevel on the bars diminishes the space through which the bales pass, and thus increases the solidity, in the manner set forth in my former patents.

The operation of my improved press is the same as in the presses of this class described in patents heretofore granted me. This may be used either in upright or horizontal position.

The follower shown in Fig. 5 is the same as that shown in patents heretofore granted to me, except that the edges of the inserted metallic strip are not interrupted by any notches. These edges pass between the points of the spur-wheels, in the notches between the spurs, so that the follower may fill the entire width of the box.

I claim as my invention—

1. The spur-wheels fixed on the rod, in the described combination with the bars of the press-box, and with the pawls, as set forth.

2. The combination of the press-box, the spur-wheels, and the follower, formed with the metallic strips in the edges, said strips being flush with the edges of the follower, as set forth.

3. The folding devices arranged in slots in the side of the press-box, in combination with the cam-bars, connected to the traverser, as set forth.

4. The improved traverser, having sides capable of yielding inward, in combination with the interior springs, as set forth.

5. A baling-press constructed of T and tubular iron, in the manner set forth.

6. The adjustable retarding devices at the discharge end, consisting of the beveled bars *t t*, applied to the flanges and held by the transverse bolts, as set forth.

P. K. DEDERICK.

Witnesses:

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A. M. DEDERICK.