H. S. LAIRD.

Baling-Presses.

No. 196,156. Patented Oct. 16, 1877.

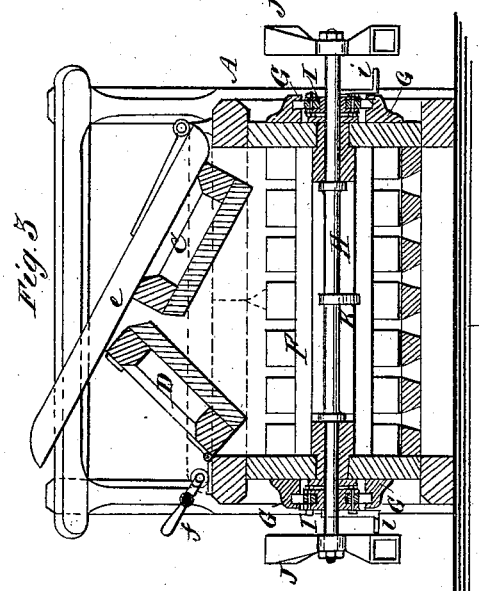

Fig. 3

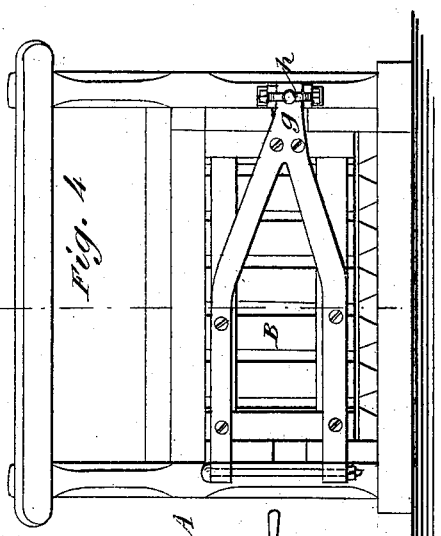

Fig. 4

Fig. 5

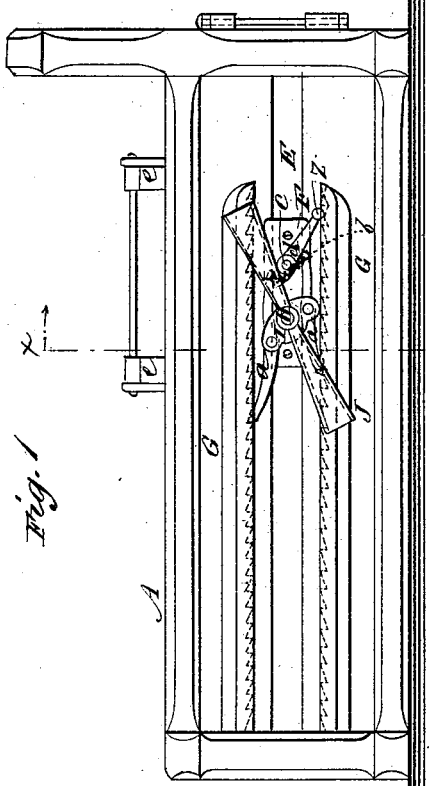

Fig. 1

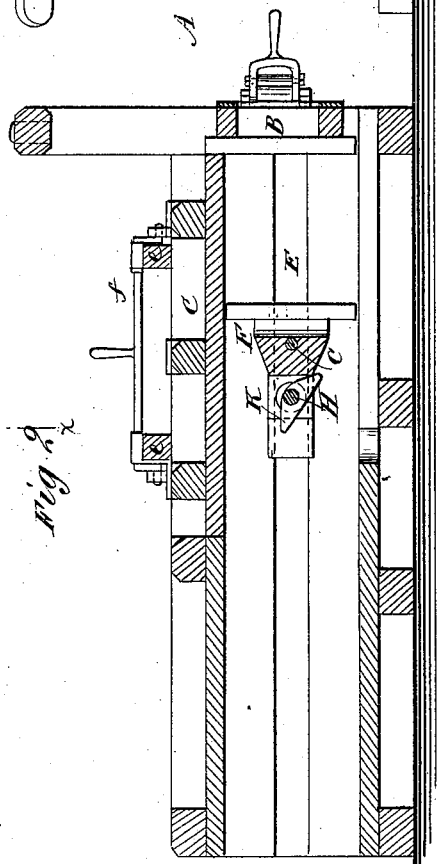

Fig. 2

WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

HILAMON S. LAIRD, OF SAN LUIS OBISPO, CALIFORNIA, ASSIGNOR OF A PART OF HIS RIGHT TO LAZARE LANDEKER, OF SAME PLACE.

IMPROVEMENT IN BALING-PRESSES.

Specification forming part of Letters Patent No. **196,156,** dated October 16, 1877; application filed August 24, 1877.

To all whom it may concern:

Be it known that I, HILAMON SPENCER LAIRD, of the city and county of San Luis Obispo, and State of California, have invented a new and Improved Baling-Press, of which the following is a specification:

Figure 1 is a side elevation of my improved press. Fig. 2 is a longitudinal section of the same. Fig. 3 is a vertical section on line *x x* in Fig. 1, looking in the direction indicated by the arrow. Fig. 4 is a front elevation. Fig. 5 is a detail view of one of the operating-levers.

Similar letters of reference indicate corresponding parts.

My invention relates to presses for baling cotton, hay, and other similar articles; and it consists in a combination of ratchets, pawls, and levers for operating the same, as hereinafter described.

In the drawing, A is the frame of the press to which the platen or end piece B and the doors C D are hinged.

In the plank forming the sides of the press there is a slot, E, through which the ends of the follower-head F project, and upon each side of the slot ratchet-bars G are attached to the sides of the press. A shaft, H, is journaled in the follower, and projects beyond the sides of the press to receive the heads I, and the double lever-sockets J. Pawls *a* are pivoted in opposite sides of the head, and extend forward beyond the pivots to receive a spring, *b*, which throws them into engagement with the ratchet-bars G. A shaft, *c*, is journaled in the follower-head, and is provided with cams *d*, for throwing apart the forward ends of the pawls, and disengaging them from the ratchet-bars. A stop, K, is attached to the shaft H, which limits the motion of the shaft.

The follower-head F, the bottom of the press, and the end piece or platen B are slotted to admit of tying the bale. The door C at the top of the press is provided with arms *e*, that extend over the door D, and are engaged by a swinging hasp or fastener, *f*.

The straps forming the hinges of the end piece B extend across it, and are united, forming a nib, *g*, for receiving the hasp or fastener *h*.

The press may be arranged either horizontally or vertically, and, by employing a crank and connecting-rod instead of levers, it may be driven by power.

The press is filled while the follower is drawn back, and the end piece or platen B fastened.

The doors C D are closed, and the levers L (shown in Fig. 5) are inserted in the sockets J and oscillated.

The upper and lower pawls alternately engage the ratchet-bars, and the follower moves forward. When the bale is sufficiently compressed, it is tied and forced out at the end of the press by continuing the movement of the levers.

When it is desired to move the follower-head back, the pawls are disengaged from the racks by turning the cams *d* on the shaft *c*, by means of the crank or handle *i*, secured to the end of the shaft.

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

1. The combination, in a baling-press, of the follower-head F, shaft H, carrying the heads I, the pawls *a*, lever-sockets J, and ratchet-bars G, substantially as shown and described.

2. The combination of the stop K with the shaft H, as and for the purpose specified.

HILAMON SPENCER LAIRD.

Witnesses:

ERNEST CERF,

JULIUS KREBS.