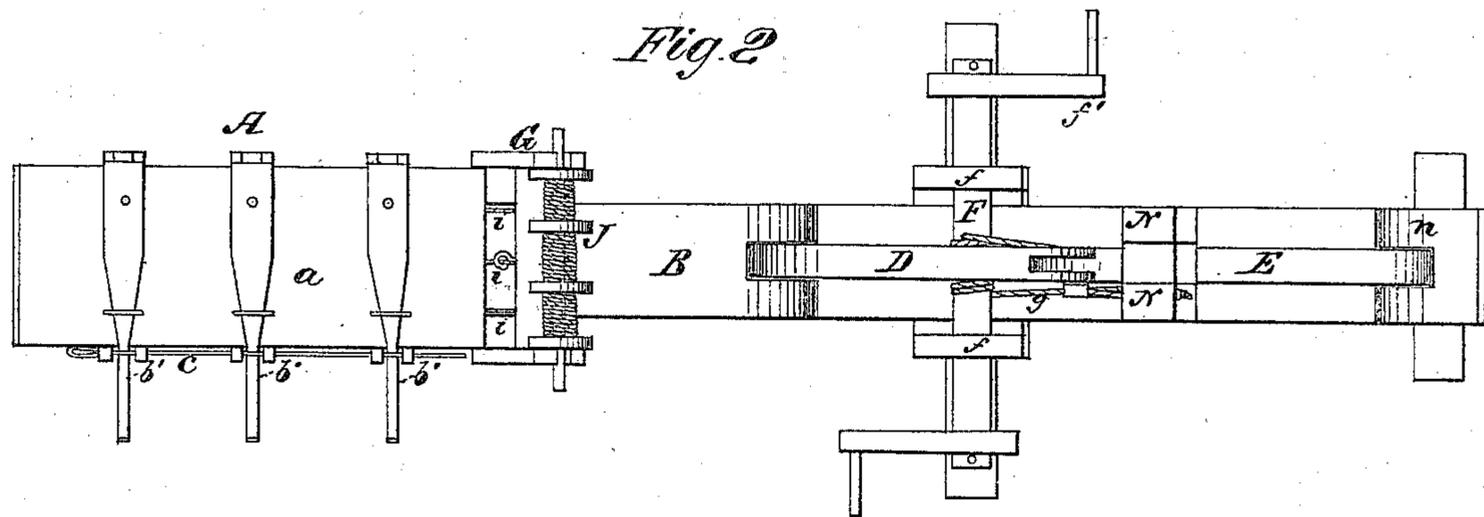
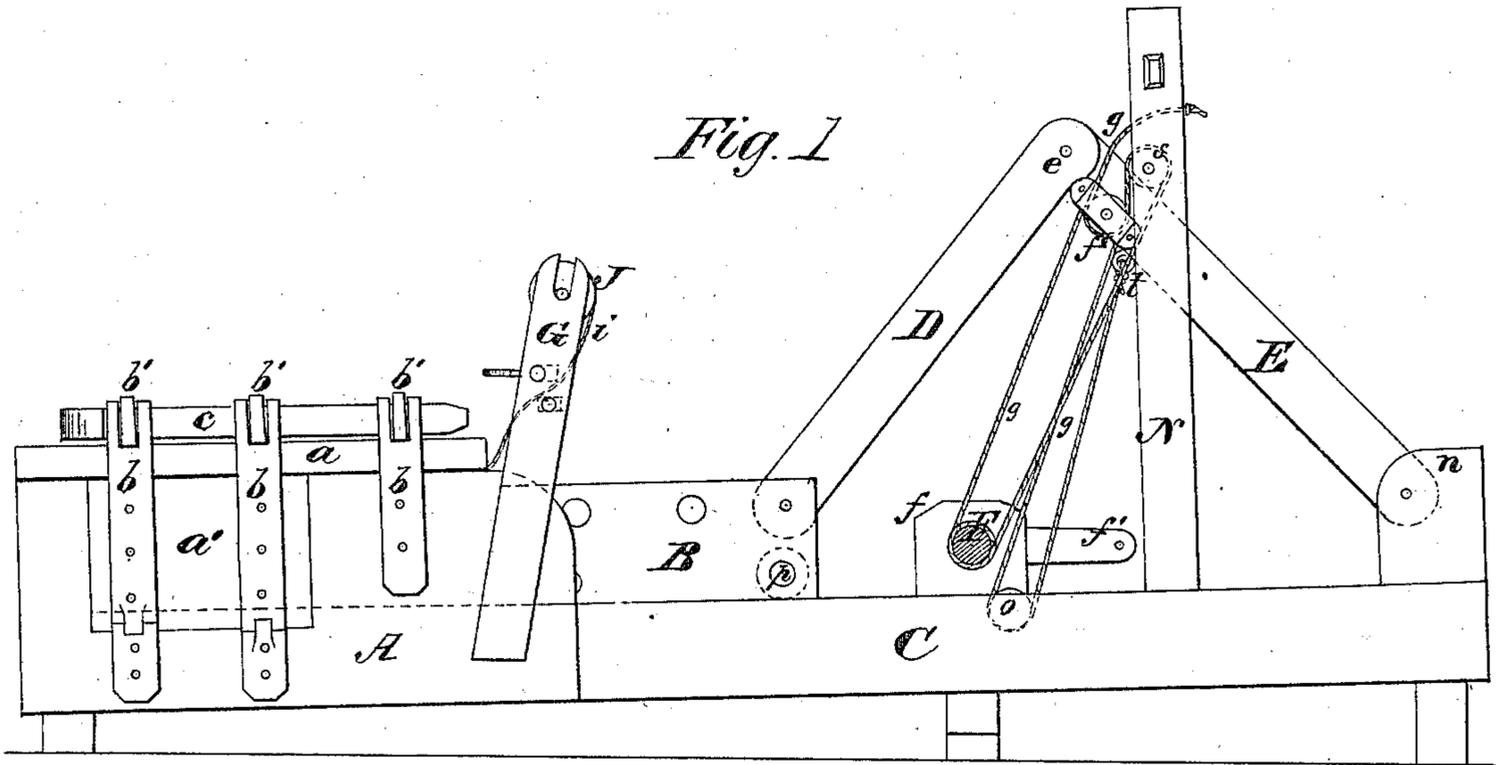


FRANKLIN B. WALLIN.

Improvement in Baling-Presses.

No. 126,853.

Patented May 14, 1872.



Witnesses.
R. T. Campbell
John Williams

Inventor
F. B. Wallin
 by
Marion, Knicker & Co.

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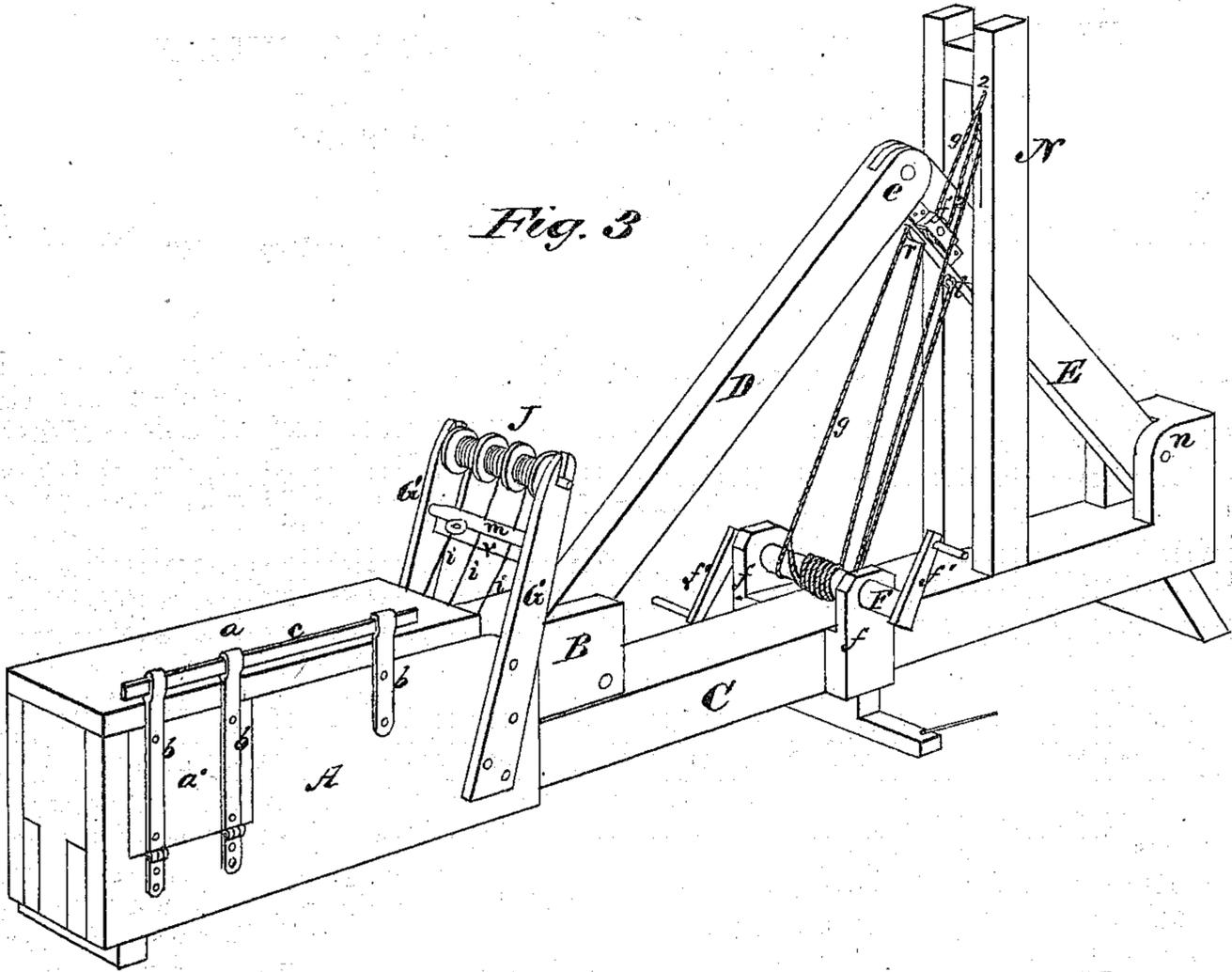


Fig. 3

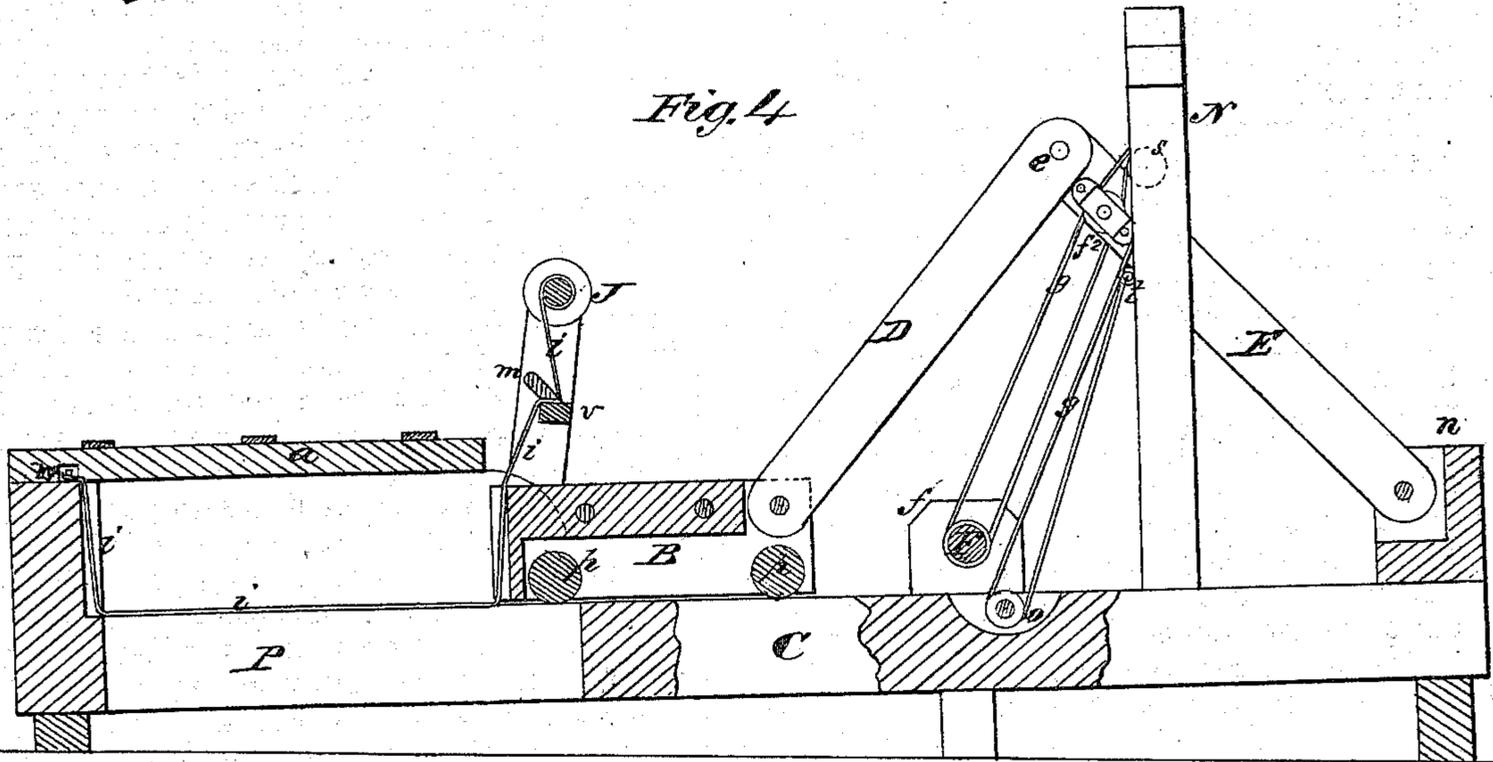


Fig. 4

Witnesses:
 R. T. Campbell,
 J. A. Campbell.

Inventor
 F. B. Wallin
 by
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UNITED STATES PATENT OFFICE.

FRANKLIN B. WALLIN, OF SAUGATUCK, MICHIGAN.

IMPROVEMENT IN BALING-PRESSES.

Specification forming part of Letters Patent No. 126,853, dated May 14, 1872.

To all whom it may concern:

Be it known that I, FRANKLIN B. WALLIN, of Saugatuck, in the county of Allegan and State of Michigan, have invented a new and Improved Baling-Press; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1, Plate 1, is an elevation of one side of the press. Fig. 2, Plate 1, is a top view of the press. Fig. 3, Plate 2, is a perspective view of the press. Fig. 4, Plate 2, is a sectional view of the press.

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

This invention relates to improvements on presses for baling hair, hay, cotton, and other substances, which I will hereinafter explain.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, I have represented the press-box A constructed on one end of a long beam, C, which latter may be supported upon blocks in an inclined position, as shown in Figs. 1 and 4. The beam C forms the bottom of the press-box, and is slotted, as at P, for allowing free escape of dust and trash through this bottom. This press-box A is provided with a hinged top, *a*, and a hinged door, *a'*. The ends of the straps *b'* on the door *a* are received into slots which are made through the upper ends of vertical straps *b*, through which ends a bar, *c*, is passed, that securely fastens the doors *a a'* down in place. By removing bar *c* the two doors can be opened for filling the press or removing a bale. B represents the follower or pressing-head, which is supported upon the beam C by means of rollers *pp*, and which has a number of grooves made vertically into that end which works in the press-box. The inner side of the head of the press-box is also grooved to correspond to the grooves in the follower. At the upper end of each groove in the head of the press-box is a pin, *w*, which, when the door *a* is shut, is received into a recess made into this door. These pins *w* serve as means for retaining the ends of the baling-cords *i* in place during the operation of pressing, after which the cords are secured

around the bale. These cords are unwound from an elevated reel, J, which has its end bearings in standards G G rising from the sides of the press-box at its open end. Beneath the reel J, and pivoted to the standards G G, is a clamp, *m*, and a rigid bar, *v*, between which the cords *i* pass. By adjusting the beveled-edge of the clamp *m* upon the cords crossing the bar *v* these cords will be firmly gripped and held, as shown in Fig. 4. A lever, D, is pivoted to the follower B; at one end it is jointed to a lever, E, which latter is pivoted to a block, *n*, fast on the beam C. These two levers form toggles which move in a vertical plane, and are guided between two standards, N, which rise perpendicularly from the beam C. Beneath the toggle-levers, and supported by standards *f f*, is a windlass, F, having crank-handles *f' f'* on its ends. Around this windlass F is wound a rope, *g*, which is arranged as follows: One end of the rope *g* is attached to an eye, *t*, which is fixed into the lever E; it is thence carried down and passed beneath a pulley, *o*; thence over a pulley *r*; thence around the windlass F; thence around pulleys *s f²*; finally, the rope is secured at 2 to one of the standards N, above the pulley *s*.

It will thus be seen that one end of the rope is secured fast to the lever E, and after passing around four pulleys and the windlass, the other end of the rope is secured to one of the standards N, near its upper end. I am thus enabled to apply great force to the pressing-head or follower for compressing the material in the press-box. I am also enabled to move the follower up to and from its work by turning the windlass in opposite directions.

To operate the press, the windlass is turned so as to draw the follower nearly out of the press-box, as shown in Fig. 4. The cords *i i i* are then carried across and fastened to the pins *w*, and after they are adjusted into their respective grooves and slots, the material to be baled is packed into the press-box, and the doors securely fastened by the bar *c*. After pressing the material as much as desired, and before the pressure is removed, the door *a* is raised and the cords *i* fastened around the bale and separated from the reel. The pressure is then removed by retracting the follower, the door *a'* opened, and the bale removed from the press-box.

When hair is pressed into bales it is usually inclosed by cloth wrappers. These wrappers can be adjusted into the press-box after laying the cords *i*, so that the wrapping of the bales is effected before they are removed from the press-box.

The windlass F is allowed to receive end-wise movements during the winding of the rope on it, which has the effect of keeping the rope in line with its pulleys. I thus have a self-adjusting windlass.

Having described my invention, what I claim as new is—

1. The right-and-left winding and laterally-sliding windlass-shaft, in combination with the follower B *p*, toggles D E, rope *g*, and pulleys *r o f² s*, all constructed, arranged, and operating in the manner and for the purpose described.

2. The elevated reel J carrying the binding-cords *i*, in combination with clamp *m v*, pins *w*, and press-box A, substantially as described.

FRANKLIN B. WALLIN.

Witnesses:

L. O. TANNER,
H. R. ELLIS.

1,000 words