

(No Model.)

A. VEILLEUX.

HAY PRESS.

No. 387,667.

Patented Aug. 14, 1888.

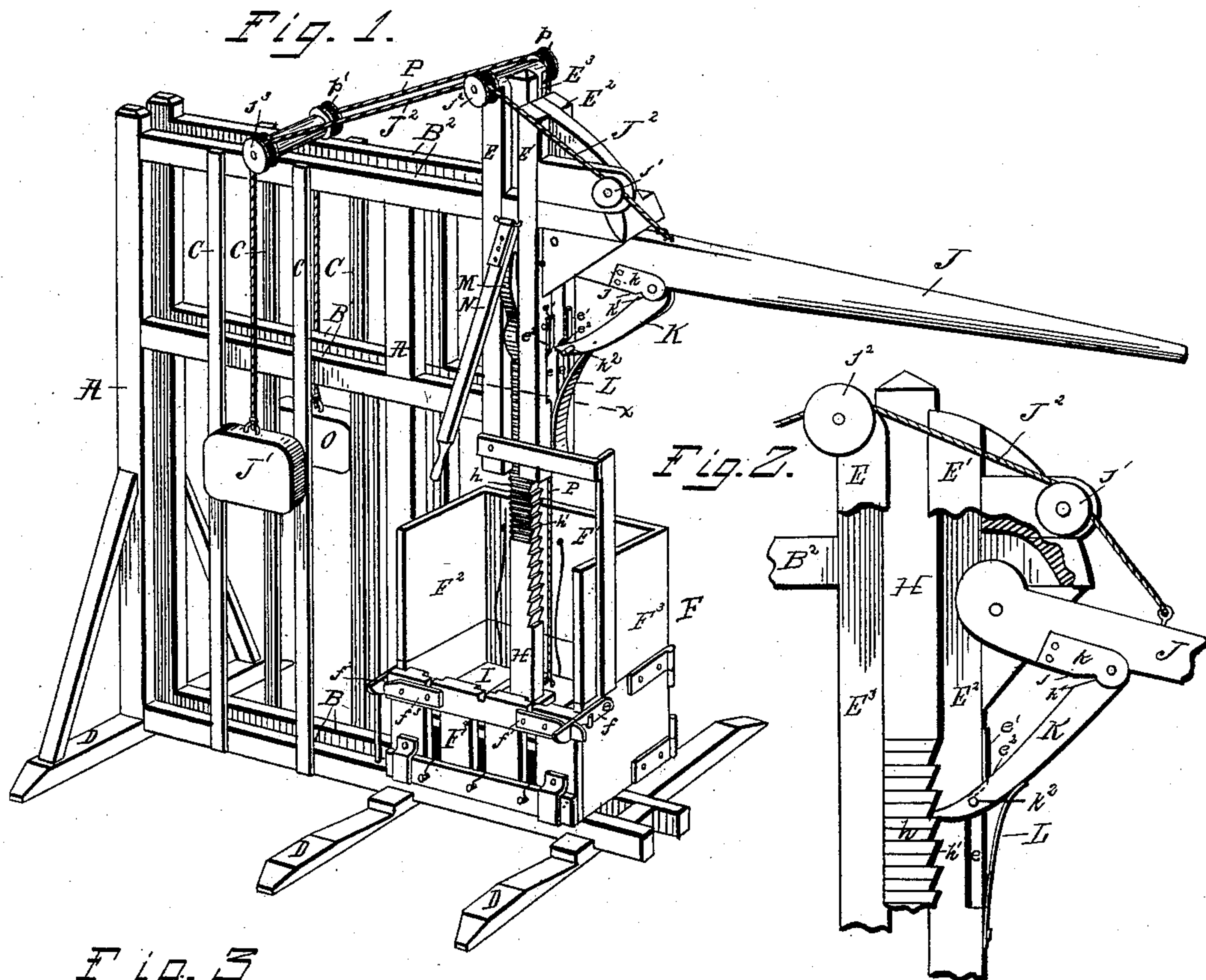


Fig. 3.

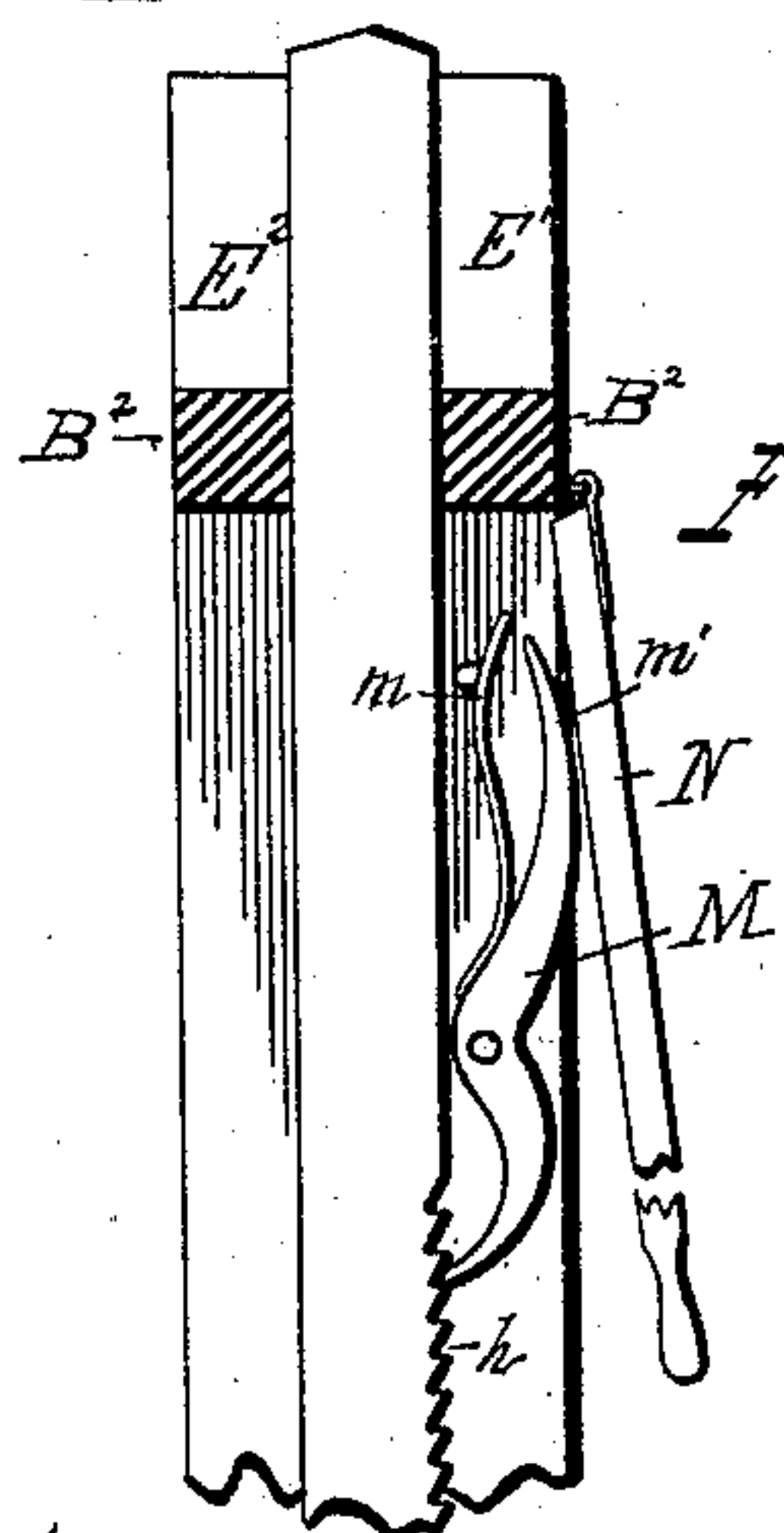


Fig. 4.

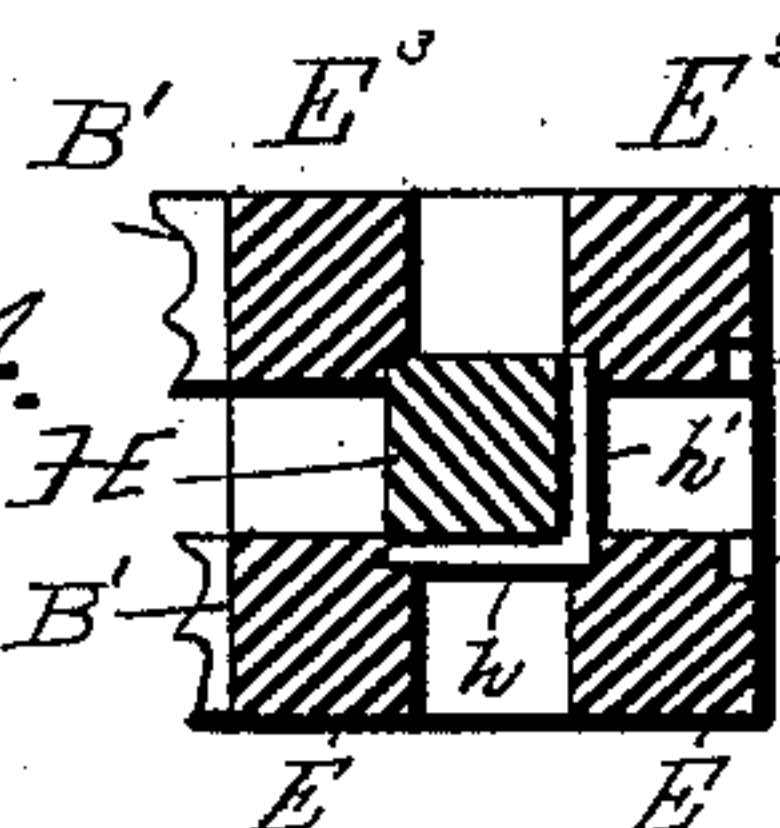
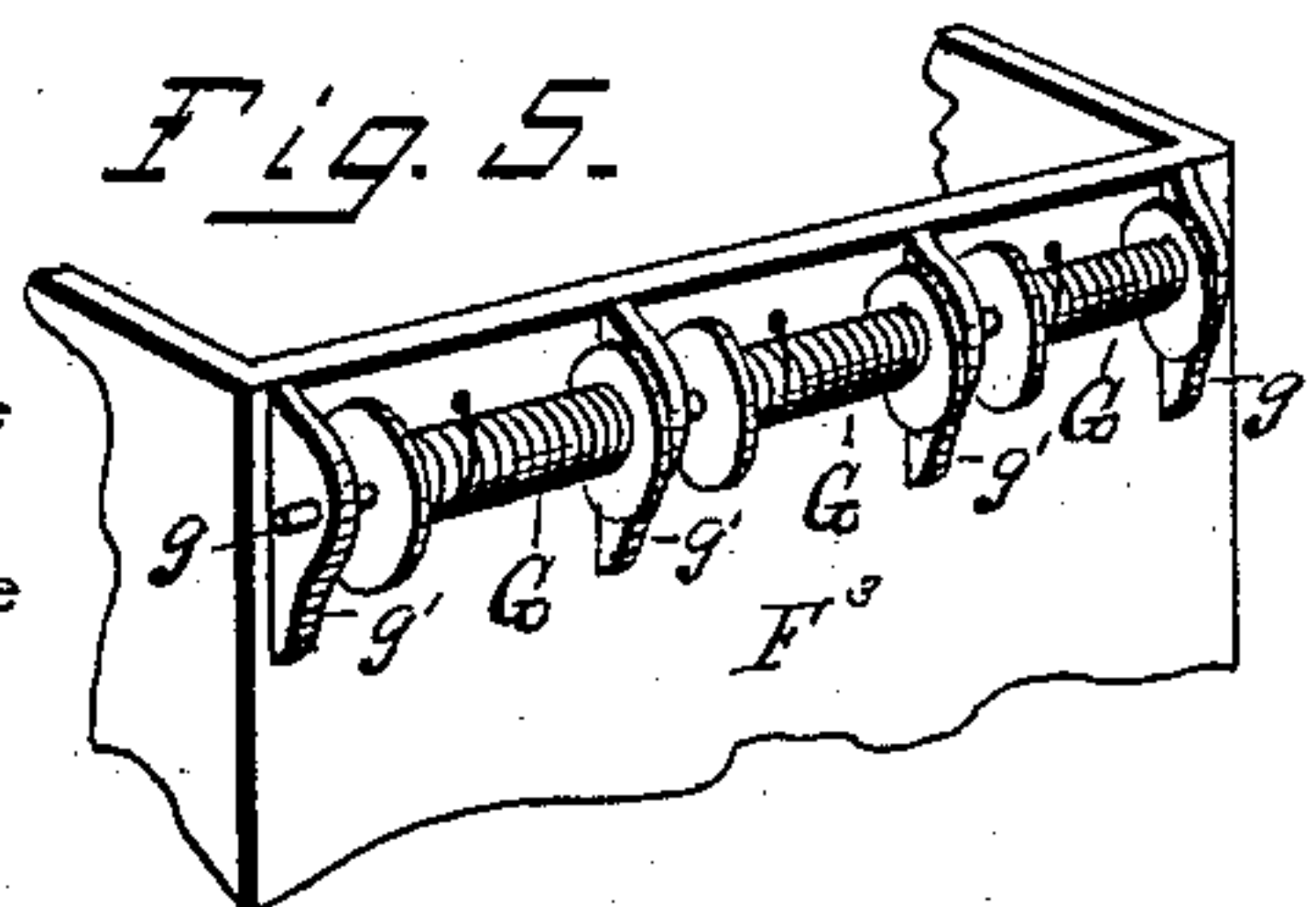


Fig. 5.



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UNITED STATES PATENT OFFICE.

ANSELM VEILLEUX, OF SOMERSET, WISCONSIN.

HAY-PRESS.

SPECIFICATION forming part of Letters Patent No. 387,667, dated August 14, 1888.

Application filed October 10, 1887. Serial No. 251,939. (No model.)

To all whom it may concern:

Be it known that I, ANSELM VEILLEUX, a citizen of the United States, residing at Somerset, in the county of St. Croix and State of Wisconsin, have invented certain new and useful Improvements in Hay-Presses; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

15 This invention relates to hay-presses of that type having the follower carried by a rack-bar and a lever and pawl for intermittently engaging with the rack-bar for feeding it and the follower forward. The rack-bar is held
20 when fed forward and during the backward movement of the lever for a fresh grip upon the rack-bar by a detent-pawl. For convenience of operating and disengaging the detent-pawl from the rack-bar after the bale is bound,
25 it has been found expedient to provide a lever, which is adapted to bear upon the said detent-pawl and extend it within convenient reach to be readily grasped by the hand when desired. The feed-pawl has lateral projections near its
30 inner end, which travel upon ways and prevent the end of the pawl being crowded onto the rack-bar when operating the lever. By this arrangement the rack-bar is not crowded to one side of its vertical bearing, as it would
35 be if the whole lateral pressure of the pawl came on it. The friction between the rack-bar and its bearing being less the wear is reduced and a saving of power produced.

The general construction of the press is improved, simplified, and rendered compact, so that it will occupy a small amount of room compared with its capacity, and the size of the timbers necessary to insure the requisite stability and strength.

45 The improvement consists in the novel construction and combination of parts, which will be more fully hereinafter set forth and claimed, and shown in the annexed drawings, in which—

50 Figure 1 is a perspective view of a press of my construction embodying my invention; Fig. 2, a detail view of the upper portion of

the rack-bar, the rack-bar bearing, the operating-pawl, and the power-lever, on an enlarged scale; Fig. 3, a detail view of the upper portion of the rack bar bearing, the detent-pawl, and the detent-pawl-releasing lever; Fig. 4, a cross-section of the rack-bar bearing on the line X X of Fig. 1, looking down; Fig. 5, a perspective detail view of the upper end of one side of the bale-box, showing the reels
60 or spools which carry the binding material for the bale.

The frame is composed of standards A, cross-timbers B B' B'', vertical stay-bars C, foot-pieces D, and the rack-bar bearing consisting
65 of the four corner uprights or posts E E' E'' E'', secured to and supported by the cross-timbers B' and B''. The cross-timbers B are longer than the cross-timbers B' B'' and support the bale-box F of ordinary construction, having
70 the back F' and the sides F'' F''' extended upward. The lower portion of the side F''' is hinged at its rear edge to the back, and is adapted to swing out, and is locked by the catch f, fitting over a corresponding arm, f', on the front F''
75 of the bale-box, which is hinged at its bottom edge and is adapted to swing down. A similar catch, f'', and arm f''' locks the other end of the front to the side when closed.

The reels or spools G, carrying the binding
80 material, are journaled on a shaft, g, passing through the brackets g' near the upper edge of the back F' of the bale-box. The binding material extends through openings in the back to the inner side of the bale-box, around which
85 it passes in the usual and well-known manner.

The rack-bar H, mounted to slide vertically through the bearing provided for it by the posts E, &c., carries the follower I at its lower end, and is provided with two racks, h and h',
90 arranged on different sides of the rack-bar and at right angles to each other.

The power-lever J, pivoted at its inner end to the rack-bar bearing, has the actuating-pawl K pivotally connected therewith at its upper
95 end between the plates k. The shoulder k', formed near the pivotal end of the pawl, is adapted to engage with a corresponding shoulder, j, of the power-lever and limit the movement of the pawl and prevent its closing or
100 folding upon the power-lever when the latter is elevated. The free end of the pawl K works

between the posts E' and E^2 , engages with the rack h' , and is forced inward by the spring L . The lateral projections k^2 are adapted to overlap the posts E' and E^2 and ride over the same
 5 to prevent the pawl from crowding the rack-bar too much against the side of its bearing. A portion of the corner of the posts E' and E^2 is cut away to form the recesses e , in which the projections k^2 become seated and travel so
 10 as to be out of the way. The plates e' , having inclined ends e^2 , are secured to the posts above the recesses e , so that the inclined ends e^2 will engage with the projections k^2 and disengage the pawl from the rack when the power-lever
 15 is at its highest position to permit the rack-bar to be elevated. The power-lever is held uplifted by the weight J' , attached to the end of the cord J^2 , which has its other end fastened to the power-lever, and which passes over
 20 the pulleys j' , j^2 , and j^3 , journaled to the frame, substantially as shown.

The detent-pawl M is pivotally supported between its ends and between the posts E and E' , and is provided with a spring, m , at one
 25 end, which forces the upper end, m' , of the pawl M outward and its lower end in engagement with the rack h for holding the rack-bar down.

The releasing-lever N , pivoted at its upper
 30 end to the cross-beam B^2 and extending down within convenient reach, is adapted to bear upon the upper end, m' , of the pawl M for disengaging it from the rack-bar when the bale is bound. The expanding force of the bale ex-
 35 erts a powerful pressure upward on the rack-bar, which is taken up by the detent M , and prevents the ready disengagement of said detent-pawl from the rack-bar by ordinary force brought to bear upon the end m' of said pawl;
 40 hence the advantage and necessity of the lever N for the purpose mentioned.

The counterpoise O , connected with the rack-bar by the rope P , which passes over the
 45 pulleys p and p' , is for lifting the rack-bar and follower when the pawls are disengaged from the said rack-bar.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A hay-press, comprising the foot-pieces 50 D , the cross-beams B B' B^2 , the standards A , stay-bars C , the posts E E' E^2 E^3 , secured to the ends of the cross-beams B' and B^2 and forming a bearing, the rack-bar mounted in
 55 said bearing and adapted to work vertically therein, the detent-pawl, the releasing-lever N , the power-lever, the actuating-pawl K , the follower carried by the rack-bar, and the bale-box mounted on an extension of the cross-beam
 60 B , substantially as shown.

2. In a hay-press, the combination, with the rack-bar, the rack-bar bearing, and the detent-pawl pivotally supported between its ends, one end bearing on the rack-bar and the other
 65 end extending outward, of the lever pivoted at its upper end and adapted to bear upon said outward-extending end of the detent-pawl, substantially as described, for the purpose specified.

3. In a press, the combination, with the 70 rack-bar and the rack-bar bearing, of the power-lever, and the actuating-pawl having lateral projections which bear and ride on said bearing to relieve the rack-bar of unnecessary
 75 lateral pressure, substantially as set forth, for the purpose described.

4. The combination, with the bearing composed of posts recessed, as at e , the rack-bar and the power-lever, of the actuating-pawl
 80 having lateral projections which are adapted to travel in said recesses.

5. The combination, with the bearing, the rack-bar, and the power-lever, of the actuating-pawl having lateral projections, the spring L ,
 85 and the plates e' , having inclined ends, substantially as described.

6. The combination, with the bearing, the rack-bar, and the power-lever having a shoulder, j , of the actuating-pawl K , having a corresponding shoulder, the weight J' , connected
 90 with the power-lever, and the spring L , substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ANSELM VEILLEUX.

Witnesses:

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H. S. HARRIMAN.