

C. J. Emmett.

Rolling Press.

No. 95,447.

Patented Oct. 5, 1869.

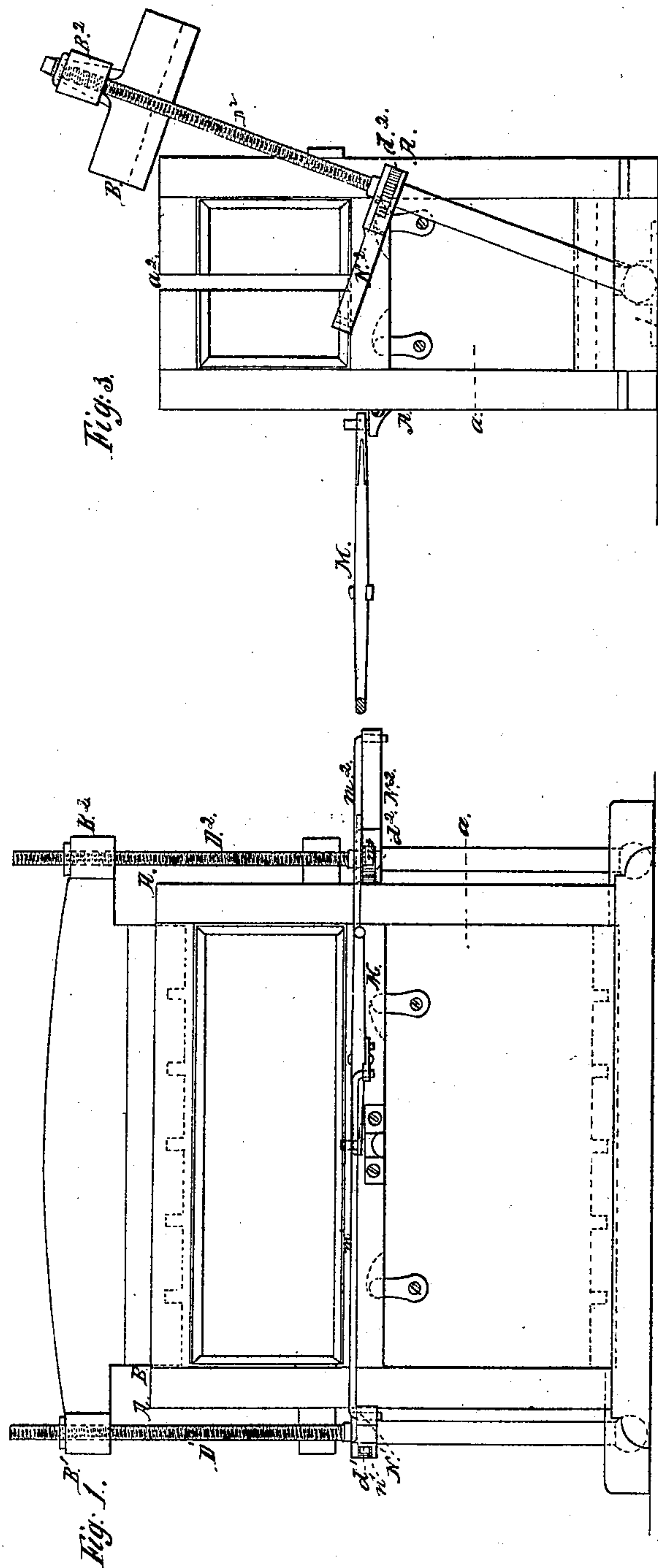


Fig. 3.

Fig. 4.

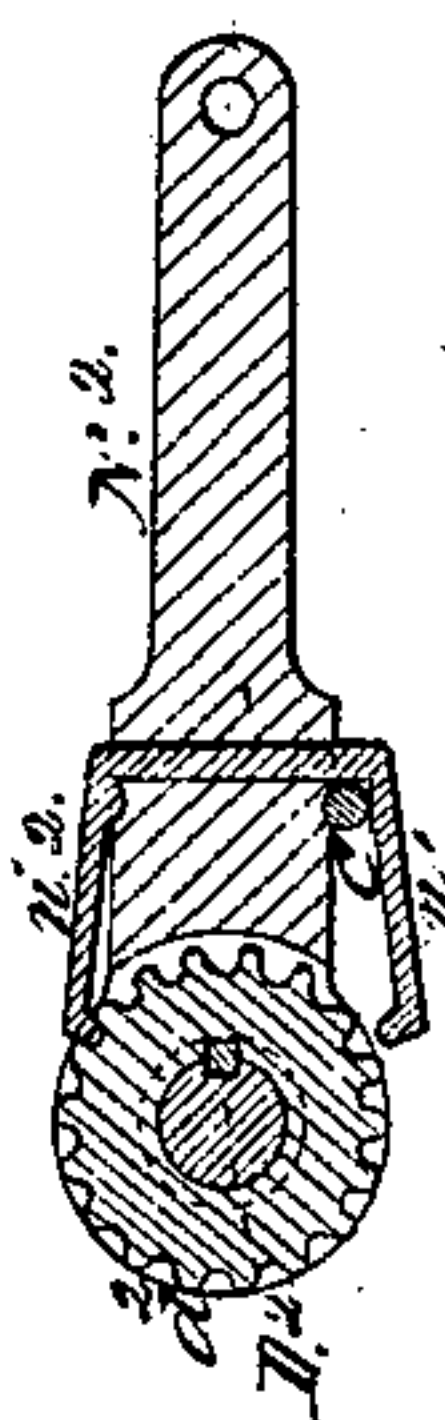
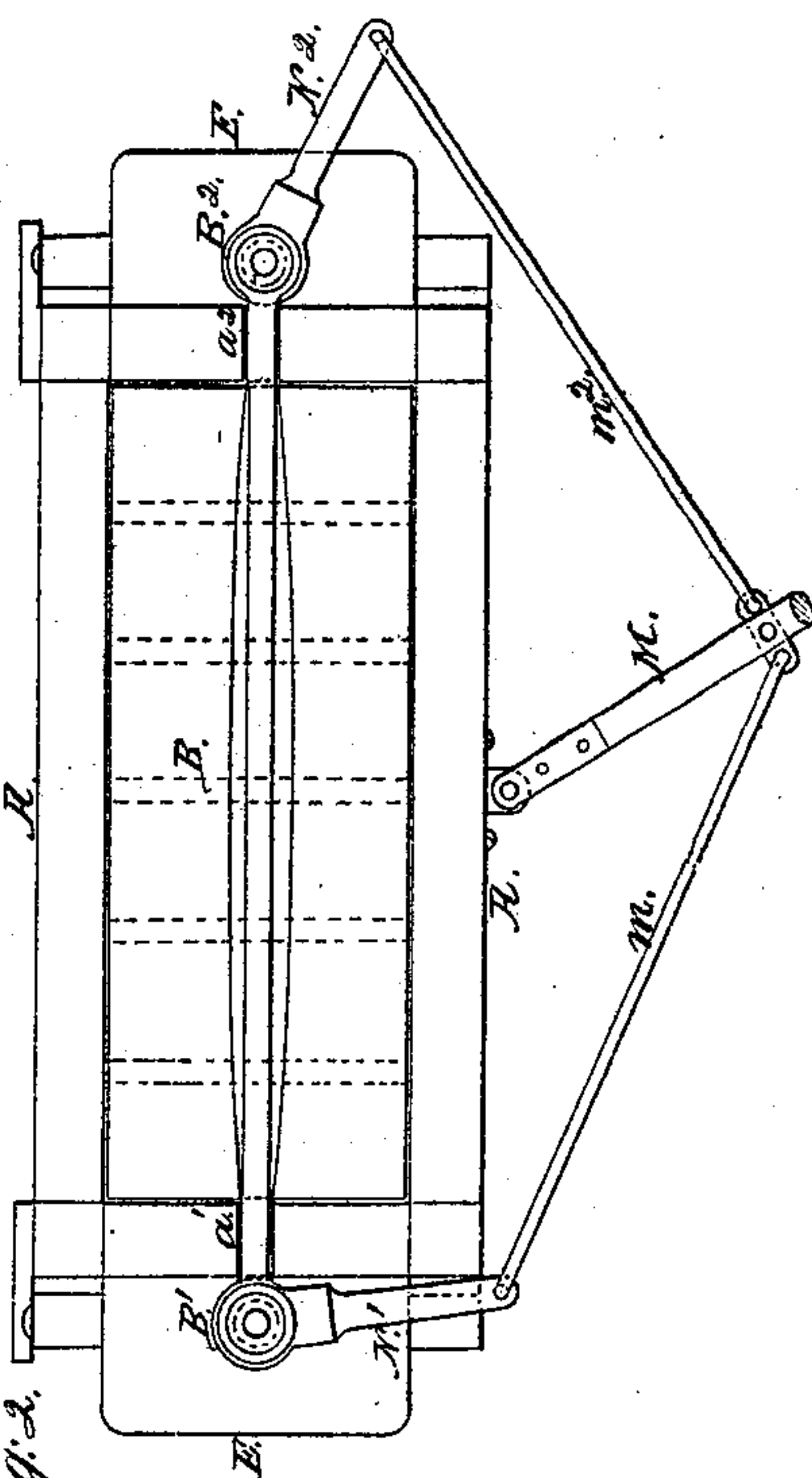


Fig. 2.



Witnesses.

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United States Patent Office.

CHARLES J. EMMETT, OF NEW YORK, N. Y.

Letters Patent No. 95,447, dated October 5, 1869.

IMPROVEMENT IN BALING-PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES J. EMMETT, of the city and county of New York, in the State of New York, have invented certain new and useful Improvements in Baling-Presses; and I do hereby declare that the following is a full and exact description thereof.

I have constructed my press with special reference to baling rags, for which it is admirably adapted; but it may be also employed to bale hay, cotton, and all material requiring to be compressed and secured in bales.

I will first describe what I consider the best means of carrying out my invention, and will afterward designate the points which I believe to be new.

The accompanying drawings form a part of this specification.

Figure 1 is a front elevation, and

Figure 2 is a plan view, with all the parts adjusted for compressing a bale. The follower is represented as having descended but a very little distance; in other words, it is near its highest position.

Figure 3 is an end elevation of the machine in its open condition, adapted to receive rags, or other material.

Figure 4 represents, on a larger scale, certain parts detached.

Similar letters of reference indicate like parts in all the figures.

A is a stout framing, of wooden timbers and plank, and a are removable doors, secured by dogs or but-tons. These doors, and other portions of the framing, may be open work, and all the ordinary provisions may be made for tying, or otherwise securing the bales, either before or after the doors are liberated and opened.

The follower is represented by B.

A stout girder, of cast-iron, or other suitable material, of sufficient depth to afford great transverse strength, is secured to the top of the follower, and extends out beyond each end, as indicated by $B^1 B^2$.

Slots $a^1 a^2$ are made in the ends of the framing, as represented, to allow the follower to descend, with the ends of the girder or top piece projecting through these slots.

The projecting ends $B^1 B^2$ are threaded directly, or may receive a hollow nut, as represented, which shall match the threads of the tall screws $D^1 D^2$, which are secured in the bottom of the framing by a joint, so that they may stand either upright, as indicated in figs. 1 and 2, or inclined, as indicated in fig. 3.

The follower B is depressed by turning these screws D^1 and D^2 simultaneously.

This operation is effected by means of the lever M at the front, which is vibrated horizontally by hand, or otherwise, and is provided with bent rods $m^1 m^2$,

serving as connections to levers $N^1 N^2$, which are fitted loosely, and adapted to turn on the screws $D^1 D^2$.

These levers are supported vertically by toothed wheels $d^1 d^2$, which are firmly keyed on the screws, and an intermittent rotary motion is communicated to the screws from the vibrations of the levers $N^1 N^2$, by means of the pawls $n^1 n^2$, applied as represented, so that by driving the pin C on the right-hand side, it moves the pawls, so that one end comes in contact and turns the screw in one direction; and by moving the pin C, and driving it on the other side of the same lever, it moves the pawls, so that the other end comes in contact with the toothed wheels $d^1 d^2$, and consequently the screw is turned intermittently in the opposite direction. In other words, the same vibratory motion of the lever M can depress the follower by simultaneously, and to an equal extent, depressing the two ends $D^1 D^2$, or by changing the position of the pawls the motion will raise the follower. In every case, the motion will be intermittent, and may be very powerful.

I can unship the connections $m^1 m^2$, and also unship the lever M, with great facility, whenever the motion of the press is stopped, and, in this condition, my press is probably the most compact, or requires the least space in a building, of any yet known of equal capacity. The stout framing and provision for working screws above, commonly observed in screw-presses, are entirely dispensed with in mine.

To introduce the material freely into the interior of the framing, after the follower has been elevated, and the front lever M and connections $m^1 m^2$ have been unshipped, it is necessary simply to push the follower and its connections back into the position shown in fig. 3, so that the screws $D^1 D^2$ rest against the projecting ends of the back piece A'. After the rags, or other material have been introduced and trodden down, or otherwise slightly packed, the follower is drawn forward, and the connections attached and operated so as to depress the follower, until the material is packed in the small space required.

I prefer to connect the bottoms of the screws $D^1 D^2$ to a stout piece, E, mounted loosely in the frame, extending longitudinally of the press, so as to project at each end, as represented. The heads, or enlarged lower ends of the screws, may be spherical, and held up in the interior of the projecting ends of the piece E, as represented, or they may be simply cylindrical, or of various other forms, so long as there is space sufficient provided for them to turn freely when the screws are in the upright position, and to incline to the proper extent when the screws are thrown upward, as in fig. 3.

I esteem it sufficient, in most cases, to simply make a cylindrical head, smoothly finished, and allow it to project entirely below the piece E, and to rest on the

floor, or on a piece of plank, or other material provided for the purpose, whenever the screws are made to bear the weight of themselves and the connected parts by resting on the lower ends.

The mode represented, however, in which the heads are spherical, and are held up in the interior of the piece E, may be preferable in many situations. In every case, it is important that the hole the shank-screws stand in shall be oblong at the upper end, so as to allow of the perpendicular position of each screw when in operation, and to resist its upward force very effectually, and also to allow the screws to incline to the proper extent whenever they are pushed back.

A great feature of my press is the affording all the several advantages of a powerful and commodious press within a space only a very little higher or longer than that of the casing into which the material is thrown. This is of great consequence in baling in lofts or basements where there is but little height.

In order to more conveniently put the work together, and to separate it under such conditions, I prefer to make the heads of the screws in the form of nuts, and to secure them by a transverse pin.

By making the overhanging ends B¹ B¹ of the platen higher than the platen, as shown, it follows that the ratchets d¹ d² may be at a convenient height, as shown,

and still operate untouched by the connections to the platen, even when the bales are very tightly compressed.

Having now fully described my invention,

I claim—

1. The end screws D¹ D², and the overhanging parts B¹ B² on the follower B, arranged to operate relatively to each other and the casing or framing A, and to the ratchets d¹ d² and operating-means N¹ N², substantially in the manner and for the purposes herein set forth.

2. The long lever M, connections m¹ m², sub-levers N¹ N², changeable pawls n¹ n², and ratchets d¹ d², arranged as represented, in combination with the screws D¹ D², and the movable follower B, having the overhanging parts B¹ B², and press-framing A.

3. The means represented for moving the follower and its connections out of the way; that is to say, the screws D¹ D² to turn on their lower ends and assume an inclined position, substantially as herein set forth and described.

In testimony whereof, I have hereunto set my name, in the presence of two subscribing witnesses.

CHAS. J. EMMETT.

Witnesses:

W. O. DEY,

C. C. LIVINGS.