

Pendleton & Boardman,

Cotton Press.

No. 102,963.

Patented May 10, 1870.

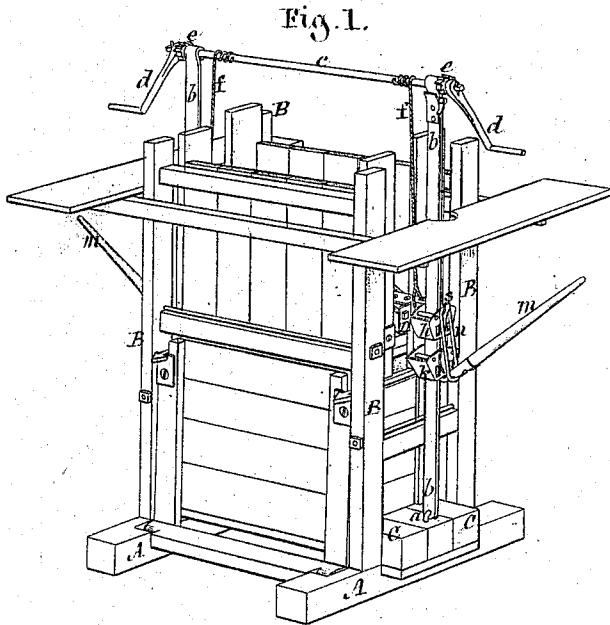


Fig. 2.

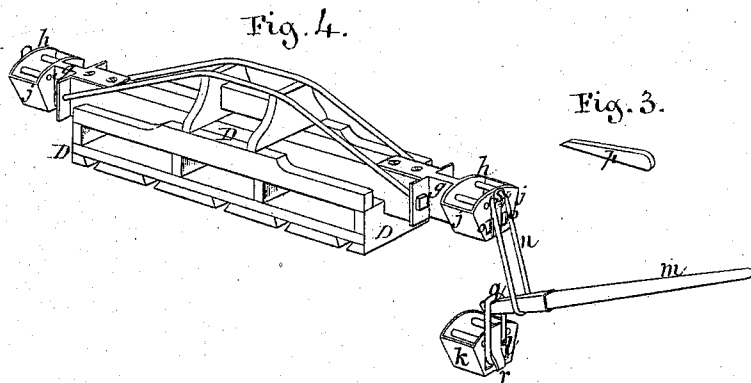
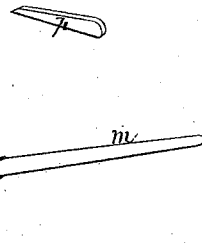


Fig. 3.



Witnesses.
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WILLIAM PENDLETON AND HENRY M. BOARDMAN, OF AUGUSTA,
GEORGIA.

Letters Patent No. 102,963, dated May 10, 1870.

IMPROVEMENT IN COTTON-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 we, WILLIAM PENDLETON and HENRY M. BOARDMAN, of Augusta, in the county of Richmond and State of Georgia, have invented certain new and useful Improvements in Cotton-Presses; and we do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 represents a perspective view of the press.

Figure 2 represents a section through the clamping mechanism, consisting mainly of the rollers and inclined plane.

Figure 3 represents a wedge or key for raising the rollers and releasing the bar upon which they gripe or clamp.

Figure 4 represents in perspective the follower or moving head-block of the press, detached from the press.

Our invention consists, first, in the mode of gripping and holding the follower-block to the side-bars of the press by means of rollers and inclined planes, as will be explained.

And our invention further consists in using, in combination with the rollers and planes for gripping, the levers and links or loops for operating the gripping mechanism, as will be explained.

And, finally, our invention consists in using, in combination with certain openings through the box or case in which the rollers work to clamp the bar, a wedge or key, which, in passing into said openings, raises said rollers and releases them from the bar, as will be explained.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same with reference to the drawings.

On the base-frame A are raised the posts B, which, together with the cross-pieces, bolts, and other appliances, constitute the frame of the press.

To the projecting ends of the bed-piece C are linked, as at *a*, or otherwise secured, the vertical bars *b b*, which, extending upward above the top of the press, support a windlass or drum, *c*, that may be turned by cranks, *d d*, and controlled by ratchets and pawls, as seen at *e e*.

To this windlass, drum, or rod *c*, is suspended, by cords or chains, *f f*, the follower D, distinctly and separately shown at fig. 4.

The necks *g g* of the follower D move through slots or openings in the ends of the press, and on the extreme outer ends of said follower, and outside of the necks *g*, are boxes *h h*, through which the upright bars *b b* pass, respectively. In these boxes are rollers *i i*

i i, a pair in each box, and one of each of the pairs placed on opposite sides of the bars *b*, and so that, by the inclination of the ends *j j* of said boxes, the rollers will run down said inclinations or planes and against said bar, passing through the box, and hold or gripe tightly said bar.

Below the follower-boxes *h h*, and moving on the bars *b b*, are similarly-formed boxes, *k k*, with rollers *l l* in them, gripping said bars in a similar way as those in the boxes *h h*. But these latter boxes and rollers are designed for a movable fulcrum or support for the levers *m m*, by which the follower is drawn down and the pressure applied to the cotton in pressing and baling-box B, which is furnished with the usual doors, links, fastenings, &c.

From the levers *m* extend links *n*, which hook over lugs, ears, or projections on the boxes *h h*, so that, by vibrating said levers, the follower is brought down, and the rollers hold it from rising. When the follower is thus brought down to where the fulcrum-box and its rollers are griped onto the bars *b b*, then a new position must be taken for the boxes *k k* farther down on said bars. Now, to release the rollers from the bar, so that they and their box can be moved, said rollers must be raised up vertically, and this, by the flaring of the box, allows them to roll or move away from their respective bars, and thus release themselves from it. To accomplish this, openings, *o o*, are made in the ends of said boxes, into which a key or keys, *p*, fig. 3, are forced, and, as they are so forced into said openings, they take under said rollers, and, by their wedge or tapering form, raise up the rollers and release them from their bar, and then they and their boxes can be moved up or down on the bar with the greatest facility. The moment that the keys *p* are withdrawn, the rollers roll down against the bar and hold or clamp it so tight as to be immovable, except by again raising them up as before.

When the bale is pressed, tied, and removed, and the press prepared for a new charge of cotton, the follower is raised up by the windlass *c*. But before this can be done, the wedges *p* are inserted through the openings *o*, the rollers *i* raised, and then, by the windlass *c*, the follower is readily raised up, the press recharged, and the pressure applied as before.

In fig. 4 another plan of lever and link arrangement is seen, wherein a second link, *q*, is used, into which the point of the lever *m* takes, while the long link *n* forms a fulcrum for the lever.

The long link *n* hooks over the tongue or catch *s*, on the box *h*, while the under or shorter link *q* hooks over or under the projection *r* on the under box *k*.

Having thus fully described our invention,

What we claim is—

The combination of the follower-block, rollers, and inclined planes for gripping and holding said block to the side-bars, substantially as described.

Also, in combination with the rollers and planes for gripping the side-bars, the levers and links, and their movable fulcrum or support, for drawing down the block or applying the pressure or power, substantially as described.

Also, in combination with the rollers and planes for constituting a gripping or clamping mechanism on

the side-bars of a cotton-press; the wedge or tapered keys and openings *o o*, for raising said rollers and releasing them from the bar, substantially as and for the purpose described.

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Witnesses:

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