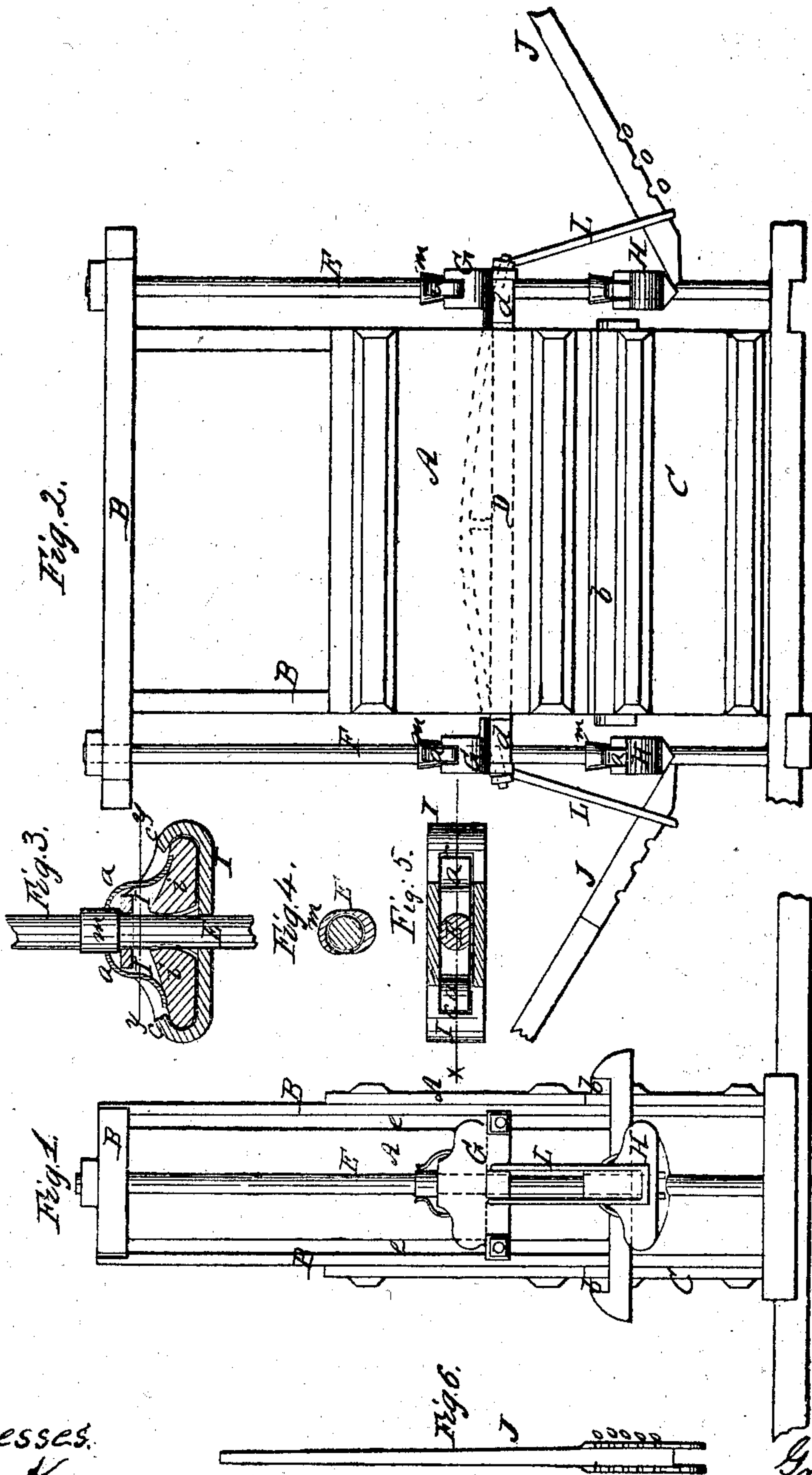


G. UTLEY.  
HAY OR COTTON PRESS.

No. 77,852.

Patented May 12, 1868.



Witnesses.  
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# United States Patent Office.

GREY UTLEY, OF CHARLOTTE, NORTH CAROLINA.

*Letters Patent No. 77,852, dated May 12, 1868.*

## IMPROVEMENT IN HAY AND 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 I, GREY UTLEY, of Charlotte, in the county of Mecklenburg, and State of North Carolina, have invented a new and improved Hay and Cotton-Press; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is an end elevation.

Figure 2 is a side elevation.

Figure 3 is a longitudinal vertical section of the blocks G H.

Figure 4 is a top view of the eccentric-collar *m*.

Figure 5 is a top view of the blocks G H.

Figure 6 is a view of one of the levers.

In this invention the form of the press-box and platen is the same as that now in common use, but, by a new arrangement of guide-rods for the platen, in connection with a novel clamp and hand-levers, I am enabled to operate my press by hand more rapidly and with greater advantage, in regard to the application of the power and its full utilization, than any of the hand or power-presses now in use.

In the drawings, A represents the walls of the press-box, and B B its frame, C being its door, and *b b* bars by which it is held in position while the press is in operation. D is the platen, provided with two arms, *d d*, at each end, which project through and slide up and down in vertical slots *e e* in the end of the press-box.

E E are two stout vertical iron guide-rods, one at each end of the press, and supported by the top and bottom timbers of its frame, and G H are two sliding blocks, at each end of the press, through the centre of which one of the rods E E passes, the arms *d d* of the platen being rigidly secured to the under side of the upper block, G, so that the latter, as it moves up and down on the vertical rod, carries the platen with it.

The form and construction of the blocks G H are clearly shown in figs. 3 and 4. Each is provided with a central recess or chamber, I, through which the rod E passes, and in which two clamping-dogs, *i i*, operate against the rod, one on each side of it. The outer ends of the dogs rest against the end wall of the chamber I, under a projecting ledge, *e*. Their inner ends are vertically grooved, so as to clasp the rods more firmly, and, when in operation, they lie against the rods, as shown in fig. 3. In this way they allow the blocks G H to slip freely down on the rods, but the instant it begins to rise they set themselves firmly against the rod, on each side, and stop the blocks from moving upward. In order, however, to render them capable of allowing the blocks to rise, I provide each of them with a bent arm, *a*, which extends upward towards the rod, and I provide a sliding eccentric-block or collar, *m*, which rests by its own weight upon the upper edge of the blocks G H, between the ends of the arms *a a*, and serves, when turned in one direction, to throw said arms apart and prevent the dogs from pressing against the rod; and when in another position, to allow the arms to approach each other farther, and the dogs to operate against the rod, as above explained.

Having thus constructed the blocks G H, I employ two of them, at each end of the press, in the following manner: The upper one, G, is attached to the platen as before described. The lower one, H, operates beneath it simply as a shifting-fulcrum for the levers J J, a link, L, depending from the upper block, and which the lever passes through, serving to receive and communicate to the upper block the power exerted by the lever.

The operation of the press is as follows: The platen being raised, and the box filled with cotton or hay, I swing the link outward a little, put my lever through it, and raise the block H until the end of the lever can be slipped under it. I then turn the eccentric-collar *m*, so that the dogs can operate, and I press down upon the outer end of the lever, causing the link to descend, and with it the platen. I then raise the outer end of the lever, when the lower block slips down on the rod, by its own weight, till it arrives at a suitable position for me to operate again, when I bear down on the lever-handle again, and again force the platen down. This operation is repeated until the bale is sufficiently compressed.

When I first begin to press the platen down, as the cotton, &c., is loose, and requires but little effort to



compress it, the link L can be swung out considerably, decreasing the power and increasing the velocity with which the press will operate. But, as the platen descends, more power will be needed, and, if necessary, at every stroke of the lever, the distance between the fulcrum H and the weight L may be shortened, increasing the power to almost any extent.

The under side of the levers may be provided with a series of notches, *o o o*, it necessary, to accommodate them to be thus adjusted.

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

1. Operating the platen D, of a cotton or hay-press, by means of the blocks G H, having the dogs *i i*, the rods E E, the link L, and the levers J J, all acting in co-operation with each other, in the manner and for the purposes specified.

2. The dogs *i i*, each having the arm *a*, and operating in combination with the blocks G H, rod E, and eccentric-collar *m*, in the manner and for the purpose set forth.

Witnesses:

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