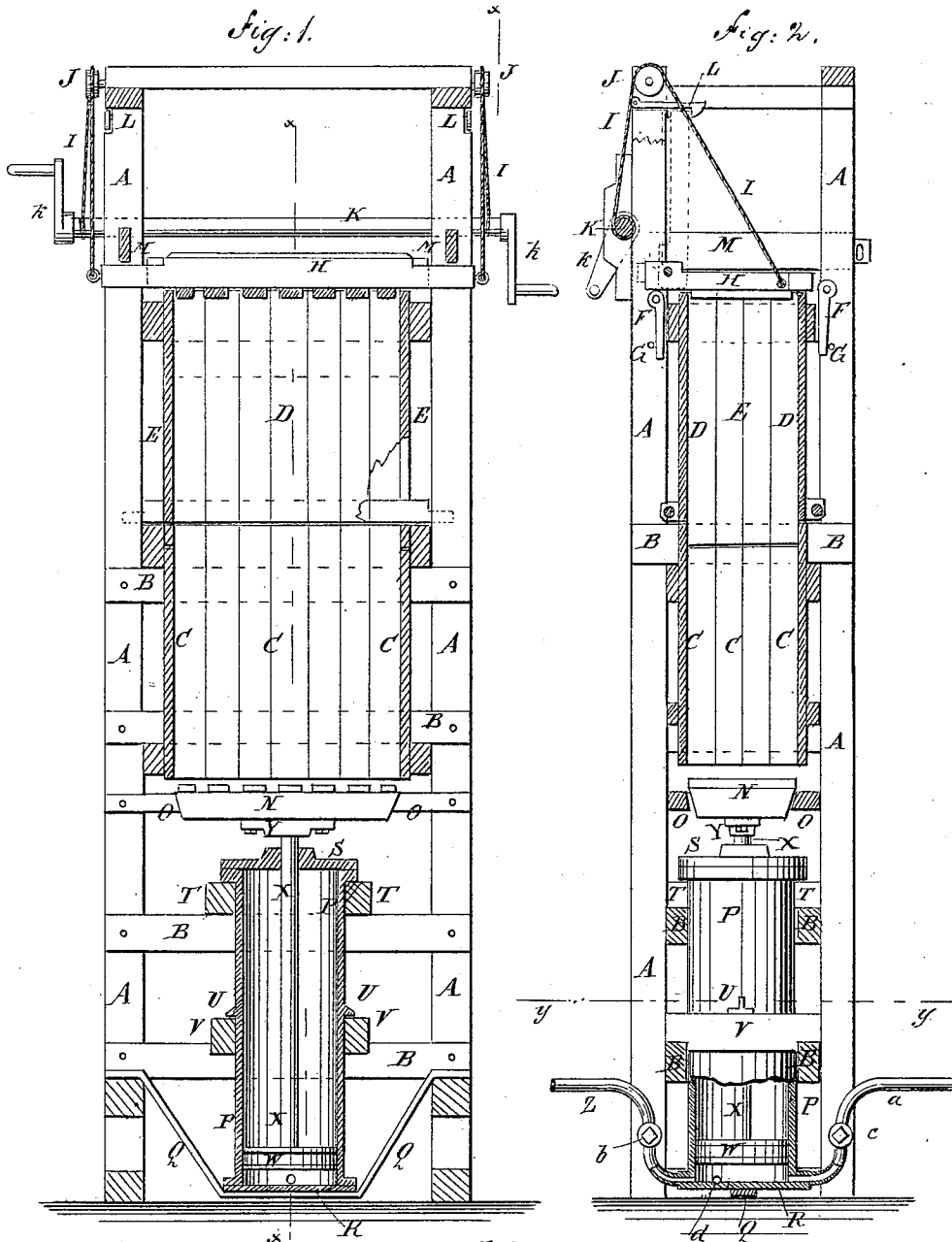


(No Model.)

J. BROWN.  
Baling Press.

No. 242,593.

Patented June 7, 1881.



WITNESSES:  
*Chas. Nida.*  
*C. Sedgwick.*

INVENTOR:  
*J. Brown*  
BY *Munn & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JOHN BROWN, OF MEMPHIS, TENNESSEE.

## BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 242,593, dated June 7, 1881.

Application filed December 7, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BROWN, of Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Improvement in Baling-Presses, of which the following is a specification.

Figure 1 is a sectional front elevation of the improvement. Fig. 2 is a sectional side elevation taken through the line *x x x*, Fig. 1. Fig. 3 is a sectional plan view taken through the line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to improve the construction of the baling-presses for which Letters Patent No. 220,216 were granted to me October 7, 1879, to adapt them to be operated by steam-power, and to make them more convenient in use.

A A are the posts of the press, which are connected by cross-beams B, firmly secured to the said posts A.

To the beams B, at the middle parts of the posts A, is attached the baling-box C.

D D are the side doors, which are hinged at their lower edges, so that they can be turned down for convenience in putting in the material to be baled and removing the bales.

E E are the end doors, which are detachable, and are supported at their lower ends by a beam, B, of the press-frame, and at their upper ends by hooked bars or flanges attached to the side doors D. The upper parts of the side doors, D, are supported against outward pressure by the arms F and pins G. The arms F are hinged at their upper ends to the posts A by bolts or other suitable means in such positions that the said arms can be swung up out of the way to allow the side doors D to be turned down, and can be swung down to rest against the end parts of the upper cross-bars of the said doors, where they are secured in place by the pins G, passed through holes in the posts A, in such positions that the outer sides of the lower parts of the said arms F will rest against the said pins G, as shown in Fig. 2.

As thus far described the construction is the same as that represented in Letters Patent No. 220,216.

H is the head-block, which is hinged at its rear edge to the rear posts, A, so that it can be

turned up into a vertical position to give access to the interior of the press. To the ends of the head-block H, near its forward edge, are attached the ends of two cords, I, which pass over guide-pulleys J, pivoted to the sides of the tops of the rear posts, A. The other ends of the cords I are attached to a shaft, K, which works in bearings attached to the outer sides of the rear posts, A, in such positions that the shaft K will be out of the way of the rear door D as it is opened and closed.

To the ends of the shaft K are attached cranks *k*, for convenience in turning the said shaft to raise and lower the head-block H. The head-block H is held in place when raised by a latch, L, pivoted to a rear post, A, in such a position as to engage with the upper edge of the head-block H as the said head-block comes into a vertical position. The head-block H, when lowered, is held against the upward pressure by two bars, M, which are inserted in mortises in the posts A in such positions that the said bars M will be above the end parts of the said head-block.

N is the follower-block, which is made of such a size as to fit into and move up and down in the baling-box C. The follower N is kept in position, should it be lowered below the baling-box C, by guide-bars O, attached to the posts A. The posts A are made of such a length as to leave sufficient space below the baling-box C to receive an upright steam-cylinder, P, the lower head of which rests upon a stirrup, Q. The arms of the stirrup Q incline upward and outward, and are attached to cross-bars B of the press-frame. The ends of the cylinder P are flanged to receive the bolts that secure the heads R S to the body of the said cylinder. The upper flange of the cylinder P rests upon the bars T, the ends of which rest upon and are secured to cross-bars B of the press-frame.

To the sides of the middle part of the cylinder P are attached or upon it are formed lugs or flanges U, which rest upon bars V, attached to cross-bars B of the press-frame. With this construction the cylinder P will be firmly supported against the downward pressure of the steam, and the said downward pressure will be sustained by the posts A.

W is the piston, which works steam-tight

within the cylinder P, and is attached to the lower end of the piston-rod X. The piston-rod X passes up through a guide-hole in the upper cylinder-head, S, and its upper end is attached to or rests against a block, Y, attached to the middle part of the follower N.

With the lower part of the cylinder P is connected the end of a pipe, Z, to admit steam to the said cylinder P below the piston W, and the end of a pipe, *a*, through which the exhaust-steam escapes. The pipes Z *a* are provided with stop-cocks *b c*, for controlling the steam.

The lower part of the cylinder P is provided with a stop-cock or faucet, *d*, to allow the water of condensation to be drawn off when desired. With this construction, by closing the cock *c* and opening the cock *b* steam will be admitted to the cylinder P to force the piston W and the follower N upward to compress the bale. When the bale has been sufficiently compressed the cock *b* is closed, and the fol-

lower N will be held in place until the bale has been tied and removed. The exhaust-cock *c* is then opened and the piston W and follower N descend by their own weight. With this construction the piston W is driven only in one direction by steam, and a steam-valve and other ordinary appliances of a steam-engine are not required.

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

In baling-presses, the vertical cylinder supported at bottom on a stirrup, Q, at the middle by a flange, U, resting on a bar, V, and at the top by a flange resting on a bar, T, as shown and described.

JOHN BROWN.

Witnesses:

P. B. JONES,  
HAUSDON CARY.