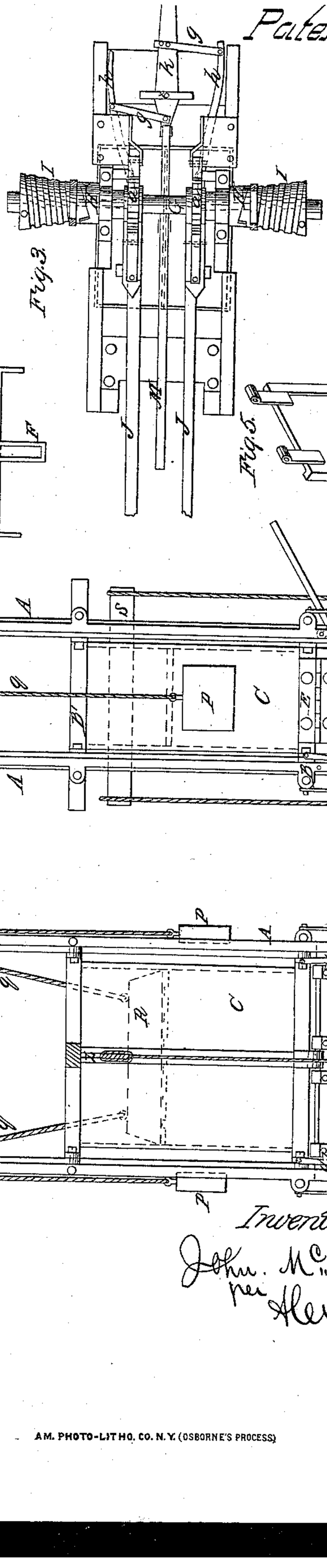
J. N. McIntire,

Cotton Press.

No. 63,916. Patented April 16, 1867.



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United States Patent Office.

JOHN W. McINTYRE, OF MEMPHIS, TENNESSEE.

Letters Patent No. 63,916, *dated April* 16, 1867.

IMPROVEMENT IN COTTON PRESS.

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, JOHN W. McINTYRE, of Memphis, in the county of Shelby, and in the State of Tennessee, have invented certain new and useful Improvements in Cotton Presses, and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the annexed drawings, A represents the frame of the press, which consists of four metallic standards, which form the four corners of the frame, placed at a suitable distance apart, and securely connected and secured together by means of metallic cross-bars. This frame stands in a vertical position, and within it is constructed the box in which the cotton is packed and pressed. There are two boxes, the lower one being provided with doors, through which the bale is taken from the box. C C represent the panels or sides of the upper box; these are permanently secured in the frame. D D′ represent the doors or sides of the lower box; these doors are hinged to the cross-bars B B of the frame, so that they can lift up to allow the bale to be removed. *d d* represent small dogs or catches to hold the doors up when it is desired. The edges of the doors D D are provided with flanges, *f*, which said flanges prevent the end doors D′ from being lifted or pushed out of place after being shut down, and the side doors closed and confined in position. The flanges *f f* catch against the outside edges of the doors D′, and in this way prevent their being moved outward, until the side doors are first lifted. L represent metallic bars, placed on the sides and near the bottom of the frame, which are raised and lowered by means of a lever, M, which connects to a frame, *o*, which said frame is connected to the side bars L. By raising and lowering the lever, the bars L are thrown up or down. When the bars L are thrown up, they rest against the sides of the doors D D, and prevent their being opened out or thrown up. By lowering the end of lever M, the bars L are brought down beneath the lower edges of the doors D D, and allow them to be opened so that the bale of cotton can be removed. R represents a follower, which passes into the box at its upper end, and is for the purpose of pressing the cotton down into the box. Lying across and secured to the follower R, is a bar, S. The ends of this bar S project beyond the sides of the box. The bar passes down towards the lower end of the box in grooves or openings, Z, which are made in the sides of the upper box. The upper brace or cross-bars of the frame are constructed and arranged in the form shown, (fig. 4;) said upper brace being so shaped as to allow the ends of the bar S to pass down through the ears F F. Connected to the ends of the follower are two cords, *q q*, which pass over pulleys on top of the frame, and then down on the outside of the press, and have weights attached to their lower ends. These cords and weights are for the purpose of drawing the follower up, when pressure is taken off of it, so that it will be ready for repeating the operation of pressing a new bale. *t t* represent cords which are attached at their upper ends to the outer ends of the bar S, and at their lower ends to pulleys I I. These cords are for the purpose of drawing the follower down into the box and pressing the cotton into the bale. G represents a metallic shaft, which lies across the frame at its lower end. This shaft is provided at its outer ends with the pulleys I I, which are loose upon the said shaft. The inner ends of these pulleys are provided with the usual cam and shoulder, against which a clutch catches. H H represent clutches upon shaft G, which slide but do not revolve upon it. When the clutches are pressed against the pulleys, said pulleys are made stationary upon the shaft. These clutches are moved to or from the pulleys by means of the lever K, which is hinged at *x*, and which are connected to the clutches by means of the small bars *g g* and *h h*. *a a* represent spur or ratchet-wheels, which are permanently secured upon the shaft G near its centre. J J represent two levers which are loosely connected by collars to the shaft G, and which are provided with dogs or ratchet teeth which catch into the teeth of wheels *a a* for the purpose of turning or revolving said wheels. *e e* represent dogs on the opposite side of the wheels *a a* from levers J J, and which are secured in a portion of the framework of the bottom of the frame, and which are for the purpose of catching into the teeth of the wheels *a a* for the purpose of stationing them at any desired point. By raising and lowering the outer ends of the levers J J, the wheels *a a*, and with them the shaft G, are revolved. When the pulleys I I are stationed by the clutches and the shaft G is revolved, the cords *t t* are wound around the pulleys, and thus the follower R is drawn down into the box upon the cotton. B and B′ are metallic cross-bars, forming frames to bind and secure the frame uprights A A together firmly.

In using this press the cotton is placed in the upper box until both upper and lower boxes are full; the

follower R is then placed in the box over the cotton, and drawn down in the manner which has been described, until the bottom of the block or follower is on a level with the tops of the doors D D′. The ties are properly secured around the bale thus pressed, and the doors D D′ are opened and the bale is removed. The press is then ready for a new supply of cotton. The bottom of the press may be constructed in any of the known and usual ways, being a rectangular metallic frame with the upright frame-pieces A A bolted to its four corners at their bottoms or lower ends.

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

1. The arrangement of the upper box, provided with slotted sides C C, with the follower and bar S, side doors D D, provided with flanges *f f*, and end doors D′ D′, the several parts being constructed and used substantially as and for the purpose specified.

2. The arrangement of the shaft G, with its attachments with the cords *t t*, follower R, bar S, and cords *q q*, with weights P P attached, for the purpose of operating the follower in both directions, substantially as specified.

In testimony that I claim the foregoing, I have hereunto set my hand and seal this 27th day of December, 1866.

JOHN W. McINTYRE.

Witnesses:

C. M. ALEXANDER,

J. M. MASON.