

J. W. MACUMBER.
COTTON-PRESS.

No. 171.674.

Patented Jan. 4, 1876.

Fig. 1—

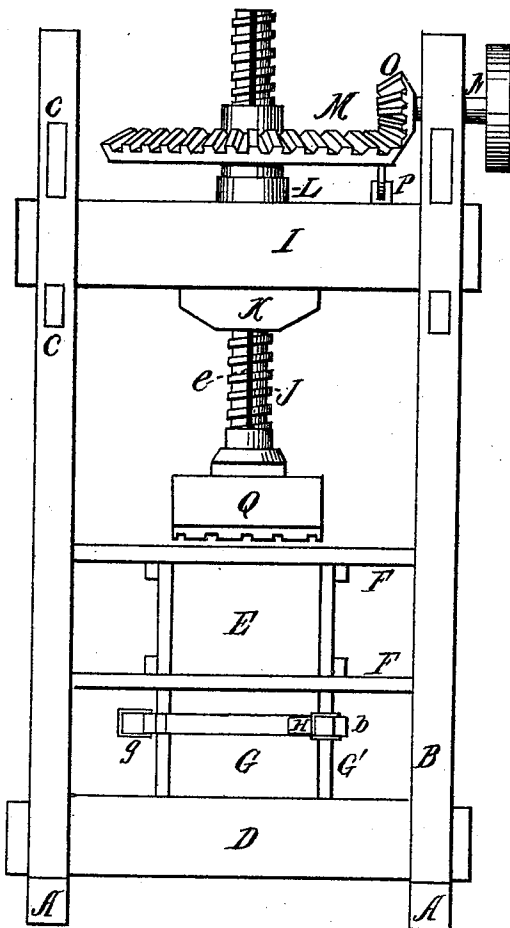
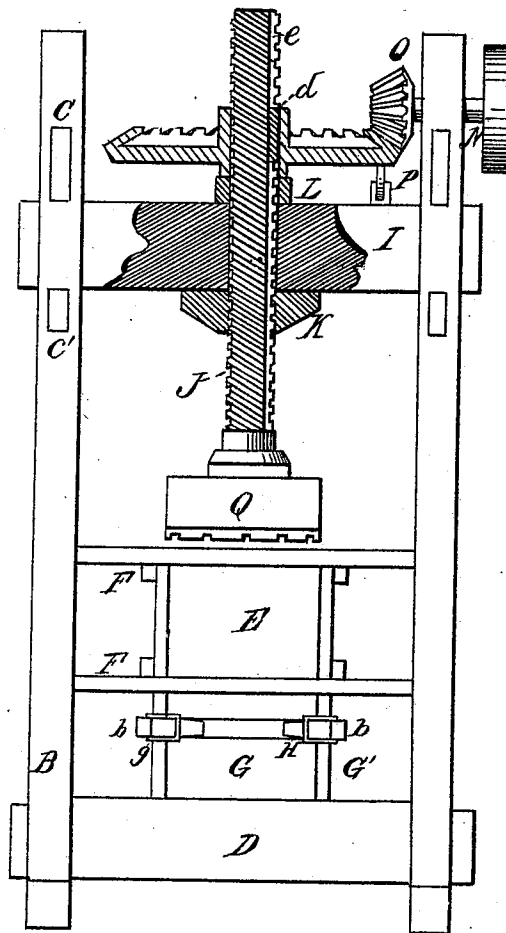


Fig. 2—



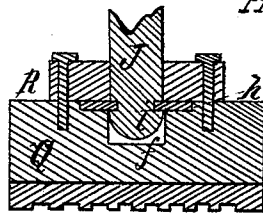
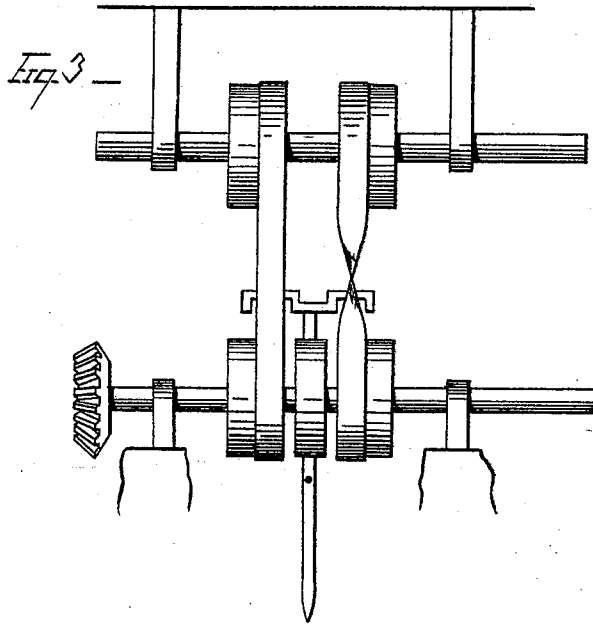
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UNITED STATES PATENT OFFICE.

JOHN W. MACUMBER, OF WILMINGTON, N. C., ASSIGNOR TO HIMSELF, J. T. McIVER, WILKES MORRIS, AND DAVID CASHWELL, OF SAME PLACE.

IMPROVEMENT IN COTTON-PRESSES.

[Specification forming part of Letters Patent No. 171,674, dated January 4, 1876; application filed December 23, 1875.]

To all whom it may concern:

Be it known that I, JOHN W. MACUMBER, of Wilmington, in the county of New Hanover and State of North Carolina, have invented certain new and useful Improvements in Cotton-Press; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

In the drawings, Figure 1 is a side view of my improved cotton-press, and Fig. 2 shows a vertical section of part of the press through line *x* of Fig. 1. Fig. 3 is a plan view of the gearing. Fig. 4 shows the key that secures the follower to the screw.

A A' are the sills of the press, to which the standards B—four in number—are firmly secured and braced by cross-braces *c c'*. The bed-plate D rests on the sills A A', and its ends are secured between the standards B. The baling-box E is situated upon the bed-plate, and is secured against lateral or vertical displacement by means of cross-braces F. This box is provided with ordinary detachable doors G G', the end doors G' having links *g* secured to the ends of cleats *b*, and side doors are provided with cam-headed levers H. As the doors are placed in position preparatory to compressing, the links *g* are swung over the heads of levers H, which, in turn, are pivoted, and serve to firmly secure the doors to the baling-box. Through a heavy cross-beam, I, resting on cross-braces *c c'*, passes a screw, J, to the lower end of which the follower is secured in a self-adjustable manner. To the under side of cross-beam I a large supporting and steadying nut, K, is secured, while a bearing-plate, L, is placed on top of the beam, and in line with nut K. The hub or central bearing of bevel-gear wheel M rests upon the bearing-plate L, while the latter, when worn, may easily be removed and replaced by a new plate. Within the interior of the hub gear-wheel M is secured a feather or spline, *d*, which engages in a groove, *e*, formed in the screw J, and serves to lock the gear-wheel to the screw, and also allows of free vertical

movement of the screw through the wheel. A horizontal shaft, N, has its bearing in a box formed in one of the cross-braces, *c*, and to said shaft is secured a small bevel-gear wheel, O, the cogs of which mesh with those of the large wheel M. Immediately beneath the gear-wheel O an anti-friction wheel, P, is journaled in suitable bearings secured to the cross-beam I. This anti-friction wheel P supports the large bevel-wheel M at a point where the power is applied, and therefore, should the bearing-plate L become worn, the cogs of the wheels are not liable to shear or be otherwise injured, as the anti-friction wheel P serves to preserve a perfect mesh between the cogs of the wheels M and O. Again, should the anti-friction wheel be dispensed with, the bearing-plate L, when worn, will cause the large wheel M to run untruly on the screw J, and, as the power is applied on one side of the large gear-wheel M, the threads of screw J would soon be cut away, and the screw thereby rendered useless.

The follower Q is recessed at *f* to form a step for the round end of the screw J.

A collar, *h*, engages in a groove, *i*, formed in the lower portion of the screw J, and said collar is secured against the top of follower Q by means of a plate, R.

The follower, when secured to the screw as described, has sufficient play to render it self-adjustable on the cotton to be compressed.

The follower and lower platen are provided with the usual transverse grooves for the reception of the bands used in baling cotton.

Fig. 3 shows a system of gearing, whereby the screw may be raised or lowered by simply manipulating a belt-shifter. As this is a matter of common information, a detail description of the same is not deemed necessary.

The belts may be supplemented by cog-gearing, and the same object thereby accomplished.

What I claim, and desire to secure by Letters Patent, is—

1. The bevel-gear wheel M, locked to the screw J by means of feather and groove *d e*, in combination with the horizontal shaft N, bevel-gear wheel O, and anti-friction wheel P, the latter located immediately beneath the

gear-wheel O, substantially as and for the purpose specified.

2. The bevel-gear wheel M and screw J, in combination with the bevel-gear wheel O, anti-friction wheel P, detachable bearing-plate L, and nut K, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand.

JOHN W. MACUMBER.

Witnesses:

F. O. McCLEARY,
E. I. NOTTINGHAM.