

E. M. IVENS.
Automatic-Press Screw.

No. 213,334.

Patented Mar. 18, 1879.

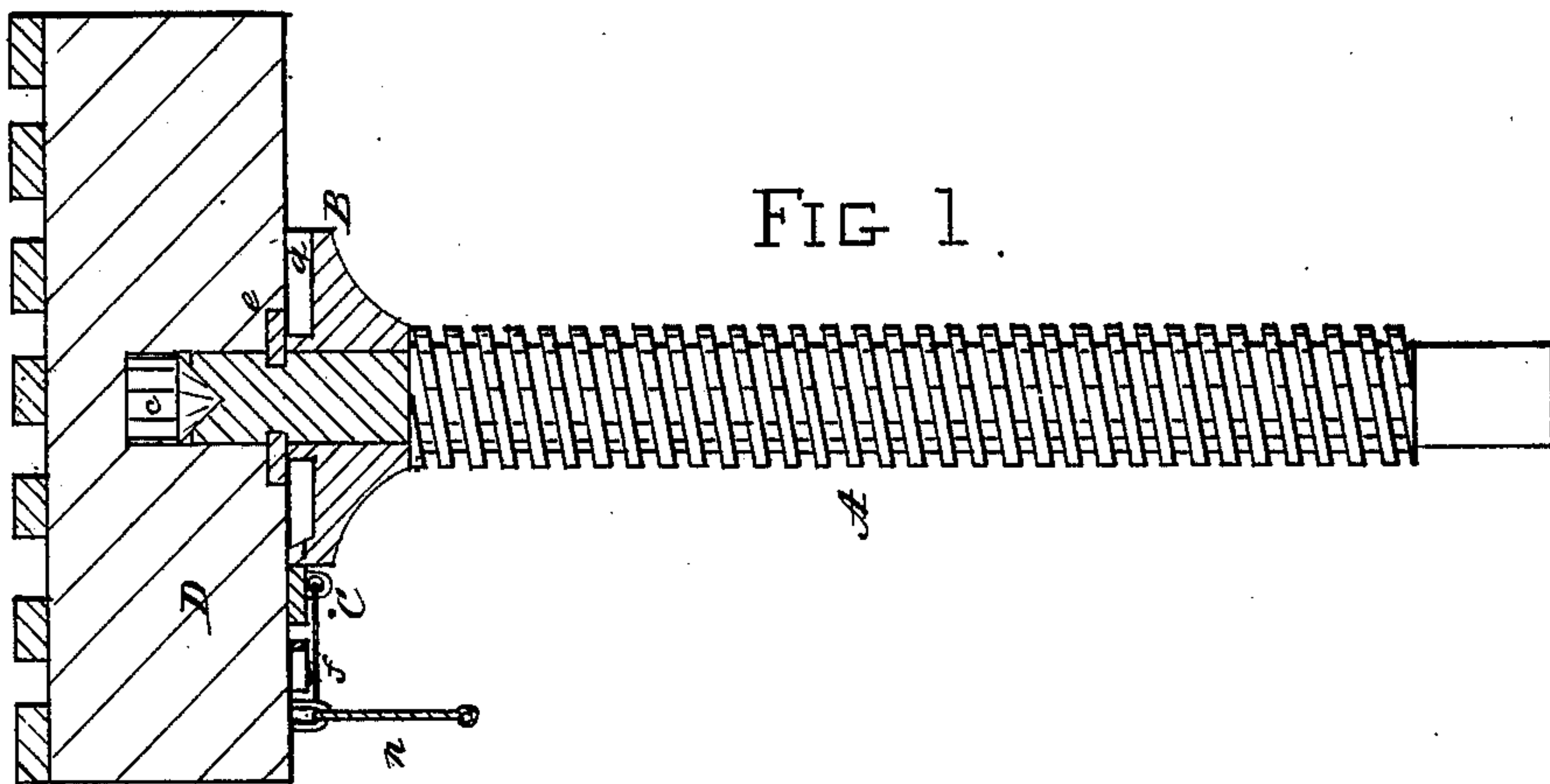


FIG 11

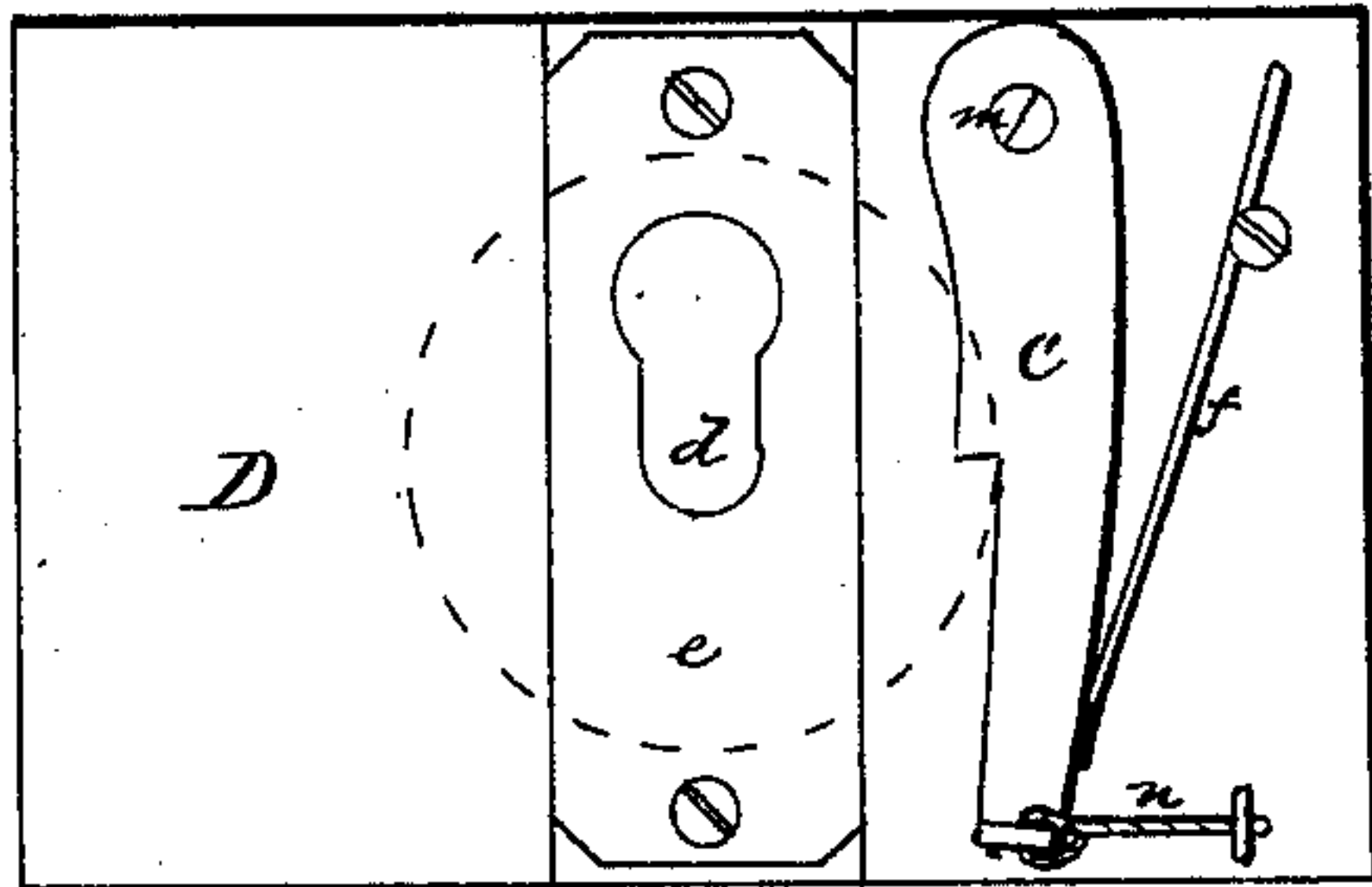
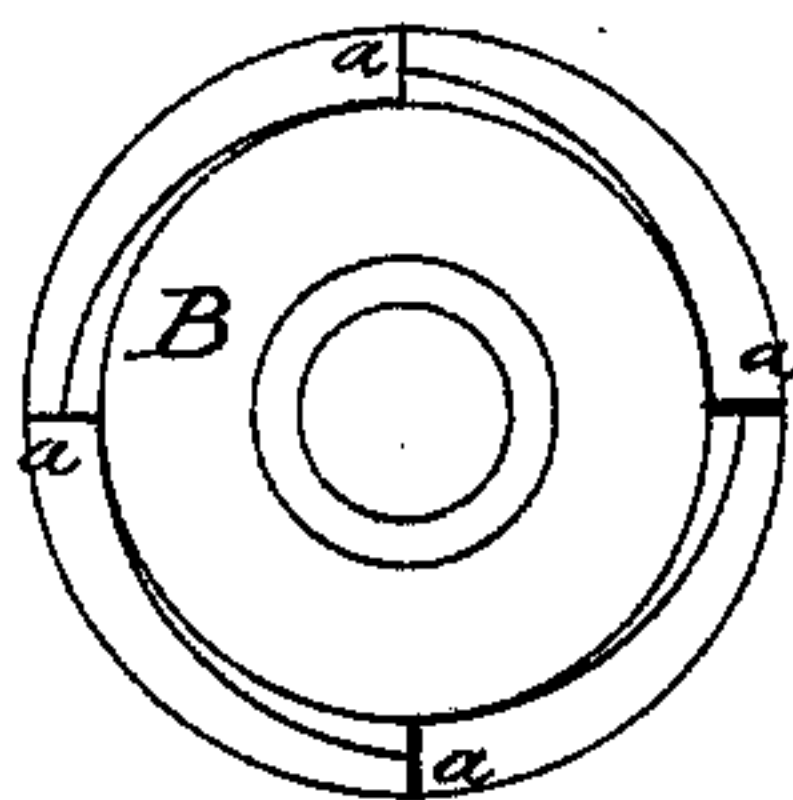


FIG 111



WITNESSES

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EDMUND M. IVENS, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO EMILY L. IVENS, OF SAME PLACE.

IMPROVEMENT IN AUTOMATIC PRESS-SCREWS.

Specification forming part of Letters Patent No. **213,334**, dated March 18, 1879; application filed May 20, 1878.

To all whom it may concern:

Be it known that I, EDMUND M. IVENS, of New Orleans, in the parish of Orleans and State of Louisiana, have invented an Improvement in Baling-Presses, of which the following is a specification:

This invention is an improvement on that for which Letters Patent were granted to me bearing date April 9, 1878, and numbered 202,110, in which the screw was disconnected from the clutch-attachment to the follower by a spring or weighted levers, lifting the latter so as to allow the screw to revolve and run down by its own gravity, and thus save the time and travel of the animal in running it down by the rotation of the nut; and it consists in connecting the screw with the follower by means of ratchet-head or collar on the former, and a pawl or trigger attached to the under side of the latter to engage with said ratchet-head during the operation of compressing the bale, and an intermediate washer to save friction in its return, said pawl and ratchet being disconnected after the bale has been pressed and bound, to allow the screw, and with it the follower, to run down by their own gravity to their normal position while the animal is standing or the driving-belt is on the loose pulley, thus saving much time and labor, and simplifying the mechanical construction as heretofore patented.

I will now describe my improvement in detail by referring to the accompanying drawings, in which—

Figure 1 represents an elevation of the screw and follower, partly in section. Fig. 2 is an inverted view of the follower, and Fig. 3 a top or face view of the ratchet-head of the screw.

The same letters of reference occurring on the several figures indicate like parts.

A represents the press-screw, which is preferably made with a double thread to accelerate its gravitation through the nut in returning to its normal position.

The nut and draft-beam or gearing by which it is operated by animal, steam, or other power are constructed and supported the same as in any other press, (the patent of Ivens and Dorand, February 26, 1878, for in-

stance,) and needs no further description here. On the top of this screw A is firmly secured a ratchet-head, B, with one or more notches, *a*, against which a pawl or trigger, C, engages, said pawl being pivoted on the under side of the follower D at *m*. The upper end of the screw-spindle entering a cavity in the follower, their interlocking connects said screw and follower rigidly together. The upper end of the screw-spindle A may be made flat or of inverted conical or concave shape, with a loose washer of flat, conical, or spherical form interposed in the recess *d* between it and the follower, thus reducing the friction between them. When their connection is broken by withdrawing the pawl C, the screw is allowed to rotate, and the follower resting on its top descends to its normal position.

If thought desirable, a plate or collar, *e*, may be used to engage with a groove in the head of the screw-spindle above the ratchet-head and secured to the under side of the platen to prevent their becoming separated.

The pawl or trigger C, having its fulcrum at *m*, has attached at its opposite end a cord, *n*, chain, lever, or other suitable appliance, by which it may be withdrawn from its hold on the ratchet-head B after the bale has been bound, in which event the screw and follower will return to their normal position by their own gravity, the follower being guided in its descent by the baling-chamber or other suitable guides.

The pawl C may be borne against the ratchet-head by a spring, *f*; or it may be engaged therewith by hand, or by a suitable lever, or by a cord.

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

The combination of the ratchet-head B, pawl C, and loose washer, the latter being either flat, conical, or spherical, as described, with the screw A and follower D, all arranged and operating substantially as and for the purpose set forth.

EDMUND M. IVENS.

Witnesses:

N. B. TRIST,
S. G. WILSON.