E. M. IVENS.

Baling Press Follower.

No. 202,110. Patented April 9, 1878.

FIG 1

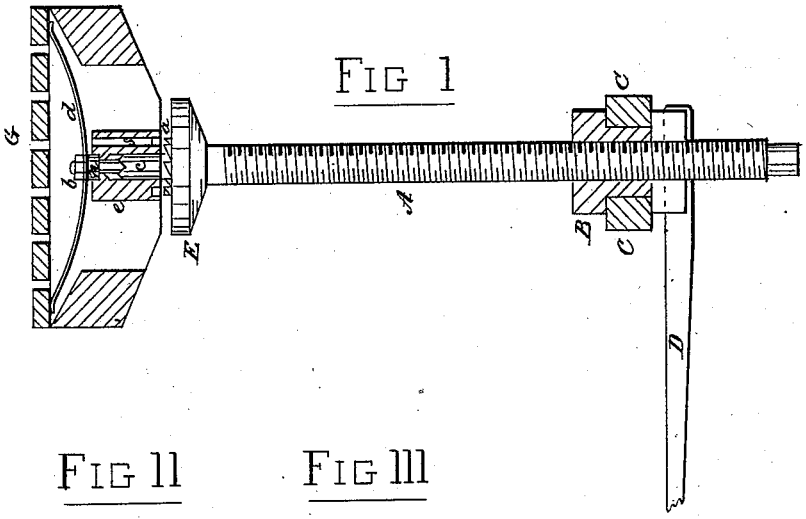


FIG II

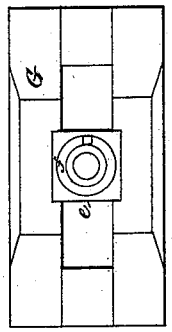


FIG III

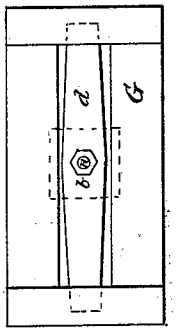
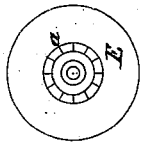


FIG IV



WITNESSES

Jno. C. Patten.

W. T. Hutchinson.

INVENTOR

Edwd. M. Ivens.

by W. Morris Smith

Atty

UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN BALING-PRESS FOLLOWERS.

Specification forming part of Letters Patent No. **202,110**, dated April 9, 1878; application filed August 31, 1877.

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 a Self-Returning Screw for Baling-Presses, of which the following is a specification:

In operating baling-presses as commonly constructed, much time is lost in running the screw back after completing the bale preparatory to refilling the chamber to form another.

The object of this invention is to expedite that part of the operation by making the screw self-returning; and it consists in providing a spring or weighted levers within the body of the follower, by which the weight of the latter is supported on the end of the screw by a vertically-sliding center-pin, so that when the formed bale is removed from the press the pawl which connects the follower and screw is lifted with the former and supported by the spring, resting in a female center on the end of the screw, thus relieving the latter of said connection and of all friction between the two, when the screw, by its own weight, immediately runs downward, rotating through the nut until it reaches its resting-point, which it does without attention or assistance. It is then ready to be operated again to compress another bale by rotating the nut in the usual manner.

Referring to the accompanying drawing, Figure 1 represents an elevation of a screw and follower embracing my invention. Fig. 2 is an inverted view of the follower. Fig. 3 is a top view of the same with all the cross-strips except the two end ones removed. Fig. 4 is a face or top view of the flanged head of the screw with its annular ratchet.

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

A represents an ordinary press-screw, fitted with a rotating nut, B, supported on a suitable bearing beam or beams, C, and having the usual draft-beam D connected with said nut. At the upper end of the screw is firmly connected a flange, E, having an annular ratchet, *a*, on its face. The upper end *c* of the screw-shaft extends a little above this flange, is countersunk on its end, and has a sliding as well as a rotary motion in a cylindrical cavity in the metallic block *e*, which is inserted in the follower G. This block is provided with an annular groove, *f*, in its under side, to receive the annular ratchet, and with a pawl, *s*, arranged vertically through it in position to engage with the ratchet *a* when pressed together.

In the upper side of the block *e* is fitted a center-pin, *n*, which rests in the countersink in the end of the screw-shaft, and has a vertically-sliding motion in said block. To the upper end of this center-pin a spring, *d*, is firmly connected by a nut, *b*, and on the ends of this spring the follower G is supported.

Thus it will be seen that when there is no superincumbent weight on the follower it is carried by the spring on the center point in the end of the screw-shaft in such manner that the ratchet-connection with the screw is broken, leaving the latter free to rotate through the nut B, and thus descend by its own gravity, after which it is ready to be again forced up by rotating the said nut in the usual way.

Instead of the spring *d* for supporting the follower, two weighted levers crossing each other, and having their fulcra on the center-pin *n*, may be substituted to perform the same function.

What is here claimed as new, and desired to be secured by Letters Patent, is—

The combination of the spring *d*, center-pin *n*, pawl *s*, and ratchet *a* with the screw A and follower G, substantially as and for the purpose specified.

EDMUND M. IVENS.

Witnesses:

FRANCIS GRAHAM,

M. N. GRAHAM.