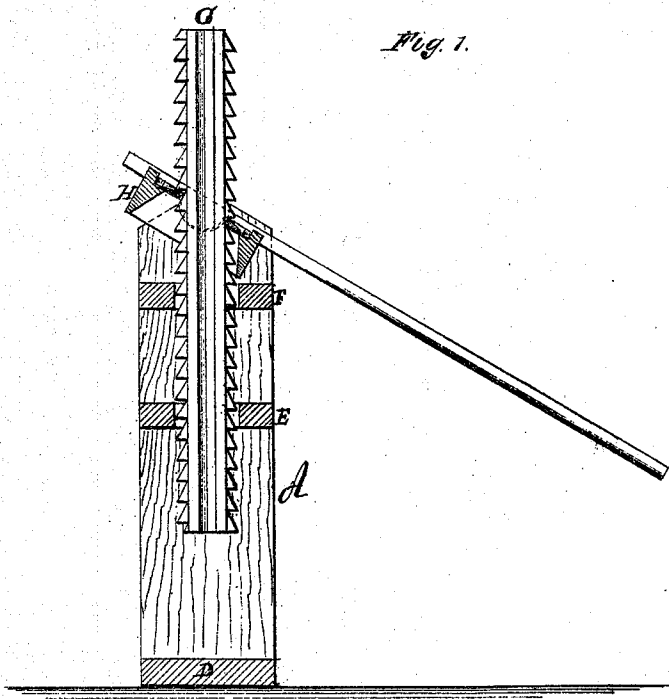


*S. Miller,*

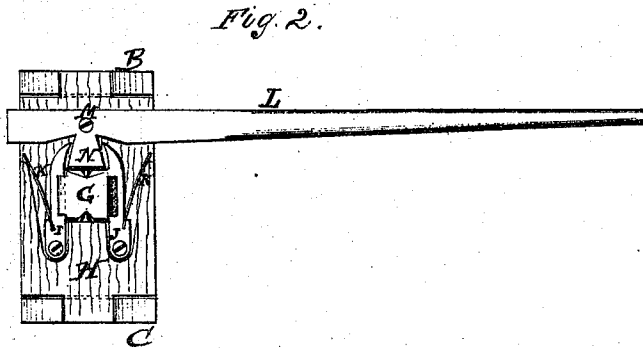
*Hay Press.*

*No. 100546.*

*Patented Mar. 8. 1870.*



*Fig. 1.*



*Fig. 2.*

**Witnesses:**  
*Alex. F. Roberts.*  
*Paul J. Gorkley*

**Inventor:**  
*S. Miller*  
PER *[Signature]*  
**Attorneys.**

# United States Patent Office.

SAMUEL MILLER, OF MOUNT UNION, PENNSYLVANIA.

Letters Patent No. 100,546, dated March 8, 1870.

## IMPROVEMENT IN PRESSES FOR HAY, COTTON, &c.

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, SAMUEL MILLER, of Mount Union, in the county of Huntingdon, and State of Pennsylvania, have invented a new and improved Press for Hay, Cotton, and other substances; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

The object of this invention is to provide a simple, cheap, durable, and powerful means for pressing hay, cotton, or other articles or substances; and

It consists in a double-ratchet vertical hoisting-bar, applied to a press, operated by means of a lever and pawls upon a rocking-block; as hereinafter more fully described.

In the accompanying drawing—

Figure 1 is a central vertical section of the press.

Figure 2 is a top view.

Similar letters of reference indicate corresponding parts.

A represents a standing frame, composed of two upright side pieces, B and C, continued to a bed-piece, D, and connected together by the cross-guide pieces E and F.

G is the hoisting-bar, with ratchet-teeth on two opposite sides, as seen in the drawing.

H is a thick heavy plate or block, which rests on journals on top of the upright pieces B and C, so that it is allowed to rock on its journals or tip back and forth, as seen in fig. 1.

On the top of this block H are two horizontal spring-pawls, I and J, the springs of which, K K, force the pawls toward the ratchets with a constant pressure.

L is the lever, whose fulcrum is at M.

N is a plate attached to the lever or forming a part thereof.

By working the lever back and forth horizontally the plate N is brought in contact with the pawls, throwing them out from the ratchet-teeth alternately.

The teeth are so arranged upon the sides of the bar

G that when one pawl, I, is engaged with a tooth, the other pawl, J, is midway between two teeth. By a return movement the pawl I is thrown out, and the bar drops half the pitch of the teeth, and so on for each movement of the lever in lowering the bar.

As the lever is worked back and forth it is brought in contact with the curved ends of the pawls, which forces the pawls inward by a positive motion.

The pressing is done by raising the bar, and this is effected by a different motion of the lever.

In this case the block H is rocked by working the lever up and down instead of laterally. By this means the pawls are alternately thrown out from the ratchet-teeth and the hoisting-bar is raised one tooth for each oscillation of the block.

The pawls alternately slide on the inclined sides of the teeth and catch under them by means of the springs, which force them constantly inward. The hoisting-bar passes down through the transverse pieces E F, which serve as guides to keep it upright. In the block H it has play to allow of the rocking movement of the block and disengagement of the pawls.

This arrangement is only designed to show the manner of applying the power to a follower above by means of the bar G. The manner of lowering the bar we have already described.

Having thus described my invention,

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

1. The rocking block or plate H, in combination with a double-ratchet hoisting-bar, where the same is made to operate pawls by means of a lever, substantially as and for the purposes described.

2. The plate N, connected with the lever, by means of which the pawls are operated so as to lower the hoisting-bar, substantially as described.

The above specification of my invention signed by me this 14th day of January, 1870.

SAML. MILLER.

Witnesses:

JOHN DOUGHERTY,  
GEO. McLAUGHLIN.