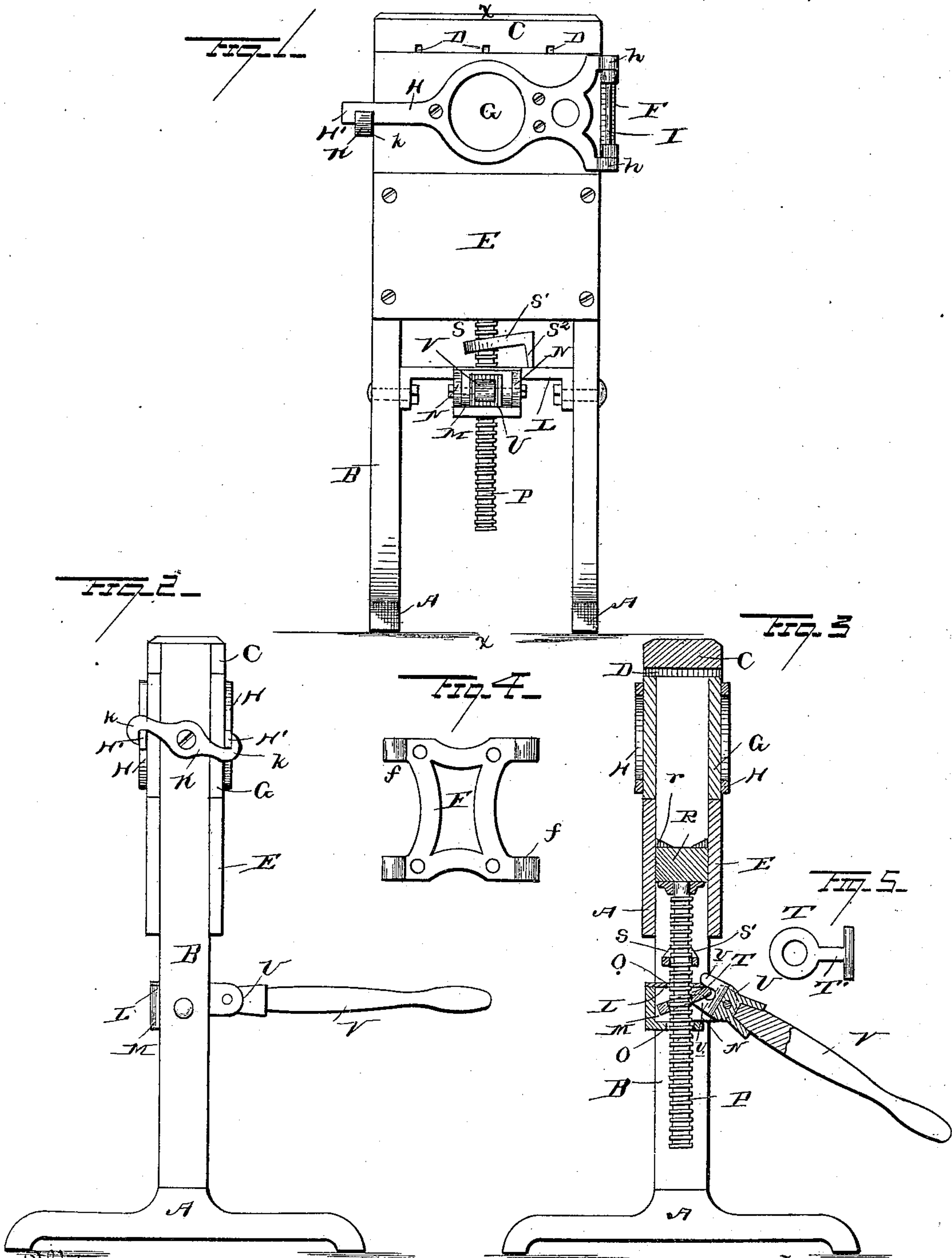


(No Model.)

G. S. LAY.  
BALING PRESS.

No. 356,481.

Patented Jan. 25, 1887.



Witnesses

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# UNITED STATES PATENT OFFICE.

GILBERT SAMUEL LAY, OF BASSETT, NEBRASKA.

## BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 356,481, dated January 25, 1887.

Application filed July 19, 1886. Serial No. 208,462. (No model.)

*To all whom it may concern:*

Be it known that I, GILBERT SAMUEL LAY, a citizen of the United States, residing at Bassett, in the county of Brown and State of Nebraska, have invented a new and useful Improvement in Baling-Presses, of which the following is a specification.

My invention relates to an improvement in baling-presses; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a front elevation of my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a vertical transverse sectional view taken on the line *x x* of Fig. 1. Figs. 4 and 5 are detail views.

A represents the sills, and B represents vertical posts or beams which project from the upper sides of the sills, at the centers thereof. The width of the said posts corresponds to the width of the press-box, the said posts forming the end walls thereof. The upper ends of the posts or beams B are connected by a horizontal beam, C, which forms the platen, and the said beam is provided on its under side with a series of transverse vertical slots or grooves, D. The sides of the press-box are formed by boards E, which are bolted on the outer sides of the vertical beams B, at a suitable distance below the cross-beam C. On one of the beams B, above the boards E, and on the outer side of the said beam, is secured a bracket or casting, F, which is provided with outwardly-extending arms or lugs *f*.

G represents the doors of the press-box, which fit in the spaces between the top beam, C, and the upper edges of the sides or boards E of the press-box. To the outer sides of the said doors are secured castings H, which are provided at one end, at the upper and lower sides of the doors, with lugs or arms *h*, which bear upon the lugs or arms *f* of the casting F. Vertical bolts or pins I pass through aligned openings which are made in the lugs *h* and *f*, and thereby hinge the doors to the upper sides of the press-box. From the free ends of the doors project arms H', which are formed integrally with the bracket H.

K represents a latching-arm, which is pivoted at its center to the outer sides of one of

the vertical beams B, and is provided at its ends with the oppositely-extending shoulders *k*, adapted to engage the upper and lower sides of the projecting arms H' of the doors, and thereby lock the same securely against the outer edges of the beams B when the bale is being formed.

L represents a horizontal cross-head, which is bolted between the inner opposing sides of the vertical beams B, at a suitable distance below the lower open end of the press-box. This cross-head is provided at its center with a depending chamber, M, which is open on one side, and from the said open side of the chamber extend horizontal arms or lugs N. Vertical aligned openings O are made in the upper and lower sides of the chamber M, and through the said openings passes a vertical rod, P, which may be either screw-threaded, as here shown, or serrated or otherwise notched or roughened, for the purpose to be hereinafter fully explained. To the upper end of the rod P is attached the follower R, which is adapted to enter the lower open side of the press-box.

S represents a gripping-collar, which is provided with a central opening, through which the rod P passes, the said opening being greater in diameter than the rod, and thereby adapting the collar to be tilted or inclined with relation to the rod, so as to cause the sides of the said opening to impinge against the rod P. This collar S is located above the cross-head, and is provided with a laterally-extending arm, S', which has its outer end turned downwardly to form a supporting-foot, S<sup>2</sup>.

T represents a similar gripping-collar, which is located in the chamber M, and is provided with an outwardly-extending arm, T', having a T-shaped head.

U represents a casting, which is journaled or fulcrumed between the lugs N of the cross-head. In the outer side of this casting is formed a socket, to receive the inner end of the hand-lever V, and the inner extending sides or arms, *u*, of the said casting are bifurcated, and thereby adapted to receive the extremities of the T-shaped head of the collar T.

In the upper side of the follower is made a series of transverse vertical grooves, *r*, which align vertically with the grooves D on the under side of the beam or die C.



The operation of my invention is as follows: One of the doors is locked, and the cotton, hay, or other material to be baled is placed in the press-box until the latter is filled. Both  
 5 the doors are then closed and locked, and the operator raises the collar S and turns the same upon the rod P until the depending foot S<sup>2</sup> rests upon the cross-head, as shown in Fig. 1, and supports the collar S in an inclined position,  
 10 with opposite sides of its openings bearing against the rod P. The hand-lever is then raised, which causes the collar T to assume a horizontal position in the chamber N and slide downwardly upon the rod. The outer end of  
 15 the hand-lever is then lowered, which causes the said collar P to tilt and thereby become engaged with the rod and raise the same a slight distance. While the rod P is being raised, so as to force the follower upwardly in the  
 20 press-box, the collar S disengages from the rod; but as soon as the rod ceases to move, the collar S again drops to its initial inclined position and becomes again engaged with the said rod, to prevent the latter from moving down-  
 25 wardly while the hand-lever is being raised, in order to lower the collar T, preparatory to taking a fresh hold upon the rod. This operation is repeated until the hay or other material has been sufficiently compressed, and  
 30 then the doors are opened and wires are passed through the grooves D and r and around the bale and fastened thereon, when the bale is removed from the press box. In order to lower the follower from the press-box, it is only nec-  
 35 essary to swing the arm S' of the collar S around so as to cause its depending foot to clear the cross head and permit the collar S to fall thereon in a horizontal position, thereby becoming disengaged from the rod P and permitting the  
 40 follower to descend by its own gravity.

Having thus described my invention, I claim—

1. In a baling-press, the combination of the press-box, the follower, the serrated or threaded rod P, depending from the follower, the cross-  
 45 head L, secured to the press-frame, and through which cross head the rod passes, the depending chamber M, near the center of the cross-head, the hand-lever pivoted to the chamber, the gripping-collar T, engaging with the rod  
 50 P within the chamber M and connected to the hand-lever, and the gripping-collar S, supported on the top of the cross-head and engaging the rod P, as set forth.

2. In a baling-press, the combination, with  
 55 the press-frame and press-box, of the follower R, the rod P, depending from the follower, the cross-head L, connecting the press-frame below the follower, the gripping-collar S, engaging  
 60 rod P and resting on and supported by the cross-head, the chamber M, provided on the cross-head, the hand-lever, and the gripping-collar T, concealed within the chamber M and engaging the rod P and pivoted to the hand-  
 65 lever, as set forth.

3. The press-frame, in combination with the casting F, secured on one end, the doors G in the opposite sides of the press-box, the brackets  
 70 H, secured to the outer sides of the doors and hinged at one end to the extending ends of the casting F, said brackets having extensions H', and the locking-latch pivoted to the end of the press-box and engaging both extensions H' to lock both doors G, as set forth.

In testimony that I claim the foregoing as  
 75 my own I have hereto affixed my signature in presence of two witnesses.

GILBERT SAMUEL LAY.

Witnesses:

W. G. SHRIVER,  
 H. B. IVEY.