

(No Model.)

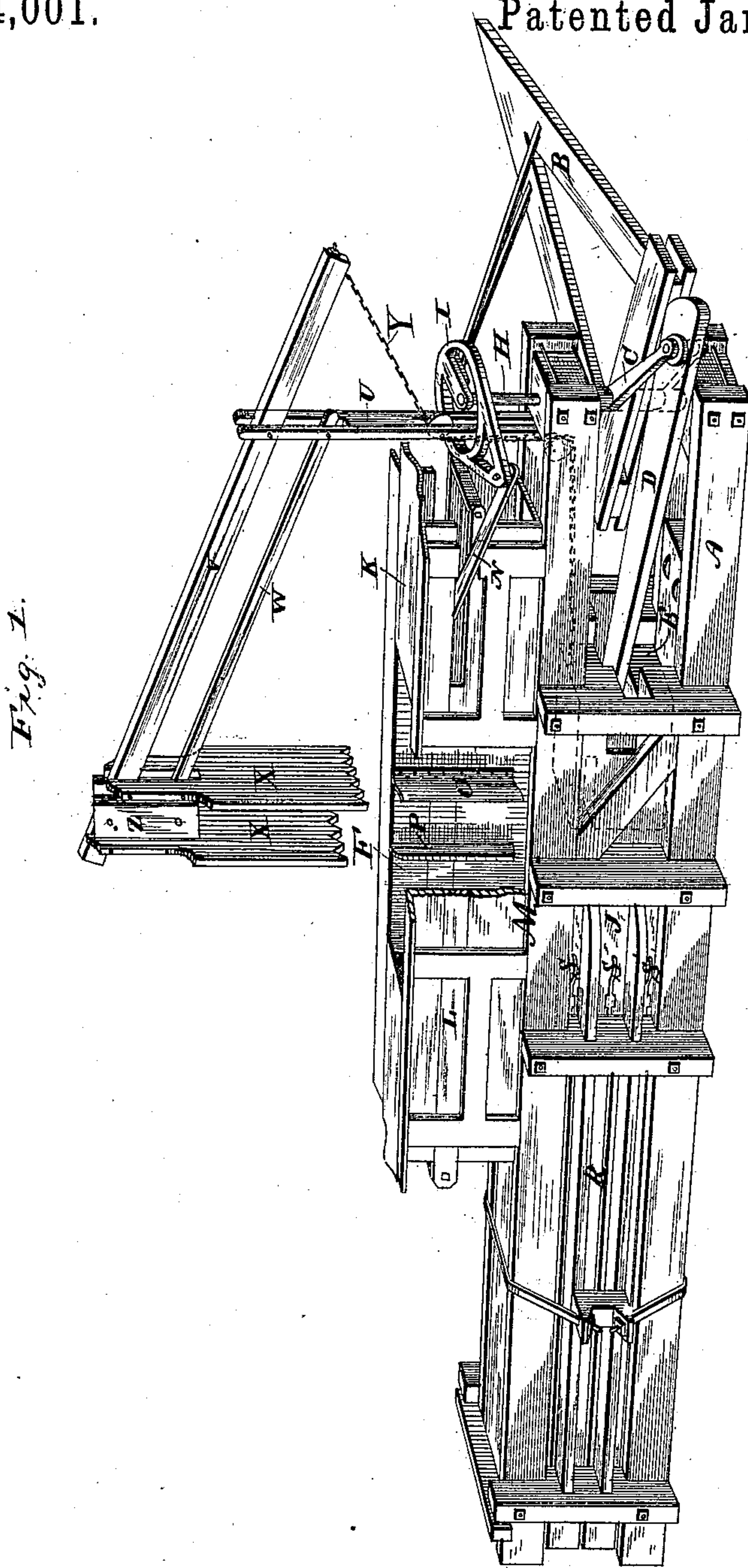
2 Sheets—Sheet 1.

P. K. DEDERICK.

BALING PRESS.

No. 334,001.

Patented Jan. 12, 1886.



**Witnesses**

Chas. R. Burr

Fred G. Church

*Inventor*

Peter K. Dedemch

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his Attorneys.

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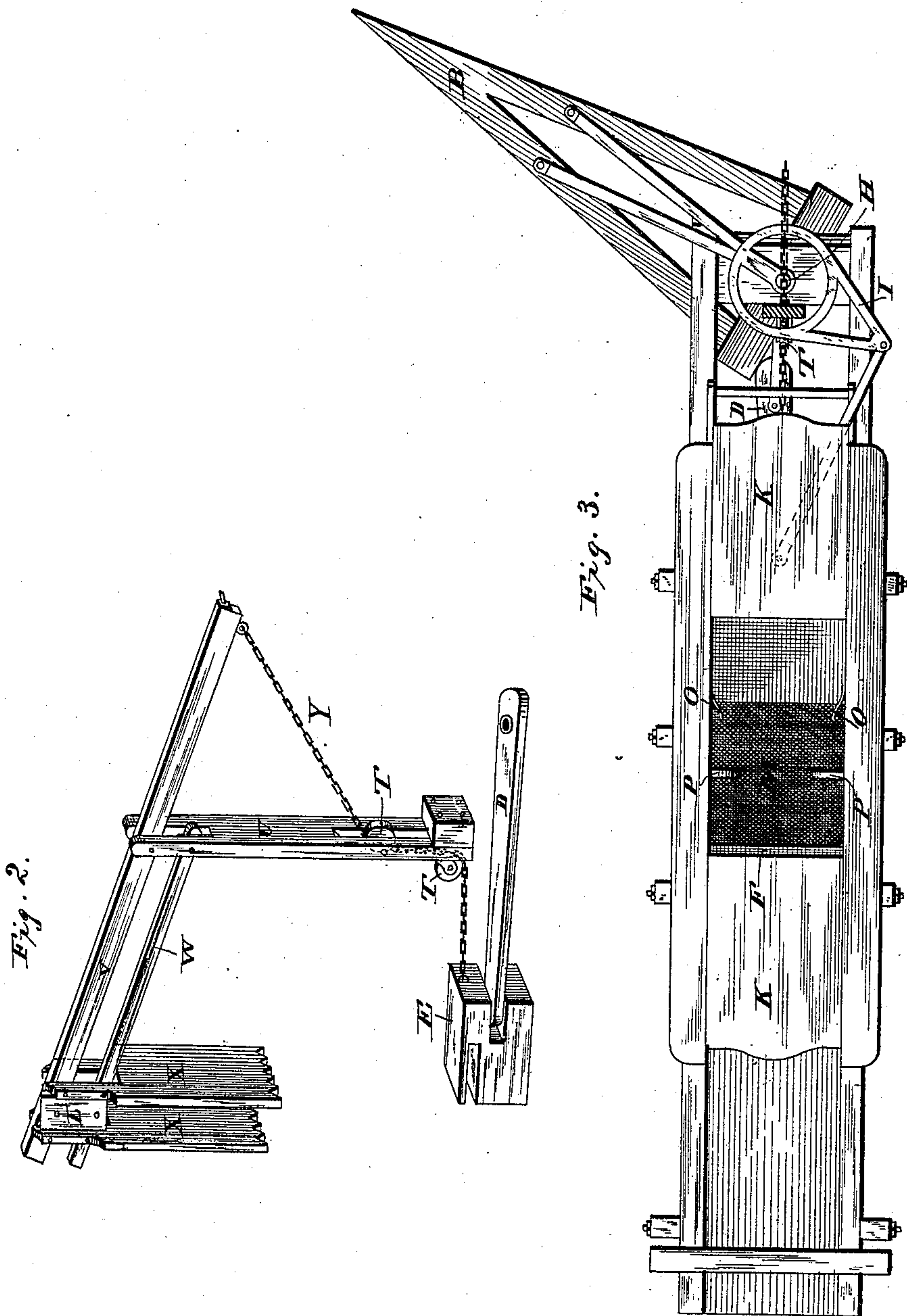
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Chas. R. Burn  
Fred F. Church

Inventor

Peter K. Dederick  
by Chas. R. Burn & Fred F. Church  
his Attorneys.



# UNITED STATES PATENT OFFICE.

PETER K. DEDERICK, OF LOUDONVILLE, NEW YORK.

## BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 334,001, dated January 12, 1886.

Application filed April 7, 1885. Serial No. 161,478. (No model.)

*To all whom it may concern:*

Be it known that I, PETER K. DEDERICK, of Loudonville, in the county of Albany and State of New York, have invented certain Improvements in Baling-Presses, of which the following is a specification.

My invention relates to that class of presses for which Letters Patent were granted me October 29, 1872, Nos. 132,566 and 132,639, and the various modifications of the same, for which Letters Patent have since been granted me, particularly that class termed "reversible"—as, for instance, Letters Patent No. 257,153, May 2, 1882—and others in which the horse-lever is reversed from side to side instead of full circle in operation, and relates particularly to the power and feeding devices.

Figure 1 is a perspective view of my improved press. Fig. 2 is a sectional view of the feeder and connections. Fig. 3 is a plan view of hopper and condenser.

Similar letters represent similar parts.

A is the frame of the press, which may be constructed as shown, or in any suitable manner.

B is the horse-lever pivoted to the end of the frame; C, the crank-arms, and D the pitman or lever, together forming a double-acting toggle, although any suitable power may be used with the reversible horse-lever.

E is the traverser, which may be constructed with spring or yielding top, as shown, to prevent its binding by overlapping locks of hay; F, the hopper.

December 14, 1875, No. 170,997, a patent was granted me on a feeding device operated by the press machinery and returned by a weight. In this instance I have shown a similar feeding device, but fed down by a weight and reversed or raised by the power. The horse-lever B is pivoted at the end of the frame on the shaft H, between the fulcrum arms C C, of which I preferably use two. Said arms C are pivoted at their outer ends to the pitman or lever D, as shown, thus forming a toggle-joint, which operates both sides of the center, and termed "double-acting" pitman and "double-acting" toggle-joint. The inner end of the pitman D is pivoted to the traverser E, which plays back and forth in the press-box J, thus closing and opening the feed-orifice, all as in Letters Patent No. 257,153, and others referred to, the feed orifice or opening being

over the press-box, and through it the loose material is received in front of the traverser, being passed from the hopper by means of an automatic feed device. The hopper F is located on the press and provided with a center partition or stops, P, secured in the hopper over the feed-orifice M. Said partition may extend entirely across the hopper, or simply a projection or stop be secured to the walls of the hopper at the sides, as shown. One or more condensing-heads, K, is provided for condensing the loose hay over the feed-orifice M against the stop or partition, the said heads K being secured to suitable slides, L, one at each side in the walls of the hopper, and moved by the pitman N, pivoted to one of the condensing-heads and to the sweep B by the extension I, attached to the horse-lever or braces, or in any other suitable manner, so that the movement of the sweep or horse-lever will condense the charges over the feed orifice and press-box. This condenser might be dispensed with, but the labor would be increased, and with less rapidity in feeding.

In the hopper F, at each side in front of the partition P, I secure to the walls of the hopper spring-plates O, with their loose ends projecting toward the said standards P, and slightly into the hopper, so that as the forward condenser K forces the charge of hay past them they will spring out against the walls of the hopper and spring inward again behind the charge, thus retaining it from expanding back until pressed down into the press-box by the automatic feeder. The rear condenser K holds the condensed charge over the feed-orifice while being passed down by the feeder. All retaining-plates might be dispensed with; but this would require two slides, as the heads K must then move in opposite directions. Any shoulder, movable or stationary, or barbs or retainers of any kind—such as usually used in retaining the pressed hay in the bale-chamber and press-box of this class of presses—would answer the purpose in the hopper. The pressed hay is retained in the bale-chamber R after being forced from the press-box J by hinged retainers S at each side of the press, similar to those shown in presses of this class referred to, and the ends of which project within the press-box at the junction with the bale-chamber, and they are forced out by the passing charges and projected in by



weights or springs, as ordinary in that class of presses, as all that is required is a movable or stationary shoulder to retain the pressed charges after being forced past it.

5 To the top of the press at the forward end I secure the standard U and clamp it strongly to the shaft H, and extend it upward, passing through the arm *i*; or the arm *i* may be curved around it on one side with same effect. At  
10 the upper end of this standard U, I pivot the rock-lever V and the guide-bar W, as shown, to which are pivoted the feed-blades *x x* or other suitable device for passing down the hay. The weight Z may be applied in any  
15 suitable manner to give force to the rock-lever to feed down the charge. I have shown it pivoted to the rock-lever and bar V W. At the other end of rock-lever V, I secure a chain or other suitable connection, Y, the other end  
20 of which I secure to the traverser E either directly or indirectly. The chain Y also passes through the arm *i*, or the arm curved around it. To avoid friction, I employ friction-sheaves T T, secured to the press or standard U, as  
25 shown. It will thus be seen that the weighted rock-lever will simultaneously reverse or draw the traverser back and feed down the charge, which is an important feature in this class of presses where the traverser and toggle-joint  
30 rebounds or is reversed by the expansion of the pressed material, and which it fails to do in starting the press, or on light bales, or at times when impinged with a lock of hay overlapping the traverser. Any other gravity  
35 feed device connected with the traverser and double-acting loose pitman and rebound traverser would thus operate, and it should be observed that as the horse-lever stands still in this double-acting-pitman press, hence no  
40 other than a gravity feeder can be combined to operate with it, and this combination and connection form one of the essential features of my invention.

45 The operation of the horse-lever B from side to side forces the toggle-lever and traverser forward to press a charge and raises the rock-lever and blades *x x*, and the loose pitman and traverser are reversed by the weight of the feeder and aided by the expansion of the  
50 pressed material, the horse-lever meantime standing still.

Partitions are used to divide the bales and pass the bands, as in all presses of the class, as heretofore referred to.

55 In operation, a charge of hay is pitched in the forward end of the hopper F, which, through means of the horse-lever B, arm *i*, pitman N, and forward condensing-head K, is condensed against the partition or stop P  
60 over the feed-orifice M, past the retainers O, which spring behind it and retain it from expanding back. Another charge is meantime pitched in the rear end of the hopper F, which is in turn condensed against the other side of  
65 the center partition or stops and retained by the condenser-head. Meantime the traverser having reached the forward limit of its

stroke and pressed a preceding section, the toggle-joint operating it is forced over the center line and the weighted rock-lever at  
70 once falls, aiding or drawing the traverser back and passing the two condensed sections down through the hopper and feed-orifice into the press-box. The horses are now reversed and the operation repeated, each half-turn  
75 condensing and pressing two charges.

A single condenser may be used with the feed device with the same effect; or both condensers may be dispensed with, and the feed device be employed to feed down loose hay  
80 with diminished effect.

The construction and combination of the condensing head or heads as applied to a hay-press is shown, described, and claimed in my prior application of September 18, 1884, No.  
85 143,409; hence no claim is made herein to such broad combination.

I claim as my invention—

1. The combination of traverser E, connection Y, and rock-lever V, as and for the purpose set forth. 90
2. The combination of horse-lever B and projection or arm I, passing around the connection Y, as and for the purpose set forth.
3. The combination of horse-lever B and projection or arm I, passing around the standard U, as and for the purpose set forth. 95
4. The combination of lever V, blade or blades *x*, and weight Z with the press-box and traverser of a baling-press, as and for the purpose set forth. 100
5. The combination of arm *i*, pitman N, condensing-head K, and hopper F, as and for the purpose set forth.
6. In combination with a baling-press, a feed-orifice, a gravity-feeder or feed device, and a hopper provided with one or more movable condensing-heads, as set forth. 105
7. In a baling-press, the double-acting pitman D, with the traverser E, press-box J, and feed-orifice M, in combination with a hopper, movable condensing-head, and a gravity-feeder, for the purpose set forth. 110
8. In a baling-press, the combination of double-acting pitman D, a traverser E, a press-box, J, a feed-orifice, M, with a hopper and condenser, and automatic feed device, whereby the loose material is condensed and passed from the hopper into the press-box in front of the traverser and pitman, as set forth. 115
9. In a baling-press, the combination of a gravity-feeder or feed device with a reciprocating traverser, a press-box, and retainers at the junction of press-box and bale-chamber, for the purpose set forth. 120
10. The combination, with the traverser, of a chamber, a condenser moving therein, and a feeding device operated by gravity to force the condensed charges into the press-box, substantially as described. 125

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Witnesses:

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