

(No Model.)

I. V. Z. JONES.

BALING PRESS.

No. 255,297.

Fig. 1.

Patented Mar. 21, 1882.

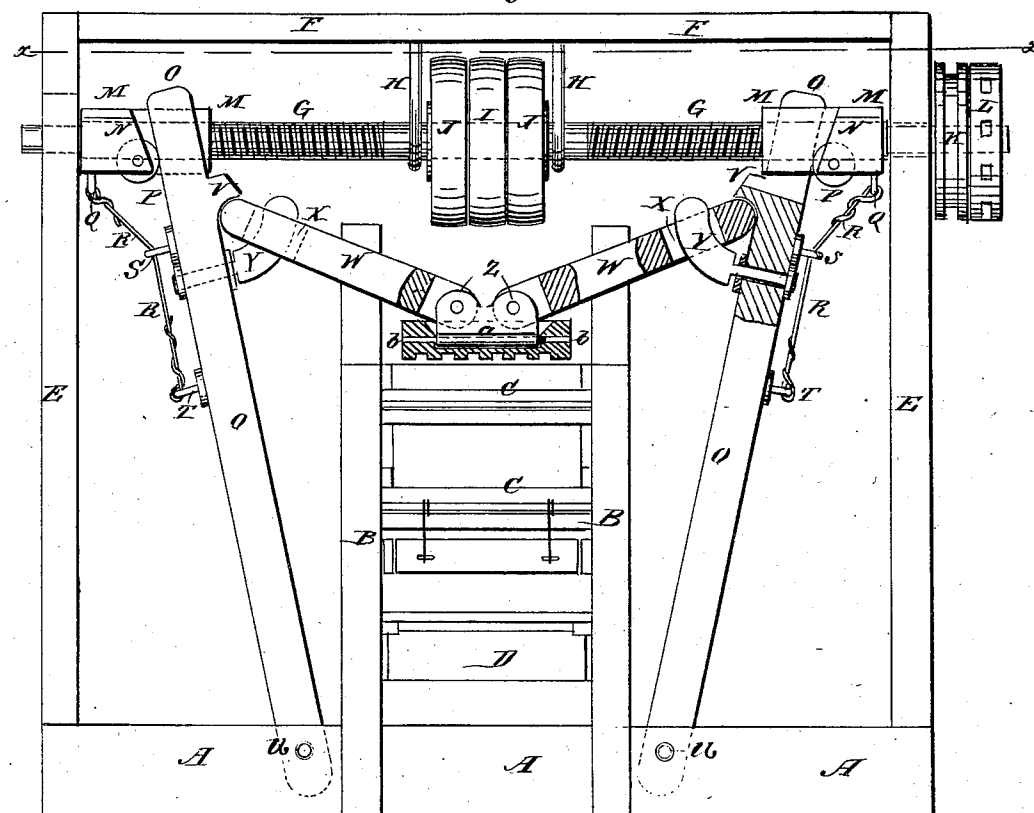
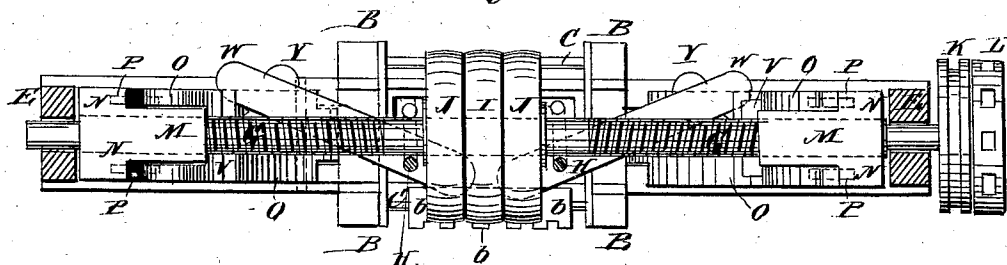


Fig. 2



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ISAAC VAN ZANDT JONES, OF SALADO, TEXAS.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 255,297, dated March 21, 1832.

Application filed January 6, 1832. (No model.)

To all whom it may concern:

Be it known that I, ISAAC VAN ZANDT JONES, of Salado, in the county of Bell and State of Texas, have invented certain new and useful Improvements in Presses for Baling and other Purposes, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of my improvement, parts being broken away. Fig. 2 is a sectional plan view of the same, taken through the line *x x*, Fig. 1, and showing the follower turned to one side.

The object of this invention is to provide simple and convenient presses for baling cotton, hay, tobacco, and pressing other materials, and which shall be constructed in such a manner that the substance being operated upon will be compressed with great power.

The invention consists in the combination, with the follower, the right-and-left screw, and nuts, of the hinged levers and the bars swiveled thereto; also, in the combination, with the follower, the right-and-left screw, the nuts, and the hinged levers, of the slotted bars, the hinged socket, and the swiveled arms; also, in the combination, with the nuts having shoulders and the hinged levers having forked upper ends, of the anti-friction rollers journaled in recesses in the said nuts; also, in the combination, with the hinged levers and the follower-bars having slots, of the curved and flattened swiveled arms, whereby the lower ends of the said follower-bars can have a lateral movement; and, also, in the combination, with the nuts and their levers, of connecting rods or chains, whereby the said nuts in their outward movements are made to carry the said levers with them, as will be hereinafter fully described, and pointed out in the claims.

A represents the base of the press, to which is attached the lower ends of the posts of the baling-box frame B. The baling-box C is provided with doors D in its lower part for convenience in tying and removing the bales.

To the end parts of the base A, at a suitable distance from the baling-box frame B, are secured the lower ends of posts E, the upper ends of which are connected by a beam, F.

G is a screw having a right-hand screw-thread upon one end and a left-hand screw-thread upon the other end. The journals of the screw G revolve in bearings in the upper parts of the posts E and in hangers H, attached to the middle part of the beam F upon the opposite sides of its center.

To the middle part of the screw G is attached a fixed pulley, I, having a loose pulley, J, upon each side. The pulleys J I J are designed to receive a straight belt and a crossed belt, so that the motion of the screw G can be reversed by shifting the said belts. The pulleys J I J are designed for use when the press is to be operated by steam or water power. When animal-power is to be used a groove pulley, K, is attached to one end of the screw G to receive the driving-band.

To one end of the screw G is attached a wheel, L, provided with radial sockets to receive the ends of levers for working the press by hand. Upon the end parts of the screw G are placed nuts M, one of which is provided with a left-hand screw-thread and the other with a right-hand screw-thread, so that the said nuts will be moved out and in simultaneously by turning the screw G in one and the other direction. The sides of the inner parts of the nuts M are flattened and have shoulders N formed upon them to receive the forked upper ends of the levers O, so that the said levers will hold the said nuts from turning, and so that the upper ends of the said levers will be moved inward by the inward movement of the said nuts.

The friction between the forked upper ends of the levers O and the shoulders of the nuts M is lessened by small anti-friction wheels P, pivoted in recesses in the wider rear parts of the said nuts, so that the faces of the said friction-wheels will project a little beyond the shoulders N for the said levers O to bear against, as shown in Fig. 1.

To the lower sides of the outer parts of the nuts M are attached eyebolts Q, or other suitable fastenings, to which are attached the ends of rods, chains, or other connections, R. The connections R pass through eyebolts S, attached to the upper parts of the levers O, and their ends are attached to other eyebolts, T, secured to the said levers O a little below the eyebolts S, as shown in Fig. 1; or the connec-

tions R can be otherwise connected with the upper parts of the said levers O. With this construction, as the nuts M move outward upon the screw G the connections R cause the said nuts M to draw the upper ends of the levers O with them. The lower ends of the levers O are hinged to the base A by pins or bolts U, or other suitable means.

Upon the inner sides of the upper parts of the levers O are formed or to them are attached shoulders or projections V, which are concaved upon their lower sides to receive the rounded upper ends of the bars W. The bars W have slots X formed in them near their upper ends to receive the flattened and curved arms Y, the outer ends of which are swiveled to the upper parts of the levers O, so that the lower ends of the said bars W can have a lateral movement. The lower ends of the bars W are slotted to receive the lugs Z, formed upon the upper side of the socket a, and are hinged to the said lugs by pins or bolts, as shown in Fig. 1. The socket a is placed in a recess in the upper side of the follower b, where it is secured in place by a pin or bolt passing longitudinally through the said follower. With this construction, as the nuts M are moved inward the upper ends of the bars W are drawn toward each other, which forces the lower ends of the said bars and the follower b downward into the baling-box C, compressing the material within the said baling box into a bale. When the nuts M are moved outward the upper ends of the bars W are drawn from each other, which draws the lower ends of the said bars out of the baling-box C and raises the follower b. When the nuts M reach the end of their outward movement the follower b will be raised above the baling-box, and can then be swung to one side and turned up into a vertical position at the side of the baling-box, the swiveled arms Y and the lugged socket Z a al-

lowing the bars W to have the necessary movements. By this arrangement the upper end of the baling-box C will be free to receive material for another bale.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a press, the combination, with the follower b, the right-and-left screw G, and nuts M, of the hinged levers O and the bars W, swiveled to the said levers, substantially as and for the purpose set forth.

2. In a press, the combination, with nuts M, having shoulders N, and the levers O, having forked upper ends, of the anti-friction wheels P, journaled in recesses in the rear of the shoulders of the nuts, with their faces projecting beyond the said shoulders, substantially as and for the purpose set forth.

3. In a press, the combination, with the follower b, the right-and-left screw G, the nuts M, and the hinged bars O, of the slotted bars W, the hinged socket a, and the swiveled arms Y, substantially as and for the purpose set forth.

4. In a press, the combination, with the hinged levers O and the follower-bars W, having slots X, of the curved and flattened swiveled arms Y, substantially as herein shown and described, whereby the lower ends of the said follower-bars can have a lateral movement, as set forth.

5. In a press, the combination, with the nuts M and the levers O, of the connecting rods or chains R, substantially as herein shown and described, whereby the said nuts in their outward movements are made to carry the said levers with them, as set forth.

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Witnesses:

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