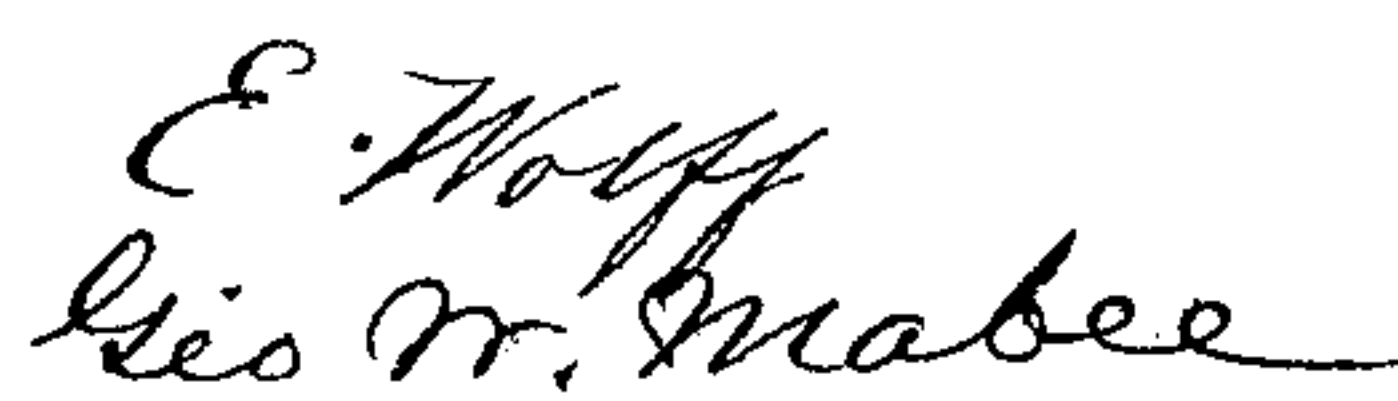


Improvement in Baling-Presses.

Patented May 7, 1872.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN BALING-PRESSES.

Specification forming part of Letters Patent No. 126,435, dated May 7, 1872.

Specification describing a new and useful Improvement in Baling-Press, invented by COMMODORE J. BARNEY, of Rockport, in the county of Spencer and State of Indiana.

Figure 1 is a side view of my improved baling-press. Fig. 2 is a detail vertical section of the same taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved press for baling hay, straw, cotton, and other substances required to be put up in bales, and which shall be simple in construction, convenient in use, and effective in operation, enabling the work to be done much quicker and consequently much cheaper than when an ordinary baling-press is used; and it consists in the construction and combination of various parts of the press, as hereinafter more fully described.

A is the base frame, B is the top frame, and C D E are the vertical frames of the press. The frames C D, which form the baling-box, are securely connected by cross-bars F, between which the doors for the removal of the bale are placed. The doors and sides of the baling-box are not shown in the drawing. G is the lower and H is the upper follower, which followers G H work up and down toward and from each other in the baling-box. To the outer sides of the followers G H are pivoted, respectively, the inner ends of the bars I J, the outer ends of which are pivoted to the levers K L. The outer ends of the levers K L are pivoted to the base frame A and top frame B, near the outer vertical frame C, or to the end parts of said frame C. The levers K L pass through slots in the inner side of the baling-box or through the frame D, and their forward ends are connected by the rope M. One end of the rope M is attached to the end part of the lower lever K, from which it passes up to and makes one or more turns around the roller N, pivoted to a small frame, O, attached to the top frame B. From the roller N the rope M passes down and is attached to the other or upper lever L near its end. By this arrangement the levers K L operate upon the followers G H in the manner of a toggle-joint, the bars I J coming nearer and nearer to a vertical position, and thus acting with more and more power as the bale becomes more and more

compressed. By this arrangement the levers K L move through equal spaces; but one lever may be made to move through a greater space than the other by attaching the rope M further from the end of said lever. The lower lever K should be made heavier than the upper lever L, so that, when the power is thrown off, the weight of said lower lever K may move the levers K L from each other and thus draw back the followers G H. In the inner side of the baling-box, or in the frame D, is formed a space or opening, *a'*, as shown in Fig. 2 and in dotted lines in Fig. 1, through which the upper follower H, when raised, may be swung to leave the top of the baling-box wholly unobstructed for convenience in putting in the material to be baled. The follower H may be drawn back into the baling-box, when the material has been tramped down or packed, by a cord, P, attached to the follower H or bar J, and which passes out through the outer side of the baling-box or the frame C, and which should have a small weight, Q, attached to it to keep it in place. R is a rope, one end of which is attached to the end of the upper lever L. The rope R passes around a pulley, S, pivoted to an arm or frame, T, attached to the frame E, around a pulley, U, pivoted to the end of the lever K, around a pulley, V, pivoted to the arm or frame T, and its other end is attached to the lower and larger part of a spirally-grooved cone-pulley, W, which is pivoted at its base to the upper end of the shaft X. The base or lower end of the pulley W has a ratchet-clutch, Y, attached to or formed upon it, which takes hold of the ratchet-clutch Z formed upon the top of the shaft X, so that the said shaft may carry the said pulley with it in its revolution. The upper end of the cone-pulley W is pivoted to the bar A' in such a way that, by raising the said bar, the pulley W may be raised out of gear with the shaft X. The inner end of the bar A' is pivoted to the frame E, and its outer end rests in a slot in the upright B', the lower end of which is attached to the outer end of the bar or beam C', to which the upper part of the shaft X is pivoted, and the inner end of which is attached to the frame E. The upper end of the upright B' is attached to the frame D' that supports or forms the cover for the power-gearing. E is a lever, which is pivoted to the bar or beam

C', and to its end is pivoted the lower end of the bar or frame F', which is slotted to serve as a guide to the rope R, and the upper end of which is pivoted to the bar A', so that, by operating the said lever E', the bar A' may be raised to throw the cone-pulley W out of gear with the shaft X to allow the followers G H to be withdrawn without its being necessary to turn back the shaft X. The lower end of the shaft X is pivoted to the sill or frame G', and to it is attached the sweep H', to which the horse is attached, and which is provided with a pole or bar, I', the upper end of which is pivoted to said sweep H', and which is made of such a length that its free pointed end may drag along the ground and be ready to hold the sweep from turning back should the power stop or become accidentally detached.

In baling cotton or other material where more compressing power is required, the end of the rope R, instead of being attached to the end of the lever L, may be passed around a pulley pivoted to the end of said lever L, around a pulley pivoted to the arm T; or which may be placed upon the same journal as the pulley S, but revolving in the opposite direction, and its end attached to the other lever K.

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

1. The combination of the followers G H, pivoted bars I J, levers K L, rope M, and guide-roller N with each other and with the framework A B C D, substantially as herein shown and described, and for the purpose set forth.

2. The combination of the followers G H, pivoted bars I J, levers K L, rope R and its guide-pulleys, spirally-grooved cone-pulley W, clutch Y Z, and shaft X, to which the sweep H' is attached, with each other, substantially as herein shown and described, and for the purpose set forth.

3. The combination of the pivoted bar A', pivoted slotted bar F', and lever E' with the spirally-grooved cone-pulley W, for the purpose of throwing said pulley out of gear with the sweep-shaft X, substantially as herein shown and described.

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Witnesses:

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