

(No Model.)

G. W. McKENZIE.
Baling Press.

No. 236,827.

Patented Jan. 18, 1881.

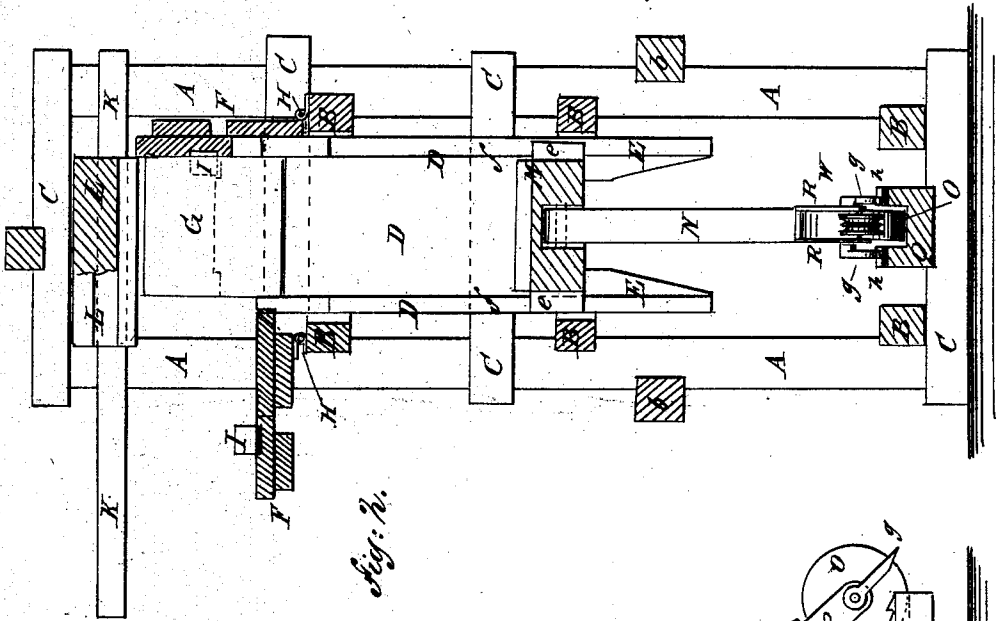
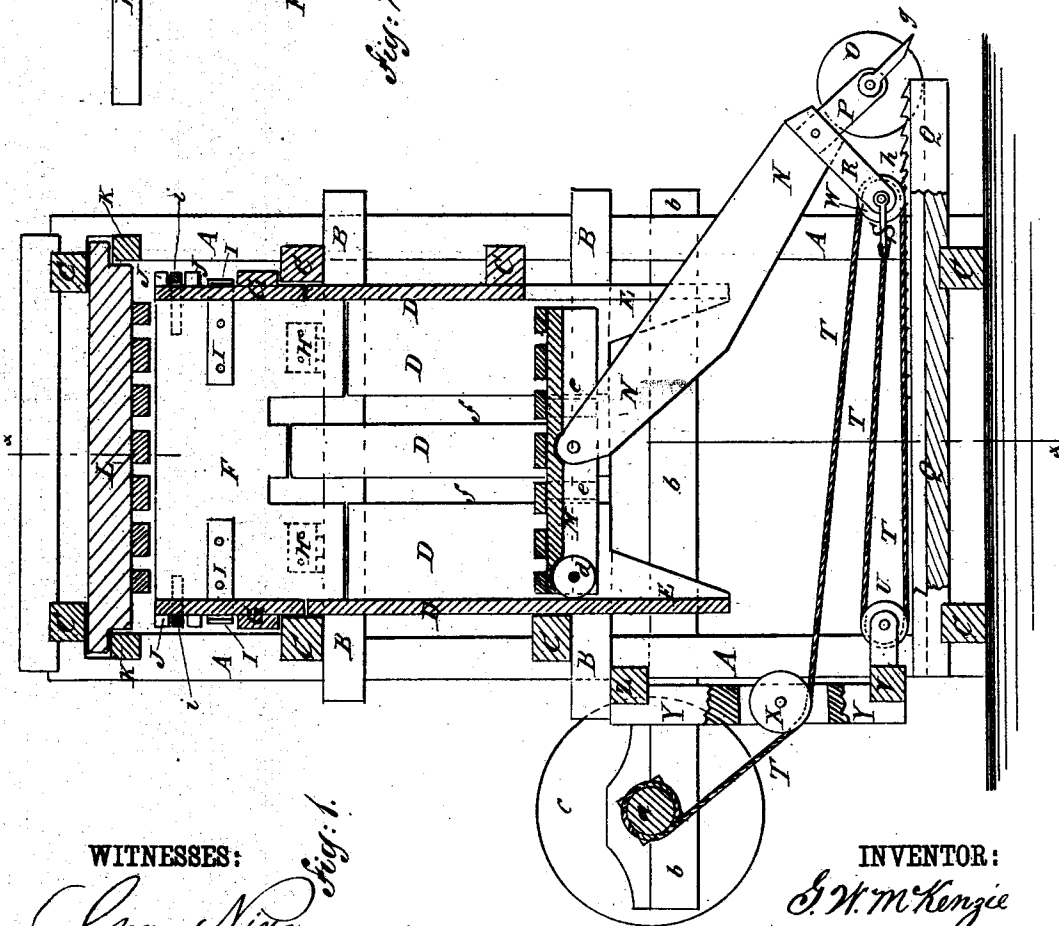


Fig. 2.



WITNESSES:

Chas. Nida
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Fig. 1.

INVENTOR:

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UNITED STATES PATENT OFFICE.

GEORGE W. MCKENZIE, OF DYERSBURG, TENNESSEE.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 236,827, dated January 18, 1881.

Application filed November 29, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WASHINGTON MCKENZIE, of Dyersburg, in the county of Dyer and State of Tennessee, have invented a new and useful Improvement in Baling-Presses, of which the following is a specification.

In the accompanying drawings, Figure 1 is a sectional side elevation of the improvement. Fig. 2 is a sectional end elevation taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish presses for baling cotton, hay, and other substances required to be put up in bales, so constructed as to apply great power to the bale, and which at the same time can be easily and rapidly operated.

In the accompanying drawings, A are the posts, which are made of such a length, and are placed at such distances apart, as the size of the bales to be made may require.

B are the side beams, and C are the end beams, which beams B C are placed at the inner sides of the posts A, and are gained and bolted to the said posts to form a frame-work simple and light in construction, and strong enough to readily withstand the outward pressure in compressing a bale.

To the middle beams B C, is attached the casing of the baling-box D, the end and the end parts of the sides of which do not extend quite to the tops of the upper beams B C, to which the said box is attached, a space being left to receive the lower ends of the doors. The middle parts of the side casing of the baling-box D project above the tops of the side beams, to serve as stops to prevent the side doors from being pushed in farther than into a vertical position. The end and corner parts of the baling-box D project below the lower beams B C, to which the said baling-box is attached, to form guides E for the follower as it moves up and down.

F F are the side doors, and G G are the end doors, which doors F G form the upper part or continuation of the baling-box D. The side doors, F, are connected by strong hinges H, with the beams against which the lower parts of the said doors F rest, so that the

doors can be turned down upon the floor of the lint-room for convenience in putting in the cotton or other materials to be baled. The end doors, G, are placed between the ends of the side doors, F, with their lower parts resting against the end beams, C, and their end parts resting against the hook-straps or keepers I, attached to the end parts of the said side doors, F, and which are made of sufficient strength to sustain the outward pressure upon the said end doors, G.

To the end parts of the side doors, F, are attached metal straps J, the ends of which project, and are slotted to receive and support hooked bars *i*, which cross the end doors, G, and the hooks of which overlap the outer sides of the ends of the side doors, F, to support the said side doors against outward pressure.

In the inner sides of the posts A, just beneath the top end beams, C, are formed gains to receive the bars K and the ends of the head-block L. The bars K project at one side of the press and serve as slides to support the said head-block, and allow it to be slid out of the way when filling the baling-box. The head-block L is supported against the upward pressure, when compressing the bale, by the top end beams, C, of the frame, beneath which the said head-block is placed. The lower side of the head-block L is ribbed or corrugated to form grooves to receive the bale-bands for tying the bales.

M is the follower, which fits into and moves up and down in the baling-box D. The upper side of the follower M is ribbed or corrugated to form grooves to receive the bands for tying the bales.

To the center of the lower side of the follower M, or to and between bars attached to the said lower side, is hinged the upper end of the lever N, which passes through a slot in the downward projection E of the rear end of the baling-box D. Said lever N has a small wheel or roller, O, pivoted to and between metal straps P, attached to the sides of its lower end. The wheel O rolls along a groove in the bar Q attached to the lower end bars or sills, C, of the frame.

To the ends of bars or straps R, rigidly attached to the sides of the lower end of the

lever N, is hinged a clevis, S, to which is attached the end of a rope, T. The rope T passes forward and around a grooved pulley, U, pivoted to a bar, V, attached to the outer side of the posts A, or to arms attached to the said bar, passes back and around the grooved pulley W, pivoted to and between the ends of the straps or arms R, passes forward and around a grooved pulley, X, pivoted in a slot in an upright bar, Y, attached to bars V Z bolted to the outer sides of the end posts, A, and its other end is attached to a shaft, a. The shaft a revolves in bearings attached to the projecting ends of bars b bolted to the outer sides of the side posts, A.

To one end of the shaft a is attached a pulley, c, to receive a driving-belt when the shaft a is to be driven by steam or other power. When the press is to be operated by horsepower a drum is attached to the other end of the shaft a, and a rope is attached to the said drum and wound around it in the opposite direction from that in which the rope T is wound around the shaft a. With this construction, when the shaft a is turned to wind up the rope T the lower end of the lever N is drawn forward, which causes the said lever N to force the follower M upward, compressing the cotton or other substance against the head-block L.

To the forward end of the follower M is pivoted a roller, d, to roll along the inner surface of the forward end of the baling-box D, and thus lessen the friction as the follower M is forced upward by the movement of the lever N.

To each side of the follower M are attached two vertical bars or ribs, e, which project through slots f in the sides of the baling-box D, to serve as guides to keep the follower M in a horizontal position while moving up and down.

To the straps P on the lower end of the lever N are pivoted pawls g, which engage with ratchet-teeth h, formed upon or attached to

the upper side of the grooved bar or track Q, so as to hold the lever N, and with it the follower M, in any position in which they may be, to give the operator a chance to tie the bale, and to prevent the follower from running back should a rope break or other accident happen.

In using the press the follower M is run down, the side block, L, is pushed back, the side doors, F, are turned down, and the end doors, G, are removed. The baling-box D is then filled with the substance to be baled, the doors F G arranged in place, and the space between the doors filled. The head-block L is then pushed into place, and power is applied to the shaft a to revolve it. As the rope T is wound upon the shaft a the follower M is pushed upward, compressing the contents of the baling-box D between the follower M and the head-block L. When the substance has been sufficiently compressed the bale is tied and removed from the press, the follower M is run down, the baling-box D again filled, and the operation is continued, as hereinbefore described.

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

A baling-press consisting, essentially, of the frame A B C, the baling-box having downwardly-projecting guides E and slots f, the hinged side doors, with hook-straps I, the separate end doors, G, the slotted straps J, the hooked locking-bars i, the head-block L, the slides K, the ribbed follower e M, the hinged lever with wheel and pawl O g, the track Q, with ratchet-teeth p, the clevis S, pulleys and rope U W X T, and the shaft a, all combined and arranged as set forth.

GEORGE WASHINGTON MCKENZIE.

Witnesses:

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JNO. S. WEBB.