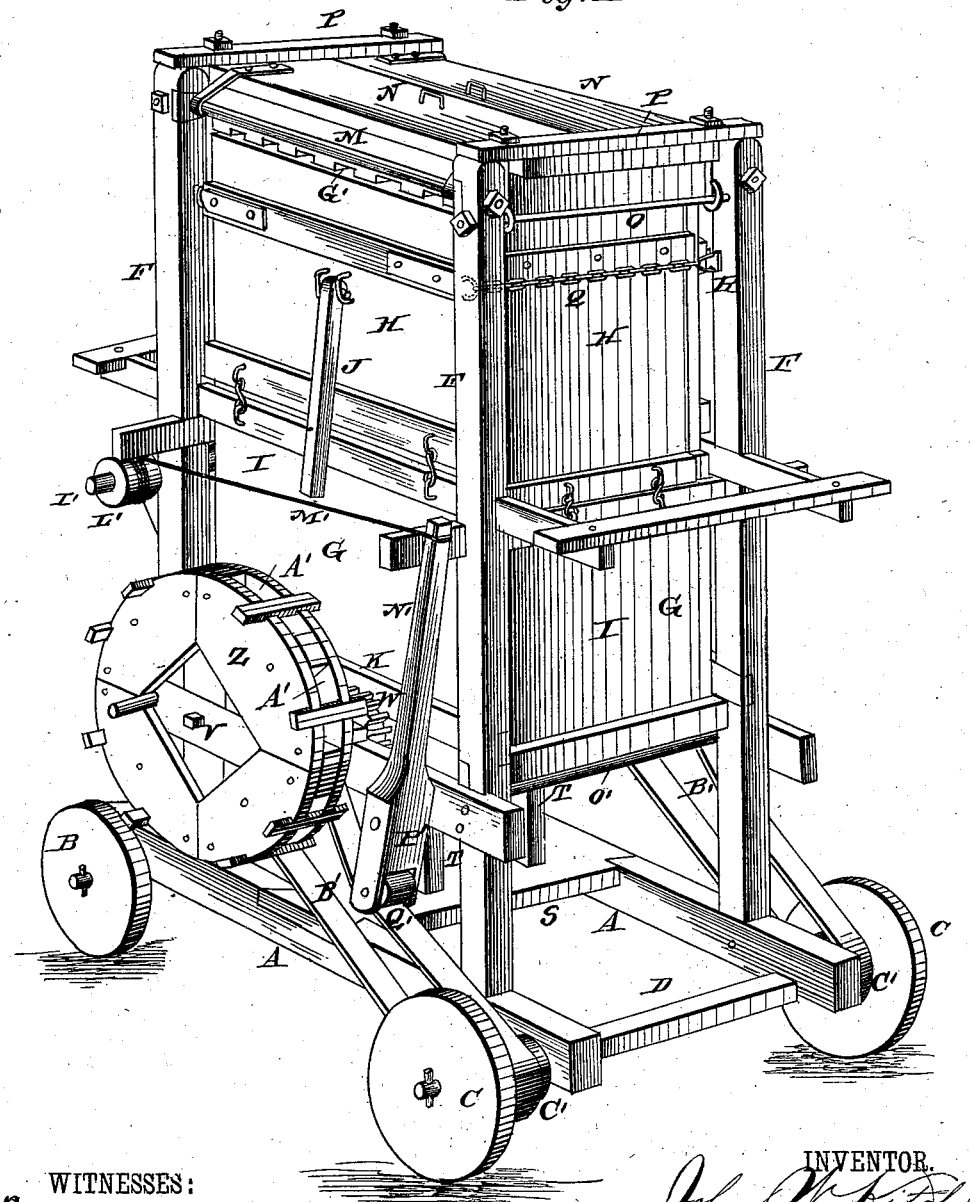
(No Model.) 2 Sheets—Sheet 1.

J. W. KITCHENS.

PORTABLE BALING PRESS.

No. 260,032. Patented June 27, 1882.

Fig. 1.



WITNESSES:

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ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

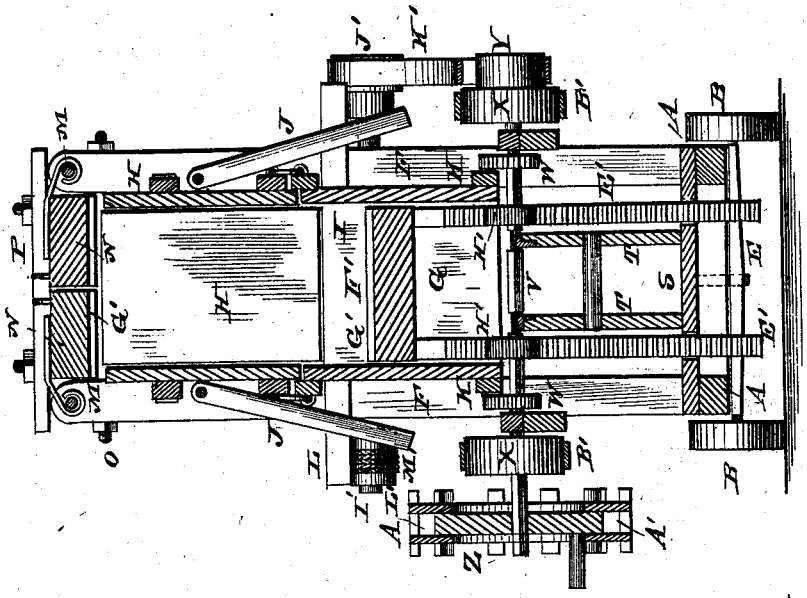
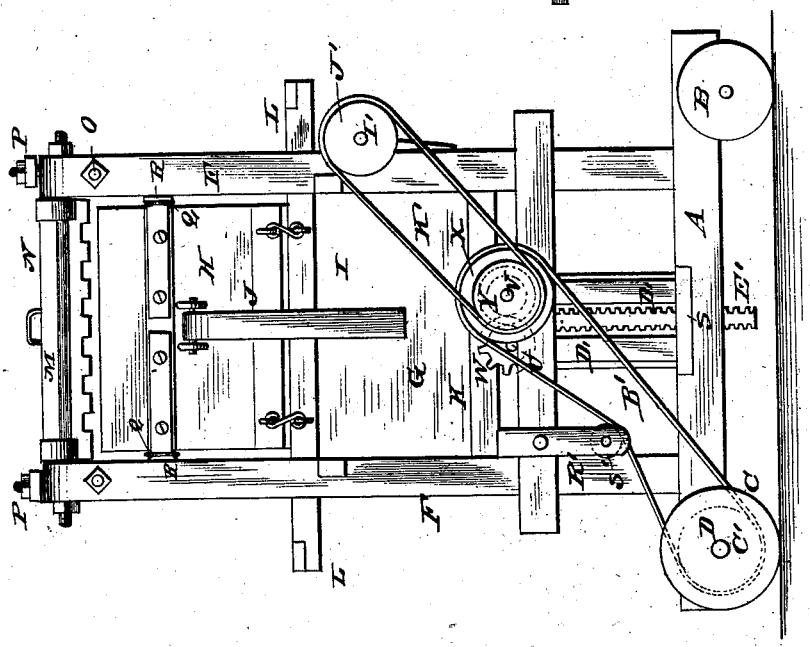


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN W. KITCHENS, OF POCOLA, INDIAN TERRITORY.

PORTABLE BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 260,032, dated June 27, 1882.

Application filed May 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. KITCHENS, of Pocola, in the county of Scullyville, Indian Territory, have invented certain new and useful Improvements in Portable Baling-Presses; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a perspective view, Fig. 2 is a side view, and Fig. 3 is a longitudinal vertical sectional view, of my improved baling-press.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to portable presses for baling hay, cotton, &c.; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A represents a base frame or truck mounted upon wheels B C, the rear ones of which, C, are mounted upon a revolving axle, D, journaled in suitable boxes or bearings. The front axle, E, is swiveled upon a king-bolt, and it is provided with means for the attachment of horses for transporting the press from place to place.

Four upright posts, F, secured near the corners of the frame A, form the frame of the press-box G. The sides and ends of the latter consist each of two pieces, the upper ones of which, H, are connected to the lower ones, I, by suitable hinges, to enable them to be folded down to a horizontal position, in which the said folding sides may be supported by brackets J, hinged to the said sides and adapted to rest against the horizontal frame-beams K at the lower end of the press-box. The hinged end pieces may likewise be supported in a horizontal position by brackets L, projecting from the frame of the press box.

The upper ends of the frame posts or uprights F are connected by longitudinal rods or braces M, upon which the half-doors N of the top or cover of the press-box are hinged; also, by transverse rods O, upon which are hinged clamps P, adapted to be swung up over the half-doors N and secure the latter in position when closed. The half-doors H of the sides of the press-box may be secured in a closed position by chains Q, secured to the ends of the opposite side doors, passed around the end doors, and hooked upon studs R of the door H opposite the one to which each chain is permanently attached.

S is a sill connecting the sides of the base-frame A and supporting two uprights, T T, having bearings for two transverse shafts, U V, having pinions W, which mesh together, as shown. Shaft V is also provided near its outer ends with band-wheels X, and at its extreme outer ends it carries, at one side of the machine, a smaller band-wheel or drum, Y, and at the other side a sprocket-wheel, Z, having recesses A′ adapted to receive the end of a suitable lever, by which it may be operated. The band-wheels X are connected by belts B′ with band-wheels C′ upon the revolving hind axle of the machine.

The uprights T are provided on their outer sides with grooves or guides D′, to receive the rack-bars E′, carrying at their upper ends the follower F′, which moves vertically in the press-box. The upper side of the follower and the under side of the cover of the press-box are grooved transversely, as at G′, so as to admit the bands when the bale is to be tied. The rack-bars E′ are toothed on both sides to engage the pinions H′, mounted upon the transverse shafts U V.

I′ is a transverse shaft, mounted in suitable bearings at the front end of the frame of the press-box, and having at one end a drum or band-wheel, J′, connected by a belt, K′, with the band-wheel Y upon the end of shaft V. At its other end the shaft I′ carries a drum, L′, upon which is wound a rope, M′, the free end of which is attached to the end of a lever, N′, secured upon one end of a shaft, O′, mounted transversely in suitable bearings at the rear end of the frame of the press-box. The end of lever N′ which extends below shaft O′ is forked, as at P′, and carries a roller, Q′, bearing against the belt B′ on this side of the machine. At its other end the shaft O′ has a forked arm, R′, likewise carrying a roller, S′, bearing upon the belt B′.

When the belts or bands B′ are thrown off

their respective wheels the press may be readily transported by a span of horses to any place where it may be wanted.

The operation of the press is as follows: When the press-box has been filled and closed and the belts adjusted upon their respective wheels draft is attached and the entire machine propelled over the field, prairie, or road where it may be temporarily situated for operation. The revolving hind axle, D, operates through the belts B′ the shaft V, which intermeshes with the shaft U. The pinions H′ of said shafts engage the rack-bars E′, thus forcing the follower in an upward direction and compressing the bale. At the same time the shaft I′ is revolved by means of the belt K′, thus winding the rope M′ upon drum L′ and raising the end of lever N′. The roller Q′, at the lower end of said lever, and roller S′, at the lower end of arm R′, (which, being attached to end of shaft O′, follows the movement of lever N′,) are thus caused to bear or press upon the belts B′, which are thus tightened and prevented from slipping as the pressure gradually becomes heavier. When the bale has been sufficiently compressed a suitable brake may be applied to the machine and the bale be removed and tied.

The press may also, in lieu of the manner just described, be operated by the sprocket-wheel Z while the press remains stationary and the belts have been thrown off, or said sprocket-wheel may be employed to assist the pressure.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a baling-press, the combination of the base-frame A, the uprights F, connected by rods M O, the press-box having hinged sides or half-doors H, the chains Q, studs R, hinged top doors, N, and hinged clamps P, substantially as set forth.

2. In a baling-press, the combination of the truck A, the frame F, the press-box, the follower, and mechanism for operating the latter by power taken from the revolving hind axle of the truck while the machine is being propelled over the ground, as set forth.

3. The combination of the truck A, the frame F, the follower, the press-box, the shaft V, having band-wheels X Y, axle D, having band-wheels C′, shaft I′, having drums J′ L′, shaft O′, having lever N′, and arm R′, carrying-rollers Q′ S′, belts B′ K′, and the rope M′, all arranged and operating substantially as set forth.

4. The combination of truck A, having sill S and uprights T, the frame F, the press-box, the follower F′, having double-toothed racks E′, the shafts U V, having pinions H′, mechanism for conveying motion through belts B′ to said shafts from the hind axle of the truck, and belt-tighteners N′ R′, adapted to bear upon the belts B′ with increasing pressure as the pressure in the press-box increases, as set forth.

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

JOHN WESLEY KITCHENS.

Witnesses:
W. B. PLAXCO,
JAMES M. KITCHENS.