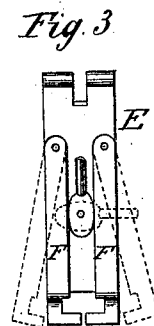
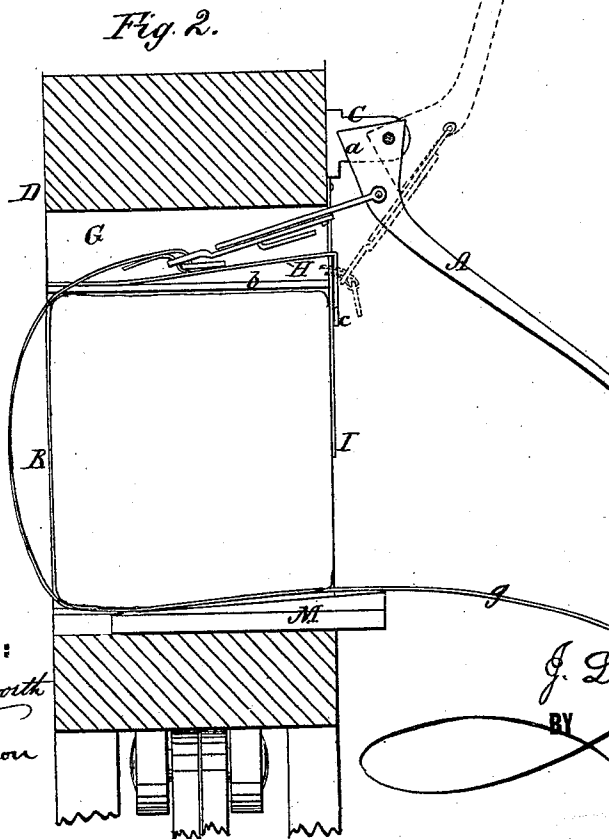
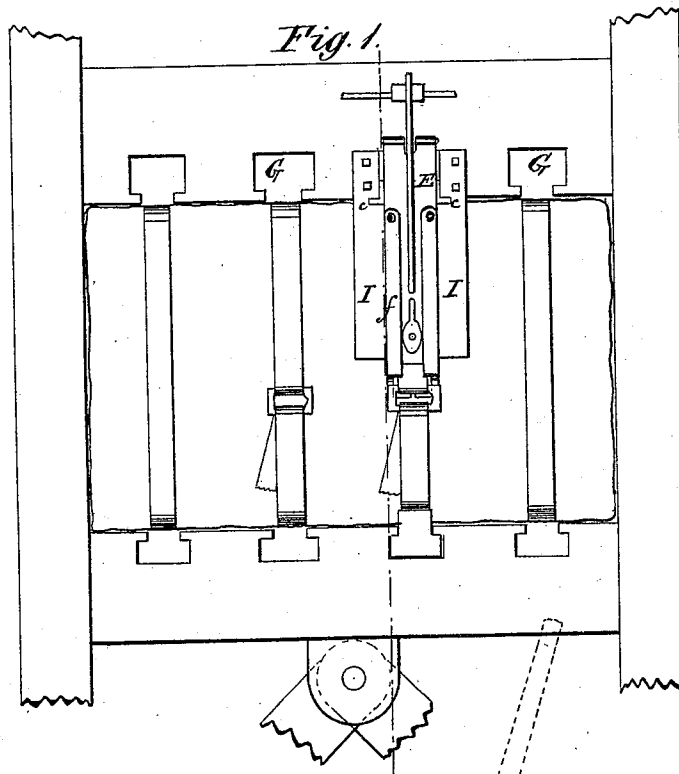


J. L. SHEPPARD.
BALE-BAND TIGHTENER.

No. 174,580.

Patented March 7, 1876.



WITNESSES:

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BY

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ATTORNEYS.

UNITED STATES PATENT OFFICE

JOHN L. SHEPPARD, OF CHARLESTON, SOUTH CAROLINA.

IMPROVEMENT IN BALE-BAND TIGHTENERS.

Specification forming part of Letters Patent No. **174,580**, dated March 7, 1876; application filed February 19, 1876.

To all whom it may concern:

Be it known that I, JOHN L. SHEPPARD, of the city and county of Charleston and State of South Carolina, have invented a new and Improved Bale-Band Tightener; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to improved means or devices for applying bands or hoops to bales of cotton, hay, straw, &c., the same consisting, mainly, of a bent or angular lever pivoted to the top portion of the baling-press, and provided with a pivoted arm, carrying tongs or clamps for holding one end of the band, and drawing it firmly around the bale into position for the other or free end (which is held meanwhile by any suitable fastening) to be attached to the buckle in the usual manner.

The invention further relates to constructing the under side of the bed of the press with an open channel, through which the clamping device is inserted to connect with the band.

The invention further relates to the form and arrangement of spring and friction plates to co-operate with the clamp and facilitate its operation, as hereinafter fully described.

In the accompanying drawing, forming part of this specification, Figure 1 is a front view of a portion of a baling-press, showing the tightening device in the position it occupies when holding the band strained around the bale; Fig. 2, a sectional elevation, showing the tightening device in two positions, as per full and dotted lines. Fig. 3 is a plan view of the lever-arm and jaws, the dotted lines representing the latter held open by the eccentric.

The lever A is bent at a slightly obtuse angle, and its short arm *a* made sector-shaped to adapt it to operate as hereinafter specified. The lever is pivoted at the inner angle of arm *a* to a bracket, C, projecting from the front of the press D. An arm, E, is pivoted to the lever near its angle, and clamping bars or jaws F F are pivoted to said arm E, and project beyond its free end, as shown, Figs. 1 and 3. An eccentric or cam-lever is also pivoted to arm E, between clamp-bars F F, for use in separating them, as will be hereinafter explained. This arm E works through the open-

bottomed channel G in the bed of the press, and plate-springs H are secured to lateral flanges *b* formed on the bottom edges of said channel, and bent downward at their raised free ends to assist the lever A in changing the position of arm E from a horizontal to a vertical. The free ends of the springs are likewise provided with lateral extensions *c* to adapt them to be drawn down and held flat on the flanges *b*, when it is desired to insert arm E in the channel G. I I are friction-plates attached to the front of the press-box, and extending downward over the front side of the bale.

The operation of the apparatus is as follows: The bale having been pressed into suitable shape, and the platen or follower being held stationary, the free end of lever A is drawn upward, and the band K passed through the opening formed between the closed jaws F F, and thence through the channel G, so that it next appears below or on the rear side of the bale. Being now pulled as tight as possible, it naturally operates to draw the arm E into channel G, as shown in Fig. 2, since the buckle is too large to permit it to pass through the opening between the jaws F. This pull from below having also taken up all the slack in the band, the wedge M is inserted, as shown in Fig. 2, to hold the free end of the band by frictional contact with the bale. The lever is next raised to draw the buckle and the band out of the channel G, which being effected, the springs H rise and prevent arm E again entering the channel, the parts being then in the position shown by dotted lines in Fig. 2. The lever is then depressed, thus causing the free end of arm E to slide downward on the friction-plates I, carrying the buckle and attached band with it, till the lever reaches the position shown in Fig. 1, when it locks itself, and requires no further attention from the operator, who then secures the end *g* of the band to the buckle in the usual way. The operation is then complete, and the eccentric being turned, it separates the jaws F F and releases their hold on the band. The form of the head or arm *a* of lever A enables it to act against the arm E and throw its free end out of the channel G, and thus relieve the springs H of friction with the buckle

sufficiently to allow the springs to rise and obstruct the mouth or entrance of the channel, as before described.

The friction-plates may be hinged, if preferred; and I do not propose to limit myself to the use of a wedge for holding the free end of the band. Any other suitable fastening may be employed.

By this improved apparatus time and labor are economized in the operation of banding or hooping cotton and other bales.

What I claim is—

1. In combination with a press-box, having channel G in its bed, the lever A, and the arm E, pivoted thereto and carrying band-clamping jaws, substantially as shown and described.

2. The combination, with lever A, arm E, and jaws F F, of springs arranged within the

channel G, and bent downward at their free outer ends, as shown and described.

3. The friction-plates I I, extending downward on the front of the press-box to facilitate the movement of the band-tightening device, as set forth.

4. The lever A, bent at an obtuse angle, and pivoted to bracket C, as shown, and the band-clamping device pivoted thereto, near said angle, said parts being combined and arranged on the side of the press-box, as set forth, whereby the lever is adapted for self-locking to hold the band.

JOHN L. SHEPPARD.

Witnesses:

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