

A. N. POWELL.

BALE-TIE.

No. 170,589.

Patented Nov. 30, 1875.

FIG. 1.

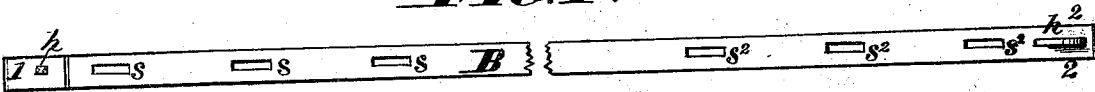


FIG. 2.

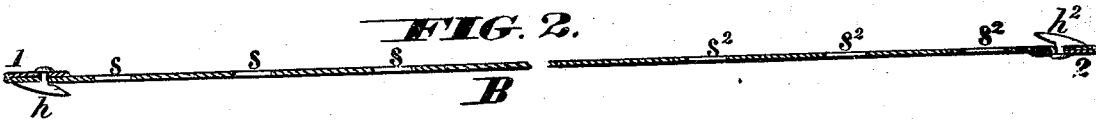


FIG. 3.

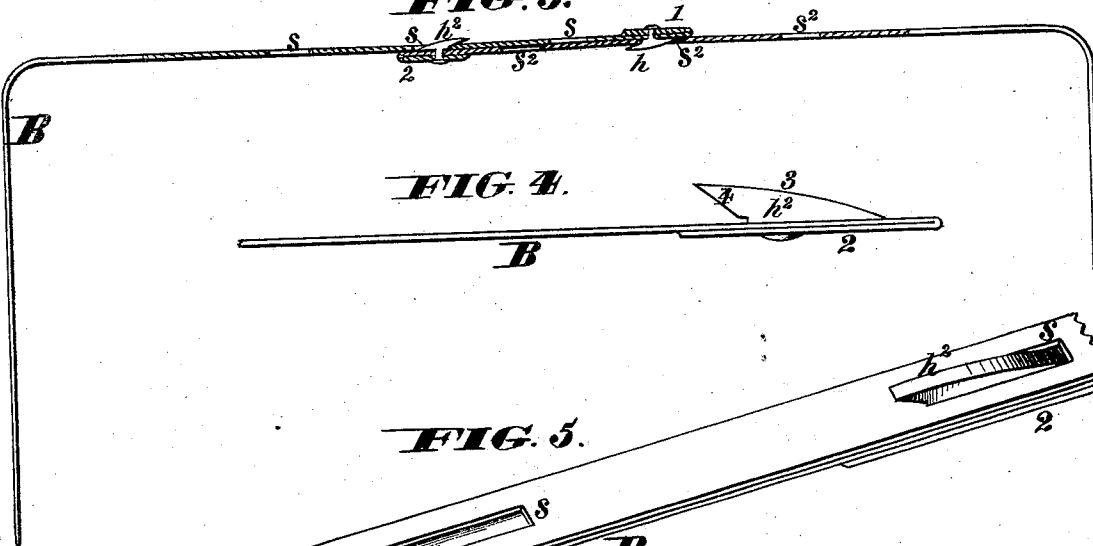


FIG. 4.

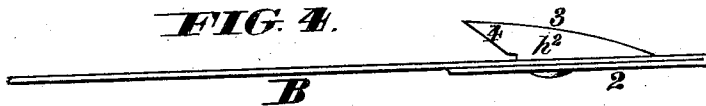
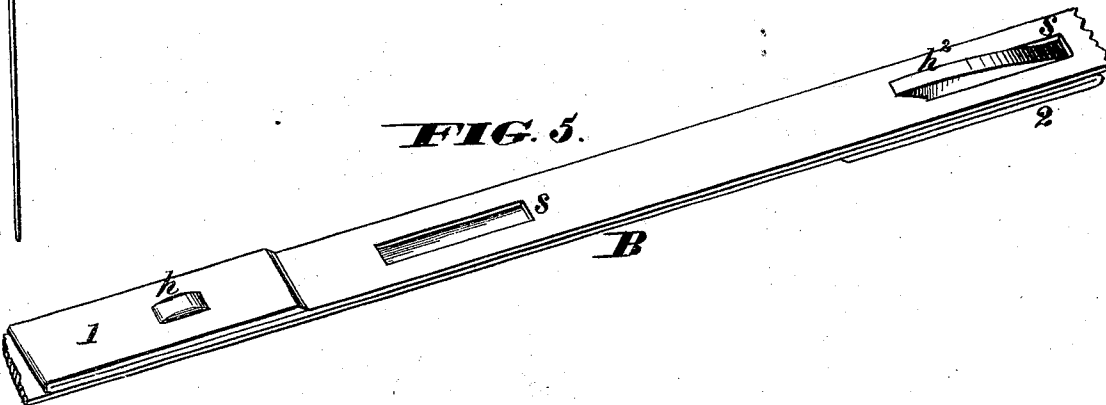


FIG. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

AMOS N. POWELL, OF ALVARADO, TEXAS.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **170,589**, dated November 30, 1875; application filed October 23, 1875.

To all whom it may concern:

Be it known that I, AMOS N. POWELL, of Alvarado, in the county of Johnson and State of Texas, have invented a new and useful Improvement in Bale-Ties, of which the following is a specification:

This invention relates to that class of ties or hoops for cotton-bales, in which the band of hoop-iron is provided with rigid hooks, studs, or buttons, and matching perforations as means for adjustably uniting the ends.

The present invention consists in a pair of hooks, studs, or buttons, which may be of any approved shape, attached to the respective ends of a hoop-iron band, so as to project on opposite sides at the extremities of the band, in combination with slots or perforations behind the respective hooks or buttons in both ends of the band. The slots or perforations behind each hook or button receive the hook or button on the other end of the band. Both ends of the band are thus secured, and a double lock afforded. The multiplication of the slots or perforations provide for tightening the band, and the hooks or buttons are so arranged that the strain on the band will tend to tighten them.

The improved bale-tie is adapted to be cheaply manufactured with mechanical uniformity by means of dies, and being thus manufactured no experience or special judgment is required on the part of the baler in applying the ties in order to keep them even. The simplicity of the movement, by which the ends are interlocked, adapts it to be accomplished by a boy. One and the same length of ties is perfectly adapted for use at the baling-press and at the compress, as the slots may run back to the middle of the band, and provide for any extent of adjustment, and at any adjustment both ends of the band are kept close and flat. At the compress it is only necessary to hook up the bands to the reduced circumference. No cutting is required, and there are no short bends to straighten out, as in some other ties. The strain and wear being divided between two hooks or buttons in my peculiar manner the liability to break is lessened by one-half. Both sides of the tie are alike, and consequently no time

can be lost in applying it. It is always ready to go on, whichever way it is picked up.

Figure 1 is a plan view of a bale-tie, illustrating this invention, as the same appears before use. Fig. 2 is a longitudinal section of the same. Fig. 3 is an edge view of the improved tie, partly in section, showing the same as applied and fastened. Fig. 4 is an edge view of one end on a larger scale. Fig. 5 is a perspective view, on the same scale as Fig. 4, showing the united ends of the improved bale-tie, as in use.

A hoop iron band, B, of suitable dimensions is employed. A single size of sufficient length for the largest loose bales, or first bales, will be sufficient. The extremities 1 2 of the band are folded or doubled, as represented, and perforations are then punched therein to receive the shanks or stems of hooks h h^2 . The hooks are applied from opposite sides, and the shanks or stems are headed as rivets, to securely attach them, being made angular to prevent any rotation of the hooks. With the perforations for attaching the hooks as initial points a series of perforations in the form of short slots s s^2 are produced in each end of the band. The hooks, attached as described, project in opposite directions, and the slots s s^2 are arranged behind the same, respectively, in the direction of the strain which the band is to sustain. The slots correspond in general outline with the hooks, and those in either end are designed to receive the hook on the other end of the band.

To apply the tie to a bale it is passed around the same, and the ends are passed longitudinally over each other, so as to bring the respective hooks into matching perforations at the proper points for retaining the compression of the bale, as illustrated in Fig. 3.

The preferred form of hooks have convex inclined backs or outer surfaces 3, and undercut faces 4, the outer portions of which are inclined, so as to adapt them to enter the slots freely and at the same time to become locked therein to a sufficient extent to prevent their accidental disengagement. The hooks are automatically unfastened in the act of compressing a bale, and when the compression is finished all that is necessary in order

to apply the same band is to draw the ends over each other a greater distance, so that the hooks shall enter new slots.

The particular shape of the hooks, as shown and described, and the described mode of attaching the same, are not essential to the present invention, nor are they claimed as new.

My improved tie effects a saving in time and labor, both to the producer and manufacturer of cotton. It may be used repeatedly after being taken from the bale at the compress.

The edges of the hooks do not run into or catch the bagging, causing delay and trouble

to the baler, but run smoothly over, owing to the peculiar formation of the hooks, no matter which way the end or ends are introduced.

The following is claimed as new, namely:

A pair of hooks, h h^2 , attached to the respective ends of a hoop-iron band, B, so as to project on opposite sides at the extremities of the same, in combination with slots s s^2 behind the respective hooks in both ends of the band, substantially as herein shown and described, for the purposes set forth.

AMOS N. POWELL.

Witnesses:

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