

R. S. STENTON.

BALE-TIE.

No. 172,897.

Patented Feb. 1, 1876.

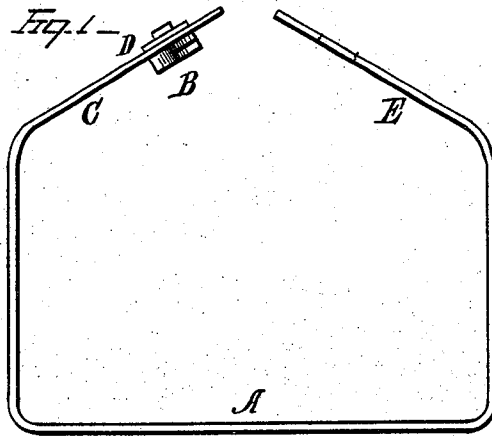


Fig. 2 -



Fig. 3 -



Fig. 4 -

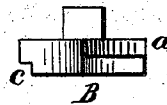
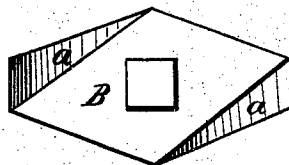


Fig. 5 -



WITNESSES

E. A. Nottingham
J. M. Clear

INVENTOR

R. S. Stenton,
By Leggett & Leggett,
Attorneys.

UNITED STATES PATENT OFFICE.

ROBERT S. STENTON, OF CINCINNATI, OHIO.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **172,897**, dated February 1, 1876; application filed December 29, 1875.

To all whom it may concern :

Be it known that I, R. S. STENTON, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Bale-Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

In the drawings, Figure 1 is a cotton-bale tie with the ends of the band detached. Fig. 2 is a top view of the band. Fig. 3 shows the diamond button detached from the band. Fig. 4 is a modified form of button. Fig. 5 is a top view of the button detached from the band.

Heretofore, "cross-eye" ties have ordinarily been made with a button of rectangular form, with a hook at one end to hold the tie when locked.

The maximum strain on ties thus constructed is resisted by a single corner of the button, and the tendency is to tear the button from the band.

The object of my invention is to obviate the defects above set forth; and to that end my invention consists in the combination of the irregular six-sided slots, having tapered ends, two sides perpendicular and two inclined, with a button of like form, and undercut at opposite sides of each end.

A is the band, having the tapered button B secured to the end C by means of a washer, D, the shank of the button being headed up on the back of the washer.

The button B is constructed with tapering ends *b b*, and, as shown in Fig. 3, with its ends undercut as at *a a*.

The free end E of the band is provided with slots F, two sides cut diagonal, and two parallel to the edges of the band. These slots are made with tapering ends to correspond with the form of button B, and of sufficient size to make a close fit for the button when it is inserted within the same.

The button and slots, thus constructed, allow of the attachment of ends of the bands without the necessity of compressing the bale in excess of its desired bulk, and no slack

band is required to effect the locking of the tie. When locked, the button has, practically, no vertical movement in the slot.

Great advantage and economy in baling are also thus acquired, as the power required in compressing increases very rapidly as the bale approaches the compact form desired for transportation.

When locked, the free end of the band is firmly secured beneath the projecting ends of the button. The form of the button also allows of the greatest bearing of its shoulder against the band, and this shoulder is secured to the band in such a manner that the principal strain will be in the direction of its length, and, therefore, will better withstand any pressure that may be exerted through the expansive force of the cotton.

The modified form of button, as shown in Fig. 4, has the bearing decreased in length by cutting away one of the bearing-points, as shown at *c*. This form of button gives an equalized bearing upon the ends of the button, but it allows a vertical motion in the slot and more slack in the band than the button above described, and hence, in use, it is not deemed as valuable.

The button may be formed of true diamond shape, if desired, without changing the nature of the invention. Owing to its form, I term my improvement the "diamond tie."

In order to insure the proper relation between the diamond button and slot, I clip the top of one end of the button, as shown in Fig. 4, that no mistake will be made in riveting the button to the band.

What I claim, and desire to secure by Letters Patent, is—

The button B, tapered at both ends and undercut at opposite sides, in combination with the band, having corresponding slots with the button, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of December, 1875.

ROBERT S. STENTON.

Witnesses:

E. H. FOSTER,
E. J. CADY.