

R. G. STEWART.
BALE-TIE.

No. 193,194.

Patented July 17, 1877.

Fig. 1.

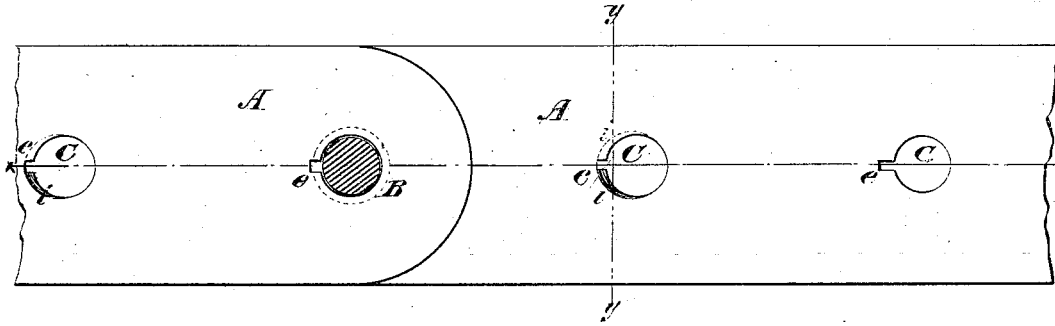


Fig. 2.

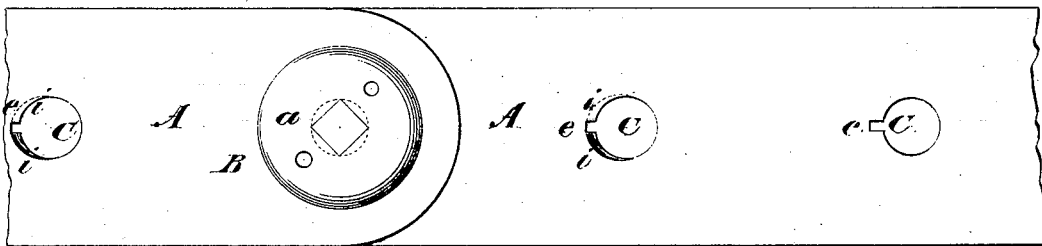


Fig. 3.

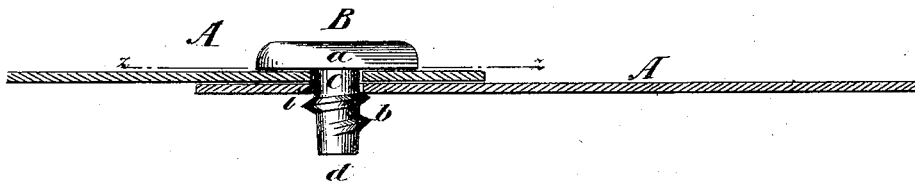


Fig. 4.



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ROBERT G. STEWART, OF AUGUSTA, GEORGIA.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **193,194**, dated July 17, 1877; application filed June 18, 1877.

To all whom it may concern:

Be it known that I, ROBERT G. STEWART, of Augusta, in the county of Richmond and State of Georgia, have invented a new and Improved Bale-Tie, of which the following is a specification:

This invention relates to means for fastening bands around bales of all kinds of material; and the nature of my invention consists in the novel way of uniting the lapped ends of a bale-band by means of a screw, whereby a substantial and safe fastening can be made with great facility, as will be hereinafter explained.

In the annexed drawings, Figure 1 shows the lapped ends of a bale-band secured together by a screw, which is represented in section. Fig. 2 is a similar view of the same parts, except that the screw is not in section. Figs. 3 and 4 are sectional views.

Similar letters of reference indicate corresponding parts.

The letters A A' designate the ends of a bale-band, which ends are rounded, lapped, and secured together by a screw, B. The head *a* of the screw may be round, square, or of any other suitable shape, and between it and the first start of the thread *G* is a cylindrical neck, *c*, which is about equal in length to double the thickness of the band, as shown in Fig. 3. The thread has a quick pitch, and is shaped like the thread of a wood-screw. It winds about twice around the stem of the screw, and terminates in a tapered guide or entering end, *d*, which facilitates its application to the band.

By means of a punch adapted for the purpose, holes C are made through the band at suitable distances apart, of a diameter to loosely receive the necks *c* of the screws, and

into the edge of each hole a notch or slit, *e*, is cut.

The edge of the hole C on both sides of the notch *e* are upset, as shown at *i i'*, by means of a tool adapted to the purpose, forming practically a thread which is the counterpart in pitch or obliquity of the male thread *b* on the screw B.

Screw B is passed through one of the holes of the end A of the band until the neck *c* comes within the hole. The upset portions *i i'* are then reset or pressed back, so that they will not allow the screw to be removed, but will allow it to turn freely. The screw thus permanently attached to the band will not get lost.

When the ends of the band are lapped around a bale, the screw is set home into the end A', and a firm fastening is made. By means of a wrench of a suitable kind, the ends of the hoop can be very forcibly drawn together and held fast.

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

1. A bale-band which is perforated, and the edge of the perforation split and upset, in the manner and for the purpose described.

2. The screw B, formed with a neck, *c*, a thread, *b*, and an entering point, *d*, in combination with a bale-band having a perforation, C, through it, formed with upset portions *i i'*, substantially as described.

3. The screw B, attached permanently to the bale-band, in the manner specified.

ROBERT GOODWIN STEWART.

Witnesses:

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