W. H. HOWARD.
Bale Tie.

No. 202,031. Patented April 2, 1878.

Fig. 1.

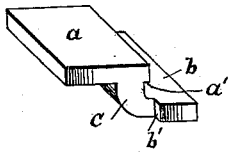


Fig. 2.

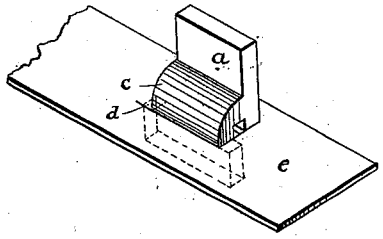


Fig. 3.

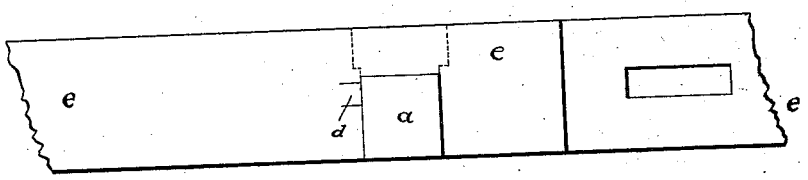
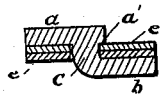


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. HOWARD, OF SAN ANTONIO, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO CAMILLE E. BROUSSARD, OF GALVESTON, AND RUSH M. HUTCHINS, OF HOUSTON, TEXAS.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **202,031**, dated April 2, 1878; application filed November 9, 1877.

To all whom it may concern:

Be it known that I, WILLIAM HENRY HOWARD, of San Antonio, in the county of Bexar and State of Texas, have invented certain new and useful Improvements in Bale-Ties; and I do hereby declare that the following is a full, clear, and exact description thereof, 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, and to letters of reference marked thereon, which form a part of this specification.

The invention relates to the class of bale-ties in which the bands are secured by means of a fastening or key which passes through slots in the ends of the band.

My invention consists in constructing the key of two plates, with a long web connecting them, and attaching the key to one end of the band, with the web connecting the plates parallel with the length of the band.

The web of the fastening passes through a slot in one end of the band, one of the plates being below and the other above it.

To fasten the bale-tie, the key is turned up into a vertical position, and the upper plate is passed through a slot in the free end of the band. Then the key is pressed down into a horizontal position.

The movements for fastening and unfastening the bale-tie are at right angles to the line of strain, and shoulders are provided on the upper plate, to prevent an accidental unfastening in case the key should be shifted into a vertical position with respect to the band.

Figure 1 is a perspective view of the key. Fig. 2 shows the same attached to one end of the band. Fig. 3 is a plan of the tie when fastened, and Fig. 4 is a cross-section of the same.

The key has two parallel plates, *a* and *b*, connected by the curved portion *c*, which may be considered as a portion of the plate *b*, bent in an arc of a circle, so as to be at right angles to the plate *a*, and the perpendicular distance between them is equal to twice the thickness of the band.

The inner edge of the plate *a* projects slightly beyond the connection *c*, forming an overhanging ledge, *a'*, and the front of the plate *b* is extended at the sides, forming the shoulders *b'*.

The perpendicular distance between the faces of the shoulders *b'* and the inner edge of the plate *a* should be about equal to one thickness of the band; but that is not essential.

The key is intended to be permanently attached to one end of the band *e*. A slot is cut to receive it, of a length equal to the width of the main portion of the tie. Then the sides of the slot are extended, so that the piece *d* may be bent down to permit the shoulders *b'* to pass through the slot, and afterward the piece *d* is bent back.

The free end of the band is provided with slots long enough to pass the plate *b* with its shoulders *b'*.

To apply the fastening, the key is turned up in the perpendicular position shown by Fig. 2. The shoulders *b'* bear against the under side of the band, and the edge of the plate *a* rests on the upper side. Then a slot in the free end of the band is passed over the edge of the plate *b*, and the key is pressed down flat, as shown by Figs. 3 and 4.

The movements for fastening the key are all in a plane at right angles to the line of stress, so that there is little or no tendency to work the key loose; and the broad surface of the plate *b*, which is interposed between the band and the bale, prevents it from being accidentally shifted into the position shown by Fig. 2, and even in such a position the shoulders *b'* prevent an accidental unfastening.

I claim as my invention—

The tie described, constructed with the plates *a* and *b* and the curved connection *c*, attached to the band, substantially in the manner described, with the connection *c* parallel with the length of the band, so that the movements for fastening and unfastening the tie are in a plane perpendicular to the line of strain, as and for the purpose set forth.

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

WILLIAM HENRY HOWARD.

Witnesses:

I. B. S. KIM,

CHAS. STEWART.