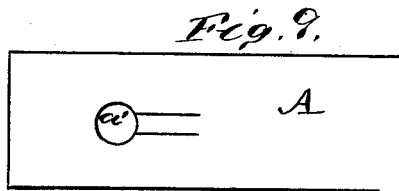
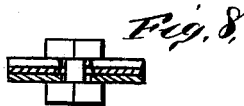
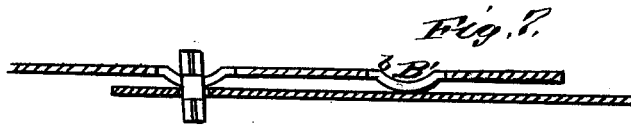
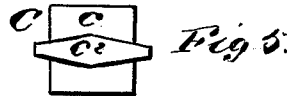
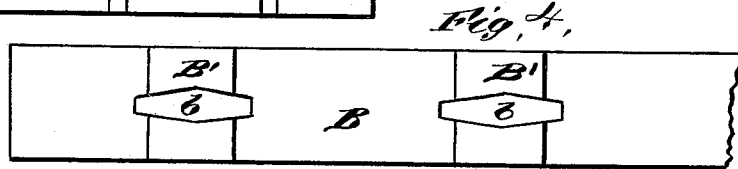
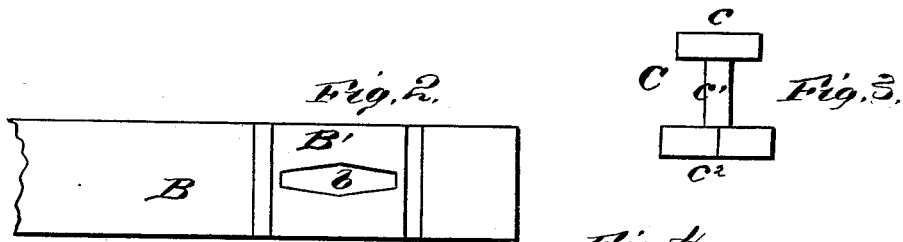
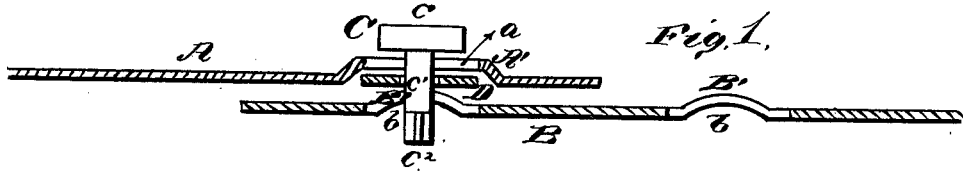


S. N. DRAKE.

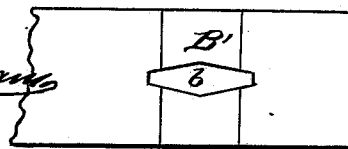
BALE-TIE.

No. 188,607.

Patented March 20, 1877.



WITNESSES
E. H. Bates
George E. Upham



INVENTOR.
Simeon N. Drake.
Gilmore Smith & Co.
 ATTORNEY S.

UNITED STATES PATENT OFFICE.

SIMEON N. DRAKE, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. 188,607, dated March 20, 1877; application filed February 3, 1877.

To all whom it may concern :

Be it known that I, SIMEON N. DRAKE, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and valuable Improvement in Bale-Ties; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a central vertical section of my bale-tie, and Fig. 2 is a plan view of one end. Fig. 3 is a side view of my fastening-button. Fig. 4 is a plan view of another end of my bale-tie, and Fig. 5 is a bottom view of the button. Fig. 6 is a detail view. Fig. 7 is a central vertical section of a modification; and Fig. 8 is a sectional view through the same, showing the button in position. Figs. 9 and 10 are plan views of the ends of the modification of my bale-tie.

This invention is an improvement upon the bale-tie secured to J. C. Ruthmuller by Letters Patent No. 172,936, dated February 1, 1876.

The nature of said invention consists, mainly, in curving or setting up the ends of the tie-band at the point of attachment, so as to countersink the interposed washer and the lower end of the button or fastening-key.

In the accompanying drawings, A designates one end of a metal bale-tie band, and B designates the other end thereof. End A is provided with a longitudinal slot, *a*, and end B with several similar slots, *b*. Fig. 3 shows, in detail, a fastening button or key, C, similar to that shown in the patent of Ruthmuller, above mentioned. Said key has a square head, *c*, a shank, *c*¹, and an elongated lower end piece or catch, *c*². Fig. 6 shows, in detail, a spring-washer, D, also shown in said patent, which sets around shank *c*¹, and between the parts A and B of said bale-tie band. Its office is to prevent button or key C from accidentally separating from upper end A, and it is countersunk in the under side of a curvature or upset, A', of said end A. End B is provided with narrower transverse grooves or curves B' B', which are equal in number with slots *b*; one of said grooves, curves, or recesses B' being formed across each slot. The lower elongated end piece or catch *c*² of key C is

countersunk or partly received into one of said grooves which crosses the slot *b*, through which the said key C has at any time been passed.

The method of fastening said tie ends A and B consists, simply, in straining the said end A over the other end until the tie is drawn sufficiently tight; then passing key C down through the slot *b*, which registers with *a*, and turning it until the piece *c*² is across the said slot *b* and in groove B'. When it is desired to tighten the said tie still further, the said key or button may be turned and freed from lower end B, and made to engage therewith at some successive slot *b*.

Fig. 7 shows a modification in which the washer is dispensed with, and also the recess or upset for countersinking the same. In this modification both the end pieces or heads of key or button C are diamond-shaped and elongated, as shown in Fig. 8, having the same form as *c*², hitherto described. The end A is, in this modification, provided with a small perforation, *a'*, (shown in Fig. 9,) for the passage of shank *c*¹. End B, Fig. 10, is slotted and transversely grooved, as in the former modification. Fig. 7 shows end B uppermost; but either end may be thus arranged.

This tie is especially adapted to cotton-bales; but may be employed with bales of hay or any other compressible material.

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

1. In a bale-tie, the combination of end B, having slot *b* and transverse groove or upset B', with the other end of said tie-band, and a button having an end piece adapted to set into said groove, substantially as and for the purpose set forth.

2. A bale-tie band having longitudinal slots near one end thereof, and transverse grooves crossing said slots, substantially as set forth.

3. A bale-tie band having slot *a* and upset A', in combination with button or key C and washer D, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

Witnesses: SIMEON N. DRAKE.
JAS. J. MUIR,
DUDLEY TARNEY.