

W. M. SMITH.
COTTON-BALE TIE.

No. 188,548.

Patented March 20, 1877.

Fig. 1.

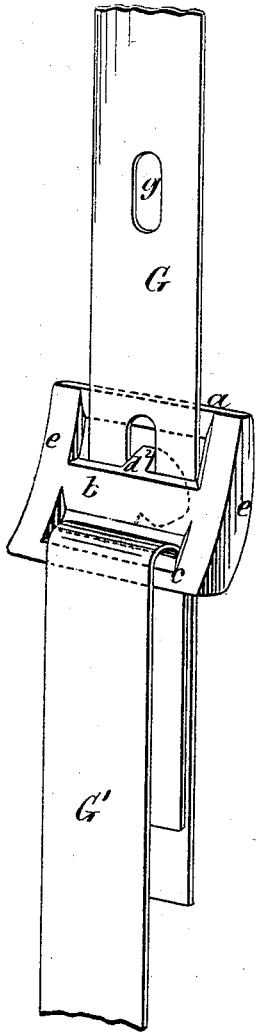


Fig. 2.

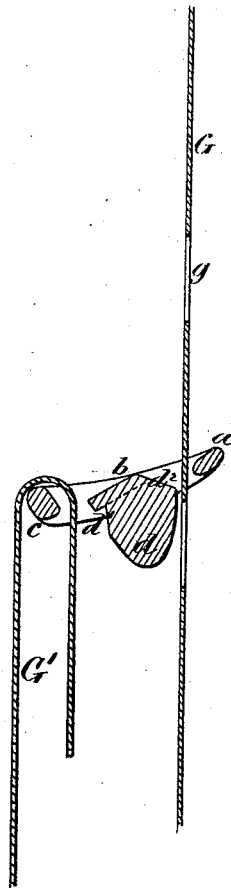


Fig. 3.

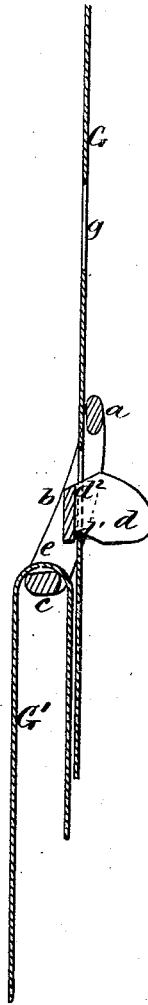
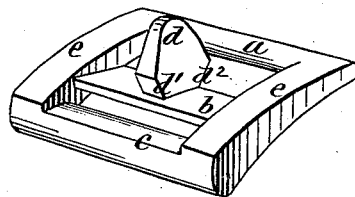


Fig. 4.



Attest:
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UNITED STATES PATENT OFFICE

WILLIAM M. SMITH, OF AUGUSTA, GEORGIA.

IMPROVEMENT IN COTTON-BALE TIES.

Specification forming part of Letters Patent No. **188,548**, dated March 20, 1877; application filed March 6, 1877.

To all whom it may concern:

Be it known that I, WILLIAM M. SMITH, of Augusta, in the county of Richmond and State of Georgia, have invented certain new and useful Improvements in Cotton-Bale Ties; and that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a perspective view of the bale-tie buckle connecting the two ends of a band. Fig. 2 represents, in vertical section, the buckle in position to unite the two ends of the band. Fig. 3 represents the same in vertical section, with the two ends of the band united. Fig. 4 represents a perspective view of the buckle.

Similar letters of reference, where they occur, denote like parts in all the figures.

My invention relates to a bale-tie buckle formed of three transverse bars united at each end by the side pieces of the buckle, the central bar carrying a tongue to enter slots formed in one end of the band, while the other end is bent around and retained by one of the outer transverse bars.

My invention consists in forming the tongue with a depression or depressions above or under, or both, and adjacent to its connecting transverse bar, so as to form a head upon said tongue, at right angles to the vertical plane of the buckle and band, to retain the latter connected to the buckle, even when subjected to sudden jars and rough handling.

The buckle is composed of three transverse bars, *a b c*, united by two side pieces, *e*, that are slightly curved longitudinally, so that the end *G* of the band that is provided with the receiving openings or slots *g* can rest close against the central transverse bar *b*, and engage with the tongue *d* in the recesses provided upon it for that purpose. The face of the bar *a*, as shown in Fig. 3, is in a plane parallel with the rear of the bar *b*, but in the rear of it, at a distance equal to or slightly exceeding the thickness of the band *G*, and the bar *c* is in a plane forward of the bar *b*, to receive the loop *G'* of the band without interfering with the perforated end *G* of the

band. The tongue or latch *d* is placed centrally upon the middle bar *b*, and is formed with a recess or inclined depression, *d'*, in which the bottoms of the openings *g* engage without any danger of slipping off, as might otherwise happen if the tongue had no depression. The upper part of the tongue is also cut at *d²* to form an obtuse angle with the face of the middle bar, so that if the weight of the bale should, in handling, fall upon a single band, and the buckle be forced upward, the beveled upper portion *d²* of the tongue, held in a normal position by the transverse bar *a*, will strike against the upper part of the opening *g*, and force the band against the rear of the middle bar and retain it there.

The tongue is beveled upon its sides to facilitate its ready introduction into the slotted openings *g*. In baling cotton with my device it is not imperative that there should be more than two or three slots *g* in the end *G* of the band, as the end *G'* can be bent and looped over the transverse bar *c* at any desired place, to allow a short length only to remain to pass through the buckle and engage with its tongue.

In the drawings, the slotted end *G* is shown as entering the buckle from above; but it is clear that the drawing or the operation could be reversed and the slotted end passed through from below.

I am aware that many different forms of buckles having three transverse bars and a tongue upon the middle bar have been used, and I do not claim, broadly, such a device.

What I claim is—

1. In a tie for uniting the ends of cotton-bale bauds, the tongue *d*, recessed at *d¹* and *d²*, in combination with the slotted end *G* of the band, substantially as and for the purpose set forth.

2. In combination with the two ends *G* and *G'* of a cotton-bale tie, the side pieces *e*, bar *c*, and middle bar *b*, carrying a central tongue, *d*, recessed at *d¹* and *d²*, the bar *a* to retain the band upon the tongue, substantially as and in the manner described.

WM. M. SMITH.

Witnesses:

E. E. MASSON,
W. R. EDELEN.