A. A. GOLDSMITH.

Bale-Ties.

No. 159,089. Patented Jan. 26, 1875.

Fig 1

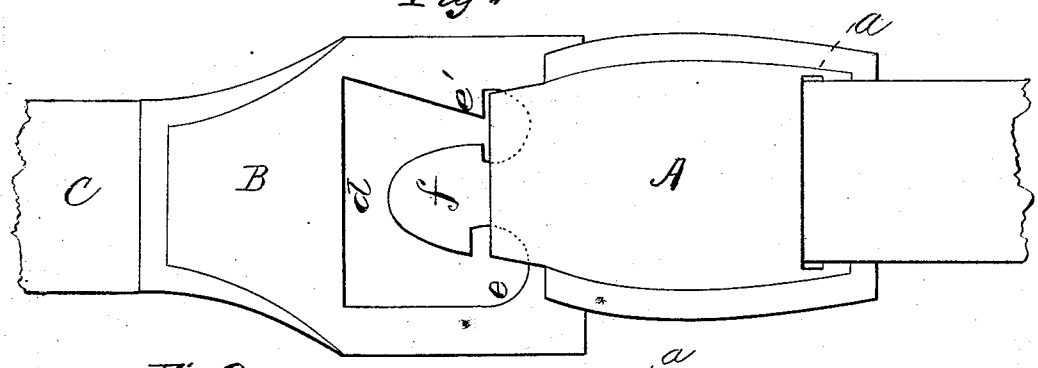


Fig 2

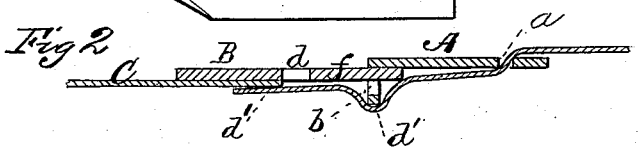


Fig 3

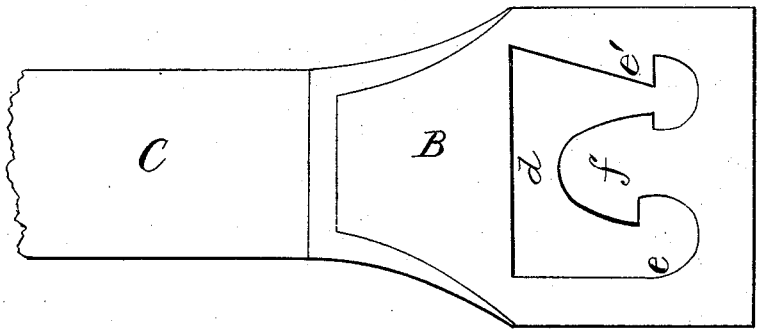
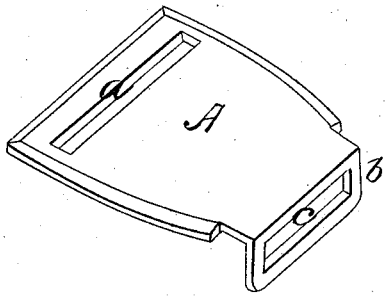


Fig 4



WITNESSES

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UNITED STATES PATENT OFFICE.

ABRAHAM A. GOLDSMITH, OF CHARLESTON, SOUTH CAROLINA.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **159,089**, dated January 26, 1875; application filed December 19, 1874.

To all whom it may concern:

Be it known that I, ABRAHAM A. GOLDSMITH, of Charleston, in the county of Charleston and State of South Carolina, have invented a new and valuable Improvement in Cotton-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 drawing is a representation of a plan view of my tie, and Fig. 2 is a longitudinal sectional view of the same. Figs. 3 and 4 are detail views.

This invention has relation to devices which are designed for uniting the two ends of a metallic strap or binder around a compressed mass of hay, cotton, moss, or other analogous substances; and the nature of the invention consists in combining, with a hooked plate adjustably applied upon one end of a binder, a slotted plate rigidly secured to the other end of the same, the former plate having a transverse rectangular slot through one end, into which the free end of the binder is passed from above downward, and upon the other end a hook, which is transversely slotted for the purpose of receiving a double-barbed catch projecting from in front rearwardly into the slot of the second plate, whereby the two plates will be rigidly united when the barb is passed into the slot in the said plate, and the end of the binder, being bent obliquely to the line of strain by the expansion of the baled mass, will be rigidly held against escaping from its slot, thereby effecting a reliable union of the two ends of the binder-strap, as will be hereinafter more fully explained.

In the annexed drawings, A designates a metallic plate having through its rear end a transverse rectangular slot, *a*, and upon its front end a downwardly-bent lug or lip, *b*, forming, with the body of the plate, a hook. The lug *b* is transversely slotted at *c* for a purpose hereinafter explained. B designates a slotted plate rigidly secured, by means of a rivet or rivets, to one end of a strap-iron binder, C. The upper or rear wall of slot *d* of plate B is rectilinear. One of its lateral edges is rounded at *e*, the other edge inclining inward and forming a shoulder, *e'*, while its front edge is provided with a double-barbed catch, *f*, extending rearwardly in the same plane with plate B well up into slot *d*, as shown in Fig. 3.

Having explained the general shape and construction of plates A and B, I shall now proceed to explain the manner of their use and application in connection with a metallic binder.

Strap C is first passed around a compressed mass while it is still in the press, and its two ends are brought together in any suitable position with regard to the bale, where they can be conveniently handled. Its free end is then passed from above downwardly through slot *a* of plate A, and the barbed catch *f* of plate B is passed into slot *c* in the downwardly-projecting lug *b* of plate A, as shown in Fig. 1.

The compressing-power being now removed, the natural expansion of the bale will force the end *d'* of binder C violently up against the lower edge of lug *b*, causing a depression to be made therein, whereby the said lug will be prevented from being straightened out, and bending that portion of the said binder within the slot *a* obliquely to the line of strain over the front upper edge and the lower rear edge of the said slot, as shown in Fig. 2, thereby effecting a perfect union of the two ends of the binder, and effectually preventing the tie from yielding when the same is under strain.

With a view to preventing a casual disengagement of catch *f* from slot *c* of lug *b* I have provided one of the walls of slot *d* with an angular projection, forming a shoulder, *e'*, under which the lug *b* engages, thereby effectually obtaining the desired result.

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

1. In a bale-tie, the combination, with the plate A, having slot *a*, and slotted projecting lug *b*, of the slotted plate B, having the double-

barbed catch *f*, and shouldered projection *e'*, substantially as specified.

2. The plate A, having slot *a* to receive the free end of the bale-strap, and the slot *c* in its downward projection *b*, substantially as described, for the purpose specified.

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

ABRAHAM A. GOLDSMITH.

Witnesses:
C. L. SIMONS,
D. B. DUPONT.