

J. B. ARRANTS.

Bale-Tie.

No. 163,133.

Patented May 11, 1875.

Fig 1

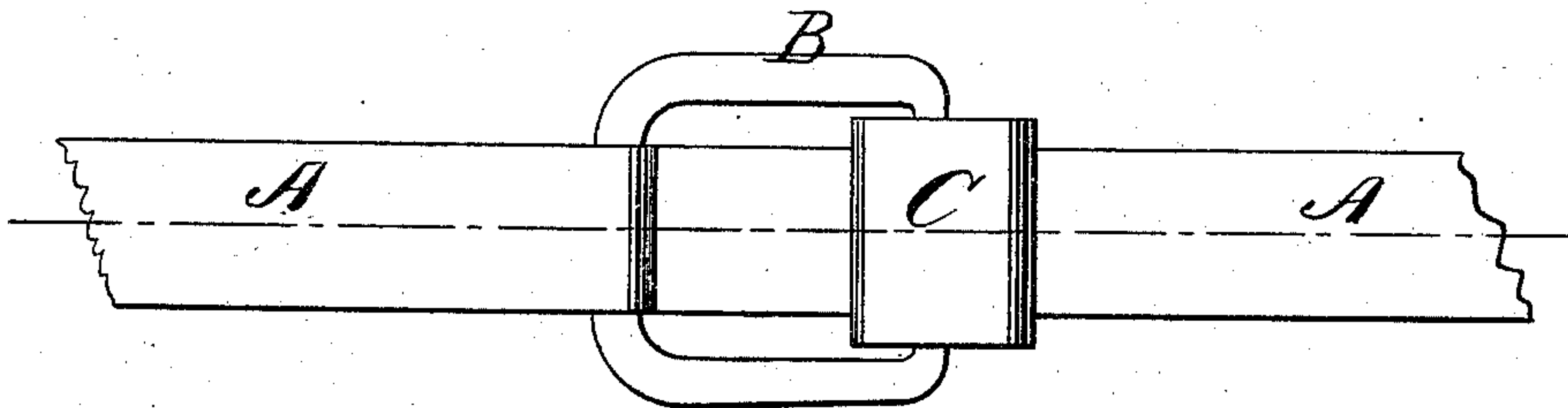


Fig 2

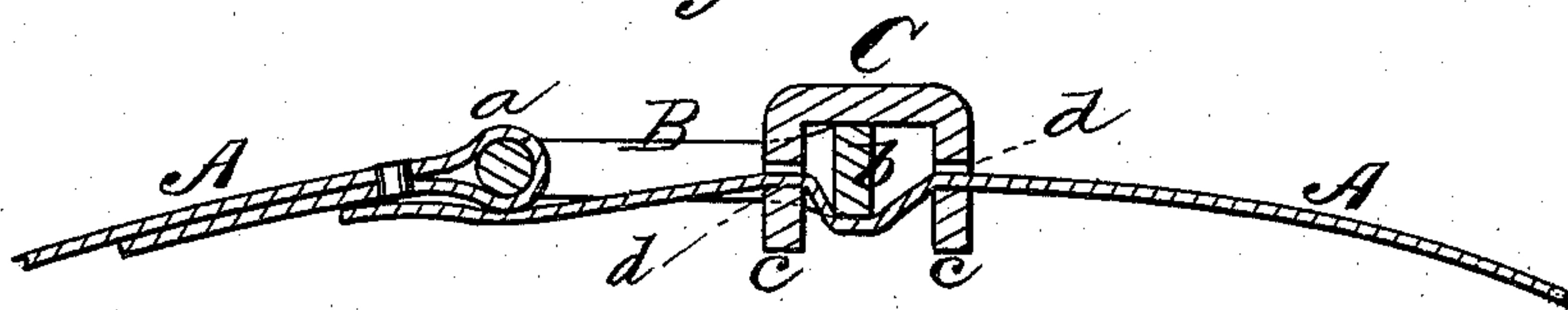
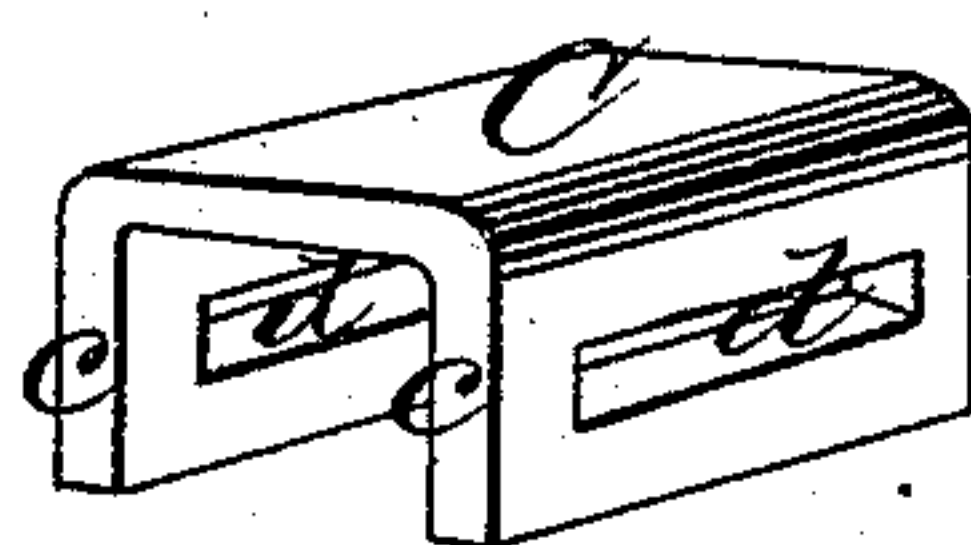


Fig 3



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN B. ARRANTS, OF SOCIETY HILL, ASSIGNOR TO CHARLES G. MATTHEWS,
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IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **163,133**, dated May 11, 1875; application filed
April 17, 1875.

To all whom it may concern:

Be it known that I, JOHN B. ARRANTS, of Society Hill, in the county of Darlington and State of South Carolina, 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 plan view of my bale-tie, and Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detail view.

This invention has relation to improvements in buckles which are especially designed to unite the two ends of a strap-iron binder around a compressed mass of cotton, hay, moss, or other analogous substances; and the nature of the invention consists in a U-shaped metallic plate having registering-slots in its legs, in combination with a stirrup-shaped link having vibratory movement in the looped end of a strap-iron binder, whereby a simple and effective union of the ends of the said binder will be obtained when it has been passed around a mass to be baled, and its free end inserted into the registering-slots in the U-shaped plate inclosing the link on the other end thereof, as will be hereinafter more fully explained.

In the annexed drawings, A designates a strap-iron binder of the usual dimensions, and B is a stirrup-shaped link applied in the looped end *a* thereof, so that it shall vibrate freely therein, but be rigidly held against casual detachment therefrom. Link B presents very much the appearance of a metallic stirrup, and it is provided with a flattened or widened bar, *b*, corresponding to the foot-plate in a stirrup, for a purpose hereinafter explained. C represents a strong metallic U-shaped plate of suitable length, the legs *c* of which are preferably at right angles to the

body thereof, and are provided with slots *d*, registering with each other, and parallel to the body of the plate, as shown in Fig. 2. Link B, strap A, and plate C constitute the elements of my improved tie, and they are applied to baling purposes in the following manner, to wit: The mass of cotton having been reduced by pressure to the desired size, a suitable number of binders are passed around it. Link B is then passed into the open end of plate C, with its flat rail or bar *b* resting upon the body of the said plate, and the free end of the binder is passed into and through slots *a* in the legs of the plate. The binders are then adjusted to the contour of the bale and the compressing power removed, when the expansion of the mass, taking up the slack of the binder, will cause links B to rotate at an angle of ninety degrees from its former position, bringing its flat or wide bar *b* at right angles to the length of the binder and to its former position, and bending that portion of the binder included between the legs of plate C oblique to the line of strain, as shown in figure. By this means the binder is bent over three holding or frictional edges, two being in the plate and one in the link, and is effectually prevented from being withdrawn from the said plate, thus forming a perfect and reliable tie.

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

In a bale-tie, the link B, having widened bar *b*, and vibrating in a loop, *a*, of a strap-iron binder, in combination with the U-shaped plate C, having slots *d*, substantially as specified.

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

JOHN BROOM ARRANTS.

Witnesses:

E. P. CANNON,
W. A. DAMPIER.