A. GRATZ & L. F. JONES.

Bale-Tie.

No. 220,021. Patented Sept. 30, 1879.

Fig. 1

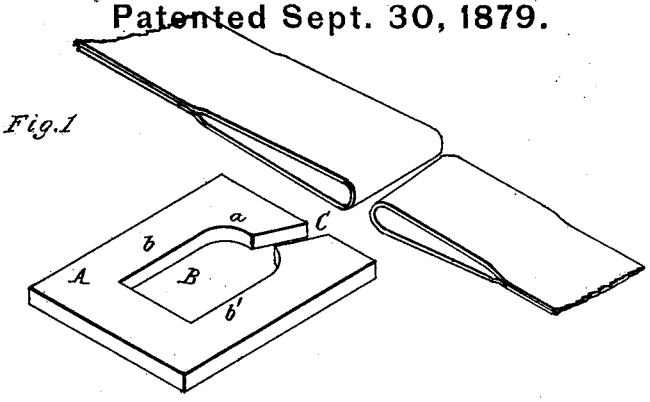
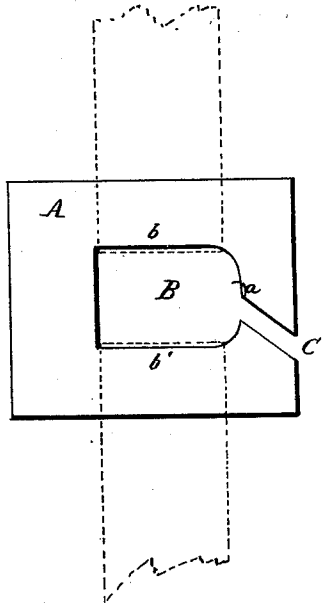


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

ANDERSON GRATZ AND LORRAINE F. JONES, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **220,021**, dated September 30, 1879; application filed August 20, 1879.

To all whom it may concern:

Be it known that we, ANDERSON GRATZ and LORRAINE F. JONES, of St. Louis, Missouri, have invented a new and useful Improvement in Bale-Ties for Cotton and Similar Substances, which improvement is fully set forth in the following specification and annexed drawings, in which—

Figure 1 is a perspective, and Fig. 2 a face, view of our improved bale-tie, showing also the ends of a band.

Our invention relates to that class of buckles for metallic bale-ties long known as "open-slot buckles," in which, as is well known, the ends of the band, bent into loop form, are inserted sidewise into the interior slot or mortise by means of a slit or opening in one of the sides or ends of the buckle.

Various devices have been made and patented of buckles of this class in order to accomplish these primary and essential objects—*i. e.*, facilitating the insertion of the band into the buckle when in place on the bale, and the holding it firmly and securely in place during the subsequent handling of the bale.

The facility of insertion is manifestly greatly increased in having the slit or opening in the side of the buckle, (as in the drawings,) instead of in one of the ends, covered by the bands when in position; but, on the other hand, buckles of this character, which may be called "side-slit open-slot buckles," have been open to serious objection, in that the side slit being uncovered renders the band liable to slip out during the subsequent handling of the bale.

Our invention consists of an improved form of side-slit open-slot buckles, combining, as we believe, in a simpler and more advantageous manner than heretofore devised, the advantages with freedom from all the objections heretofore urged against this class of buckles. We effect this by causing one side of the interior mortise to be curved, and from this curved side an oblique slit or opening to extend through the side of the buckle.

In the annexed drawings, A, Figs. 1 and 2, is the buckle, made of malleable iron or other suitable material sufficiently strong for the purpose, flat in shape, or with stiffening ribs or corrugations, if desired, rectangular in form, or with the corners clipped, if desired.

The interior mortise or slot, B, is rectangular in form, except that one side, *a*, is curved, as shown, the sides or ends *b* and *b'* being left in length sufficient for the width of the hooped ends of the band to be inserted; and from the curved end *a* the oblique slit or opening C is made sufficiently large to admit of the sidewise insertion of the hooped ends of the band. By means of this oblique side slit and curved side the hooped ends are easily inserted into the mortise when the band is in position on the bale, and are easily and securely held against the sides or ends *b* and *b'*, all disarrangement and slipping and other annoyances ordinarily incident to this class of ties being prevented by the form of the mortise and slit.

Another advantage of this buckle is its facility of manufacture, as it can be stamped entire with one operation of the die.

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

The combination, in a side-slit open-slot buckle for bale-ties, of the curved side of the mortise with the oblique slit opening in such curved side, substantially as and for the purposes set forth.

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Witnesses:
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