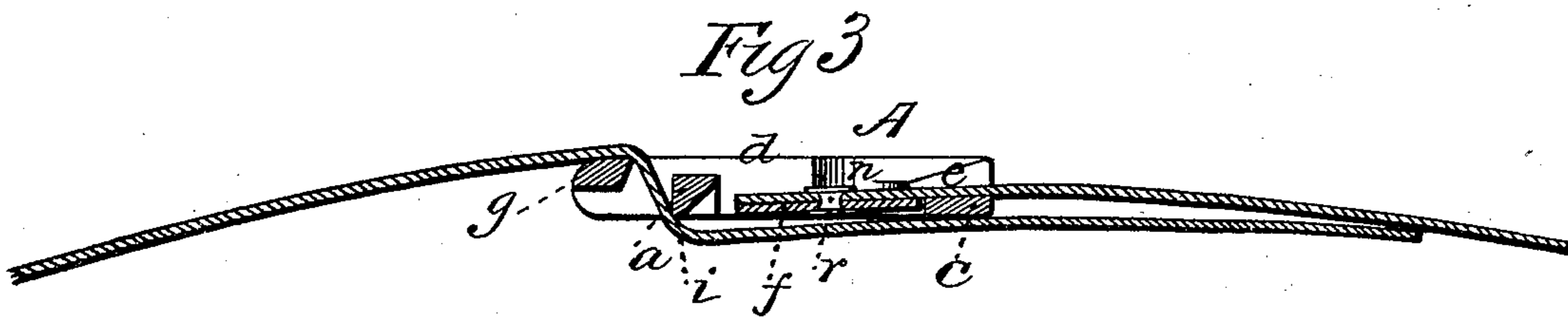
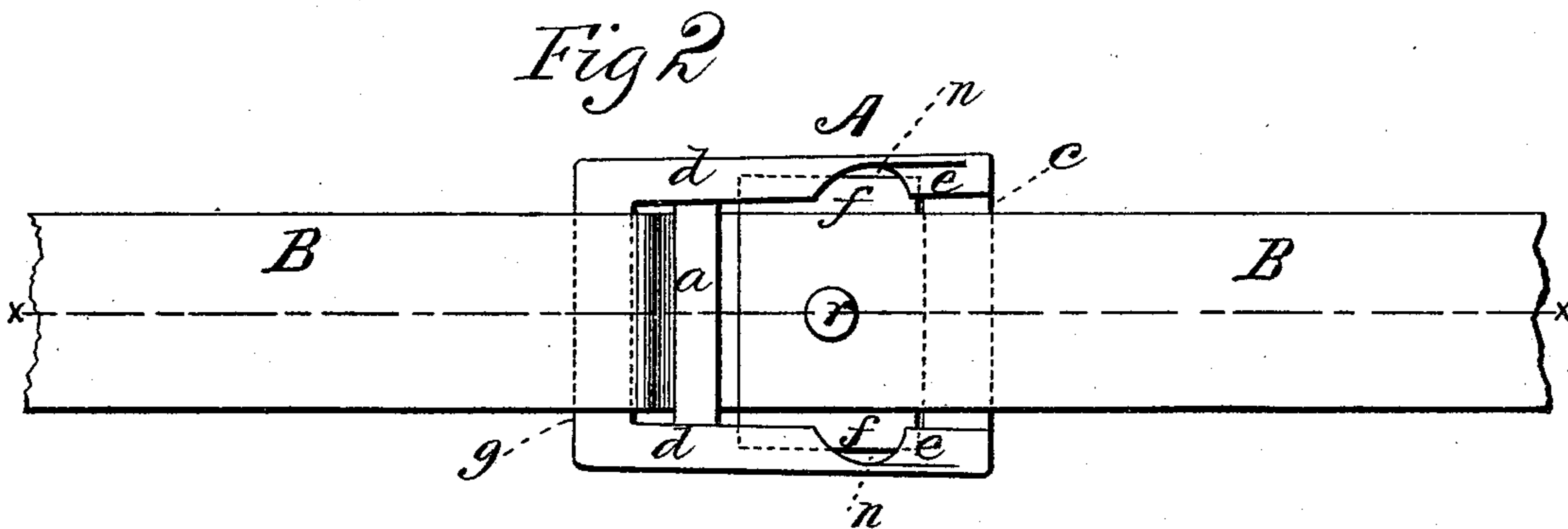
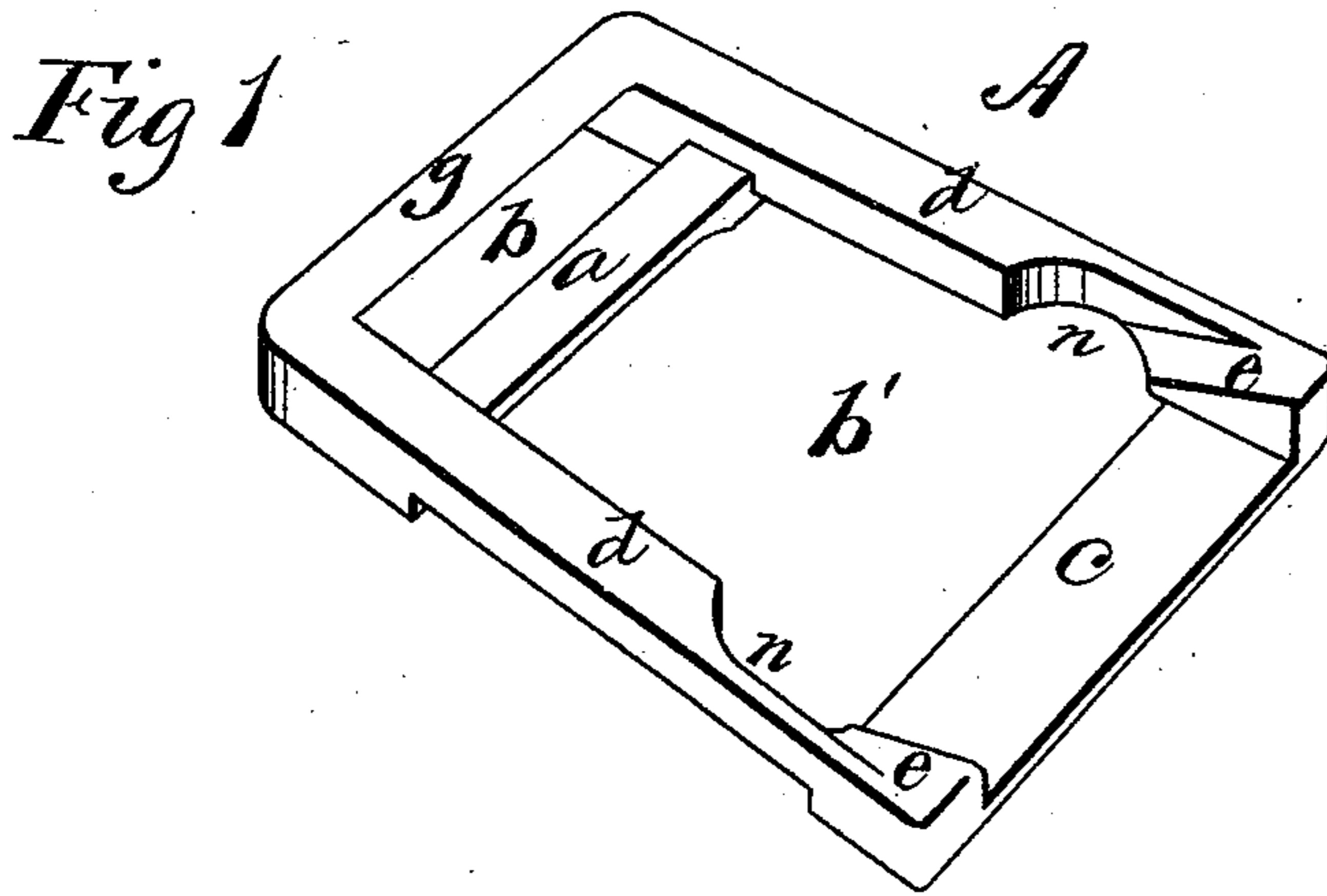


J. M. GOLDSMITH.
BALE-TIE.

No. 177,330.

Patented May 16, 1876.



WITNESSES

*Robert Everett,
Et H. Bates*

INVENTOR

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UNITED STATES PATENT OFFICE.

J. MORTIMER GOLDSMITH, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. 177,330, dated May 16, 1876; application filed November 6, 1875.

To all whom it may concern:

Be it known that I, J. MORTIMER GOLDSMITH, of Boston, in the county of Suffolk and State of Massachusetts, 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 perspective view of my bale-tie. Fig. 2 is a plan view of the same. Fig. 3 is a section.

This invention has relation to improvements in bale-ties, the object of which is to secure a baled mass of any compressible substance in a compact form obtained by subjecting the mass to pressure; and it consists in combining with a strap-iron binder, having upon one end a transverse piece of metal of greater length than the width of the binder, a slotted buckle having slideways upon each of its side bars adapted to receive the transverse piece between them, and to allow it to enter the slot of the buckle, whereby the transverse lock-piece will engage with the front bar of the buckle, and a very effective tie will be obtained, the other end of the said binder having been previously secured to the said buckle, as will be hereinafter more fully explained.

In the annexed drawings, the letter A designates an oblong metallic slotted buckle, which is divided by means of a transverse bar, *a*, into two slots, *b b'*, of unequal size. As shown in Fig. 1, bar *a*, as well as the front bar *c* of the buckle, is sunk below the upper surface of the same, the object of this construction being made clear hereinafter.

The side rails *d d* of the buckle A are provided with inclined ways *e*, terminating in notches *n* cut in the inner edges of the same, the object of which will be hereinafter made clear.

B indicates a strap-iron binder of the usual dimensions, one end of which is provided with a transverse metallic lock-piece, *f*, shown in dotted lines, Fig. 2. This piece is of sufficient length to project somewhat beyond the lateral edges of the binder, to which it is attached by a rivet or rivets, *r*, and is adapted to be

inserted into slot *b'* of the buckle through slideways *e* and notches *n*. The other end of the said binder is passed from below downward through slot *b* of the buckle, and is drawn through the same until the said binder closely encircles the baled mass. A sufficient number of ties having been thus applied the bale is removed from the press, when its expansion will bend the plain end of the binder obliquely to the line of strain over end bar *g* of the buckle A, and under bar *a*, above described, and will jam it up against the under surface of the lock-piece *f*, thrusting the ends of the latter forcibly up against the side bars of the buckle. In this position the lock-piece *f* will be engaged behind the front bar *c* of the buckle, and will hold its end of the binder to a rigid and unyielding connection therewith under any and all circumstances. Bar *c* on the front end of the buckle being sunk, as above described, the end of the binder will be, as it were, recessed into the buckle, its upper surface being below the outer face of the same. By this means the danger of tearing the binder and lock-piece apart during transportation is effectually done away with.

In practice the lower surface of bar *a* will be beveled, as shown in Fig. 3, thus providing a biting-edge, *i*, which will seize upon the binder in contact therewith, and materially aid in preventing it from being drawn through slot *b* and unloosing the tie.

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

1. In a bale-tie the buckle A, having slots *b b'* sunken bars *a c*, guideways *e*, and notches *n*, adapted for use substantially as specified.

2. The binder B, having a transverse lock-piece, *f*, in combination with a slotted buckle, having inclined ways *e*, and notches *n*, substantially as specified.

3. The lock-piece *f*, riveted to the end of a binder, B, and projecting beyond the lateral edges of the same, substantially as and for the purpose specified.

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

J. MORTIMER GOLDSMITH.

Witnesses:

EBENR. G. TUCKER,
EDWIN H. DARLING.