2 Sheets--Sheet 1.

J. M. GOLDSMITH.

Bale-Ties.

No. 163,649. Patented May 25, 1875.

Fig 1

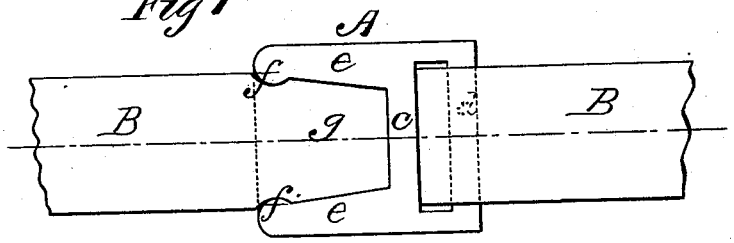


Fig 2

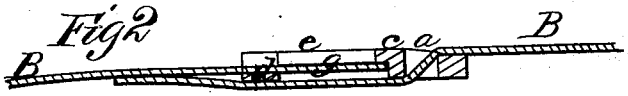


Fig 3

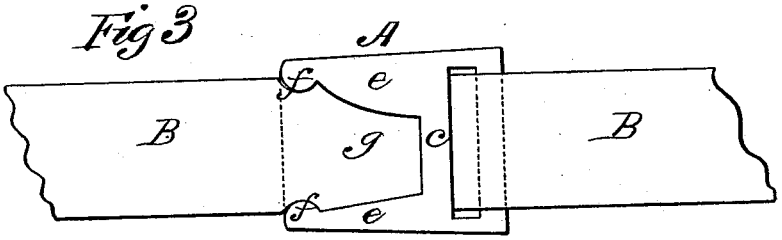


Fig 4

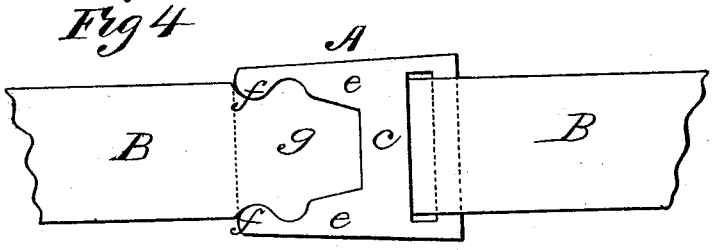
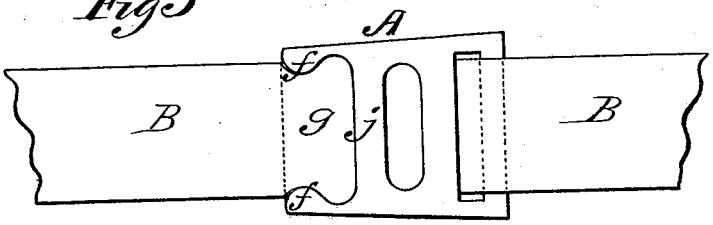


Fig 5



WITNESSES

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2 Sheets--Sheet 2.

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Bale-Ties.

No. 163,649. Patented May 25, 1875.

Fig 6

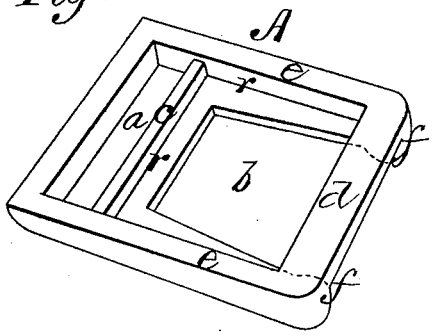

Fig 7

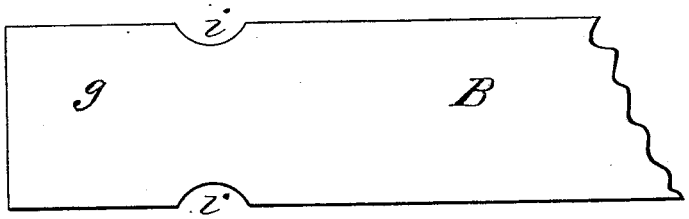

Fig 8

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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. **163,649**, dated May 25, 1875; application filed May 15, 1875.

CASE A.

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 plan view of my bale-tie, and Fig. 2 is a longitudinal sectional view of the same. Figs. 3, 4, and 5 are plan views, and Figs. 6 and 7 are detail views. Fig. 8 is a transverse sectional view.

This invention has relation to improvements in ties which are designed to unite the two ends of a strap-iron binder passed around a compressed mass of cotton, hay, moss, and other like compressible substances, for the purpose of holding it against expansion after the compressing power has been taken off; and the nature of the invention consists in a metallic buckle, having in one end a transverse rectangular slot, and in the other a tapering slot, a rectangular recess being formed in the under side of the buckle, and inwardly-projecting lugs at the larger end of the tapering slot, whereby an effectual union of the two ends of the binder will be had when it is passed around a bale, a notched end thereof having been previously inserted into the oblong slot, and its other end is passed from above through the rectangular slot, as will be hereinafter more fully explained and claimed.

In the annexed drawings, A designates a metallic plate of suitable dimensions, in one end of which is cut a rectangular slot, *a*. The other end of this plate has an oblong tapering slot, *b*, cut therein, the lateral edges of which converge inwardly to the separating-bar *c* between the two slots. The front bar *d* of slot *b*, between its side bars *e*, is sunk below the upper horizontal edge of plate A, and the said side bars terminate in inwardly-projecting lugs *f*, arranged opposite each other over bar *d*, for a purpose hereinafter explained.

Separating-bar *c* and side bars *e* of slot *b* are cut away as to their under surfaces, forming a rectangular recess, *r*, and the inner edges of the said bars are thus made to overhang the recess, so that when the notched end *g* of a strap-iron binder, B, is passed into slot *b*, lugs *f* being received into its notches *i*, it will enter recess *r*, fitting snugly therein, with its end and edges under the overhanging inner edges of separating-bar *c* and side bars *e*. If, now, the other end of the binder be inserted from above, through slot *a*, under the body of the plate, it having been previously passed around the bale, the expansion of the mass will bend this end of the binder oblique to the line of strain, rigidly locking it in the buckle, and the other end of the said binder being prevented from escaping from slot *b* by the engagement of lugs *f* in its notches *i*, a perfectly reliable and effective tie will be produced. The notched end *g* of the binder, being in recess *r* under the overhanging inner edges of bars *c e*, will be prevented from all upward displacement, whereby its notches *i* would be disengaged from the lugs *f* on the plate, thus allowing the binder to escape from the buckle.

In practice, I may sometimes cause slot *b* to be bridged at or near the center of its length by a bar, *j*, under which the notched end of the binder will be placed, with an equally effective result in preventing the upward displacement of that end of the said binder.

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

1. In a bale-tie, the plate A, having rectangular slot *a*, oblong slot *b*, with its lateral and end bars overhanging a recess, *r*, and lugs upon its under side, adapted for use substantially as specified.

2. The buckle-plate A, having slots *a b*, an overhanging ledge and lugs, in combination with the notched end of a strap-iron binder, substantially as specified.

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

J. MORTIMER GOLDSMITH.

In presence of—
WILLARD HOWLAND,
LUKE PALMER, Jr.