

J. F. Milligan,

Bale Tie.

No. 67,334.

Patented July 30, 1867.

Fig. 1

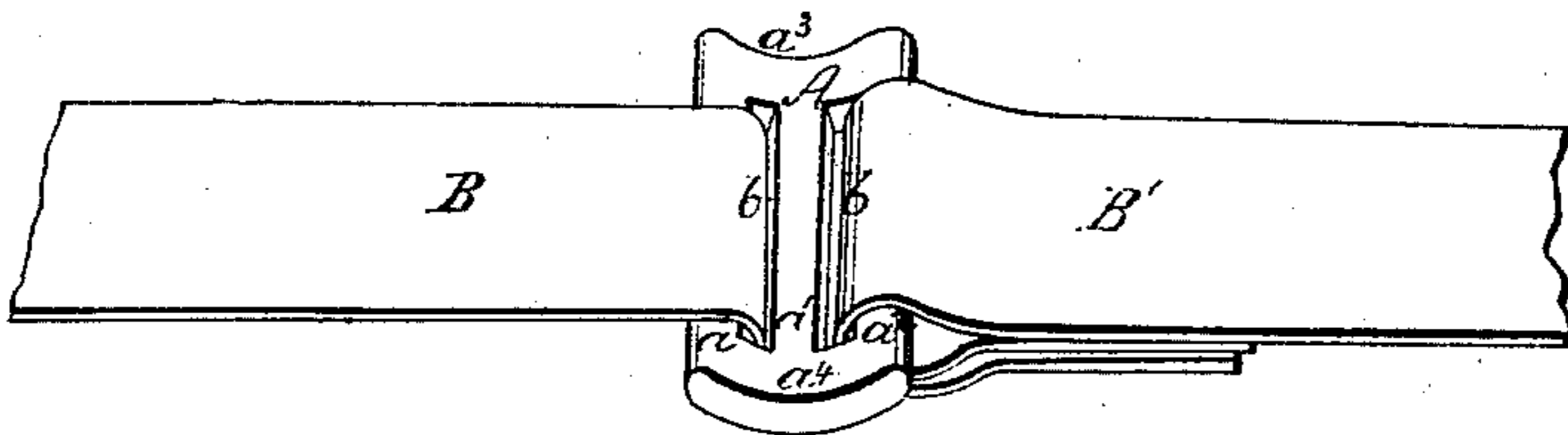
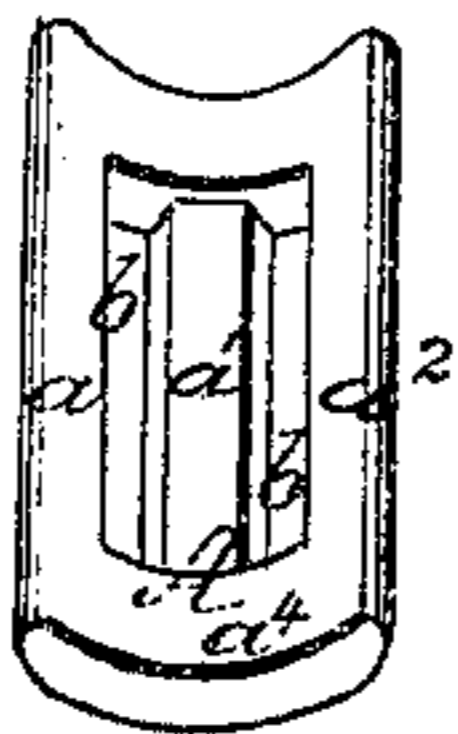


Fig. 2.



Fig. 3



Witnesses.

M. Randolph,
Chas. H. Boyle.

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United States Patent Office.

JOHN F. MILLIGAN, OF ST. LOUIS, MISSOURI.

Letters Patent No. 67,334, dated July 30, 1867.

IMPROVEMENT IN COTTON-BALE TIE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN F. MILLIGAN, of the city and county of St. Louis, and State of Missouri, have invented a new and useful Improvement in Iron Ties for Baling-Bands; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to an iron tie-piece, concave on one side and convex on the other, the said piece being perforated by two mortises of sufficient size to receive the ends of the band to be secured together. The mortises divide the tie-piece into three longitudinal rails and two transverse or end rails. The central one of the three longitudinal rails may be of the same thickness as the end rails, or its thickness may be reduced to about one-half that size. If wrought iron be used for the tie, it will be necessary to make all parts of the tie of the same thickness; but if it be made of cast iron, then it will be expedient to reduce the thickness of the middle rail, as the required amount of metal may be secured to obtain the requisite strength, and the reduction of the metal section will so reduce the weight as to be an important consideration. In either case the lower corners of the central rail should present acute angles, so as to prevent the band from slipping out when once in place.

To enable those skilled in the art to make and use my improved tie for baling-bands, I will proceed to describe its construction and operation.

Figure 1 of the drawings is a perspective view of the tie-piece as it appears when in position on the bale, holding the two band ends together.

Figure 2 is a sectional elevation of the tie-piece alone, taken transversely through its central part, and showing the middle rail of the full thickness.

Figure 3 is a perspective view of the tie-piece, with its central rail reduced in thickness.

The tie-piece A is formed of three longitudinal rails, a^1 a^2 , and two end rails a^3 a^4 . The two mortises b b' are of sufficient size to readily admit the two ends of the band B B', which will be inserted in the manner shown in fig. 1. The central rail a^1 may be of equal thickness with the end rails, or it may be reduced in thickness to about one-half that size, as is clearly shown in fig. 3. The lower corners of the central rail should be formed into acute angles, as is clearly shown in fig. 2, for the purpose of producing sharp bends in the bands B B', and thereby holding them in position on the bale. The lower side of the tie-piece is made in a convex form, for the purpose of holding the overlapped ends of the band down tightly on the bale, and causing them to bend abruptly over the aforesaid sharp corners of the central rail a^1 . The top side of the tie-piece is concave, as shown in the drawings, for the purpose of reducing the metal section, and consequently the weight. This construction gives to the tie-piece a crescent form, transversely.

The tie-piece constructed as above can be readily applied to any part of the band, no perforation of the hoop being necessary for its attachment, and consequently the whole strength of the hoop is obtained. The tie-piece itself is so constructed as to obtain the least amount of material with the required strength.

I do not claim the tie-piece A, in crescent-shaped cross-section, with its two mortises b and b' , as my invention; but what I do claim, and now desire to secure by Letters Patent, is—

The tie-piece A, provided with the mortises b and b' , the corners thereof being acute, and shaped in the crescent form of cross-section, as herein described, and when, furthermore, arranged with a central rail, a^1 , of diminished thickness, substantially as and for the purpose set forth.

JOHN F. MILLIGAN.

Witnesses:

M. RANDOLPH,

GEO. P. HERTHEL, Jr.