

H. S. WORTHINGTON.  
Bale-Tie.

No. 205,023.

Patented June 18, 1878.

Fig. 1.

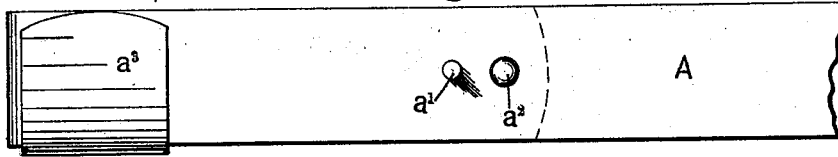


Fig. 2.



Fig. 4.

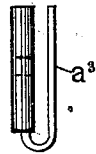


Fig. 3.



Fig. 5.

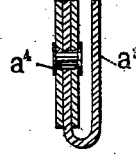


Fig. 6.

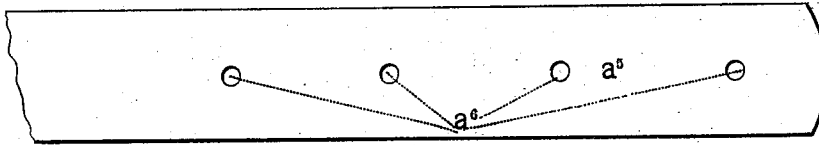


Fig. 7.

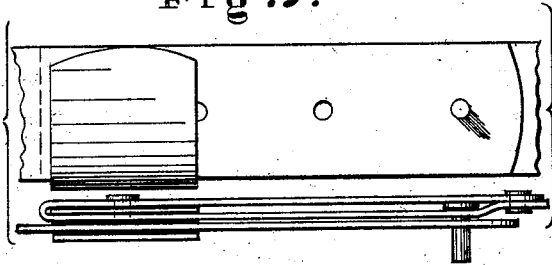
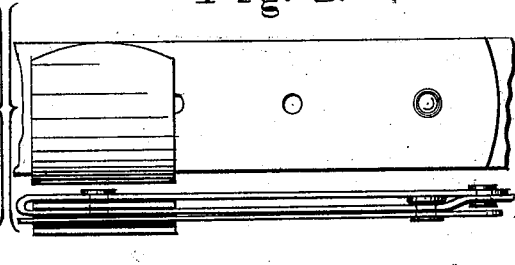


Fig. 8.



WITNESSES:

*J. S. West*  
*Cornelius Cox*

INVENTOR:

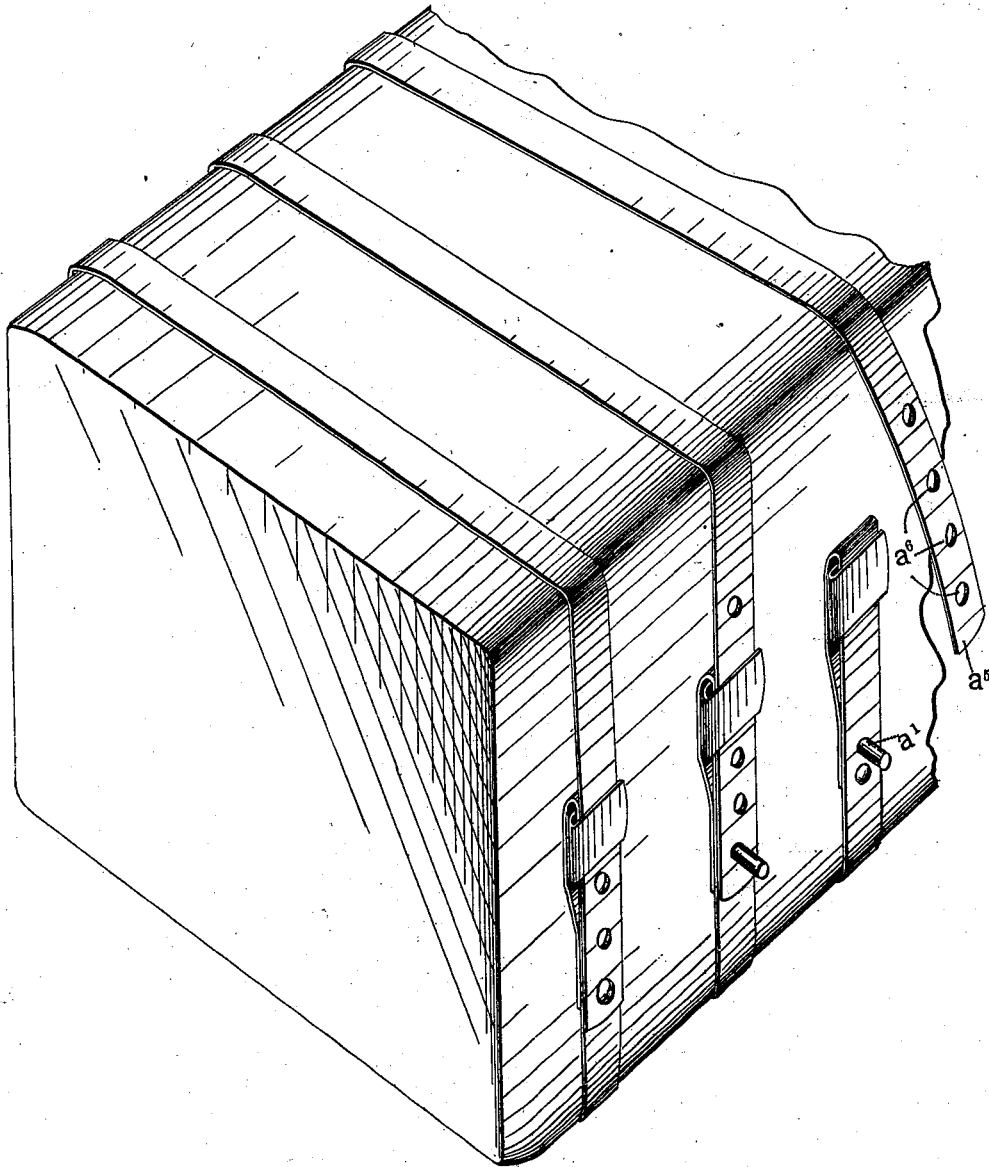
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BY  
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Fig. 9.



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# UNITED STATES PATENT OFFICE.

HENRY S. WORTHINGTON, OF COVINGTON, KENTUCKY.

## IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. 205,023, dated June 18, 1878; application filed April 30, 1878.

*To all whom it may concern:*

Be it known that I, HENRY S. WORTHINGTON, of Covington, county of Kenton, and State of Kentucky, have invented a new and useful Improvement in Cotton-Bale Ties; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention consists mainly, first, in the combination of a rivet with the bent end of a bale-strap, the latter being secured in such position as to hold the unheaded rivet properly in place without other fastening; and, second, in the combination of the rivet and bent end of the strap with a clasp, all of which will be fully described hereinafter.

In the drawings, Figures 1 and 2 represent a plan and side elevation of one end of the strap; Figs. 3, 4, and 5, various views of the clasp upon the same; Fig. 6, a plan view of the other end of the strap; Figs. 7 and 8, views of the ends united; and Fig. 9, a perspective view of a cotton-bale having the strap applied thereto.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and manner of operation.

A, Fig. 1, represents a bale-strap of the usual well-known or any other proper kind. *a*, Fig. 2, represents a portion of the end of the strap, which is bent backward beneath the main portion, as shown. *a*<sup>1</sup> represents a rivet, headed at one end in the usual manner, which is inserted up through a proper opening in the upper portion of the strap at a suitable distance from the extremity, as shown. *a*<sup>2</sup> represents a closed rivet, by means of which the folded end of the strap is securely fastened for the purpose of holding the unheaded or loose rivet properly in place, as shown. *a*<sup>3</sup>, Fig. 1, 3, 4, and 5, represents a clasp, consisting of a U-shaped strip of metal, one leaf of which is inserted between the upper and lower portions of the strap near the fold, as shown in Fig. 2. *a*<sup>4</sup> represents a closed rivet, by

means of which the clasp is securely fastened in its proper place. *a*<sup>5</sup>, Fig. 6, represents the opposite end of the strap, which is provided with a series of rivet-holes, *a*<sup>6</sup> *a*<sup>6</sup>, as shown.

The manner of using the strap is substantially as follows: The strap having been previously prepared with its folded end, rivet, and clasp at one end, and the series of rivet-openings at the other end, is passed about the bale and drawn properly to place in the usual manner, as shown in Fig. 9. The end *a*<sup>5</sup> is then caught under the clasp, as shown in Figs. 7 and 9, and the proper rivet-opening *a*<sup>6</sup> slipped over the rivet *a*<sup>1</sup>, as shown. The latter then being headed down, as shown in Figs. 8 and 9, the parts are securely fastened together.

Some of the advantages of the described construction are as follows: The strap is easily prepared at the manufactory in complete order ready for use; and, as none of its parts are removable, the danger of loss is avoided.

The parts are few in number, and the construction simple, so that it may be manufactured at a small cost. It may be readily applied to the bale, and when applied forms a perfectly secure fastening.

After the bale has reached its destination the strap may be readily removed, and is ready for use again.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the fold of the bale-strap, the unheaded rivet *a*<sup>1</sup> and the closed rivet *a*<sup>2</sup>, the construction being such that, by means of the fold and the closed rivet *a*<sup>2</sup>, the unheaded rivet is securely fastened in place.

2. The tie described, consisting of the strap A, having the folded end, with loose rivet *a*<sup>1</sup>, closed rivet *a*<sup>2</sup>, clasp *a*<sup>3</sup>, and end *a*<sup>5</sup>, having holes *a*<sup>6</sup>, as described.

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Witnesses:

C. F. MITCHELL,  
JOHN DROEGE.