

J. F. MILLIGAN.  
COTTON BALE TIE.

No. 109,748.

Patented Nov. 29, 1870.

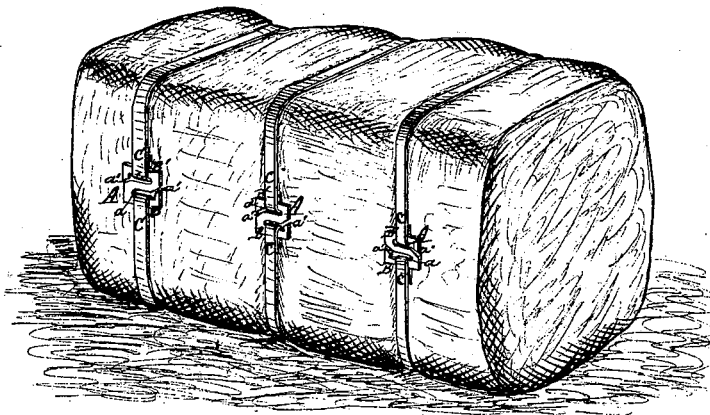


Figure 1.

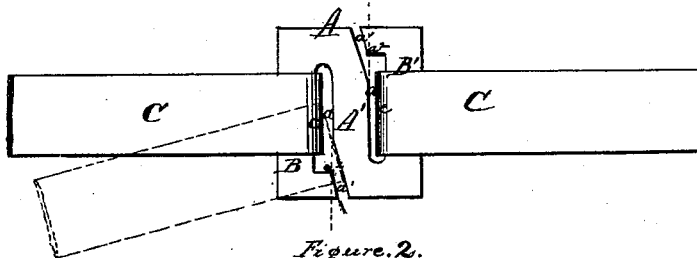


Figure 2.

Witnesses.

William H. Kercheval

Robert Burns.

Inventor.

John F. Milligan

# United States Patent Office.

JOHN F. MILLIGAN, OF ST. LOUIS, MISSOURI, ASSIGNOR TO JOSEPH W. BRANCH, OF SAME PLACE.

Letters Patent No. 109,748, dated November 29, 1870.

## IMPROVEMENT IN COTTON-BALE TIES.

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 St. Louis, in the county of St. Louis and State of Missouri, have made certain new and useful Improvements in Cotton-Bale Ties; and I do hereby declare that the following is a full and true description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention relates to metallic ties or "locks" for fastening bands or hoops for packages and bales of cotton, hemp, and similar materials; and

The nature thereof consists in forming a tie having two inclined rectangular mortises or slots, so formed that the bands, when entered at a proper inclination corresponding to the inclination of said slots, shall be retained or "locked" in the rectangular slots and prevented from disengagement, except at the aforesaid opened inclination.

To enable those skilled herein to make and use my said invention, I will now more fully describe the same, referring to the accompanying

Figure 1 as a perspective view, showing the manner of securing the bands; to

Figure 2 as a front elevation of the tie, showing the mode of entering the band to form a proper lock.

The tie-piece A is formed of one piece, usually of cast or wrought metal.

Said tie-piece has the rectangular slots *a* formed in communication with inclined openings or slots, *a'*, arranged at opposite sides of said tie A.

The end bars B B' are thus formed, and around which the bands C pass.

The openings or slots *a'* are sufficiently inclined to allow the ends *c* of the baling-bands C to be inserted into the rectangular slots *a*, respectively.

Furthermore, the inclination of said slots *a'* is such that the corner *a''*, formed by the intersection of the slots *a'*, shall extend slightly above the upper line or edge of the slots *a*, and as clearly shown in fig. 2.

The corner *a''* forms, therefore, "a lock" to prevent disengagement of the bands, unless at the required inclination in accordance with the opened slot *a'*, as shown by dotted lines in fig. 2.

Besides, as the bands C are kept in a state of tension, produced by the expansion of the baled material, it is plain a disengagement of said bands is thus prevented, as the same cannot assume the required inclination to effect a disengagement.

It will be observed that each end of the tie forming locking devices irrespective of each other, said tie is therefore adapted to be used either right or left; also, that the construction of the tie is such that the same is readily adapted for "splicing" bands which may not be long enough to encircle the bale or package, besides being, in general, cheap and durable in its nature.

I do not claim a bale-tie consisting of a rectangular plate with rectilinear lateral entering-slots; but

What I do claim is—

In a tie-plate, A, substantially of this form, the improved entering-space here shown, composed of the transverse slots *a*, and diagonal slots *a'*, for the purpose set forth.

In testimony of said invention, I have hereunto set my hand in presence of witnesses.

JOHN F. MILLIGAN.

Witnesses:

JOSEPH W. BRANCH,  
WILLIAM H. HERTHEL.