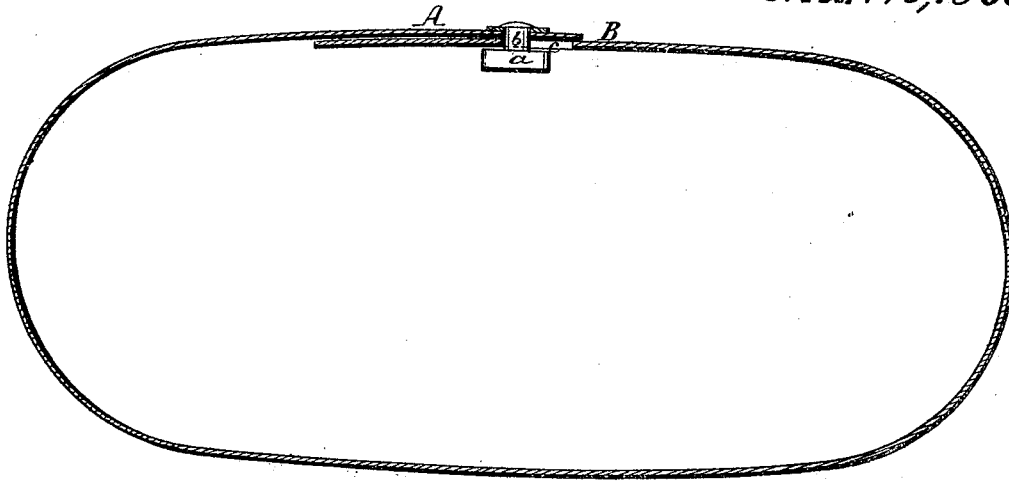


*J. F. Mulligan.*

*Cotton Bale Tie.*

*N<sup>o</sup> 53,230.*

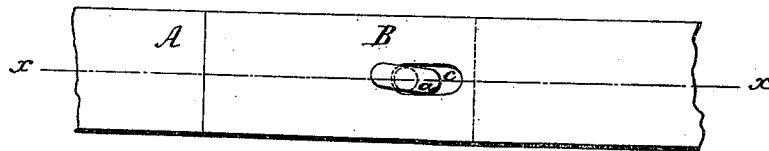
*Fig. 1. Patented Mar. 13, 1866.*



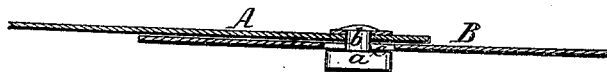
*Fig. 5.*



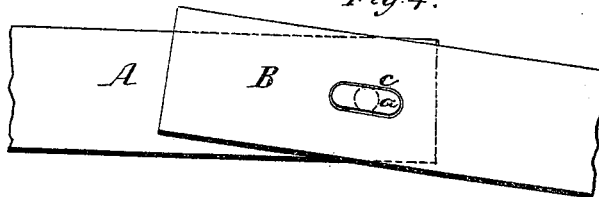
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Witnesses*

*Wm. S. Lyon.*  
*Wm. Frewin*

*Inventor.*

*John F. Mulligan*  
*per mmw & c*  
*attys*

# UNITED STATES PATENT OFFICE.

JOHN F. MILLIGAN, OF ST. LOUIS, MISSOURI, ASSIGNOR TO HIMSELF AND  
RICHD. BRANCH, OF SAME PLACE.

## IMPROVEMENT IN FASTENING FOR BALE-HOOPS.

Specification forming part of Letters Patent No. 53,230, dated March 13, 1866.

*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 invented a new and Improved Fastening or Tie for Bale-Hoops; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal central section of the fastening. Fig. 2 is a view of the inner side of the hoop. Fig. 3 is a section taken in the plane of the line *xx*, Fig. 2. Fig. 4 is a view showing the position of the two ends of the hoop when being locked or unlocked. Fig. 5 is a perspective view of the button.

Similar letters of reference indicate corresponding parts.

This invention consists in setting the button, the same being secured to the under side of one end of the hoop, at an angle relatively to the length of the hoop, which button is used in connection with a slot made through the other end in a direction parallel to the length of the hoop, whereby it becomes necessary to twist or move one end of the hoop out of its natural position in order to lock and unlock the same.

To enable others to understand my invention I will proceed to describe it.

A designates one end of the hoop and B the other. From the under side of the end A there extends a button having a somewhat oval-shaped head, A, and a neck, *b*. This is set, not in a line parallel with the length of the hoop, but at an angle relatively thereto, so that when it is inserted through the slot *c* made in the other end, B, of the hoop and in

a direction parallel with the length of the hoop the same cannot be drawn out of the slot *c* unless one end of the hoop is thrown or twisted out of its natural position to effect this. The position of this button *a b* relatively to the ends of the hoop, and to the slot *c* when the hoop is locked, will be clearly understood by reference to Fig. 2, and it will be seen that however great may be the longitudinal play of the two ends of the hoop they cannot become unlocked unless one end is moved out of its proper position to permit the withdrawal of the button *a b*, as will be understood by reference to Fig. 4.

The upper side of the head of the button has a flange, *d*, the oblique edge of which coincides with the edge of the slot when the two ends of the hoop assume their parallel and final condition, while the head of the button is then oblique, as has been said, to the plane of the hoop, its ends catching under the inner side of the hoop through which it is passed. The ends of the hoop are twisted relatively to each other, as shown in Fig. 4, on the introduction of the button, and when they assume their position of parallelism one edge of the slot is brought up against the said oblique edge of the flange *d*, which limits its motion in that direction.

This forms a cheap lock and one easily operated and secure in every respect.

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

The button *a*, with its head set obliquely to the plane of the hoop and with an oblique flange, *d*, operating in the manner and for the purpose herein described.

JOHN F. MILLIGAN.

Witnesses:

R. L. FOSBURGH,  
B. W. SCHULTE.