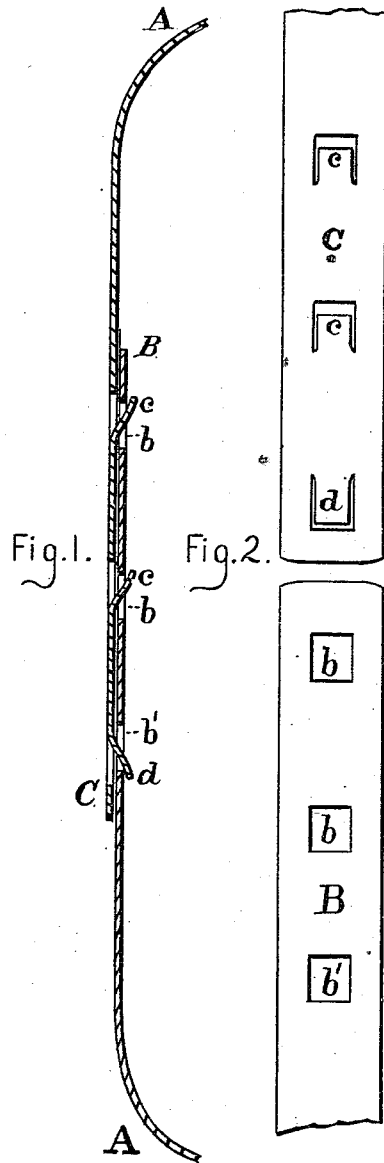


J. H. HARDMAN.

Bale-Tie.

No. 161,409.

Patented March 30, 1875.



Witnesses :

*Francis Bates*  
*Henry A. Daniels*

Inventor :

*John H. Hardman*  
By *W. Burris Atty.*

# UNITED STATES PATENT OFFICE.

JOHN H. HARDMAN, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR OF THREE-FOURTHS OF HIS RIGHT TO WILLIAM W. TYSON, WILLIAM H. FAULKNER, AND JAMES JOHNSTON, OF SAME PLACE.

## IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. 161,409, dated March 30, 1875; application filed February 23, 1875.

*To all whom it may concern:*

Be it known that I, JOHN H. HARDMAN, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Bale Ties or Hoops; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a longitudinal section of the tie, showing the position of the tongues in the slots when the tie is fastened on a bale. Fig. 2 is a plan of the two ends, showing the slots and tongues.

My invention relates to bale-ties; and consists in reverse hooks or tongues on one end of the bale-hoop, in combination with slots on the other end, as hereinafter described, and as shown in the drawings.

A is a hoop, and B the end, provided with slots *b b b'*; and C is the end, provided with tongues *c c* and reverse tongue *d*, made on the hoop, and arranged to enter and fasten in the slots, as shown in Fig. 1 of the drawings. The

tongue *d* is made longer than the tongues *c c*; and in adjusting the tie on a bale tongue *d* is placed in slot *b'* on the top of end B, and the end C is drawn down over end B sufficiently to introduce the tongues *c c* in their slots, and the outward pressure of the bale, when released from the press, draws the tongues *c c* under and tightly against the edge of the hoop at the end of the slots *b b*, the end of the tongue *d* remaining in slot *b'*, and holding under the hoop, as seen in the drawings. The tongues, being reversed, and under the hoop next to the bale, are closely held against the lower side of the end B, preventing the tongues from springing out of their slots by sudden pressure or jar in use.

What I claim as new in bale-ties, and desire to secure by Letters Patent, is—

The tongues *c c* and reverse tongue *d* on end C, in combination with slots *b b b'* in end B, substantially as and for the purposes described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

Witnesses: J. H. HARDMAN.  
Wm. W. TYSON,  
C. B. TOWLES.