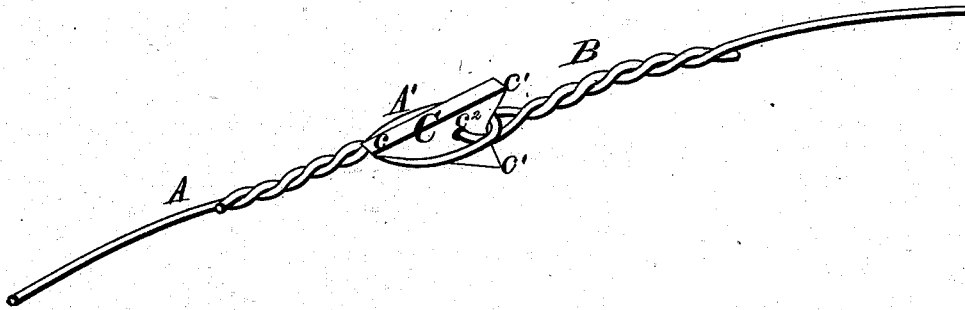


I. A. KILMER.

BALE-TIE.

No. 186,579.

Patented Jan. 23, 1877.



WITNESSES

Robert Everett
George C. Upshaw.

INVENTOR

Irvine A. Kilmer.
Gilmore, Smith & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

IRVING A. KILMER, OF HOWE'S CAVE, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO AUGUSTUS KILMER.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. 186,579, dated January 23, 1877; application filed December 23, 1876.

To all whom it may concern:

Be it known that I, IRVING A. KILMER, of Howe's Cave, in the county of Schoharie and State of New York, have invented a new and valuable Improvement in Bale-Ties; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

The figure of the drawing is a representation of a perspective view of my bale-tie.

This invention relates to bale-ties; and it consists in providing one end of a bale-tie with a loop, and the other end with a pivoted arrow-head-shaped fastening-piece, adapted to engage with said loop, substantially as and for the purpose hereinafter set forth.

In the annexed drawing, A and B designate, respectively, the two interlocking ends of a wire bale-tie. On end or part A is formed a loop, A', preferably, as shown, by winding backward the end of the wire which constitutes the tie, though other methods of construction may be adopted. The other end, B, of said tie is provided with a pivoted locking-piece, C, which is shaped like an arrow-head, having two diverging rearward barbs, c^1 c^1 , and a point, c . The said head or locking-piece is, preferably, perforated at c^2 , and attached to said end B by passing the wire composing the same through said perforation, and winding it backward. Any other pivotal arrangement suitable to the purpose designed may, however, be substituted therefor.

To fasten the said bale-tie, the said loop A' is first turned on edge, and the point c of fast-

ening-piece C is passed through the same from either side, as permitted by its pivotal attachment to part or end B. When the said fastening-piece has passed through the said loop A' the said ends A and B are released, and the expansion of the substance of the bale then draws the said ends A and B away from one another. Thus the inside of the front or forward part of loop A' is drawn against the rear of one of the barbs, c^1 , forcing the forward part of fastening-piece C tightly against the rear part of said loop. This locking or clamping action of said loop and fastening piece or head becomes more effectual the more the strain is increased.

Without the pivotal attachment described the introduction of fastening-piece C into loop A' could not be effected without bending the wire of the tie, and the subsequent clamping above described would be far less perfect.

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

1. A bale-tie having a loop at one end, and a pivoted arrow-head-shaped fastening-piece at the other end, substantially as described, and for the purpose set forth.

2. In a bale-tie, the combination of loop A' on end A with pivoted arrow-head-shaped fastening-piece C on end B, said fastening-piece being provided with two rearward barbs, c^1 c^1 , substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

IRVING A. KILMER.

Witnesses:

A. C. SMITH,
W. D. LEWIS.