

D. H. MATHIAS.

BALE-TIE.

No. 172,330.

Patented Jan. 18, 1876.



Fig. 1.

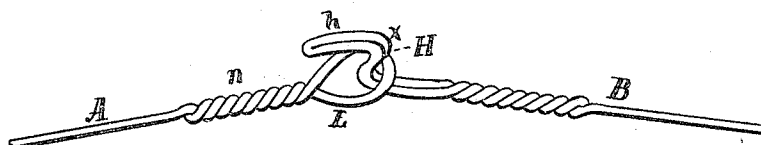


Fig. 2.



Fig. 3.

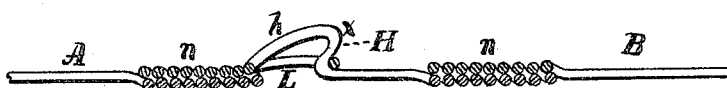


Fig. 4.

Witnesses. { Geo. A. Thompson
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **172,330**, dated January 18, 1876; application filed
September 13, 1875.

To all whom it may concern:

Be it known that I, DAVID H. MATHIAS, of the city and county of Albany, State of New York, have invented an Improved Bale-Tie; and I do hereby declare that the following is a description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of the two interlocking ends of the tie when separated. Fig. 2 is a view of the same in the operation of being locked. Fig. 3 is a perspective view of the same when joined. Fig. 4 is a sectional elevation of the same.

My invention relates to wire bale-ties having their ends finished each with a device capable of interlocking with the other in a reliable manner; and consists in the combination with a loop end of a brace-hook in such a manner that the said loop will be capable of receiving the said brace-hook of the opposite end of the tie, while the brace of the said hook will have a proper support against the neck of the loop receiving the hook, to sustain it in its hooking form against any strain which it may receive when the compressed bale is removed from the press.

To enable others skilled in the art to make and use my invention, I will proceed to describe it in reference to the drawings, and the letters of reference marked thereon, the same letters indicating like parts.

In the drawings, A represents one end of a wire comprising the tie. B is the opposite end. L is the loop, formed by turning a portion of the wire of the said end on itself, and twisting the same to form the neck *n*, as shown. Made with the end B is the hook H and its brace *h*, having double strands formed by turning a portion of the wire on itself, and twisting it at a distance back to form a neck, *n*, similar to that formed at the base of the loop L. The said hook stands back from its base about at a distance of one diameter of the wire, or enough to prevent the loop from rising or slipping up. Made continuous with the hook, and starting from what I denominate the point *x* of the same, is the brace *h*, which is carried forward of the hook with an

incline downward, and terminating at about on a plane with the base of the hook, as shown in Figs. 1 and 4, and at a distance from the same which will permit the end of the brace to bear on the neck of the loop L, and in the twist of the wire, as shown in Fig. 4.

When it is desired to interlock the parts of this tie, the hook end H is introduced into the loop L by first passing the brace *h* attached to the hook through the same, as shown in Fig. 2, when the loop will drop over the point *x* of the hook, and drop down to the base, as shown in Figs. 3 and 4.

When it is desired to unloose the tie, a tapering piece of metal inserted between the brace *h* and the loop L will throw up the said brace, when the loop may be slipped up, and the tie removed without cutting.

The advantages attending this improved tie are obvious, for it is evident that the tie may be securely locked together at its ends without the least liability of the hook being drawn over by reason of the strain of the loop on the same from the elastic force in the compressed bale, as the brace is connected with the hook, and stands in an inclined position with both the hook and loop, with its terminating end bearing on the neck and in a twist of the same, while at the same time the brace-hook permits a smaller or lighter wire to be used to form the parts, and give to the same its requisite strength. It is also evident that by this form of hook, and its brace-support, the tie may be readily loosened without being cut, thereby preserving the tie in condition to be used a second time, when the brace is again set down.

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

A bale-tie, having on one end the loop L, and on the other end the hook H and brace *h*, made continuous with said hook, and extending forward, and inclined downward, when combined to operate substantially as described.

DAVID H. MATHIAS.

Witnesses:

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