2 Sheets—Sheet 1.

J. Y. BLOOMINGDALE.

Bale-Tie.

No. 207,486. Patented Aug. 27, 1878.

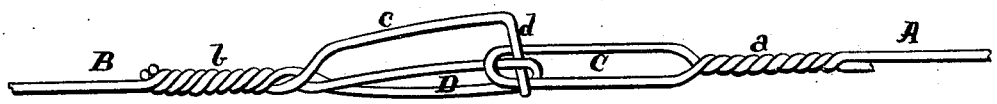

Fig. 1.

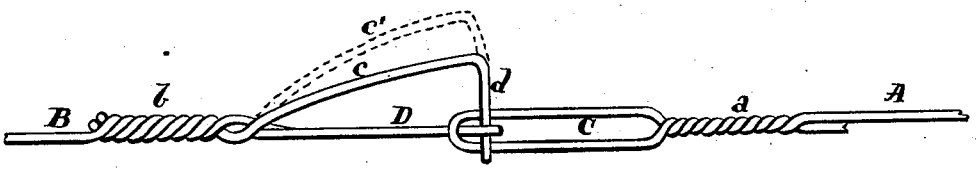

Fig. 2.

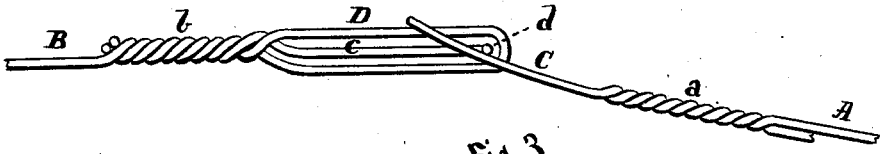

Fig. 3.

Witnesses: C. E. Merriken, Chas. J. Secrist

Inventor: Joel Y. Bloomingdale, by his Attorney Alex. Gilkirk

2 Sheets—Sheet 2.

J. Y. BLOOMINGDALE.

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Fig. 4.

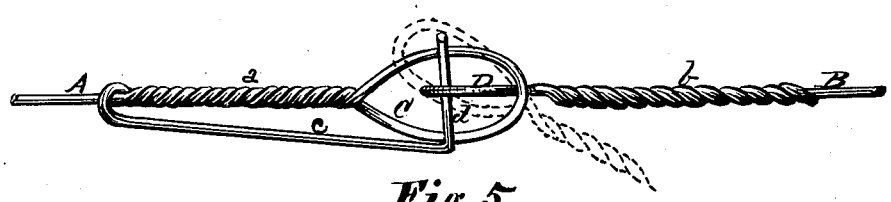

Fig. 5.

Inventor:
Joel Y. Bloomingdale
by his Attorney
Alex. Selkirk

Witnesses
James Gray
William F. Selkirk

UNITED STATES PATENT OFFICE.

JOEL Y. BLOOMINGDALE, OF NEW SALEM, N. Y., ASSIGNOR TO WASHBURN & MOAN MANUFACTURING COMPANY, OF WORCESTER, MASS.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **207,486**, dated August 27, 1878; application filed December 5, 1876.

To all whom it may concern:

Be it known that I, JOEL Y. BLOOMINGDALE, of New Salem, in the county of Albany and State of New York, have invented a new and useful Improvement in Bale-Ties, which improvement is fully set forth in the following specification and accompanying drawings, in two sheets, in which—

Figure 1 is a perspective view of the two connecting ends of the tie, illustrating the forms of parts and their manner of operation. Fig. 2 is a horizontal view of the same. Fig. 3 is a side elevation. Fig. 4 is a perspective view of the same slightly modified in some of its parts, and Fig. 5 is a horizontal view of the same.

My invention relates to bale-ties made of wire, having a loop at each end; and consists in the combination, with the receiving-loop, of a laterally-projecting key, finger, or locking device supported from the twisted neck of said receiving-loop in such a manner that when the entering-loop has been passed partially through the said receiving-loop the said key or finger may be passed laterally into or through the entering-loop, so as to rest upon the opposite side of the receiving-loop and securely lock the two loops together and the tie about the bale.

The object of this invention is to secure the two connecting ends of the bale-band in a reliable manner when it is made to encircle the bale.

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 or similar parts.

In the drawings, A represents one end of the wire forming the band. B is the opposite end. Made with the end A of the wire is the receiving-loop C, which loop is formed by turning a portion of the said end of the wire back on itself, and securing the same by twisting to form the neck *a*. Made with the opposite end B of the wire is the entering-loop D, formed in the same manner as loop C, and secured by the twisted neck *b*. The receiving-loop end D of the band is provided with a hook or latch, *d*, supported from the said end, preferably by the arm *c*, secured to the said end from the twisted neck *b*, and consisting of a piece of wire having the form of the arm *c* and hook or latch *d* twisted in with the neck *b*, as shown in Figs. 1, 2, and 3, or a piece of wire made continuous with the strand turned back and secured by the twisted neck, as shown in Figs. 4 and 5.

Though I prefer to connect the hook or latch *d* to the entering-loop end, so as to engage with the receiving-loop, yet it is apparent that the said hook or key may be made with the receiving-loop to engage with the entering-loop, as shown in Figs. 4 and 5, with substantially the same mode of operation and results. It is also evident that a hook or latch composed of a double strand may be employed, and would operate in the same manner to lock the two loops together, and at the same time would itself receive support from the side of the loop on which the said hook may rest when the elastic force of the compressed bale is exerted.

When it is desired to connect the two ends of the bale-band, the loop D is to be passed partially up and through the loop C, so as to bring the end of loop D in range with the laterally-projecting hook *d*, that the said hook may be made to enter the entering-loop by crowding the arm, carrying the hook from position of dotted line *c'* to that of full lines *c*, as shown in Fig. 2, or by entering the loop D into loop C in an oblique manner, as indicated by dotted lines in Fig. 5, until the said entering-loop is made to have one of its sides project past a vertical line with the end of the hook, when the said entering-loop may be readily turned from said dotted lines to position of full lines, as shown in said figure. In either case, whether the two loops are connected in the manner illustrated in Fig. 2 or Fig. 5, the hook will operate to lock the said two loops together, while the hook itself will have a support from the side of the receiving-loop, and be rendered capable of resisting the strain exerted.

This device forms a strong and ready connection, and gives to the operator every advantage for a quick manipulation.

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

The combination, in a wire bale-tie provided with a loop at each end, of the spring-hook *c d*, supported from the twisted neck of one of said loops, substantially as and for the purpose set forth.

JOEL Y. BLOOMINGDALE.

Witnesses:
C. E. MENIHEW,
CHAS. J. SELKIRK.