C. P. HIGGINS.

Device for Applying Bale-Tie.

No. 218,740. Patented Aug. 19, 1879.

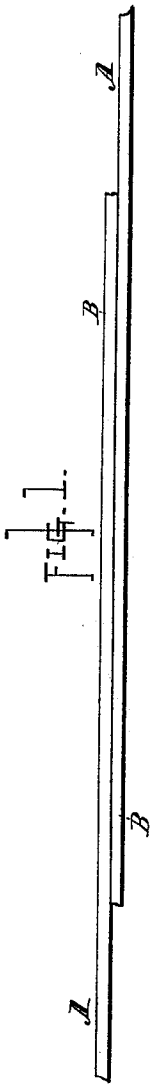

FIG. 1.

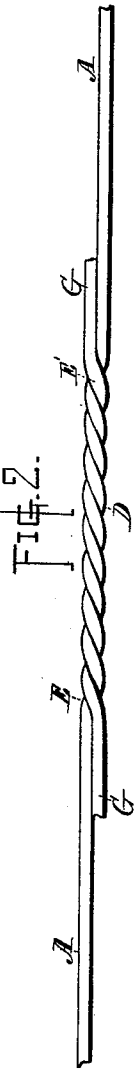

FIG. 2.

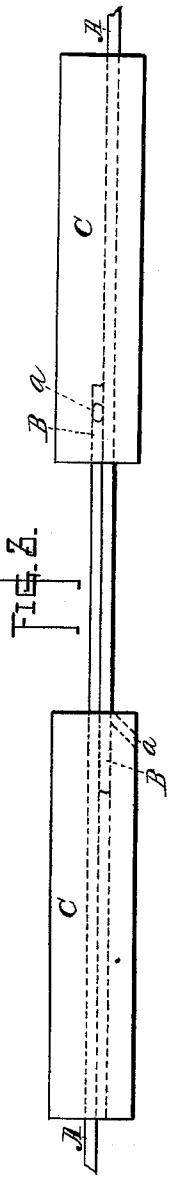

FIG. 3.

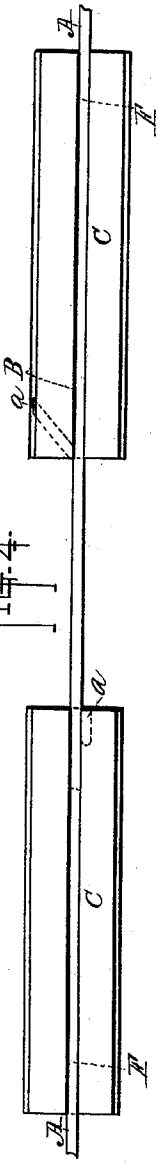

FIG. 4.

Witnesses:

John Bivone

George Higgins.

Inventor:

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UNITED STATES PATENT OFFICE.

CAMPBELL P. HIGGINS, OF EAST LINE, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENT, TO WASHBURN & MOEN MANUFACTURING COMPANY, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN DEVICES FOR APPLYING BALE-TIES.

Specification forming part of Letters Patent No. **218,740**, dated August 19, 1879; application filed April 1, 1878.

To all whom it may concern:

Be it known that I, CAMPBELL P. HIGGINS, of East Line, Saratoga county, State of New York, have invented certain new and useful Improvements in Devices for Applying Bale-Ties to Bales; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents so much of a wire bale-tie as is necessary to illustrate my present invention. Fig. 2 represents the lapped ends of the bale-tie (after it has been put around a bale) locked or secured firmly together by twisting such straight lapped ends together in a continuous twist. Fig. 3 represents the lapped ends in position preparatory to being twisted, as shown in Fig. 2, as will be hereinafter more fully described; and Fig. 4 represents a top or plan view of the parts shown in Fig. 3, Figs. 3 and 4 being drawn upon a reduced scale from that represented in Figs. 1 and 2.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

In the drawings, the parts A represent portions of the bale-wire or tie, and B B its ends, which are lapped together after the tie—which is made of round wire—has been passed about the bale, while the latter is in the press and held in its compressed condition. The lapped ends B B, and portions of the main part of the wire A, are then dropped or placed into slotted hubs or pieces C C, as indicated in Figs. 3 and 4 of the drawings, the slotted pieces C C being made of convenient length, and separated the distance desired for the lock or continuous twist D, which is formed by turning one of the slotted pieces C in one direction and the other in the opposite direction, or the twist may be made by simply holding one of the slotted pieces C stationary and turning the other.

It will be observed that the slots in the pieces C are of such width as to hold the ends B B, which enter the slots in the same relative positions, as respects each other, as indicated in dotted lines, Fig. 3.

By this mode of process the ends of a bale-tie can be interlocked and twisted together so as to form a continuous and uniform twist, from the point E to the point F′, after the straight ends have been lapped about the bale while in the press, and the twisting devices or mechanism can be quickly and easily removed after the bale-tying or twisting operation has been completed, the slots F permitting the untwisted ends G and the portions A of the body of the wire to be slipped out.

Holes *a* are bored in the ends of the twisting pieces or devices C C, as indicated in dotted lines, Fig. 3, and dotted and full lines, Fig. 4, into which the projecting ends B B may be run, if preferred in any case, before the twisting operation commences, and which may often be found quite convenient in cases where the tie happens to be a little short, or when the wire happens to be under size, or its diameter is less than one-half the width of the slot, since the holes *a* run in an angle to the slot F, and consequently the end of the wire is bent a little, causing it to remain in its relative position during the twisting operation.

The slotted or twisting pieces C are clasped and turned by the hands of the operator. Said parts may be made, however, so that they can be turned by rotating mechanism, the construction and arrangement being such that the slotted twisting devices, of whatever form or shape they may be, can be applied to and removed quickly from the lapped ends of the wire after they have been securely twisted together for fastening the tie about the bale while in the press.

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

The device for uniting the ends of a bale-tie with its body, consisting of two pieces, C C, each having an open slot fitted to receive and hold a portion of the body, and of a lapped end of the tie, and adapted to prevent the lapped end and body from twisting about each other therein, both pieces being made capable of rotation about the bale-tie to form a continuous twist between them, substantially as shown and described.

CAMPBELL P. HIGGINS.

Witnesses:

GEORGE HIGGINS,

JOHN BROWN.