

S. L. THORNE.

WIRE BALE-BAND CONNECTIONS.

No. 191,269.

Patented May 29, 1877.

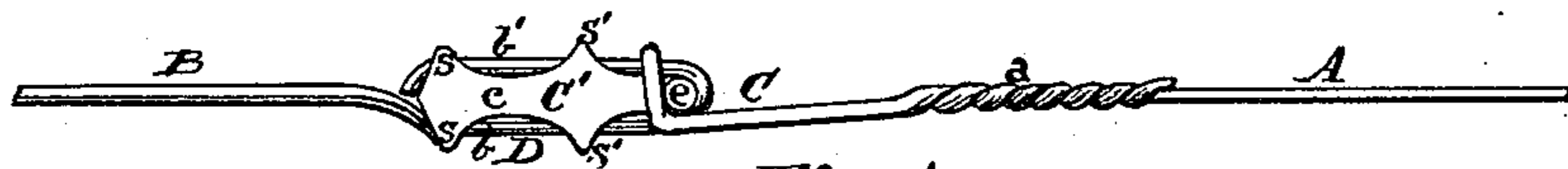


Fig. 1.

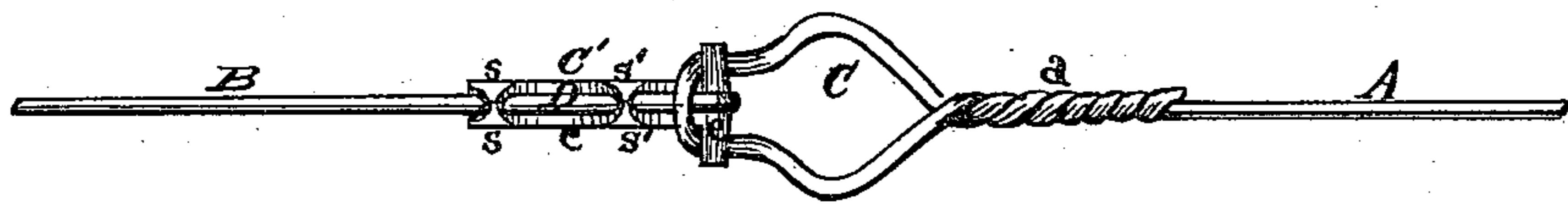


Fig. 2.

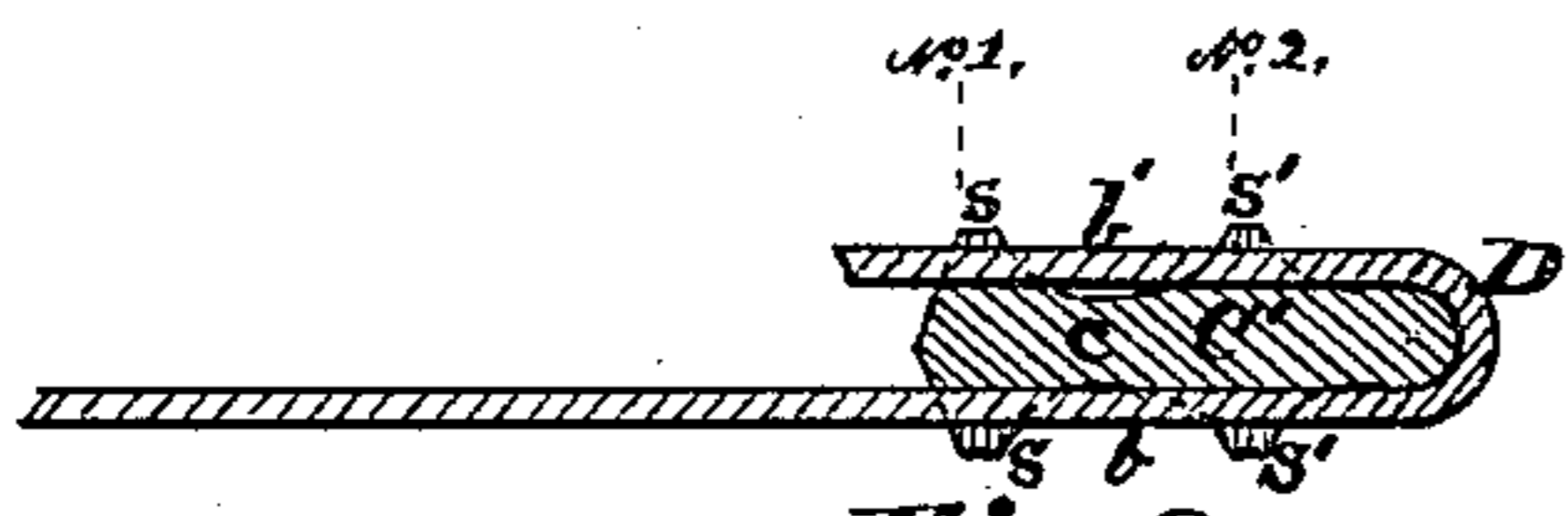


Fig. 3.

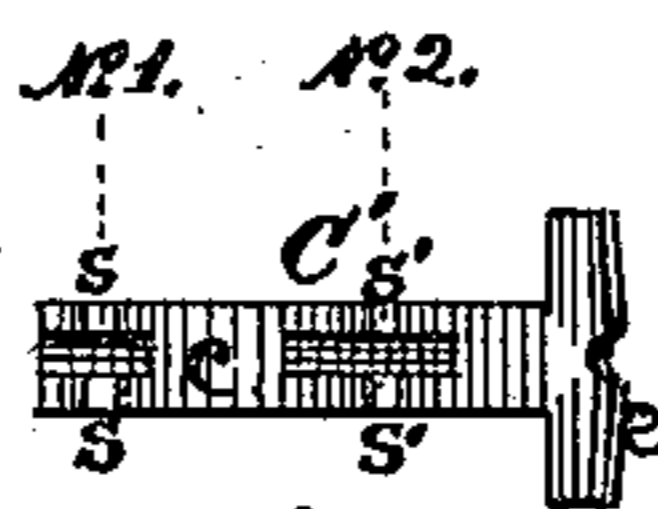


Fig. 4.



Fig. 5.



Fig. 6.



Fig. 7.



Fig. 8.



Fig. 9.

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UNITED STATES PATENT OFFICE.

SYLVESTER L. THORNE, OF ALBANY, NEW YORK, ASSIGNOR TO CORNELIUS VAN DERZEE; SAID VAN DERZEE ASSIGNOR OF ONE-HALF HIS RIGHT TO DAVID H. MATHIAS, OF SAME PLACE.

IMPROVEMENT IN WIRE BALE-BAND CONNECTIONS.

Specification forming part of Letters Patent No. **191,269**, dated May 29, 1877; application filed March 21, 1877.

To all whom it may concern:

Be it known that I, SYLVESTER L. THORNE, of the city and county of Albany, State of New York, have invented a new and useful Improvement in Wire Bale-Band Connections, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a side elevation of the two connecting ends of a wire bale-band embodying the improvements in this invention. Fig. 2 is a horizontal view of the same viewed from above. Fig. 3 is a sectional elevation of the same. Fig. 4 is a horizontal view of the connecting-piece before it is secured to the end of the wire forming the band. Figs. 5 and 6 are cross sectional views taken at line Nos. 1 and 2 in Figs. 3 and 4, before the said piece is secured to the wire; and Figs. 7 and 8 are cross sectional views of the same, illustrating the attaching or connecting piece when secured; and Fig. 9 is a modification of the device.

The object of this invention is to furnish a bale-band, made of wire, with a connecting piece or device that may be securely attached and held to one end of the wire strand forming the bale-band without necessitating a twisting of the wire to effect such an attachment or holding, so that, when the said connecting-piece is secured to its end of the band, it may be adapted to engage with a loop formed with the opposite end of the same.

In the drawings, A represents one end of the wire strand forming the band, and B is the opposite end of the same strand. The end A has made with it the loop C, formed by turning back a portion of the wire on itself, and twisting the same so as to form the twisted neck *a*, as shown.

C is a connecting device, made of cast malleable iron, and composed of the body *c*, cross-bar or its equivalent attaching-piece *e*, and clinching or binding lips *s s* and *s' s'*, arranged as shown in the several figures, with a groove or recess between each pair of lips *s* and *s'*, as shown in Figs. 4, 5, and 6.

D is a simple single-strand hook, made with the end B, by simply turning back on

itself about one and one-quarter inch of the said end, substantially as shown by full lines in Fig. 3, and adapted to receive, between the limbs *b* and *b'* of the same, the body *c* of the connecting-piece C, as shown in said figure.

When the said connecting-piece has been properly introduced within the hook, as shown in Fig. 3, the lips *s s* and *s' s'* are bent over toward each other, as shown in Figs. 2, 7, and 8, from the positions shown in Figs. 4, 5, and 6, so as to bind on the wire limbs *b* and *b'*, to hold the same from liability of turning up from the body of the connecting device when the strain is exerted on the band. The end of limb *b'* is bent down over the rear end of the connecting device from full line in Fig. 3 to that of dotted line in said figure and full lines in Fig. 1. The rear termination of limb *b*, at the rear of said connecting device, is also preferably bent or set up toward the center of the thickness of said rear end of the connecting device, as also shown by full and dotted lines in said figures.

It may be readily seen that by my improvement there may be effected a saving of about two inches of wire on each bale-band, while at the same time the labor of twisting, heretofore required, is dispensed with. It may also be seen that the connecting device may readily be secured, in a firm and reliable manner, to the wire without the least possibility of its being separated from the same by any strain that may be exerted on it; and it is evident that this manner of forming the body of the connecting device with clinching or binding lips for holding the limbs of the hook securely may be employed with advantage where the cross-bar *e* is dispensed with, and another form of attaching device may be substituted without departing from the spirit of this invention; also, the lips *s s* may be set as in Fig. 9.

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

1. In a connecting device for wire bale-bands, the combination, with the body *c*, having an attaching-piece adapted to engage with

a loop, of the clinching or binding lips *s s* and *s' s'*, employed in pairs, with a groove or recess between, and adapted to receive the limbs of a hook, and being bent over to clinch down or bind on said limbs, as and for the purpose set forth.

2. The combination, with hook D, of the connecting device C, constructed with the parts described, and secured to the said hook,

as set forth, and adapted to engage with a loop made with the opposite end of the wire from which hook D is made, substantially as and for the purpose set forth.

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