

M. D. COPELAND.

Bale-Ties.

No. 158,683.

Patented Jan. 12, 1875.

Fig. 1.

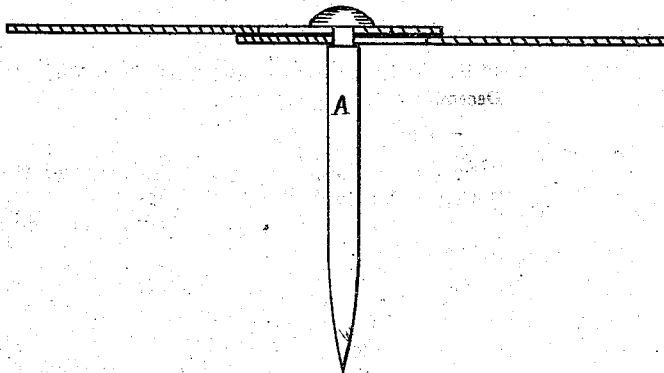
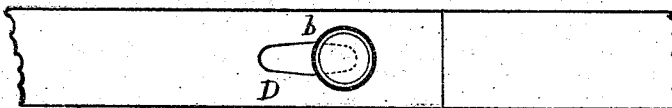


Fig. 2.



witnesses

Wm. H. Hackett
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UNITED STATES PATENT OFFICE.

MARCUS D. COPELAND, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO
MRS. SUSAN A. COPELAND, OF SAME PLACE.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. 158,683, dated January 12, 1875; application filed
December 4, 1874.

To all whom it may concern:

Be it known that I, MARCUS D. COPELAND, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in the Construction of Bale-Ties; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form a part of this specification.

The object of this invention is a cheap and durable bale-tie which will secure the band, precluding the possibility of becoming untied, and having the least obstruction or projection on the outside. Neither band or tie are bent or broken in the act of tying, and may, therefore, be used over any number of times.

In the accompanying drawing, Figure 1 is a longitudinal section of my improved band and tie. Fig. 2 is a top-view of the band and tie-bolt.

The bolt A has a head formed on one end and the other end pointed. Under the head the bolt is necked in, or has its diameter diminished equal to the width of the ends of the elliptic slots which are punched through the ties, as seen at D, Fig. 2. The other part of the tie-bolt has its diameter equal to the middle or short axis of the elliptic slot, as seen at b. Both ends of the tie have one or more of the elliptic slots.

When the bale is compressed the ends of the ties are brought together and lapped over each other, with one set of the elliptic slots directly over each other. The tie-bolt is then set in the middle or largest portion of the slots and driven into the bale, the point of bolt being pointed, so as to make it drive readily.

When the bale is relieved and expands the bands are drawn tightly against the neck of tie-bolt, bringing the narrow ends of slots around the smaller part of bolt, thereby preventing its withdrawal.

It will be observed that wire bands with loops formed on their ends may be used, as well as the perforated bands, in connection with my improved tie.

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

1. The combination of the bale-band, having elliptic slots at the ends, with the bolt, as and for the purpose set forth.

2. A tie-bolt with neck under the head, for the purpose fully specified.

In testimony that I claim the above as my own I affix my signature in presence of two witnesses.

M. D. COPELAND.

Witnesses:

JENKINS JONES,
WM. HECKERT.