J. M. ALBERTSON.

Bale-Tie.

No. 166,677. Patented Aug. 17, 1875.

Fig. 1.

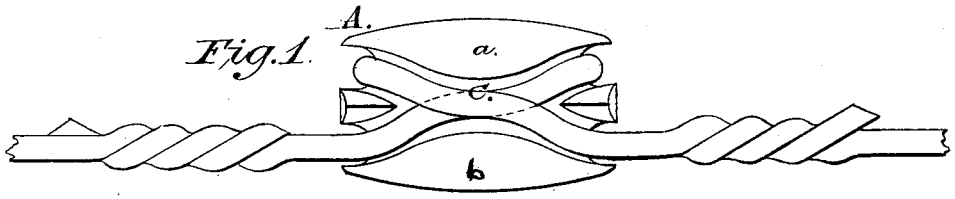


Fig. 2.

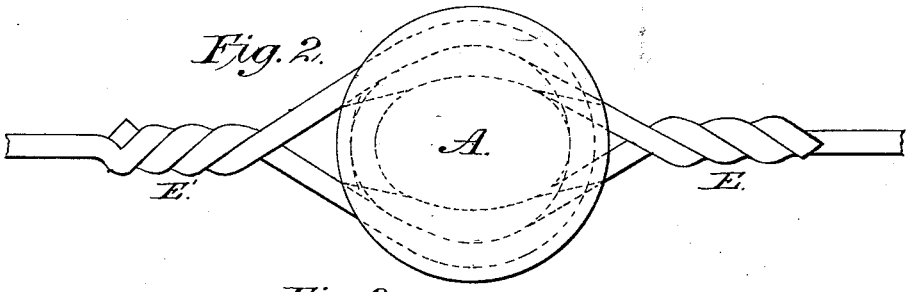


Fig. 3.

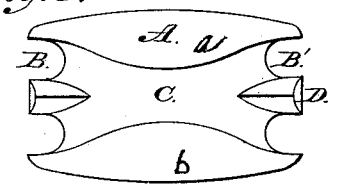


Fig. 4.

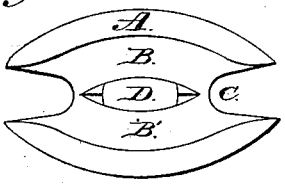


Fig. 5.

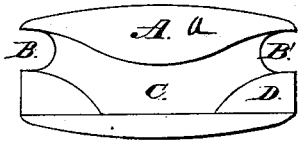
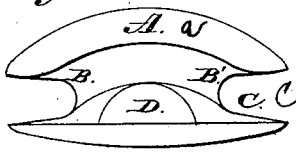


Fig. 6.



Attest:

Wm E Albertson

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Inventor:

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UNITED STATES PATENT OFFICE.

JAMES M. ALBERTSON, OF NEW LONDON, CONNECTICUT.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **166,677**, dated August 17, 1875; application filed December 19, 1874.

To all whom it may concern:

Be it known that I, JAMES M. ALBERTSON, of New London, State of Connecticut, have invented a Bale Tie, of which the following is a specification:

This invention relates to that class of bale-bands made of wire, and has for its object the providing of a simple, strong, light, and inexpensive tie for fastening the ends of the wires after they are put around the bale; and it consists in making the tie of cast metal, of a round, oval, or any other suitable form, and of sufficient thickness to contain two grooves extending entirely around it, and placed at an angle with and intersecting or crossing each other upon opposite sides of the tie. Each of these grooves receives one end of the wire band, so that the wires, when placed therein, will, with this tie, form a complete fastening or connection for the band.

The accompanying drawing, forming a part of this specification, illustrates a tie embodying my invention.

Like letters refer to like parts in the different views.

A is a cast-metal block, preferably round or oval; but it may be of any other suitable form, and of a breadth or thickness sufficient to contain two grooves, B B, of a width and depth suited to the size of wire to be used. These grooves pass entirely around the block, and are at an angle with and cross each other at C, at which point they form one common groove. The two grooves together virtually form one groove extending entirely around the block, and dividing it into two parts, *a* and *b*, thus forming two plates or flanges, whose inside surfaces conform to the intersecting grooves, and whose outer surfaces may be of any desired form to give symmetry and lightness.

The ends of the wire, when placed in the tie, cross each other at the intersection or contraction of the grooves at C, and occupy the same relative position upon opposite sides of the tie, and by drawing from a common point, C, the strain is distributed equally upon the tie, and therefore all tendency to its turning or upsetting is entirely obviated.

At D is shown a spur or stud, the object of which is to confine each wire to its own groove. Where the angle included between the grooves is sufficient to admit of its being done, it is placed as shown in Figs. 3 and 4; but when the angle is too acute to admit of its being so placed, it is then placed over against one side of the groove, as shown in Figs. 5 and 6, and it performs the same office, and in the same way in either case.

The use of this spur, however, is not absolutely necessary to the successful operation of the tie, as the hollow form of the bottom of the grooves serves to keep the wires in place, if care is used; but the use of this spur renders the tie more convenient and efficient for its purpose. I do not, therefore, confine myself strictly to its use, as its omission does not change the principle or character of the tie.

The operation is as follows: The wire is first prepared by cutting to proper lengths. Each end is then formed into a ring or loop a little larger than the tie, so that it can be slipped over into the grooves. It is then put around the bale, and each of these loops, in turn, is placed in its groove. When the bale is released from the press, the tension of the wire draws each loop tightly in the grooves.

If preferred, the tie may be first twisted into one end of the wire before it is put around the bale.

Having thus described my invention, what I claim is—

1. A bale-tie formed by a single piece or block of metal, having top and bottom parts *a b*, and provided with two similar grooves extending entirely around it, for the reception of the ends of the bands, these grooves being at an angle with each other, and crossing upon opposite sides of the tie, substantially as herein shown and described.

2. A bale-tie having grooves which cross or intersect each other at a common point, C, said grooves being of a greater depth at the point C than at any other portion of the same, so as to better contain the two wires crossing each other at this point, substantially as described.

3. A bale-tie formed with two intersecting grooves, and provided with a spur, D, substantially as and for the purpose specified.

JAMES M. ALBERTSON.

Witnesses:

WM. E. ALBERTSON,

E. A. BASSETT.