

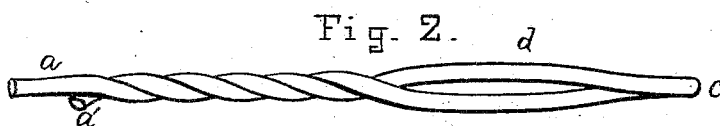
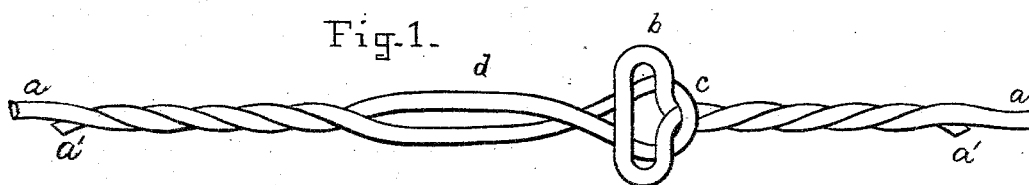
(No Model.)

I. W. DAVIS.

WIRE BALE TIE.

No. 301,482.

Patented July 8, 1884.



Witnesses:

J. C. Mulvaney
Joseph L. Seeger

Inventor:

Ira W. Davis
by G. H. Albee
his Atty.

UNITED STATES PATENT OFFICE.

IRA W. DAVIS, OF MENASHA, WISCONSIN.

WIRE BALE-TIE.

SPECIFICATION forming part of Letters Patent No. 301,482, dated July 8, 1884.

Application filed February 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, IRA W. DAVIS, a citizen of the United States, residing at Menasha, in the county of Winnebago and State of Wisconsin, have invented a certain new and useful Improvement in Wire Bale-Ties, of which the following is a specification.

My invention relates to an improvement in bale-ties which are manufactured of wire; and the object of my improvement is to provide a tie for use in forming bales of hay, straw, cotton, wool, excelsior, or other substances desired, and one which is simple in its formation, cheaply manufactured, is easily and quickly applied, easily detached when desired, and will not become separated by reason of its being loosened in the process of applying the tie or the handling of the bale. I attain these objects by its formation, as illustrated in the accompanying drawings, in which—

Figure 1 is a plan of the tie as it appears when its ends are connected in the manner required in its application to bales of any desired material. Fig. 2 is an edge view of the end of the tie upon which are formed the spring-loop and eye.

Similar letters of reference indicate corresponding parts in the several views.

Upon one extremity of the wire *a*, forming the bale-tie, a T-loop, *b*, is formed, the free end *a'* of the wire forming said loop being entwined around the main wire *a* for such a distance and at such an angle therewith as will prevent their disengagement from each other by any strain to which the tie is likely to be subjected. Upon the other extremity of the tie are formed the eye *c* and spring-loop *d*. A loop is first formed of the desired length, and the free end of the wire forming it secured to the main wire *a*, as in the formation of the T-loop before mentioned. Nearly a half-twist is then given to the outward extremity of said loop in a direction corresponding with the twist of the wires in its opposite extremity, whereby the wires of its opposite sides cross each other at a point therein nearest its out-

ward extremity and form the spring-loop *d* and the eye *c*. The T-loop *b* being inserted through the spring-loop *d* into the eye *c*, it assumes a position therein, in consequence of their form and the action of the spring-loop; whereby its escape is prevented. The peculiar form of the spring-loop *d* and the eye *c* permits the easy entrance of the T-loop, but not its disengagement, by reason of any position said loop is likely to assume. Upon a strain being applied to the tie, the wires forming the sides of the spring-loop and eye are brought nearer together. The greater the strain the more said eye is compressed about the T-loop *b*. It is quickly and easily disconnected when desired, the tie being slackened and a slight twist given to the end of the bale-tie upon which is formed the T-loop *b*, forcing one ear of said loop between the wires of the spring-loop *d* at its junction with the eye, and thereby allowing their disengagement. The direction of the twist given to the wires in the formation of the tie is immaterial, with the exception before mentioned that the twist given to the spring-loop *d* in the formation of the eye *c* corresponds with the direction of the twist in the opposite extremity of said loop. Any of the usual sizes of wire may be used for their formation which is required to obtain the desired strength in the tie.

The tie is applied to a bale by passing one end of it around the bale and inserting the T-loop *b* into the eye *c*, the spring of the wires at their crossing allowing its easy entrance. It may be inserted from either the upper or lower side of the spring-loop and eye, as may be most convenient to the operator.

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

A wire bale-tie constructed substantially as described and shown.

IRA W. DAVIS.

Witnesses:

J. C. UNDERWOOD,
J. L. FIEWEGER.