## L. STEWART. WIRE BALE-TIES.

No. 191,192.

Patented May 22, 1877.

Fig.1.

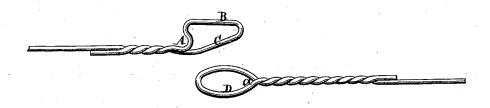
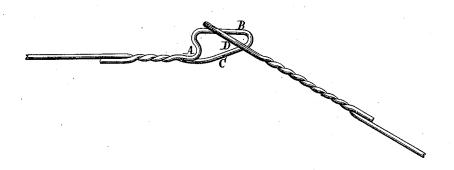


Fig. 2.



Fig. 3.



Witnesses.

Inventor.
Lorenzo Stewart

by

VanDautorord s Hauff

his attorneys

## UNITED STATES PATENT OFFICE.

LORENZO STEWART, OF SCHENECTADY, NEW YORK.

## IMPROVEMENT IN WIRE BALE-TIES,

Specification forming part of Letters Patent No. 191,192, dated May 22, 1877; application filed March 7, 1877.

To all whom it may concern:

Be it known that I, LORENZO STEWART, of the city and county of Schenectady and State of New York, have invented a new and useful Improvement in Wire Bale-Ties, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a side view of the two ends of my bale-tie when detached. Fig. 2 is a similar view of the same when connected. Fig. 3 is a similar view of the same in the act

of being connected.

Similar letters indicate corresponding parts. This invention consists in a wire bale-tie having a hook on one end and a loop on the other, said hook being formed of an endless single strand of wire extending from its top in the direction of the strain a distance sufficient to rest in the angle of the loop, and thence being bent and turned back to the wire of the tie forward of the hook and twisted thereto, thus forming a sustaining-bar to the brace, the whole making a very cheap and convenient fastening.

In the drawing, the letter A designates the hook of my bale-tie, which is formed of a single strand of wire at one end of the tie. From the top of this hook extends the brace B, which is bent back to form the sustaining-bar C, the end of which extends to, and is twisted round, the wire composing the tie. On the other end of the tie is formed a loop, D, which is also composed of a single strand of wire, and made of such a length that when it is passed over the hook A to the position shown in Fig. 2 the sustaining-bar will lie in

the angle a, formed by the two sides of said loop.

By referring to Fig. 3, it will be seen that the loop D can be readily slipped over the hook by bringing said loop in a slightly-inclined position.

When the tie is passed round a bale, and its two ends are locked, the strain exerted by the loop on the hook A is in the direction of the brace B, which is supported by the sustaining bar C, so that the hook, notwithstanding the fact that it is made of a single strand of wire, is not liable to give way, and a baletie is obtained which is strong durable and convenient, and which can be manufactured with great economy in stock and in labor.

The hook A is of sufficient strength to pull the main wire in two in all cases.

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

1. In a wire bale-tie, made of a single wire, the rigid hook having an endless brace, B, and a sustaining-bar, C, substantially as and for the purpose described.

2. The wire bale-tie, having a loop, D, formed at one end of the tie, with a hook, A, made of a single wire and provided with a brace, B, and a sustaining-bar, C, all constructed and operating substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 1st day of March, 1877.

LORENZO STEWART. [L. s.] Witnesses:

E. Rosa, Henry H. Swart.