

G. S. FRANCE.

BALE-TIE.

No. 176,613.

Patented April 25, 1876.



Fig. 1.



Fig. 2.

WITNESSES;

Thos. H. Dodge
Edwin C. Hoar

INVENTOR;

Gustav S. France

UNITED STATES PATENT OFFICE.

GUSTUS S. FRANCE, OF COBLESKILL, N. Y., ASSIGNOR TO WASHBURN & MOEN MANUFACTURING COMPANY, OF WORCESTER, MASS.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **176,613**, dated April 25, 1876; application filed April 10, 1876.

To all whom it may concern:

Be it known that I, GUSTUS S. FRANCE, of Cobleskill, in the county of Schoharie and State of New York, have invented certain new and useful Improvements in Bale-Ties; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a top or plan view of the interlocking ends of a bale-tie embracing the improvements which form the subject-matter for which these Letters Patent are prayed. Fig. 2 represents a side view of the parts shown in Fig. 1.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

In the drawings, so much of a bale-tie is represented as is necessary to illustrate my present improvements; and the parts marked A and B represent sections of the bale-wire, the ends *a* and *b* of which are bent to form the loops C, and then the ends of the wire are partially twisted about the main wire, as shown at *c*, and then one of the strands—by preference, the main strand—is bent to form a hook, D, after which both strands are twisted

together to form a close union and connection and stiff part, E, upon each end of the bale-tie, as shown in the drawings.

It will be noticed that the twisted parts *c c* lap upon each other, thereby rendering those portions of the tie between the hooks D D, when the bale-tie is clasped or locked about the bale, very strong, rigid, and firm.

The portion of the bale-tie which passes around the bale may be made from one or more sections of wire or hoop-iron, as may be preferred, although I prefer to make the entire bale-tie from a single piece of wire.

Having described my said improvement in bale-ties for baling purposes, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

1. The combination, with the ends of a bale-tie, of the hooks D D and loops C C, substantially as and for the purposes set forth.

2. As an improved article of manufacture, a bale-tie, each end of which is provided with a loop, D, and hook C, with a partial twist between the respective loops and hooks, substantially as and for the purposes set forth.

GUSTUS S. FRANCE.

Witnesses:

THOS. H. DODGE,
EDWIN E. MOORE.