

H. MILLINGAR.

BALE-TIES.

No. 182,031.

Patented Sept. 12, 1876.

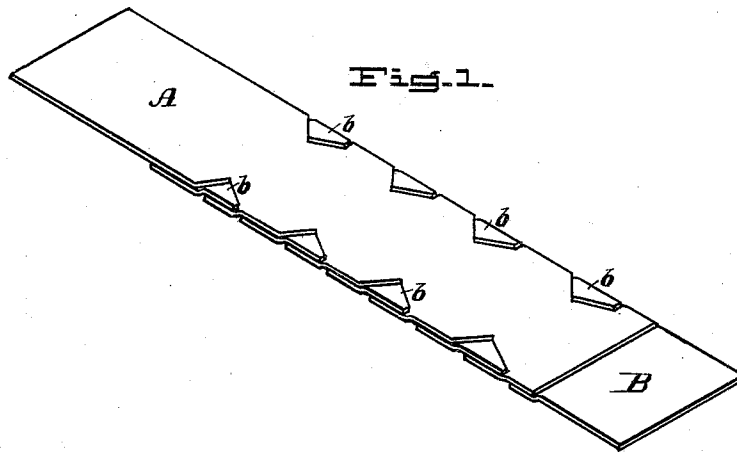


Fig. 2.

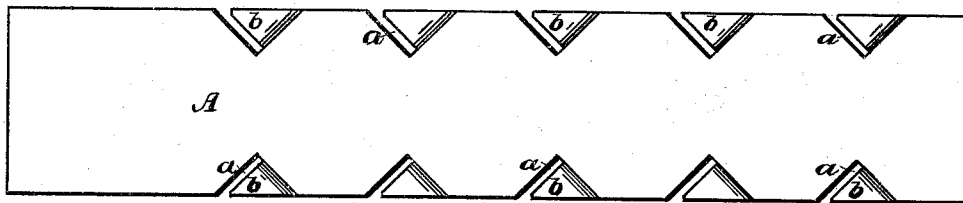
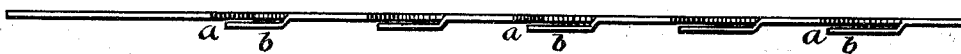


Fig. 3.



WITNESSES:

Jas. S. RutHamel,
H. B. Brown

INVENTOR:

Henry Millingar.

PER

H. T. Abbot.

ATTORNEY.

UNITED STATES PATENT OFFICE.

HENRY MILLINGAR, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **182,031**, dated September 12, 1876; application filed June 24, 1876.

To all whom it may concern:

Be it known that I, H. MILLINGAR, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Bale-Ties, of which the following is a specification:

The nature of my invention consists in the construction and arrangement of a bale-tie, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

A and B represent two ends of a strap of band-iron that forms the bale-hoop. Both of these ends are cut with a series of slots, *a*, in each edge, running from the edge, at an angle of forty-five degrees, inward and toward the end of the iron for a suitable distance. In other words, the slots in the two sides run in opposite directions, so that, if continued, they would cross each other. The V-shaped lips *b*, formed by the cutting of said slots, are, by means of dies, pressed so as to stand beyond but parallel with the plane of the band. At the end A they are pressed to one side of the hoop-iron, and at the end B they are pressed to the other side, so that when the iron has been passed around the bale, and the ends made to overlap each other, the lips of the two

ends may be made to interlock with each other, as shown in the drawing, forming a strong and durable tie, which can easily be separated when required, and the hoop used over and over again.

The slots *a* should be at equal distances apart, so that the lips will interlock at any point, no matter whether the ends overlap each other more or less.

The tie may be stamped by suitable dies at one operation, and, being part of the hoop-iron itself, it is cheap, as well as simple and durable.

I am aware that bale-ties have been constructed with the slots cut at right angles to the edge of the band of iron; but I do not broadly claim such as of my invention.

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

A hoop-iron having its overlapping end A B provided with inclined slots *a* in each edge, running from the edge at an angle of forty-five degrees inward, forming lips *b*, which are pressed so as to stand beyond, but parallel with, the plane of the band.

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

HENRY MILLINGAR.

Witnesses:

PHILIP HOERR,

JAMES S. THOMPSON.