E. E. PIERCE.

BALE-TIE.

No. 183,702. Patented Oct. 24, 1876.

Fig. 1,

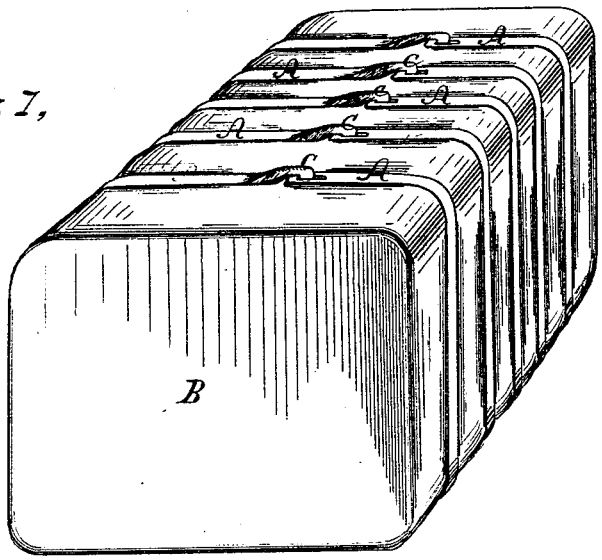


Fig. 2,

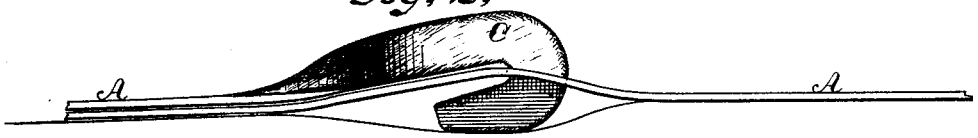


Fig. 3,

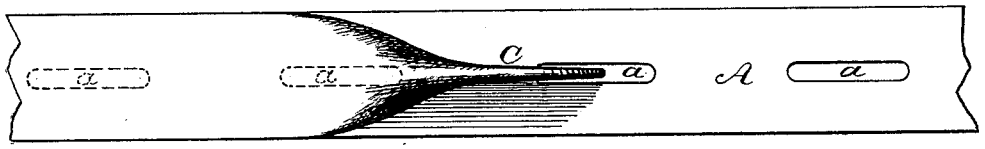
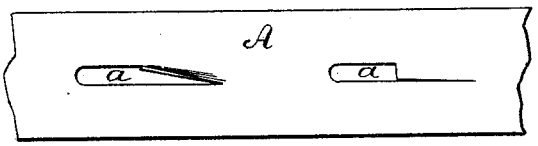


Fig. 4,



Witnesses:

J. Wm. Wagner.

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Erastus E. Pierce.

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UNITED STATES PATENT OFFICE.

ERASTUS E. PIERCE, OF CUYAHOGA FALLS, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN R. BLAKESLEE, OF CLEVELAND, OHIO.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **183,702**, dated October 24, 1876; application filed September 30, 1876.

To all whom it may concern:

Be it known that I, ERASTUS E. PIERCE, of Cuyahoga Falls, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Bale-Ties, of which the following is a specification:

This invention relates to certain improvements in bale-ties for securing cotton and other similar bales, its object being to construct a hook capable of locking the tie without cutting away the metal, and in such manner as to give the greatest body of metal, and consequent strength, to the hook at the point where it will meet with the greatest strain; and, also, in the combination, with the eye of the tie, of a tongue adapted to be turned up out of the way, to allow the hook to be inserted and turned down against the hook when in place, in order to lock it in position, as more fully hereinafter set forth.

The invention consists in forming the hook at one end of the tie, (the eye or eyes being formed at the opposite end,) by bending or folding the metal longitudinally for a short distance from the end, on a line midway between the two sides, until said sides come about half-way together, and then turning or bending said bent portion downward into the shape of a hook, and afterward stamping the end thus bent, so as to force the sides together, forming a solid hook, in which the metal will be upset and thickened at the inner part of the bend, where it will receive the greatest strain.

In the drawing, Figure 1 is a perspective view of a cotton-bale, showing my improved tie; Fig. 2, a view representing the tie fastened, and Fig. 3 a top view of the tie.

The letter A represents the bale-tie, consisting of a strip of wrought-iron of suitable width, length, and thickness, as usual, and B represents the cotton-bale around which the bale-ties are secured. C represents the hook, which may be formed at either end of the tie, the opposite end being provided with one or more longitudinal slots, *a*, of a width equal or slightly larger than the width of the finished hook, and a length sufficient to allow the hook to be readily inserted therein.

The hook is constructed by first partially folding the sides longitudinally for a suitable distance at one end, until they about halfway meet, and then turning or bending the metal inwardly, so as to form a hook of such partially-folded portion. The sides that have been thus partially folded are then forced together by means of suitable dies, forming a solid hook on the end of the tie.

It will be perceived that the hook, as thus formed, will have the metal upset or thickened at the inner edge of the bend, and will form a solid continuation of the bale-tie. The body of the metal in hooked portion will be equal to a similar portion of any other part of the tie, as no portion is cut away, as in other bale-ties, which are constructed with the hooks forming a continuation of the tie, and hence the tie is not weakened at the hook, as in such cases.

It is evident that the hook can be readily and cheaply constructed, and that it can be easily secured to the eye, forming a reliable and effective tie, as, when the tie is once secured around the bale, the elasticity of the cotton causes a pressure outwardly that will keep the parts securely locked.

The hook is preferably formed in one and the same piece with the tie; but it is evident that it may be constructed separately, of a short strip of metal, and riveted at its flat end to the end of the tie, or otherwise secured thereto.

In order to more securely lock the hook in place, the slot or eye may be formed with a tongue, F, at its end, which may be bent back out of the way to allow for the insertion of the hook, and afterward bent down against the hook, so as to hold it securely in place.

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

1. A hook for a bale-tie or other purpose, constructed of a strip of suitable metal by folding the sides of said strip for a short dis-

tance from one end longitudinally on a line midway between the edges, bending the metal downwardly into the shape of a hook, and then forcing the sides closely together, substantially as described.

2. The tongue formed at the outer end of the eye of a bale-tie, capable of being closed inwardly toward the hook to lock it in position, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

ERASTUS E. PIERCE.

Witnesses:
JOS. L. COOMBS,
JAMES L. NORRIS.