

J. W. PHILP.  
Bale-Tie.

No. 163,522.

Patented May 18, 1875.

FIG I

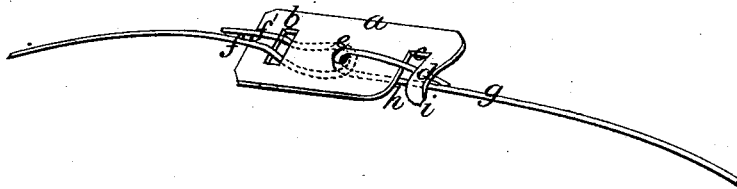
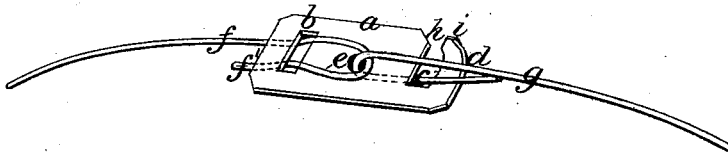


FIG II



WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN W. PHILP, OF HUMBOLDT, TENNESSEE.

## IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **163,522**, dated May 18, 1875; application filed April 20, 1875.

*To all whom it may concern:*

Be it known that I, JOHN W. PHILP, of Humboldt, in the county of Gibson and State of Tennessee, have invented certain new and useful Improvements in Cotton-Bale Ties; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

This improved tie is designed for use with a wire hoop; and consists of a cotton-bale tie in which the plate has a cross-slot at one end, an open-tongued slot at the other, and an intermediate hole, in combination with the wire hoop, looped and interlocked or crossed with each other at the center and on the under side of the plate, whereby the strain is directly upon the wire hoop instead of the plate, and the latter prevented thereby from being torn apart under the great expansive force of the bale.

The employment of the plate serves only as the means of interlocking the looped ends of the wire beneath the same, and thereby throwing the whole strain on the wire and not on the plate, thereby allowing the use of a thin plate, and forming a very cheap and effective plate-tie, as the latter, thus combined with the under-looped or crossed ends of the hoop, holds the ends of the wire from spreading.

In the accompanying drawings, Figure 1 represents a view of the upper side of the plate-tie, showing the two ends of the wire that form the tie; and Fig. 2 an inverted view of the same.

The buckle-plate *a* is a narrow strip of hoop-iron stamped out with a cross-slot, *b*, at one end, and an open side slot, *c*, at the other end, forming a concave tongue, *d*, or a tongue with its end bent under in line with the edge of the plate, while between the open side and end slots, and centrally with the plate, is formed

an eye, *e*. The plate thus formed serves to make the tie of the hoop ends, and does not bear the strain of the expansive force of the bale, in the following manner, namely: one end, *f*, of the wire is looped or doubled and passed through the end cross-slot *b* from the upper side, so as to reach beyond the center eye *e*, and with its doubled end *f* returned into and through said slot *e*, to be looped or crossed with the other end, *g*, of the wire, which is passed from the under side of the plate through the doubled end *f* of the wire into the said eye *e*, and then bent over the top of the plate into the opening *h* of the side slot *c*, and beneath the bent or concave tongue *d*, where it is held from lateral displacement by the lock formed by the downward bent head *i* of the tongue. The crossing and interlocking of the wires beneath the plate and at the middle of its length gives the advantage of throwing all the strain upon the wires, and allows the plate to be of much lighter material than otherwise could be if the strain were on the plate alone, as it frequently happens that the buckle-plates tear out under the great tension put upon their thin parts between the end slots. The concave form of the tongue makes a good hold and keeps the tie end secure.

The following is claimed as new in cotton-bale ties, namely:

A cotton-bale tie consisting of the plate *a*, having the slots *b c e*, as described, in combination with the wire *g*, looped and interlocked or crossed at *e* with each other on the under side of the plate, whereby the strain is directly upon the wire hoop instead of the plate, as specified.

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

JOHN W. PHILP.

Witnesses:

M. H. JOHNSON,  
ROBT. W. LEIGH.