J. P. VERREE.

BALE-TIE.

No. 192,312. Patented June 19, 1877.

Fig 1

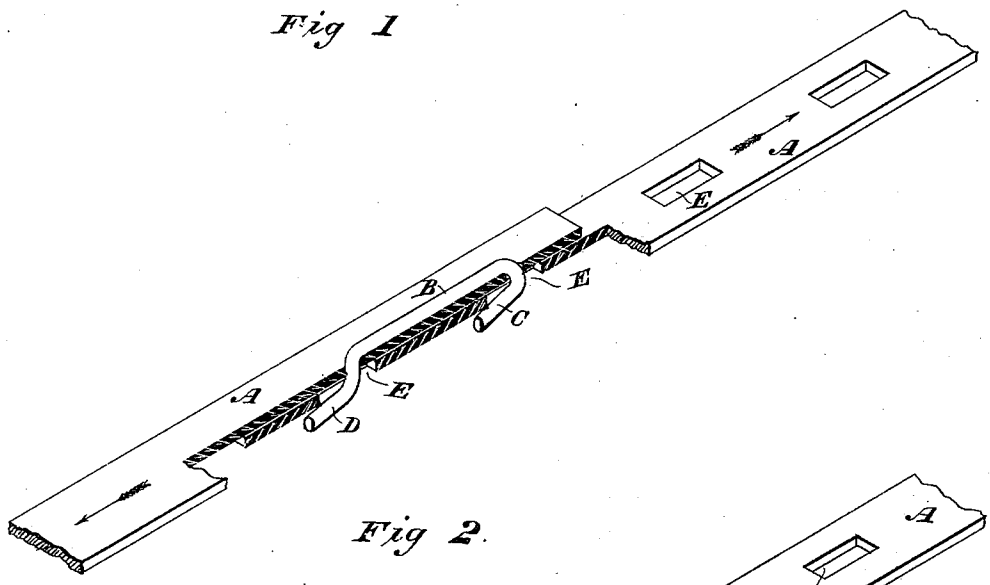
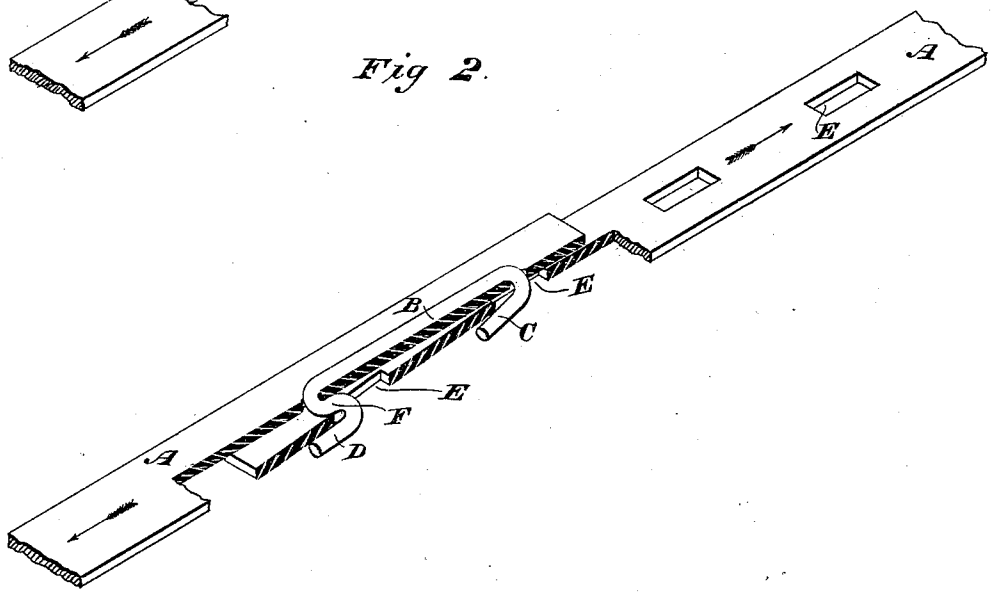


Fig 2.



WITNESSES

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JOHN P. VERREE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **192,312**, dated June 19, 1877; application filed May 31, 1877.

To all whom it may concern:

Be it known that I, JOHN P. VERREE, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Bale-Ties or Band-Fastenings, of which the following is a specification;

It is the object of my invention to provide a strong, secure, economical, and readily-adjustable connection for the ends of metallic bands used in bailing cotton, hay, &c.; and my improvements consist in the combination, with a band, of a short rod or wire having its ends inserted through the band at or near one end and then bent lengthwise thereof, to form hooks at both ends of the rod projecting in the same direction, whereby the opposite end of the band may be engaged in a corresponding manner at two points with the two-hooked rod or wire, the strain being thus equally divided, and liability of breaking or slitting the band avoided. My improvements further consist in the combination of a band provided with a series of perforations or slots near one end, and a rod or wire projecting at its ends through the band, at or near its opposite end, and then bent or hooked at both ends, to form hooks setting out from the band and projecting in the same direction, whereby the slots or openings are adapted to engage in pairs and in similar manner with the hooks, thus providing double supports or bearings corresponding with each other and equally dividing strain; and the band may be readily adjusted around the bale.

My improvements further consist in the combination of the band provided with slots at or near one end, of a rod secured to the opposite end of the band, and provided with a double and a single hook, as will hereinafter be explained.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a band with its ends connected and partly broken away, to show the connection more clearly; and Fig. 2, a similar view, showing a slight modification in the form of the hook at one end of the fastening-wire.

Two holes are punched in the band or strap A, near one end, and a wire or rod, B, is bent at its ends, at about right angles, to admit of being inserted through these holes. When inserted the rod ends are both bent in the same direction, as shown, thus forming two hooks, C D, one at either end of the rod. These hooks serve to retain the rod in place, and are set off from the band a distance sufficient to allow the other end of the band to be engaged with them by means of openings or slots E formed in the band at equal distances apart. One of these slots engages with each hook or bent end of the wire B, thus dividing the strain or force, exerted upon the band by the expansion of the bale, between two engaging points or bearings, and, consequently, greatly lessening the liability of injuring, by slitting or fracturing, the band. The engaging openings being arranged at equal distances apart and provided in any desired number, they may be connected with the hooks in pairs, as desired, and thus adjust the bands to the varying sizes of the bales.

By doubling the hook, as at D E, Fig. 2, a firm connection between the rod and the band is attained, the first turn or hook F causing the rod to embrace the band securely, and the other turn, D, in the opposite direction and corresponding with the single turn of the hook D, (shown in Fig. 1,) serving to engage one of the band slots. Both ends of the rod may be doubly hooked, if desired, but I prefer, when employing a double hook, to form but one end of the wire with a double bend, as shown, as by deflecting the band or slightly turning it down, as shown, to engage with the hook, a binding or frictional contact between the slotted end of the band and the hooks is created, thus preventing accidental disengagement of the slots from the hooks before the expansion of the bale.

Instead of the round-wire rod B shown in the drawings, it is obvious that a square, flat, or other shaped rod may be employed.

By bending the rod or wire and forming the hooks in the manner shown and described—that is, by bending one end of the wire inward toward the center or upon itself, and the other end outward, thus causing the hooks to project in the same direction, the pair of slots are each engaged in similar manner, the free end of the band being firmly held in like manner at two points between the hooks and

that end of the band in which the rod is secured.

I am aware that it is not new to secure the ends of a band by a rod secured to one end of the band and having two hooks, one at either end, projecting in contrary directions, or both bent outward, so that the opposite end of the band is engaged by slots at two points; and therefore I do not broadly claim the combination, with a band, of a rod secured thereto and hooked at both ends to engage at two points with the opposite end of the band; neither do I broadly claim the combination of the band having a series of slots at one end and a rod secured in its opposite end and hooked at both ends, to engage with the slots in pairs; but

I claim as my invention—

1. The combination, with the band, of the rod inserted through holes therein near one end, and then bent to form two hooks, as described and shown, one at each end of the rod, projecting in the same direction and setting out from the band, to admit of the connection at two points of the other end of the band, as set forth.

2. The combination, as hereinbefore set forth, of the band provided with a series of slots or openings near one end and the rod or wire having its ends passed through the band at or near its opposite end, and bent at both ends to form two hooks projecting in the same direction, as shown and described, whereby the openings may be engaged in pairs with the hooks, in the manner set forth.

3. The combination, with the band, slotted as described, of the rod secured to the band and provided with a double and a single hook, substantially as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my name.

JOHN P. VERREE.

Witnesses:

B. F. BARRETT,

H. F. NEWHALL.