2 Sheets—Sheet 1.

E. O. SCHARTAN & J. H. GARDNER.

BALE-TIE.

No. 170,597. Patented Nov. 30, 1875.

Fig. 1

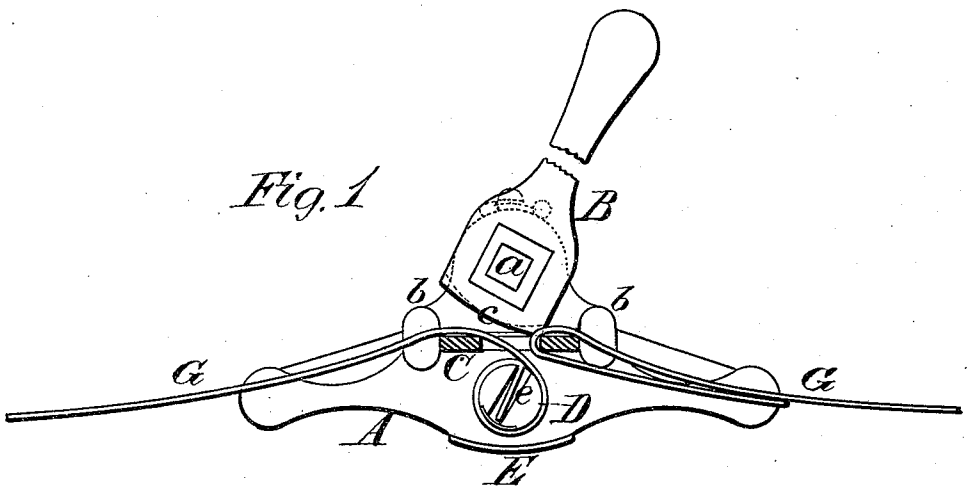


Fig. 2

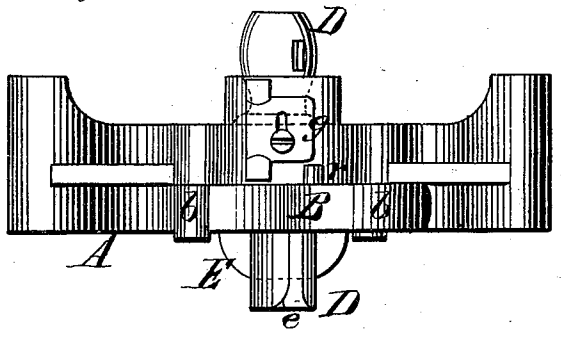


Fig. 3

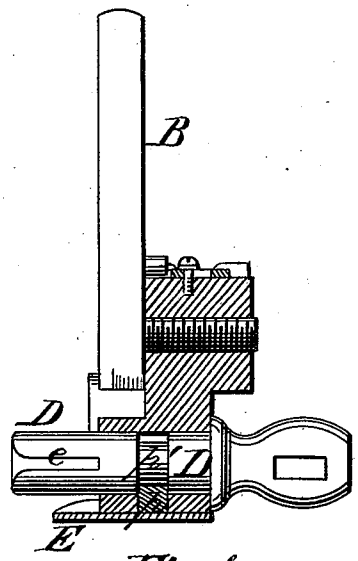
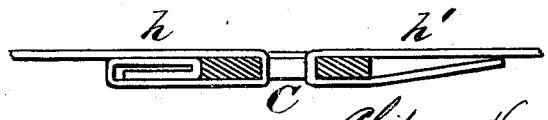


Fig. 4



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2 Sheets—Sheet 2.

E. O. SCHARTAN & J. H. GARDNER.

BALE-TIE.

No. 170,597. Patented Nov. 30, 1875.

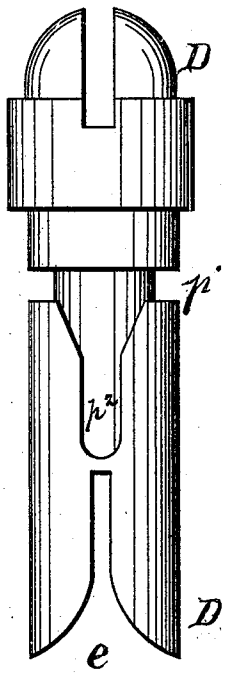

Fig. 5.

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UNITED STATES PATENT OFFICE.

EILERT O. SCHARTAN AND JOHN H. GARDNER, OF NEW ORLEANS, LA.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **170,597**, dated November 30, 1875; application filed November 6, 1875.

To all whom it may concern:

Be it known that we, EILERT O. SCHARTAN and JOHN H. GARDNER, of New Orleans city, parish of Orleans and State of Louisiana, have invented a new and valuable Improvement as applied to the use of Cotton-Ties and other metal bands and hoops; and do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

The nature of our invention consists in a device for coiling the end of the tie or band upon itself after it has been passed through the buckle, thereby securing an immediate and effective locking in conjunction with the act of straining the tie or band, as will be understood from the following description.

In the annexed drawings, the letter A designates the stock or frame of the machine, which receives transversely through it a cylindrical coiler, D, having a slot, *e*, in its end to receive the end of a band, G, as shown in Figure 1. This coiler is prevented from receiving end play by means of a pin, *p*, entering an annular groove, *p'*, and in one end of this coiler provision is made for the attachment of a lever-handle for turning it. Below the extended slotted portion of the coiler D is a concave shelf or gage, E, which may be used for heavy work, and serves to hold the band closely to the coiler. For light bands the strain of recoil of the bale on them will cause them to hug the coiler tightly, and the gage E need not be used, although if used for light bands it will not be in the way. Above the coiler D is a support, C, which is between two shoulders, *b b*, and which receives the buckles during the operation of coiling the end of a band. During this operation of coiling the end of a band the buckle is firmly held by means of a hand-lever, B, the cam-shaped face *c* of which bears hard on the buckle, as shown in Fig. 1.

The operation is simply to confine a buckle upon the seat C, having previously inserted one end of the band through it and bent it under, as shown in Figs. 1 and 4. The other end of the band is then inserted through the buckle, (the bale being under compression in the press,) and adjusted in the slot *e* of the coiler, which latter is given one or two turns, so as to form the coil. The machine is then removed and the coil flattened by giving it a blow with a hammer. The slotted end of the coiler may be cylindrical, or it may be elliptical or of any other shape. Just above the cam-shaped end of the lever B is a stud, *r*, which is brought against an adjustable stop, *g*, when the lever B is thrown back.

In Fig. 4, *h* designates the improved fastening when finished, and *h'* designates the old and well-known loop-fastening.

Instead of having the coiler D endwise immovable, a groove, p^2, may be formed in the stock of the coiler at right angles to the annular groove p^1, which will allow the coiler to be retracted and freed from the coil in the band. This modification is represented by Fig. 5 of the drawing herewith filed as an additional drawing in the application, and making part thereof.

I claim—

1. The slotted coiler D, substantially as described.

2. The combination of the clamping-lever B with the coiler D, substantially as described.

3. The concave gage E, combined with the coiler D, substantially as described.

In testimony that we claim the above as our own, we have hereunto subscribed our names in the presence of two witnesses.

EILERT O. SCHARTAN.
JOHN H. GARDNER.

Witnesses:
ANDREW HERO,
N. A. CONAND.