

G. N. BEARD.
Cotton-Bale Ties.

No. 145,273.

Patented Dec. 9, 1873.

Fig. 1.

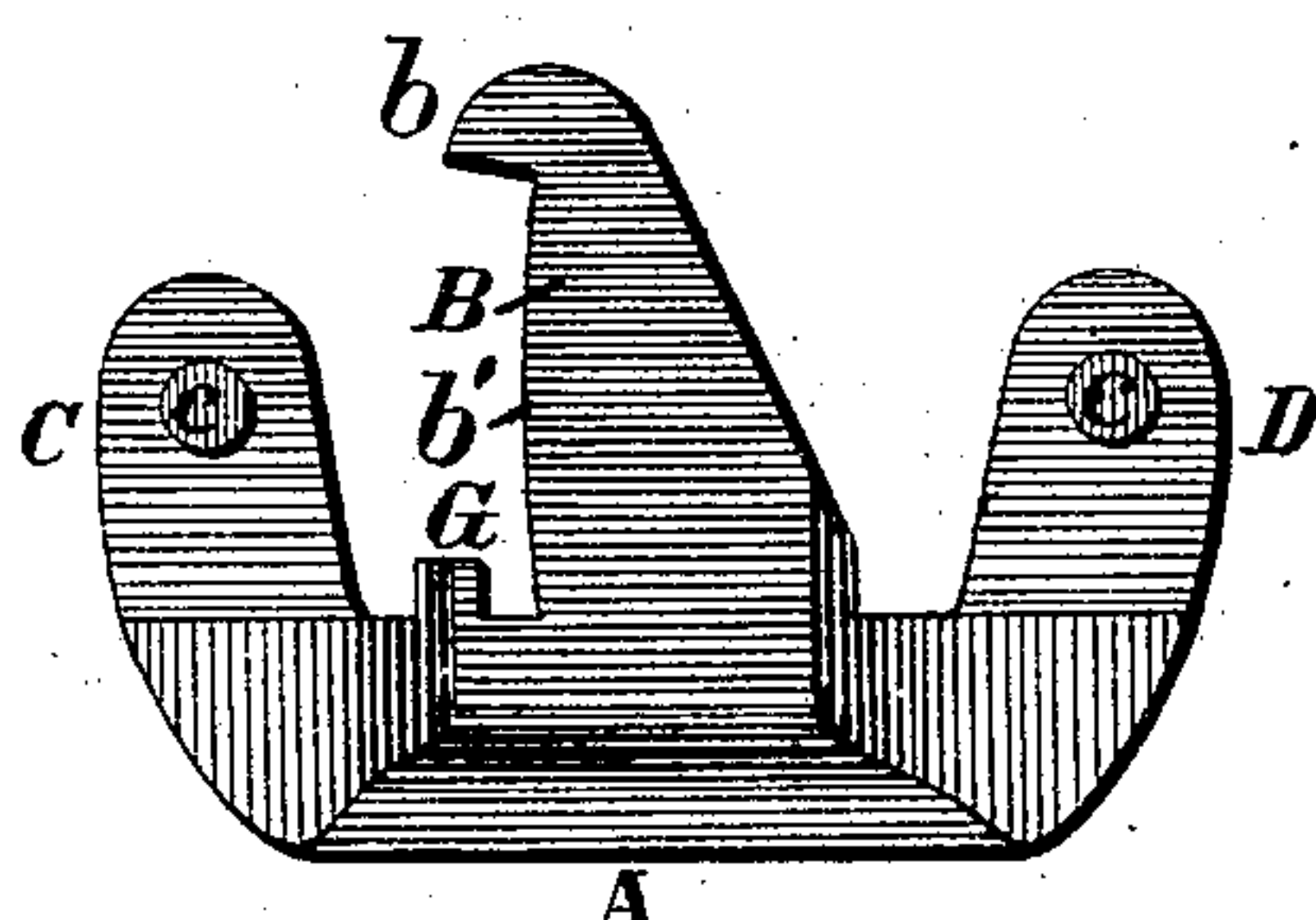


Fig. 2.

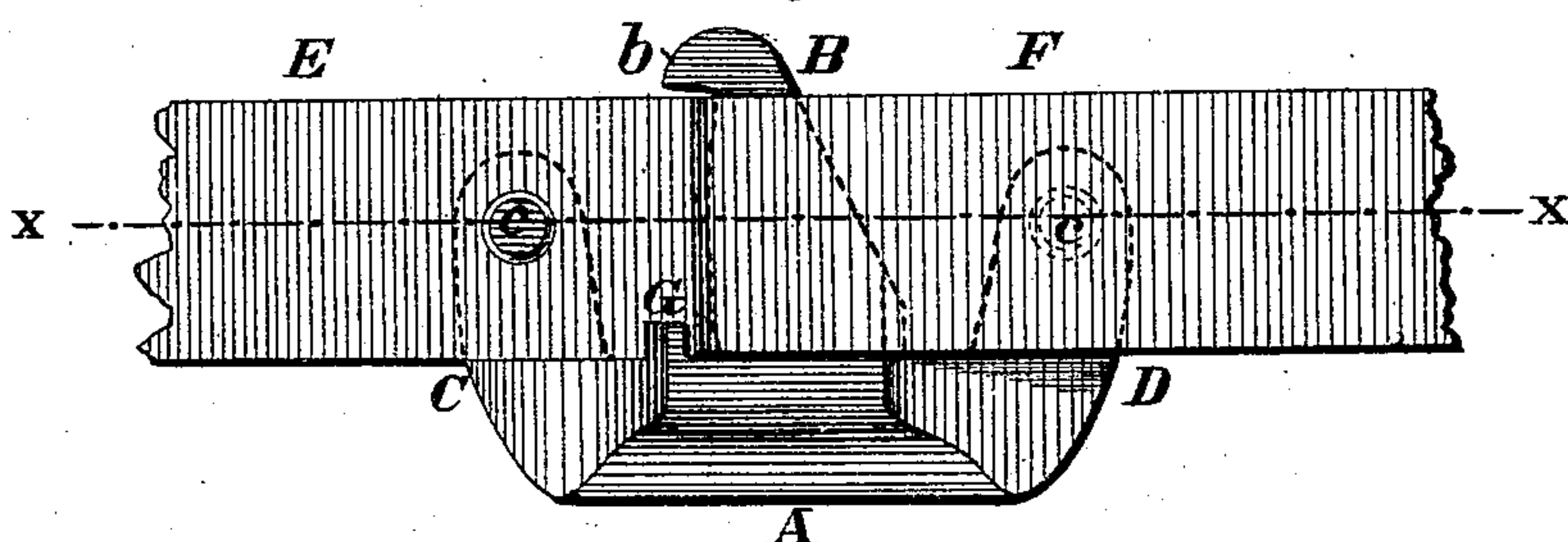


Fig. 3.

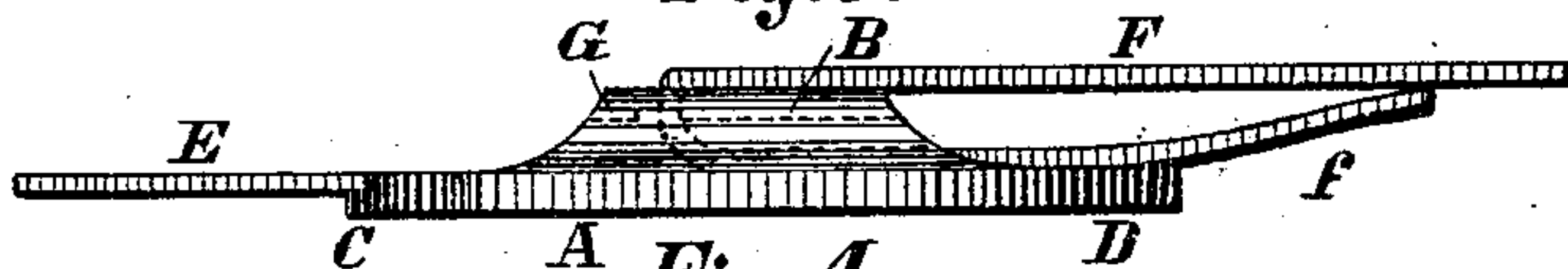
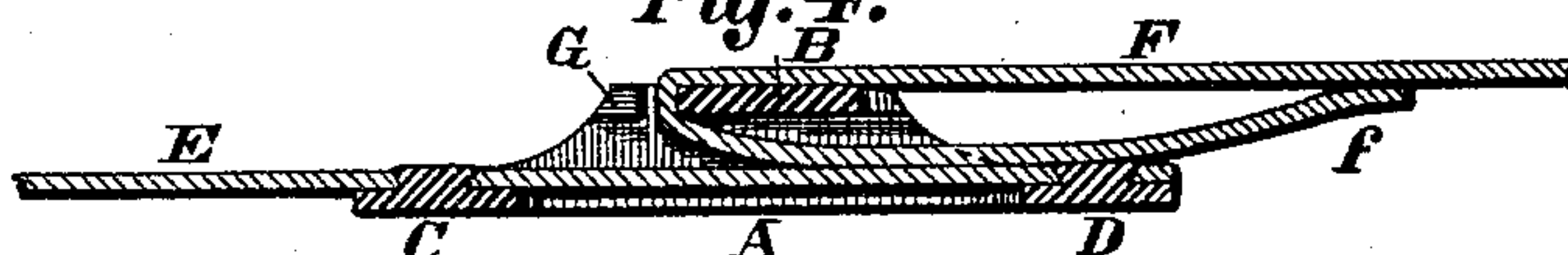


Fig. 4.



ATTEST:

INVENTOR:

Robert Burns.

Walter Allen

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By *Knights Bros.*

Atty.

UNITED STATES PATENT OFFICE.

GEORGE N. BEARD, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN COTTON-BALE TIES.

Specification forming part of Letters Patent No. **145,273**, dated December 9, 1873; application filed November 7, 1873.

To all whom it may concern:

Be it known that I, GEORGE N. BEARD, of St. Louis, St. Louis county, Missouri, have invented a certain Improvement in Cotton-Bale Ties, of which the following is a specification:

This tie consists in a stiff back-plate, from one side of which extend two ears, to which one end of the band is riveted, and a central horn, on which the adjustable end of the band is engaged. The horn and the two ears are in planes so far asunder as to admit with ease two thicknesses of the band between them, as shown.

In the drawings, Figure 1 is a top view of the tie proper. Fig. 2 is a top view of the tie engaged with the ends of the band. Fig. 3 is an edge view. Fig. 4 is a longitudinal section at line *x x*, Fig. 2.

The tie-plate or tie proper has a stiff back, A, from one edge of which extend a horn or prong, B, and two ears, C D, the horn being flush with one side of the back A, and the ears C D being flush with the other side. The back A has a thickness so much greater than the combined thickness of the horn B and ear C that there is ample space for two thicknesses of the band between them, as shown. Upon the inner faces of the ears C D are rivet-studs *c*, which are cast upon them, and which occupy holes in the end E of the band, which is thus fixed to the ears C D by the riveting of the studs *c*. The edge of the end E is in contact with the edge of the back A along the whole length of the latter, and between the horn B and the end E is sufficient space to easily admit one thickness of the band in placing the loop F upon the horn. The horn has at the end a catch or projection, *b*, to prevent the loop F slipping off. The holding side *b'* of the horn is somewhat convex or rounded outwardly, as shown, so as to prevent any tearing strain being brought upon either edge of the loop, the strain being greater near the center, even when the ends of the band are

not exactly parallel. At a little distance from the horn is a lug, G, which prevents the loop being accidentally driven back, so as to allow its disengagement from the catch *b* and from the horn B.

In place of casting the studs *c* upon the ears C D, the ears may be bored, and separate rivets used; but the first-mentioned way is preferred.

In this tie the outer end of the band is exactly over the inner end, so that the strain does not tend to draw the tie crooked, and to bring the strain upon one edge of the loop, as is the case in the tie patented to me September 30, 1873, which had this objection, that the ends of the band were not in one line, and consequently the strain tended to twist the tie and bring an undue strain upon the inner edge of the loop.

In the use of the tie in the manner shown, the free end *f* of the loop is held firmly by resting upon the other end E of the band, as shown in Figs. 3 and 4.

I propose to make my tie by casting, and to subsequently convert the cast-iron into malleable iron. The tie can be cast without the use of a core, because the horn B and ears C D, though in different planes, are not opposite to each other.

The tie is capable of use inverted from the position—that is, with the ears upon the outside and the horn B upon the under side; but even in this case the free end *f* of the loop would be inside, as shown.

I claim as new and of my invention—

The bale tie or fastening having a stiff back, A, horn B, ear or ears C D, and band ends E and *f*, the former end lying directly beneath the whole width of the latter, and holding it in place without aid from the cotton.

GEO. N. BEARD.

Witnesses:

SAML. KNIGHT,
ROBERT BURNS.