

G. N. BEARD.
Bale-Ties.

No. 156,752.

Patented Nov. 10, 1874.

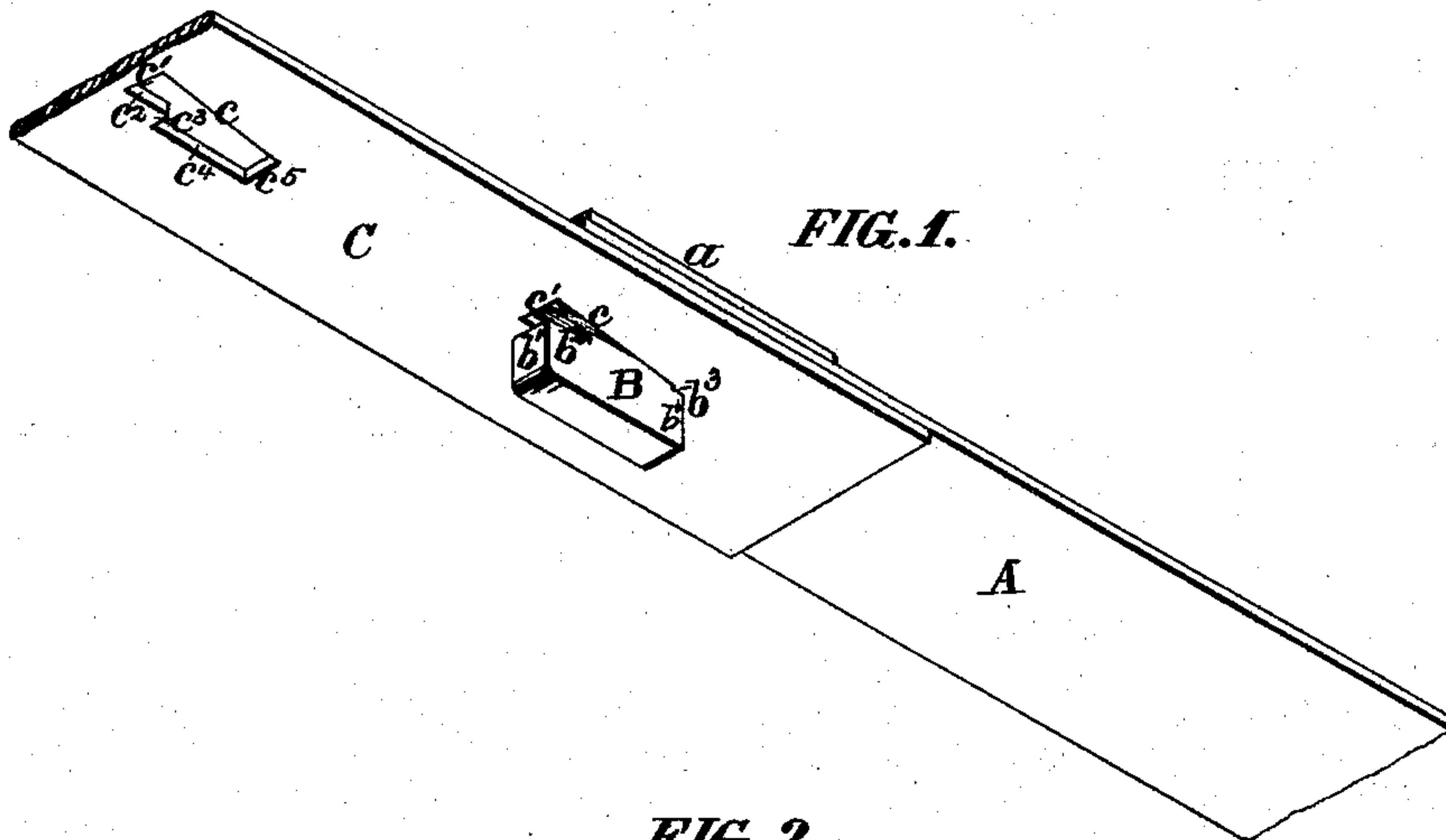


FIG. 2.

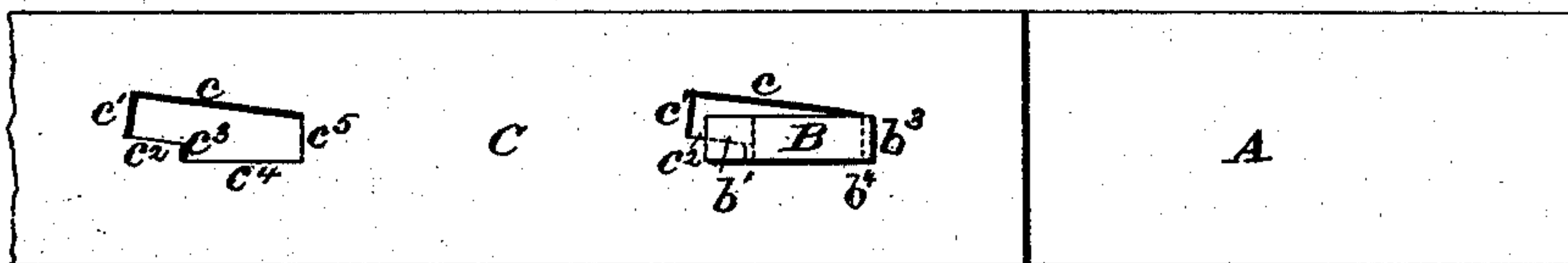


FIG. 3.

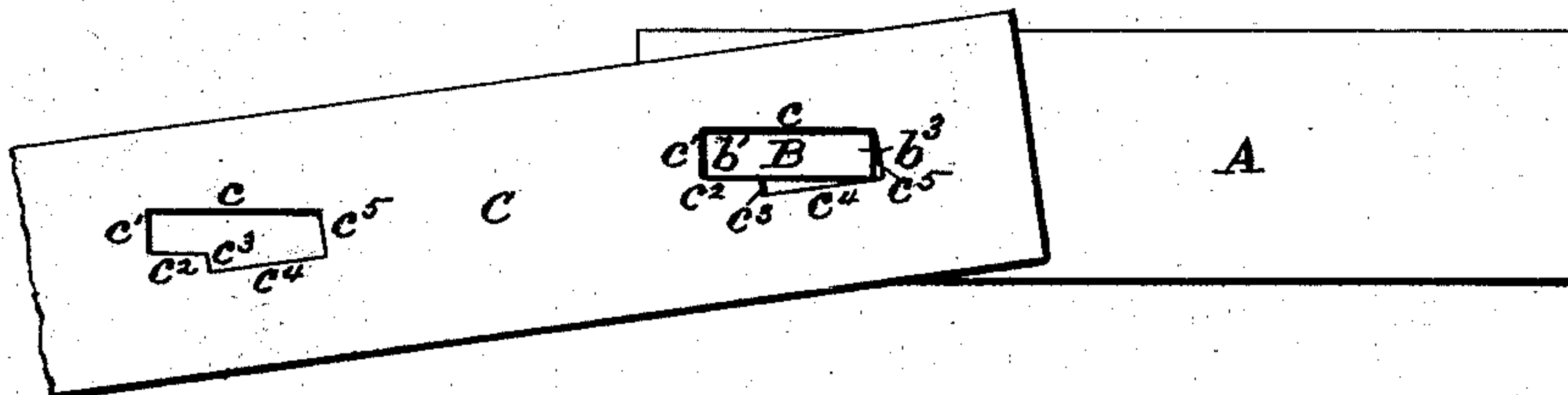
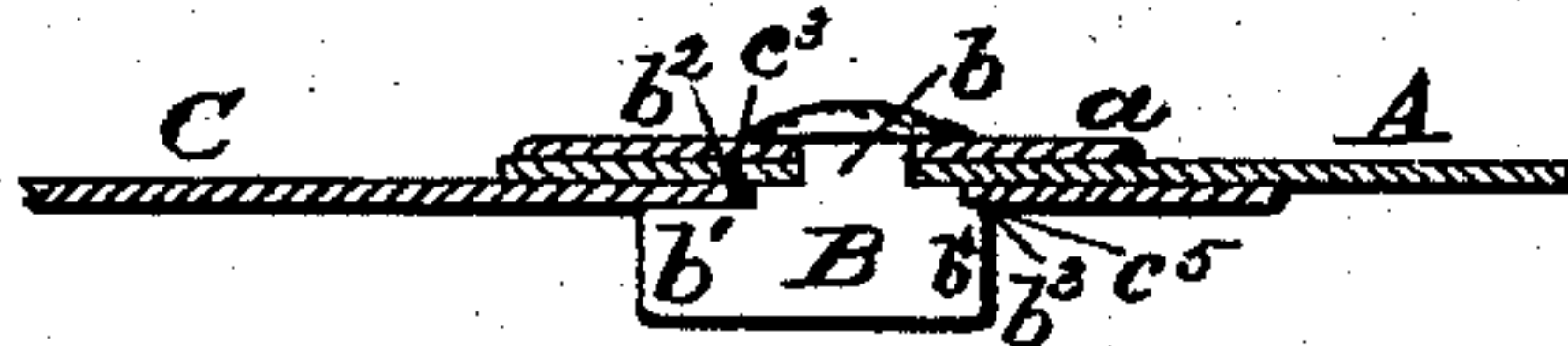


FIG. 4.



ATTEST:

Robert Burns.
Henry Tanner

INVENTOR:

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Atty

UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **156,752**, dated November 10, 1874; application filed September 22, 1874.

CASE A.

To all whom it may concern:

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

This improvement consists in combining a cleat riveted parallel to and at one end of the band with a shouldered slot at the other end, as shown, so that the cleat can only be inserted when the band ends lie angularly in respect to each other, and when the ends are drawn in line a firm lock is made.

In the accompanying drawings, Figure 1 is an under perspective view. Fig. 2 is an inside view, locked. Fig. 3 is an inside view in process of engagement. Fig. 4 is a longitudinal section.

A is the cleat end of the band, and B is the cleat. The shank *b* of the cleat is of quadrangular or rectangular form, so that it is not liable to turn in the hoop. It passes through the end of the hoop and re-enforce *a*, and is riveted as shown. The head of the cleat is set straight with the hoop. It has a straight bearing, *b*¹, formed by notching it out at *b*². The notch is made so as to admit the thickness of the hoop end C, as shown in Fig. 4, the straight bearing *b*¹ thus being formed to hold the ends A C in close contact when the tie is locked. The heel *b*⁴ of the cleat has a shallow notch, *b*³, which receives the end *c*⁵ of the slot when the tie is drawn tight. The cleat-slot in the end C is shouldered or six-sided. The sides *c* *c*² and

end *c*¹ are oblique to the hoop, the portion *c*⁴ is parallel with the sides of the hoop, and the ends *c*³ and *c*⁵ are transverse to the hoop.

When the cleat is being inserted in the shouldered slot its side is kept in contact with the side *c*, and its straight bearing *b*¹ passes through between the sides *c* and *c*²; but when the cleat is inserted, the ends A C are allowed to become parallel, and the side of the cleat rests against the portion *c*⁴, and the shoulder *c*² *c*³ enters the recess or notch *b*² above the straight bearing *b*¹. The end *c*⁵ also enters the notch *b*³ above the heel *b*⁴, and thus the heel and straight bearing hold the ends A and C in contact, while the shoulder *c*² *c*³ prevents the longitudinal movement of the cleat in the slot, so as to disengage the end *c*⁵ from the heel *b*³. The tensile strain comes upon the end *c*⁵, and this is transverse to the band and at the middle of it, so that there is no side strain upon the band.

I claim as new—

The cleat B, having the notched straight bearing *b*¹ *b*², the notched heel *b*³ *b*⁴, and a quadrangular or rectangular shank, *b*, said cleat being riveted parallel to the band, in combination with the shouldered slot *c* *c*¹ *c*² *c*³ *c*⁴ *c*⁵, having its portion *c*⁴ parallel with the band, substantially as set forth.

GEORGE N. BEARD.

Witnesses:

SAML. KNIGHT,
ROBERT BURNS.