R. E. FLETCHER.

FASTENING FOR BALE TIES OR BANDS.

APPLICATION FILED NOV. 21, 1916.

1,247,253.

Patented Nov. 20, 1917.

2 SHEETS—SHEET 1.

FIG. 1.

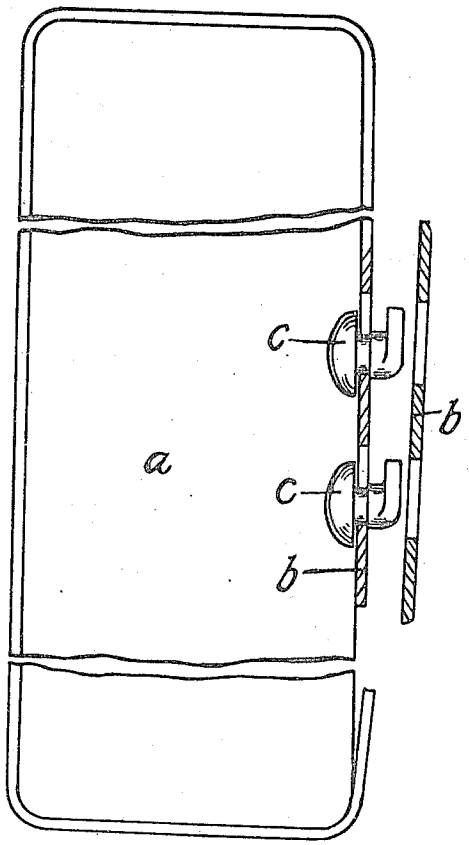


FIG. 2.

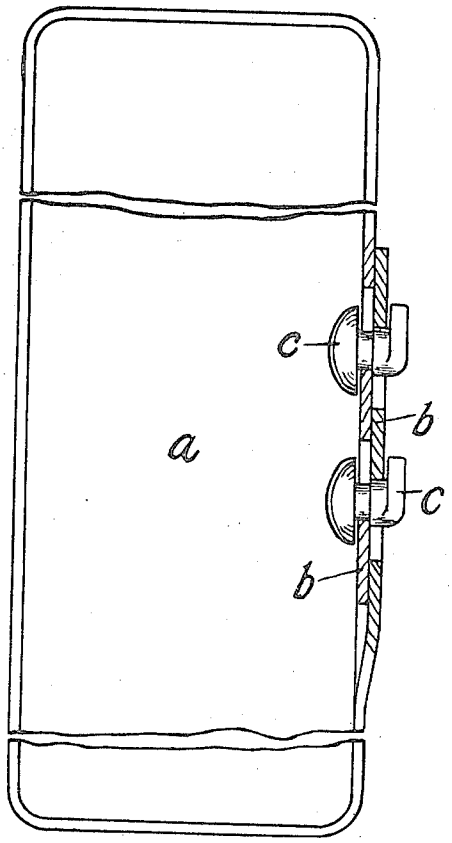


FIG. 7.

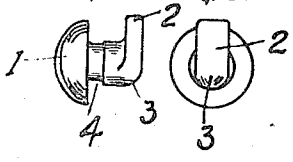


FIG. 8.

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2 SHEETS—SHEET 2.

FIG. 3.

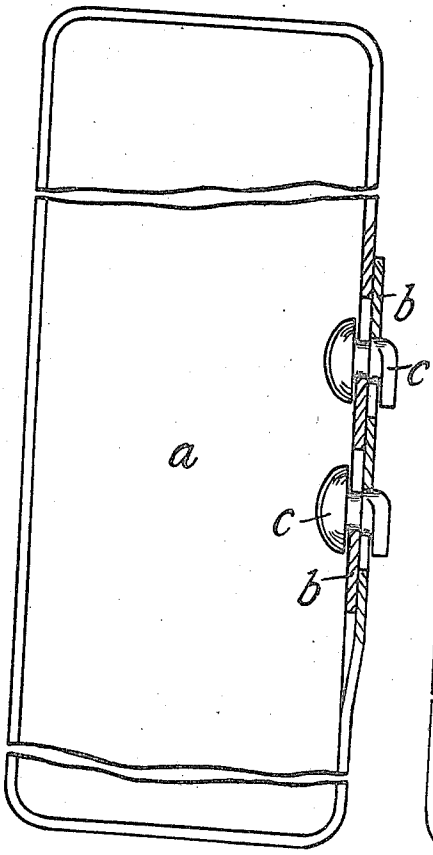


FIG. 4.

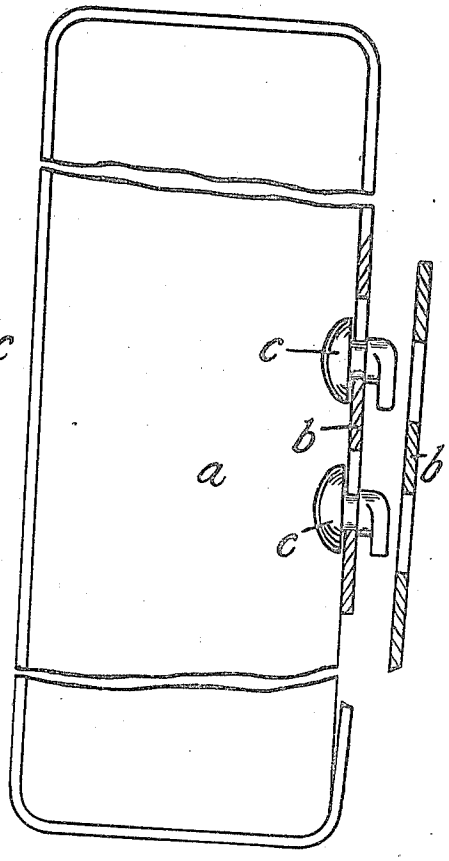


FIG. 5

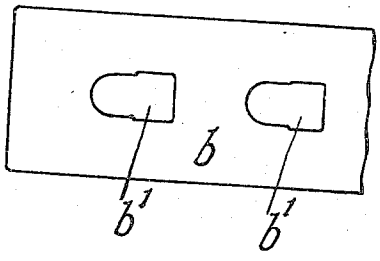
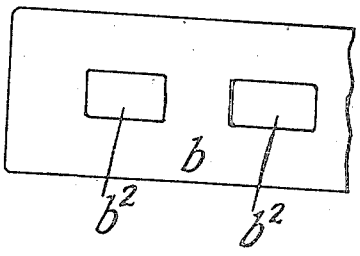


FIG. 6.



Inventor

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UNITED STATES PATENT OFFICE.

ROBERT EDMUND FLETCHER, OF SMITHELLS, BOLTON, ENGLAND, ASSIGNOR OF ONE-HALF TO ALBERT BIRCH, OF BOLTON, ENGLAND.

FASTENING FOR BALE TIES OR BANDS.

1,247,253. Specification of Letters Patent. Patented Nov. 20, 1917.

Application filed November 21, 1916. Serial No. 132,506.

To all whom it may concern:

Be it known that I, ROBERT EDMUND FLETCHER, a subject of the King of Great Britain, residing at 108 Bennett's Lane, Smithells, Bolton, in the county of Lancaster, England, have invented new and useful Improvements in Fastenings for Bale Ties or Bands, of which the following is a specification.

My invention relates to improvements in fastenings for bale ties or bands of the class in which a single armed stud or button is passed through apertures in the ends of the bands and then turned to lock the ends together.

Such studs or buttons have been made in some cases with L shaped shanks with grooved stems; in other cases with L shaped shanks with plain stems but with beveled or obtuse angled heels to the shanks and my invention consists essentially of an improved stud or button combining these features of an L shaped shank with both a grooved stem and a beveled or rounded heel in conjunction with a particular form of slot or aperture in one end of the metal bale tie or band.

I illustrate my invention in the accompanying sheet of drawings in which:—

Figure 1 is a view of a cotton or other bale encircled by its metal tie or band and with two of the improved studs or buttons held by their grooved stems in position ready for fastening down the upper end of the tie or band.

Fig. 2 is a similar view showing the ends of the metal tie or band connected together and locked by the studs.

Fig. 3 is a similar view to Fig. 2 but shows the studs turned to the release position and Fig. 4 shows the upper end of the metal tie released and the two ends disconnected.

Figs. 5 and 6 are detail views showing the particular form for the slots in the upper and lower ends respectively of the metal tie or band.

Figs. 7 and 8 are detail views of the improved stud or button showing its grooved stem and beveled or rounded heel.

In Figs. 1 to 4 inclusive, *a* designates a bale of cotton or other material held under pressure in a hydraulic or other press, not shown; *b* the metallic tie or band; and *c* the improved studs or buttons shown detached in the detail views, Figs. 7 and 8. Each stud or button *c* is formed of metal with a head 1 of round, square, or other suitable shape and with a shank or neck 2 of round, or other suitable section and approximately of L shape the metal being beveled, rounded or chamfered off at 3, and an annular groove 4 being formed in the neck next to the head 1.

When the bale is in the press any required and suitable number of the improved studs or buttons *c* (in the example illustrated two studs *c*) are inserted in the special slots *b'* in the inner end of the metallic tie or band *b* (see Fig. 5). These slots are somewhat of "keyhole" shape so that the narrow portion of each slot partially encircles the groove 4 in the stem of the stud *c* and holds it in position ready for the upper end of the band with its L shaped shank pointing in the direction shown in Fig. 1. The outer end of the metallic tie or band *b* has slots b^2 formed in it as shown in Fig. 6 and when these slots are passed over the L shaped ends of the studs *c* and the bale is relieved of the pressure of the press the ends of the bale tie *b* are automatically locked in position in the grooves 4 next the heads 1 and under the L shaped shanks, as shown in Fig. 2.

When it is desired to release or open out the bale *a* I take any convenient and suitable tool and reverse the studs *c* by turning their L shaped shanks a half turn into the position shown in Fig. 4 and so release the cotton or other material in the bale without damaging the bale tie or band *b* which, (as well as the improved studs or buttons *c*) is left intact and uninjured and can be used again any number of times for the same purpose.

What I claim as my invention and desire to secure by Letters Patent of the United States is:—

1. An improved bale tie fastener comprising a head, and a shank of substantially L-shape projecting from said head, the portion of the shank which joins the head being arranged at right angles to the latter and the more remote end portion being bent laterally with respect to the first portion, said first portion being circular in cross section and reduced close to the head to provide an annular groove which is substantially as wide as half the length of said shank portion, the heel of said shank at the angle being rounded off.

2. The combination with a bale tie having

openings therein near its extremities and adapted to register when the ends are overlapped, of a fastener therefor comprising a head and a shank of substantially L-shape projecting from the head and adapted to be inserted through the openings in the tie, the portion of the shank which joins the head being arranged at right angles to the latter and the more remote end portion being bent laterally with respect to the first portion, said first portion being circular in cross section so as to fit rotatably in the tie openings and being reduced close to the head to provide an annular groove which is substantially as wide as half the length of this shank portion, the head of the heel at the angle being rounded off.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT EDMUND FLETCHER.

Witnesses:

JOHN EDWARD WOOD,

JOHN ARTHUR BONSTEAD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."