A. E. FRITSCHE.

BALE TIE BUCKLE.

APPLICATION FILED SEPT. 12, 1916.

1,292,298.

Patented Jan. 21, 1919.

2 SHEETS—SHEET 1.

Fig. 1.

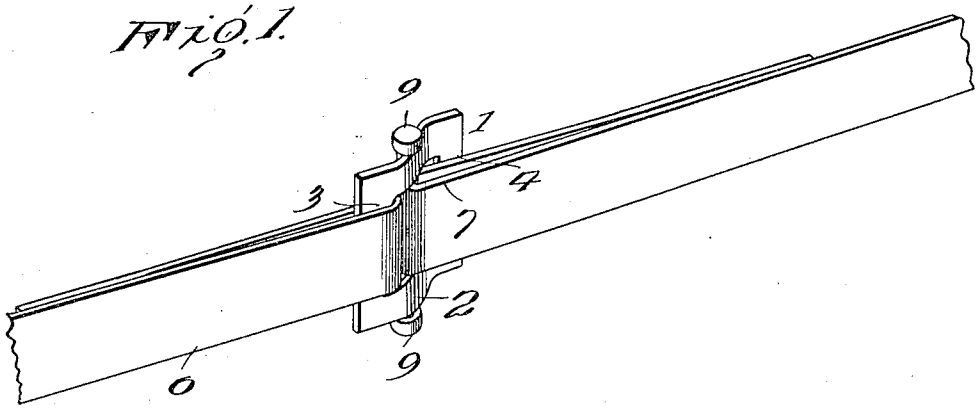


Fig. 2.

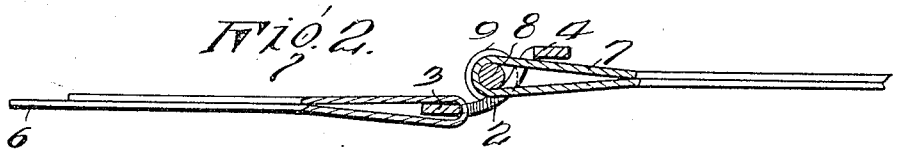


Fig. 3.

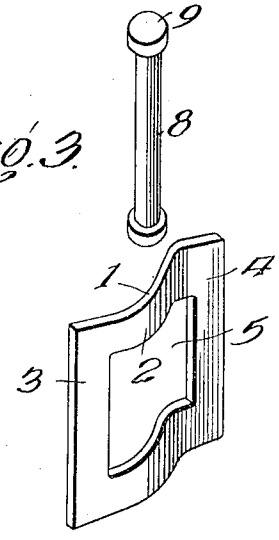


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

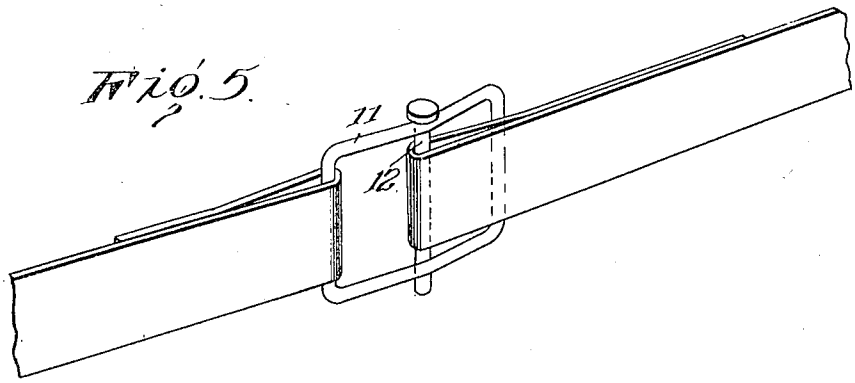


Fig. 6.

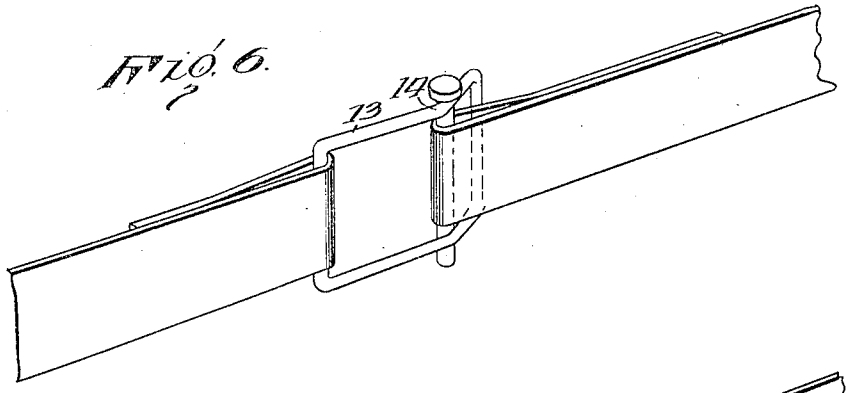
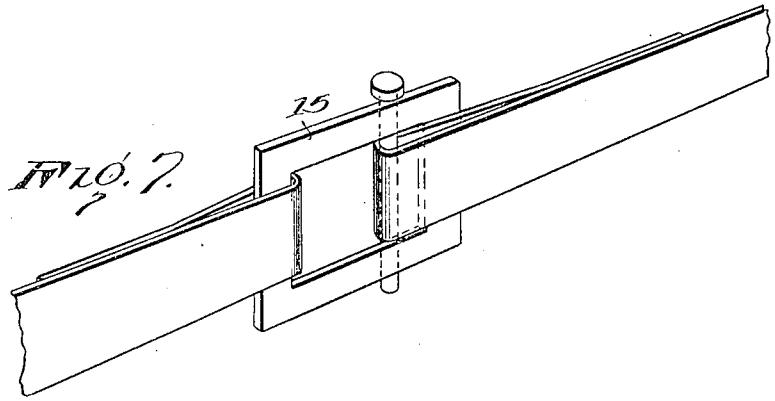


Fig. 7.



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UNITED STATES PATENT OFFICE.

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BALE-TIE BUCKLE.

1,292,298. Specification of Letters Patent. Patented Jan. 21, 1919.

Application filed September 12, 1916. Serial No. 119,714.

To all whom it may concern:

Be it known that I, ALBERT E. FRITSCHE, a citizen of the United States, residing at Hobart, in the county of Kiowa, and State of Oklahoma, have invented certain new and useful Improvements in Bale-Tie Buckles, of which the following is a specification.

This invention relates to bale tie buckles and has as its object to provide an article of this class which will possess decided advantages over similar articles now in use. One objection to the use of the present forms of bale tie buckles on the market is that when applied to the band and the band is applied to the bale there is likely to be formed what is known as a spider. In other words, in the use of such a buckle the ends of the band are liable to project in position to cause injury to the hands of any one handling the bale. It is therefore the aim of the present invention to so construct the buckle that when applied there will be no likelihood of the ends of the band projecting in the manner stated and the buckle itself will not be liable to have sharp corners project in position to cause injury.

Another aim of the invention is to so construct the buckle that no considerable care in adjusting the same in a certain definite position will be necessary nor will any great care be necessary in properly assembling the locking key with the body of the buckle.

In the accompanying drawings:

Figure 1 is a perspective view of the buckle embodying the present invention, the ends of a bale band or tie being connected therewith;

Fig. 2 is a horizontal sectional view therethrough;

Fig. 3 is a group perspective view illustrating the body of the buckle and one form of locking key to be employed in connection therewith;

Fig. 4 is a similar view illustrating a slightly modified form of locking key;

Figs. 5, 6 and 7 are perspective views illustrating modifications of the invention.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

The buckle embodying the present invention includes a body member which is preferably of rectangular form and which is indicated in general by the numeral 1 and the intermediate portion of the said body member is transversely curved as indicated by the numeral 2, the curve being substantially of ogee form. The terminal portions, or, in other words, the side portions of the body are indicated one by the numeral 3 and the other by the numeral 4 and these said portions are substantially flat as clearly shown in Fig. 2 of the drawings and occupy parallel or approximately parallel planes although relatively displaced as shown in the drawings. The said intermediate portion of the body of the buckle is provided centrally with an opening 5 which is rectangular and the side walls of which are parallel to the outer edges of the side portions 3 and 4 and the upper and lower walls of which are parallel to the upper and lower edges respectively of the said body of the buckle, the side walls of the opening defining the inner edges of the portions 3 and 4 and these portions 3 and 4 constituting bars for the engagement therewith of the ends of the bale band. At opposite sides of its vertical middle the body of the buckle is of counterpart form and the same is true of the said body at the opposite sides of its horizontal middle, so that it is immaterial how the buckle be disposed against the bale so long as the portions 3 and 4 are so positioned as to permit of the engagement therewith of the ends of the bale band after the band has been fitted about the bale.

In applying the buckle embodying the present invention one end of the bale band indicated by the numeral 6 is inserted through the opening 5 and bent back upon itself to engage about one of the side portions of the body of the buckle as for example the portion 3. The other end of the bale band 6 is then formed in a loop as indicated by the numeral 7 and this loop is inserted through the opening 5 after which the locking key of the buckle is fitted through the said loop. In that form of the invention shown in Figs. 1, 2 and 3 of the drawings the said locking key comprises a shank 8 provided at each of its ends with a head 9 and by reference to Fig. 2 it will be observed that after the key has been inserted through the loop 7 and the bale is relieved of pressure and the band 6 is drawn taut, the heads 9 will engage above and below the upper and lower edges of the body of the buckle and the shank of the said key will engage against that face of the inter-

mediate portion of the body of the buckle which is presented toward the bale, the inner side of the loop 7 extending beside the outwardly presented face of the side portion 4 of the buckle body and the ends of both loops of the bale band being positioned next to the bale and in a manner to insure against their terminals projecting in position where injury would be liable to be caused any one handling the bale. Inasmuch as that face of the intermediate portion of the buckle body against which the shank of the locking key is drawn by the loop 7 is inclined in the direction of the side portion 4 of the buckle body, the tendency will be for the said key to ride toward the side portion 4 thereby effectually binding the inner side of the loop 7 against the said side portion and preventing slipping or opening of the loop.

If desired, a locking key of the form shown in Fig. 4 may be employed, this key being provided at its upper end only with a head 10 corresponding to the head 9 previously referred to. Furthermore, it will be understood that when the band 6 is placed under tension the tendency will be for the body of the buckle to assume a position substantially flat against the bale and therefore the ends of the loops of the band will be securely held against becoming loosened.

In that form of the invention shown in Fig. 5 of the drawings the body of the buckle is indicated by the numeral 11 and the same is formed from wire and is substantially flat and rectangular in outline and one end of the bale band is looped about one end bar of the said body and the other end of the bale band is looped about the locking pin which is indicated by the numeral 12, which has been disposed against one side of the said body, the last mentioned looped end of the band bearing against the other end bar of the body at that side opposite the side against which the locking pin is disposed. The buckle shown in Fig. 6 comprises a body 13 which is also formed from wire and is substantially of the shape of the body 11 shown in Fig. 5, except that the upper and lower bars of the body are preferably formed near one end of the said body with bends indicated by the numeral 14. The body of the buckle indicated by the numeral 15 in that form shown in Fig. 7 of the drawings, is stamped from sheet metal and is of rectangular form and flat.

Having thus described the invention, what is claimed as new is:

A bale tie buckle including a body having relatively off set side bars lying substantially parallel to each other in spaced transverse planes and spaced connecting bars extending between the side bars, the body being open and unobstructed between the side and connecting bars and being reversible side for side and end for end, and a locking key adapted to span the said connecting bars and adapted for engagement with opposite corresponding faces thereof to ride toward either of the side bars selectively, the connecting bars curving in a common continuous arc from the inner edge of one of the said bars to the inner edge of the other and opposite corresponding extremities of the said connecting bars approaching the respective side bars at corresponding angles whereby the said key will exert a like wedging action upon one end of a tie member connected to and extending between the key and the adjacent side bar when riding at one side of the body toward one side bar or when riding at the other side of the body toward the other side bar, either of the said side bars being adapted to receive the opposite end of said tie member whereby the body will be swung toward a position with the side bars disposed in a common plane to cause the opposite side bar to bear against the end of the said member connected to the key in proportion to the tension upon the said member.

In testimony whereof I affix my signature.

ALBERT E. FRITSCHE. [L. S.]

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