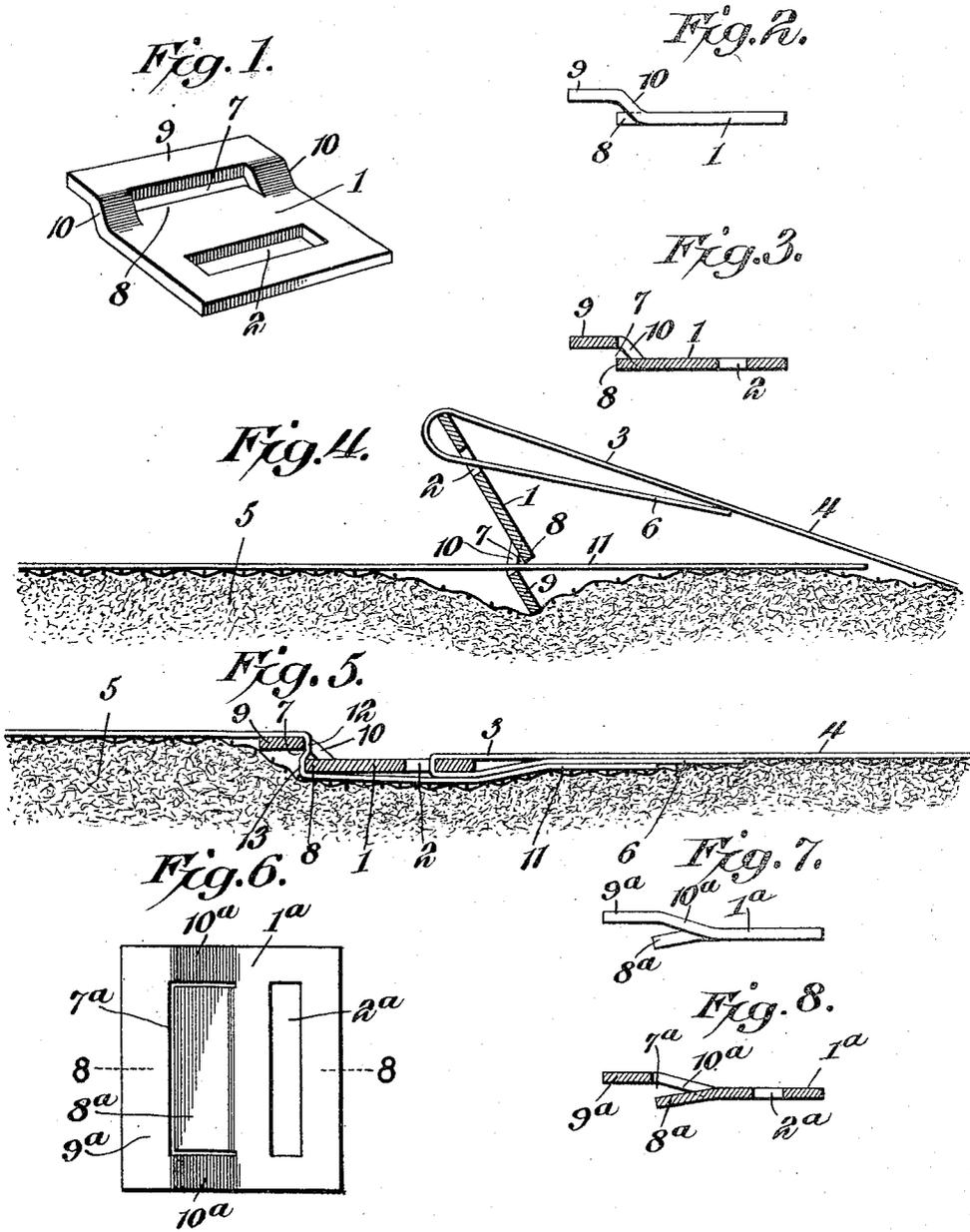


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 BALE TIE BUCKLE.  
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1,209,119.

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# UNITED STATES PATENT OFFICE.

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## BALE-TIE BUCKLE.

1,209,119.

Specification of Letters Patent.

Patented Dec. 19, 1916.

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*To all whom it may concern:*

Be it known that I, HENDERSON P. CHILDRESS, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Bale-Tie Buckle, of which the following is a specification.

This invention has reference to bale-tie buckles and more particularly to the type of buckle known as a flat buckle, and its object is to provide a flat buckle which will neither cut nor otherwise injure the bale band or permit the bale band to render.

In accordance with this invention, the buckle is made of flat stock and has a transverse passage therethrough with a tongue which may be approximately as wide as the bale band and with the tongue projecting cross-wise of the length of the slot, which means lengthwise of the bale band, for a distance about equal to the width of the slot in the direction of the length of the buckle while that end portion of the buckle immediately contiguous to the slot is bent out of the plane of the flat buckle thereby producing a lip on the same side of the mid point of the buckle as the tongue and extending to a greater distance than the tongue from such mid point. The tongue may be in the plane of the body of the buckle or may be bent to a slight extent to the opposite side of such plane from the lip. Such a bale buckle enables a tier of the bale to push the bale band through the locking slot until practically all the slack is taken out of the band, leaving it in a tightly drawn position so that when the bale is released from the compress there is neither material swelling of the bale nor rendering of the band.

The invention will be best understood from a consideration of the following detailed description, taken in connection with the accompanying drawings forming part of this specification, with the further understanding that while the drawings show a practical form of the invention, the latter is not confined to any strict conformity with the showing of the drawings, but may be changed and modified so long as such changes and modifications come within the scope of the appended claims.

In the drawings:—Figure 1 is a perspec-

tive view of a bale buckle constructed in accordance with the present invention. Fig. 2 is an edge view thereof. Fig. 3 is a longitudinal sectional view. Fig. 4 is a section longitudinally of the buckle with a bale band applied thereto, and showing a stage in the application of the band and buckle to a bale. Fig. 5 is a view similar to Fig. 4, but showing the buckle and bale in the fully applied position. Fig. 6 is a plan view of a buckle, differing in some respects from the buckle of Fig. 1. Fig. 7 is an edge view of the buckle of Fig. 6. Fig. 8 is a section on the line 8—8 of Fig. 6.

Referring to the drawings there is shown, in Fig. 1 and associated figures, a buckle 1, of generally rectangular form and constructed of flat stock. Near one end the buckle is provided with a slot 2 extending transversely of the buckle and formed by the complete removal of the material of the stock. The slot 2 is designed to receive an end loop 3 of a bale band 4 in such manner that when the band is applied to a bale indicated at 5, the free end of the loop 3, which free end is indicated at 6, is tucked under the main portion of the corresponding end of the bale band, as is customary. Near the other end of the buckle 1, there is another transverse slot 7, the slot being formed by punching through the metal of the buckle without removing the metal of the buckle wherefore there remains a tongue 8, integral along one long side with that portion of the buckle toward the end represented by the slot 2 while the other end of the tongue is free and either remains in the same plane as the body of the buckle 1, as indicated in Figs. 1 to 5, or may be bent out of such plane as will appear hereinafter in the description of Figs. 6 to 8. That portion of the buckle beyond the slot 7 constitutes a lip 9 extending completely across the buckle and connected to the body of the buckle by end portions 10 between the ends of the slot 7 and the sides of the buckle. These end connectors 10 for the lip 9 are bent to bring the lip to one side of the body of the buckle, although in substantial parallelism therewith. With the end 6 of the loop 3 in traversing relation to the slot 2 the other end 11 of the band 4 is introduced through the slot

7 from the lip side of the buckle toward and beyond the tongue 8. The end 11 is pushed through the locking slot 7 until the slack of the band is taken up, the bale, of course, being under compression within the compress. The buckle is then moved to the position shown in Fig. 5, whereby the end 11 is bent about the inner wall of the lip 9 as indicated at 12 and then further bent in the opposite direction about the outer edge of the tongue 8 as indicated at 13, the remainder of the end 11 being tucked in under the buckle and under the tucked end 6 of the loop 3. The end 11 where extending through the slot 7 thus becomes reversely curved about the inner edge of the lip 12 and outer edge of the tongue 13 which bends are sufficiently sharp to overcome all tendency or liability of the end 11 of the bale band rendering. Moreover, the band may be drawn sufficiently tight in its initial application to avoid any material swelling of the bale after being released from the pressure of the compress.

While the lip and tongue on opposite sides of the locking slot 7 engage the bale band on opposite faces at closely associated points, the bale band is at no point under unequal strain over circumscribed areas. Such extensive bearing of the locking portions of the buckle upon the bale band avoids any liability of cutting or tearing the band and thus so weakening it that it readily parts under the great expansive force of the bale, such destructive effects being encountered in some types of bale buckles where portions engaging the bale band are of circumscribed area with respect to the width of the band.

In Figs. 6, 7 and 8, there is shown a bale buckle 1<sup>a</sup> having a slot 2<sup>a</sup> and a locking slot 7<sup>a</sup> with the tongue 8<sup>a</sup>, a lip 9<sup>a</sup> and end connecting portions 10<sup>a</sup> for the lip. These parts are all in general construction similar to like parts of the buckle of Fig. 1 and the associated figures, but the tongue 8<sup>a</sup> is bent slightly out of the plane of the body of the buckle in a direction opposite to the bending of the lip 9<sup>a</sup> out of the plane of the buckle. While the lip 9<sup>a</sup> is parallel with the body of the buckle in the structure of Figs. 6 to 8, the tongue 8<sup>a</sup> is at an acute angle to the plane of the body of the buckle. The structure of Figs. 6 to 8 provides a greater amount of room in the locking slot 7<sup>a</sup> for the initial movement of the bale band therethrough, thus permitting the application of the bale band with greater ease than in the structure of Fig. 1 and associated figures.

What is claimed is:—

1. A bale-tie buckle of flat stock having retaining means near one end for one end of a bale band and also having a locking slot near the other end with a tongue projecting into the slot, and a locking lip on the side

of the slot toward which the tongue projects, said lip being displaced to one side of the plane of the body of the buckle.

2. A bale-tie buckle of flat stock having retaining means near one end for one end of a bale band and also having near the other end a transversely extended locking slot, said buckle being provided with an integral tongue directed toward the end of the buckle occupied by the slot and lying in the plane of the body of the buckle, and that end of the buckle beyond the slot being offset to one side of the plane of the buckle to constitute a lip, whereby the adjacent edges of the tongue and lip are separated for the passage of the bale band between them and coact to engage opposite faces of the bale band at closely adjacent points to lock the bale band in the locking slot.

3. A bale-tie buckle of flat stock provided with retaining means near one end for one end of a bale band and also provided with a locking slot near the other end and having said end beyond the slot offset to one side of the plane of the buckle, and a locking tongue projecting from that wall of the slot remote from the offset end of the buckle and coacting therewith to doubly bend the portion of the bale band transversing the slot at closely adjacent points.

4. A bale tie buckle of flat stock having near one end retaining means for one end of a bale band, and near the other end a locking slot for the other end of the bale band, the end of the buckle beyond the slot being bent to one side of the plane of the body of the buckle and constituting a locking lip, and the body of the buckle being provided with an integral tongue projecting from the edge of the slot remote from the lip in a direction toward that end of the buckle forming the lip, the length of projection of the tongue being substantially equal to the extent of the slot lengthwise of the buckle.

5. A bale-tie buckle of flat stock having retaining means near one end for one end of a bale band and provided with a locking slot near the other end with a tongue projecting from one edge of the slot remote from the said end toward said end in the plane of the body of the buckle and said end of the buckle beyond the slot being bent to one side of the plane of the buckle in offset and substantially parallel relation thereto.

6. A bale-tie buckle of flat stock with a slot near one end adapted to receive one looped end of a bale band and near the other end provided with a locking slot with said other end beyond the slot offset from the plane of the buckle in substantially parallel relation to said plane and said second named slot having a tongue entering it from the edge of the slot remote from the offset end of the buckle and extended toward the offset

end of the buckle in the plane of the body  
of the buckle, whereby the free edge of the  
tongue and the adjacent edge of the offset  
end of the buckle coact to grip the other end  
5 of the bale band extending through the slot  
at closely adjacent points on opposite faces  
of said end of the bale band.

In testimony, that I claim the foregoing  
as my own, I have hereto affixed my signa-  
ture in the presence of two witnesses.

HENDERSON P. CHILDRESS.

Witnesses:

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