

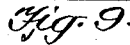
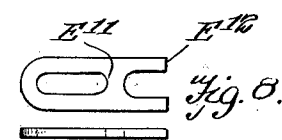
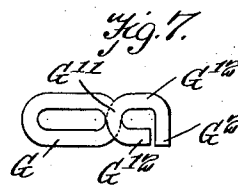
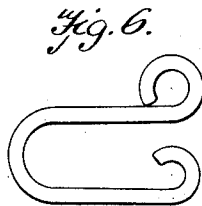
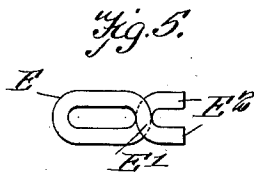
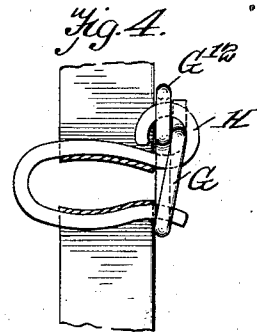
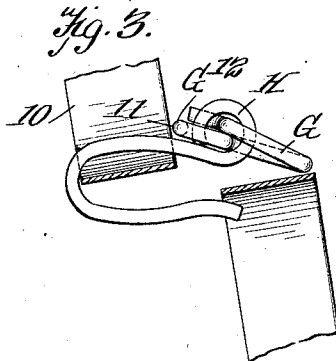
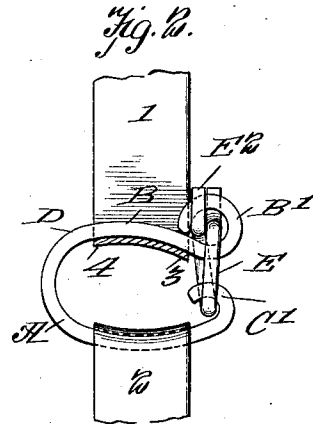
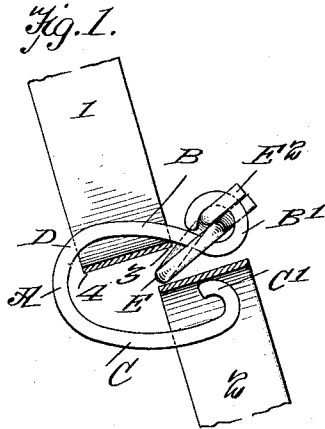
E. A. FRANTZ.

BALE TIE.

APPLICATION FILED MAR. 12, 1912.

1,058,576.

Patented Apr. 8, 1913.



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# UNITED STATES PATENT OFFICE.

EZRA A. FRANTZ, OF WEATHERFORD, TEXAS, ASSIGNOR TO FRANTZ STANDARD  
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## BALE-TIE.

1,058,576.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed March 12, 1912. Serial No. 683,275.

*To all whom it may concern:*

Be it known that I, EZRA A. FRANTZ, a citizen of the United States, and a resident of Weatherford, in the county of Parker and State of Texas, have invented certain new and useful Improvements in Bale-Ties, of which the following is a specification.

This invention is an improvement in bale ties being in the nature of a buckle adapted for use in securing the ends of a bale tie such as are ordinarily used on cotton bales and the like, and the present invention relates to a novel construction including a swinging latch for closing the open end of the buckle and the invention consists in certain novel constructions and combinations of such parts as will be hereinafter described and claimed.

In the drawing—Figure 1 is a plan view of a buckle embodying my invention with the parts in the position they assume in fastening the buckle. Fig. 2 is a similar view with the buckle closed. Figs. 3 and 4 are views corresponding respectively to Figs. 1 and 2 and showing a somewhat different form of buckle. Fig. 5 is a detail view of the latch shown in Figs. 1 and 2. Fig. 6 is a detail view showing a modified form of the buckle frame shown in Figs. 1 and 2. Fig. 7 is a detail view of the latch shown in Figs. 3 and 4, and Figs. 8 and 9 are respectively face and edge views of a latch somewhat different from that shown in the other figures.

The buckle frame or body A as shown in Figs. 1 and 2 has the end bars at B and C connected at one end by the end bar D of the buckle and separated at their other ends forming an open end to the buckle frame or body as will be understood from Figs. 1 and 2.

The end bars B and C may be concaved as shown in Figs. 1 and 2 and this concave construction forms the subject-matter of a separate application for patent executed by me of even date herewith and the buckle frame in the present invention may have the end bars straight as shown in Fig. 6, without departing from the invention claimed herein.

In the construction shown in Figs. 1 and 2 the free end of the bar C is returned within the buckle forming a hook C' which opens inwardly into the buckle as shown. A latch E is pivoted to the bar B at the

end thereof and swings within the buckle into and out of engagement with the hook C', Fig. 1, showing the latch swinging within the buckle thus opening the buckle while Fig. 2 shows the latch as adjusted to its outermost position and into engagement with the hook C' and closing the open end of the buckle. In this operation it will be noticed that the end 1 of the band is engaged with the bar B and the end 2 of the band is movable into the buckle in Fig. 1. When the said end 2 has been adjusted into the buckle and strain is applied to the band, the end 3 of the fold at 4 of the band will move against the inner side of the latch within the buckle and automatically adjust said latch from the position shown in Fig. 1 to the closed position shown in Fig. 2. It will be noticed that in this form of my buckle an important feature is the movement of the latch within the buckle frame into and out of engagement with the hook as well as the automatic closing of the hook by the engagement at 3 of the fold 4 of the band with that portion of the latch which operates within the buckle body.

The latch E is shown in detail in Fig. 5 and is bent from a length of wire with a portion at E' pivoting within an eye B' returned at the end of the bar B and the latch E is also provided with arms E<sup>2</sup> which extend alongside the eye B' and hold the latch in alinement with or in position to properly engage with the hook C'. If desired the latch may be made of flat metal as shown in Fig. 8 in which figure the parts E<sup>11</sup> and E<sup>12</sup> correspond respectively with the parts E' and E<sup>2</sup> of the latch shown in Figs. 1, 2 and 5.

In some instances it may be desirable to swing the latch outwardly from the open end of the buckle as shown in Figs. 3 and 4 instead of inwardly as shown in Fig. 1. In this construction shown in Figs. 3 and 4 the latch G is pivoted at G', see Fig. 7, in the eye H of the buckle body and is provided with the extensions G<sup>11</sup> and G<sup>12</sup> corresponding to the parts E' and E<sup>2</sup> of the latch E. This latch G, however, is provided with an extension G<sup>2</sup> from one of its arms G<sup>12</sup> which extension will be engaged by the side edge of the band 10 at 11 in the adjustment of the band 10 from the position shown in Fig. 3 to that shown in Fig. 4, in such manner as

to cause the automatic closing of the latch G by the adjustment of the band between the positions shown in Figs. 3 and 4.

The construction is simple and may be cheaply constructed and applied for use and efficiently serves the purpose for which it is designed.

I claim:

1. A buckle formed from a length of wire having opposite end bars separated at one end, and a side bar connecting the opposite ends of the end bars, one of said end bars being returned at its free end within the buckle forming an inwardly opening hook, and a latch pivoted at one end to the free end of the other end bar and having at its free end an opening receiving the inturned hook, said latch opening into the buckle and swinging outwardly into engagement with the said inwardly opening hook substantially as set forth.

2. A buckle having end bars separated at one end, with the end of one bar provided with an eye combined with a latch pivoted at one end to said end bars by a member passing through said eye and swinging within the buckle into and out of engagement at its other end with the other end bar, the latch being extended beyond its pivot, said

extension being arranged to engage a portion of the pivotal support for keeping the latch in alinement with the end of the bar.

3. A buckle having end bars separated at one end and provided with an inwardly opening hook at the free end of one of said bars and an eye at the free end of the other bar and a latch pivoted to the said eye and swinging within the buckle into and out of engagement with said hook, the latch having a pivoted portion within the eye, and arms projecting beyond said pivoted portion, on opposite sides of the eye for holding the latch in alinement with the hook.

4. A buckle having end bars separated at one end with one of the said bars provided at its end with an eye and a latch having a pivoted portion within the eye and arms projecting beyond said pivoted portion on opposite sides of the eye for holding the latch in alinement, the latch swinging at its free end into and out of interlocking engagement with the opposite end bar, substantially as set forth.

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