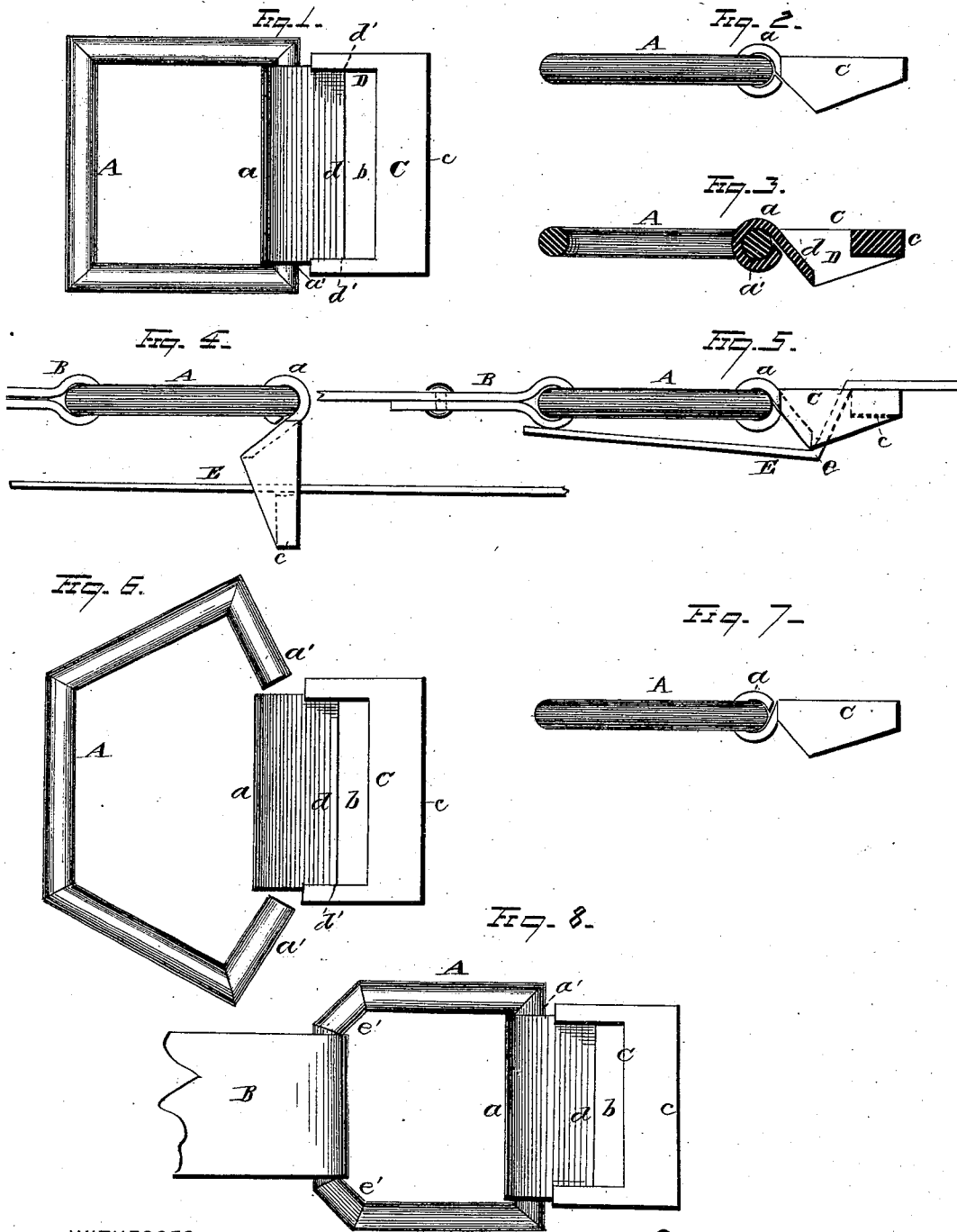


J. L. SHEPPARD.
Bale-Tie Buckle.

No. 207,901.

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JOHN L. SHEPPARD, OF CHARLESTON, SOUTH CAROLINA.

IMPROVEMENT IN BALE-TIE BUCKLES.

Specification forming part of Letters Patent No. **207,901**, dated September 10, 1878; application filed June 8, 1878.

To all whom it may concern:

Be it known that I, JOHN L. SHEPPARD, of Charleston, in the county of Charleston and State of South Carolina, have invented certain new and useful Improvements in Bale-Tie Buckles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in bale-tie buckles; the object being to provide a hinged buckle of such construction that the clamping end of the buckle may be moved into position to allow of the insertion of the free end of the band into a narrow slot or opening therein, and when the ends of the tie recede from each other, and the two parts of the tie assume practically a flattened form, the free end of the band will be firmly held by its frictional contact with the buckle.

My invention consists in certain details of construction and combinations of parts, as will hereinafter be described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my improved bale-tie. Fig. 2 is a side view of the same. Fig. 3 is a longitudinal vertical section. Fig. 4 represents the tie in position for receiving the free end of the band. Fig. 5 shows the tie in a locked position. Fig. 6 represents the form of the loop when the cross-bar is divided to insert its ends into the knuckle. Figs. 7 and 8 are modifications.

A represents the loop of the buckle, which may have flat or round sides and ends, as desired, the looped end B of the band being secured therein with or without riveting. C represents the other portion of the buckle, the knuckle *a* thereof being formed either by bending the metal around the cross-bar *a'* of loop A, or else said knuckle is made solid, with a hole formed therein for the insertion of the cross-bar or pintle *a'*, which, in the latter form of construction, would require the cutting of the cross-bar *a'* and springing its ends apart to force them into the knuckle.

Part C is provided with a narrow slot, *b*, formed between the end cross-bar *c* and the depending lip *d* on the knuckle *a*, said lip extending below the cross-bar *c*, and its ends *d'* formed solid with the depending sides D. Cross-bar *c* is located in line with the cross-bars of the loop A, or, in other words, on a horizontal plane extending through the central portion of the knuckle, in order that the strain on the band ends may be properly distributed on the ends of the buckle to insure the firm frictional contact of the latter with the band ends. E represents the opposite end of the band, which is readily inserted in the narrow slot *b* by raising the loop portion A, and thus allowing the opposite end C to assume a vertical position, as illustrated in Fig. 4, which brings the walls of the slot *b* in line with the end of the band.

After the end E has been inserted, the relaxation of force on the band ends will tend to separate and cause the buckle to assume a flattened position, as represented in Fig. 5, and which operation produces a sharp bend, *e*, in the band at the point where it passes through the slot *b*, and also causes the lip *d* to bite firmly on the band and prevent its slipping through the buckle. The knuckle *a* may be bent around the pintle or cross-bar of the loop in the manner shown in Fig. 3, or in the opposite direction, as illustrated in Fig. 7. Again, the loop may be square, as represented in Fig. 1; or the end cross-bar may be provided with tapering or inclined ends *e'*, if desired, which construction prevents any lateral movement of the band within the loop.

From the foregoing it will be observed that the all-essential points of a practical hinged buckle are provided for, in that the two parts of the buckle are secured to each other and cannot become lost or displaced. Again, the free end of the band may be inserted through the narrow clamping slot or opening by slightly raising the loop end of the buckle and allowing the opposite and shorter end to assume nearly a vertical position, that the narrow slot shall be in line, or nearly in line, with the end of the band. Again, by reason of the fact that the ends of the lip which bites and holds the band are made solid with the sides of the

buckle, the parts are materially strengthened and made durable in use.

The loop portion of the buckle is preferably of greater length than the opposite or clamping end, so that by slightly raising the knuckle from the surface of the bale the clamping end will drop into proper position for the insertion of the free end of the band.

My improved cotton-tie buckles are specially adapted for employment in connection with band tightener or pullers. The openings between the bars on the upper platen of the press are about the width of the band, but of less width than the buckle, and hence the latter cannot pass through the openings when the tightener exerts its force in pulling on the free end of the band. The buckle automatically locks or secures the free end of the band, and hence the buckles will operate as a great saving of time and expense in compressing cotton.

It is evident that slight changes in construction may be devised which will embody the spirit of my invention, and hence I do not limit myself to the exact construction shown and described; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A hinged bale-tie buckle the parts of which are permanently secured to each other, one of said parts consisting of a loop for the insertion of one end of the band, and the other part provided with a narrow slot between the end cross-bar and a depending lip formed on the knuckle of the buckle, substantially as set forth.

2. A hinged bale-tie buckle the parts of which are permanently secured to each other, the longer portion consisting of a loop, while the shorter portion is provided with a narrow clamping-slot, substantially as set forth.

3. A hinged bale-tie buckle consisting of a loop having a swinging section hinged thereto by a knuckle receiving the cross-bar of the loop, said swinging section provided with a depending lip, the ends of which are formed solid with the sides of said section, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of June, 1878.

JOHN L. SHEPPARD.

Witnesses:

W. L. MILLAR,
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