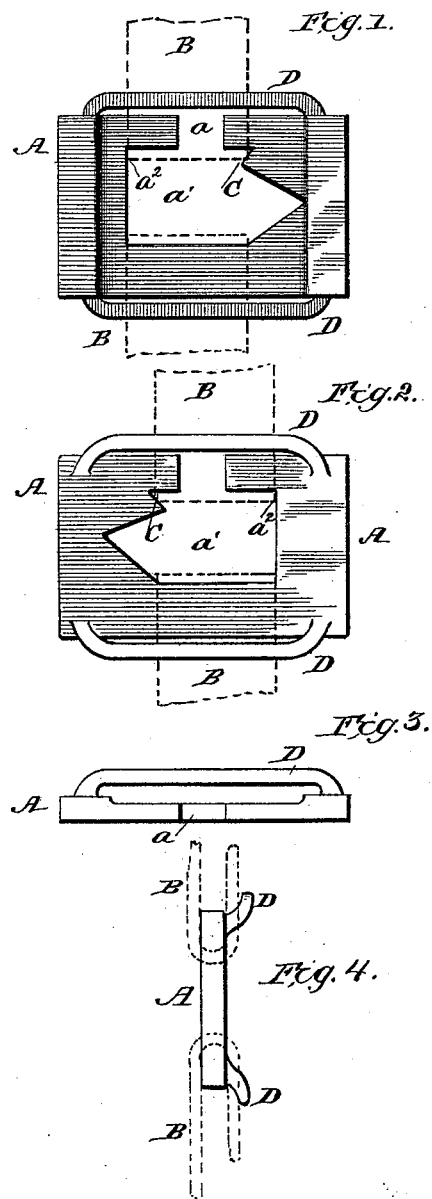


(No Model.)

R. W. CARROLL.  
BALE TIE BUCKLE.

No. 421,121.

Patented Feb. 11, 1890.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

ROBERT W. CARROLL, OF MEMPHIS, TENNESSEE.

## BALE-TIE BUCKLE.

SPECIFICATION forming part of Letters Patent No. 421,121, dated February 11, 1890.

Application filed March 9, 1889. Serial No. 302,694. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT W. CARROLL, of Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Improvement in Bale-Tie Buckles, of which the following is a specification.

My invention consists in a new and improved bale-tie buckle, which will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a top plan view of my new and improved bale-tie buckle. Fig. 2 is a plan view taken from the under side of the buckle, and Figs. 3 and 4 are edge views of the buckle.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the several parts by letter, A indicates the metal buckle, which is formed with the usual central opening *a*, through which the ends of the bale-hoops B pass. One side of the buckle is cut away at its center, leaving the opening *a'*. The above features are old and form no part of my present invention. The open side of the buckle has formed in it at C a V-shaped recess, so that when one end of the metal band or hoop B is hooked over the said side of the buckle one side of this end will bear against the straight inner edge *a<sup>2</sup>* of that end of the buckle, while the other side and edge of the hoop end will fit in the recess C, as clearly shown in the drawings. The object and great practical advantage of this feature of my invention is that the recess C will effectually prevent the end of the band or hoop B from twisting or working out of the buckle through the side opening *a* thereof. This has heretofore been a serious disadvantage, as in handling the bale the bent end of the band is very liable to be twisted or work to one side, and thus pull out through the opening in the side of the buckle. This inconvenience and loss of time is entirely done away with by my invention, as by forming the buckle with the recess C the edge of the bent end of the hoop is held or locked in this recess, rendering it impossible for the end of the band or hoop to work or move sidewise.

The under side of the buckle A is formed or provided with two longitudinal bars D D, which may be termed "locking-bars" from the function which they perform. These bars are connected at their ends to the under side of the buckle-body, extending under the closed and the open sides of the same, respectively, as clearly shown in Figs 3 and 4 of the drawings, the bars being bent out from their ends, so as to leave an open space between them and the under side of the buckle. When the bent ends of a hoop or band are hooked or passed through the buckle, the short bent ends will pass between the under surface of the sides of the buckle and the bars D D, and it will thus be seen that the bars D D will act to hold the short ends of the hoop firmly bent under the sides of the buckle and render it impossible for the strain on the hoops to pull and straighten out the said ends, thus securely locking and holding the ends of the bands or hoops B.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my invention will be readily understood. It will be seen that the ends of the bands will be firmly held by my new and improved tie-buckle, and that it will be impossible for them to pull or work loose in either direction. My new and improved bale-tie buckle is simple and strong in construction and can be manufactured at a small cost, while it is exceedingly effective and satisfactory in its operation.

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

In a bale-tie buckle, the plate A, formed with the central opening *a'* and side openings *a* and formed with the V-shaped locking-recess C at the point shown, and the curved locking-bars D D, extending beneath both the open and closed sides of the plate, substantially as set forth.

ROBERT W. CARROLL.

Witnesses:

CHARLES A. PETTIT,  
SOLON C. KEMON.