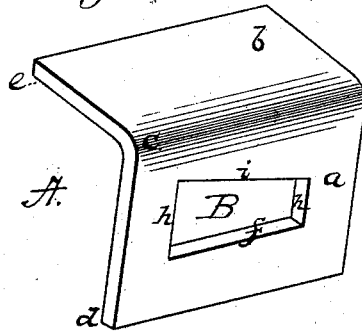


T. J. McCAFFREY, Sr.  
Bale-Tie Buckle

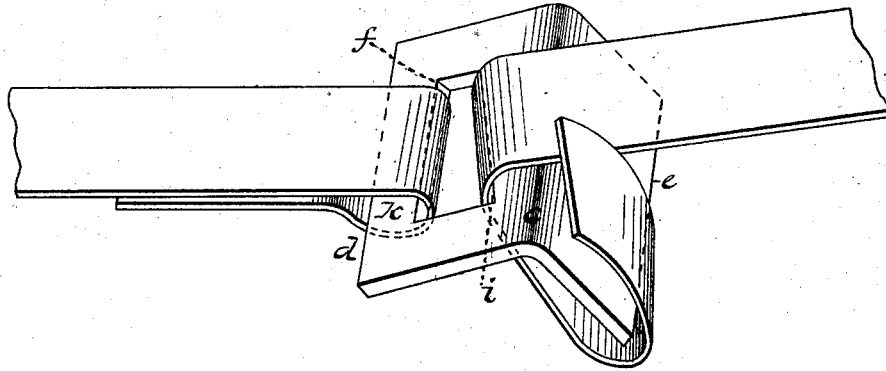
No. 215,529.

Patented May 20, 1879.

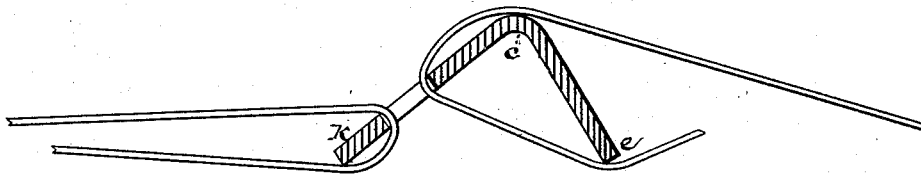
*Fig. 1*



*Fig. 2*



*Fig. 3*



WITNESSES

Nat. E. Oliphant  
S. S. Kane

INVENTOR

Thomas J. McCaffrey Sr.  
by  
J. J. Darlington, Atty.

# UNITED STATES PATENT OFFICE.

THOMAS J. McCAFFREY, SR., OF ROME, GEORGIA.

## IMPROVEMENT IN BALE-TIE BUCKLES.

Specification forming part of Letters Patent No. **215,529**, dated May 20, 1879; application filed April 12, 1879.

*To all whom it may concern:*

Be it known that I, THOMAS J. McCAFFREY, Sr., of Rome, in the county of Floyd and State of Georgia, have invented certain new and useful Improvements in Bale-Tie Buckles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a perspective view of my improved buckle. Fig. 2 is a perspective view of the buckle and ends of the band, showing the tie. Fig. 3 is a sectional view.

This invention relates to cotton-bale ties; and the novelty consists, principally, in a buckle the sides of which are bent at right angles, or nearly so, to each other, and one of the sides provided with a trapezoidal opening or slot, into which the ends of the band are passed and fastened, as will be hereinafter more fully set forth.

In the annexed drawings, forming a part of this specification, the letter A represents the buckle, formed, preferably, from sheet metal. This buckle will usually be cut from a sheet-metal bar of the required thickness and width. The removing of that portion of the metal to form the slot and the bending may be carried out at the same time.

The two sides *a* and *b* of the buckle are bent at right angles, or nearly so, to each other, to form an equilateral triangle, edge up, and so rounded or curved to form a hip. The distances from edge *d* to *c* and edge *e* to *c* are equal; but the distance from *e* to *c* may be shorter and produce a good result.

That portion or side of the buckle indicated by the letter *a* is provided with a trapezoidal opening or slot, B, consisting of the base *f*, straight sides *h h*, arranged at right angles to the base-line of the slot, and the diagonal side *i*, communicating with the straight sides, substantially as shown in Fig. 1 of the drawings. The base-line *f* of the slot is parallel with the edge *d* of the buckle. The outer or parallel

faces, *d e*, form biting-lips, for the purpose hereinafter set forth.

It will be observed that the shape of the buckle before bending is rectangular, and after bending it has an equilateral triangular appearance. The object of this construction is, when the band is being drawn there will be a rolling motion given to buckle tie or band by the hip *c*, and the lip *e* will automatically hold the band, after the pressure is released, in position by frictional contact, and equalize the pressure upon the buckle.

The portion *i* of the slot is made diagonal, so as to suit the angle taken by the band while drawn tight by the operator or the grippers of the compress.

The position of buckle on the bale when it is in press is close to top edge of bale, so that as the lap of band around the base *f d* of buckle is firmly held by the corner of the bale the buckle will not pass beyond the face of bale operated upon in press. The band being fastened around the bar *k* of the buckle and passed through the channel-ways of press, the portion *b*, being at right angles, will drop against the bale, thereby obviating much delay in the operation.

The end of the band that is to be fastened to the buckle is inserted in the slot, (see Fig. 2,) and passed around the base edge *f* and under the lip *d*, and the loose end of the band, being passed over and around the bale under pressure, is inserted in the slot by passing it up and over the hip or rise at *c*, thence downward through slot at the diagonal side *i*, and down under the biting-lip *e*, said diagonal side naturally turning the band to one side, thereby giving an easy bend to the band and presenting it for the grippers or operator.

The distance from *d* to *c* and from *e* to *c* being about equal, it is not important that the buckle should form a square in the faces, as the ends *d e* form biting-lips and act upon the band on the principle of pawls.

After the bands are secured and the pressure removed from the bale, the loose projecting ends of the bands will be clipped, so as to cause no obstructions to stowing away the bales.

This buckle is designed more especially for

compressed goods where an immense strain is put upon the bands or ties at the point of fastening.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A cotton-bale-tie buckle having the sides *a b* arranged at right angles, or nearly so, to each other, and the portion *a* provided with a trapezoidal slot, substantially as and for the purpose set forth.

2. A cotton-bale-tie buckle of an equilateral-triangle shape, and provided with a trapezoidal slot and biting-edges, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

THOS. J. McCAFFREY, SR.

Witnesses:

J. A. ORR,

T. F. ARMSPAUGH.