

A. F. Merrill Jr.,

Bale Tie.

No. 28,392.

Patented May 22. 1860.

Fig. 1.

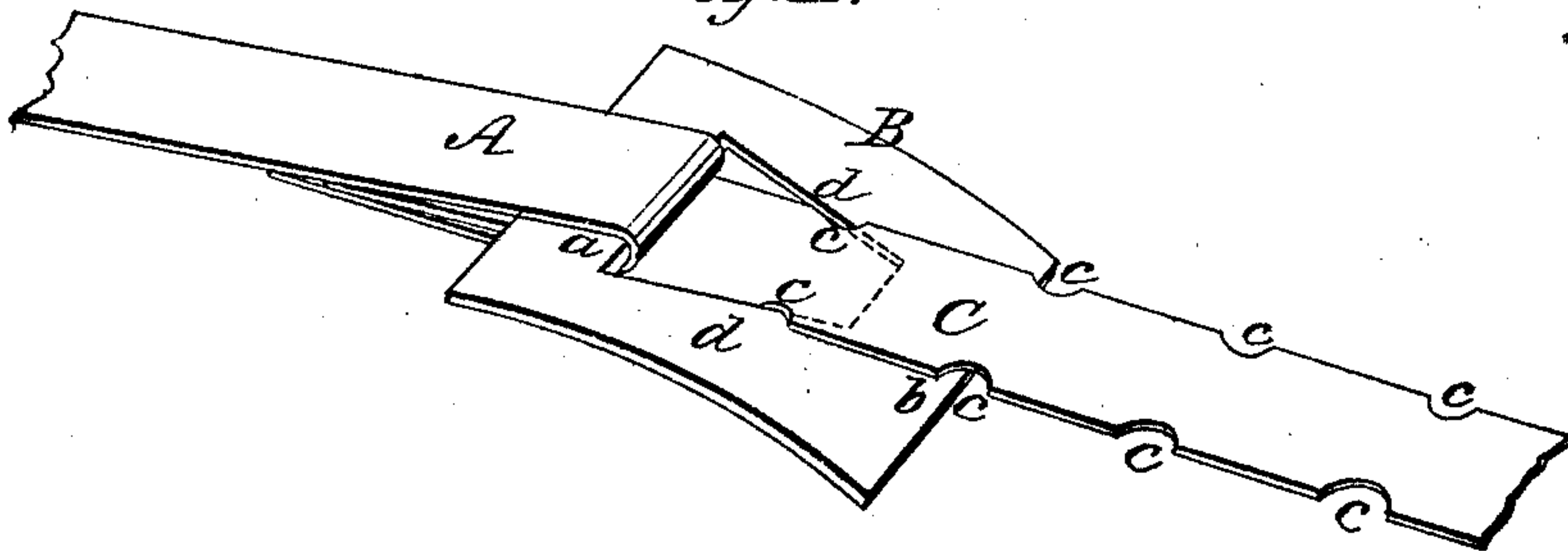


Fig. 2.

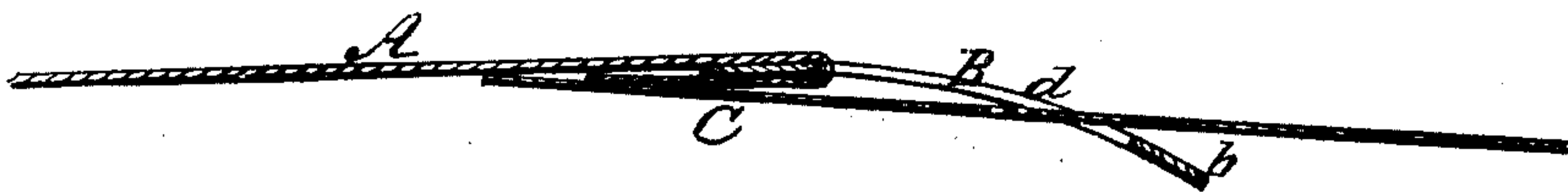


Fig. 3.

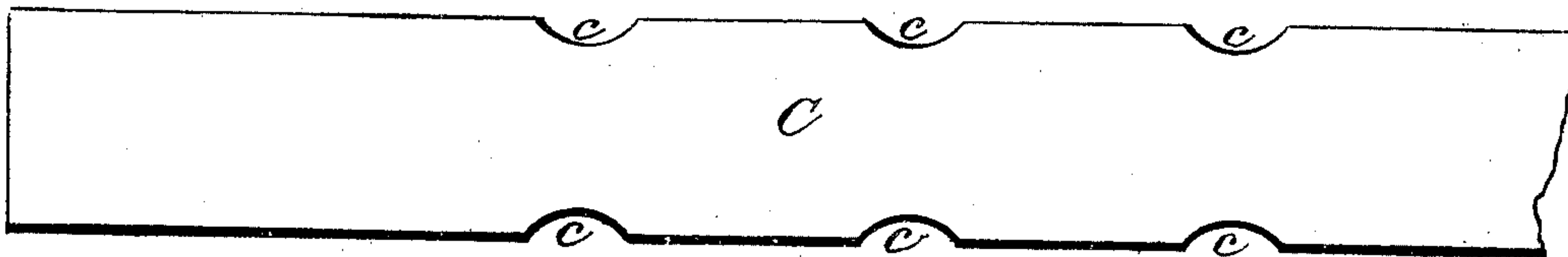
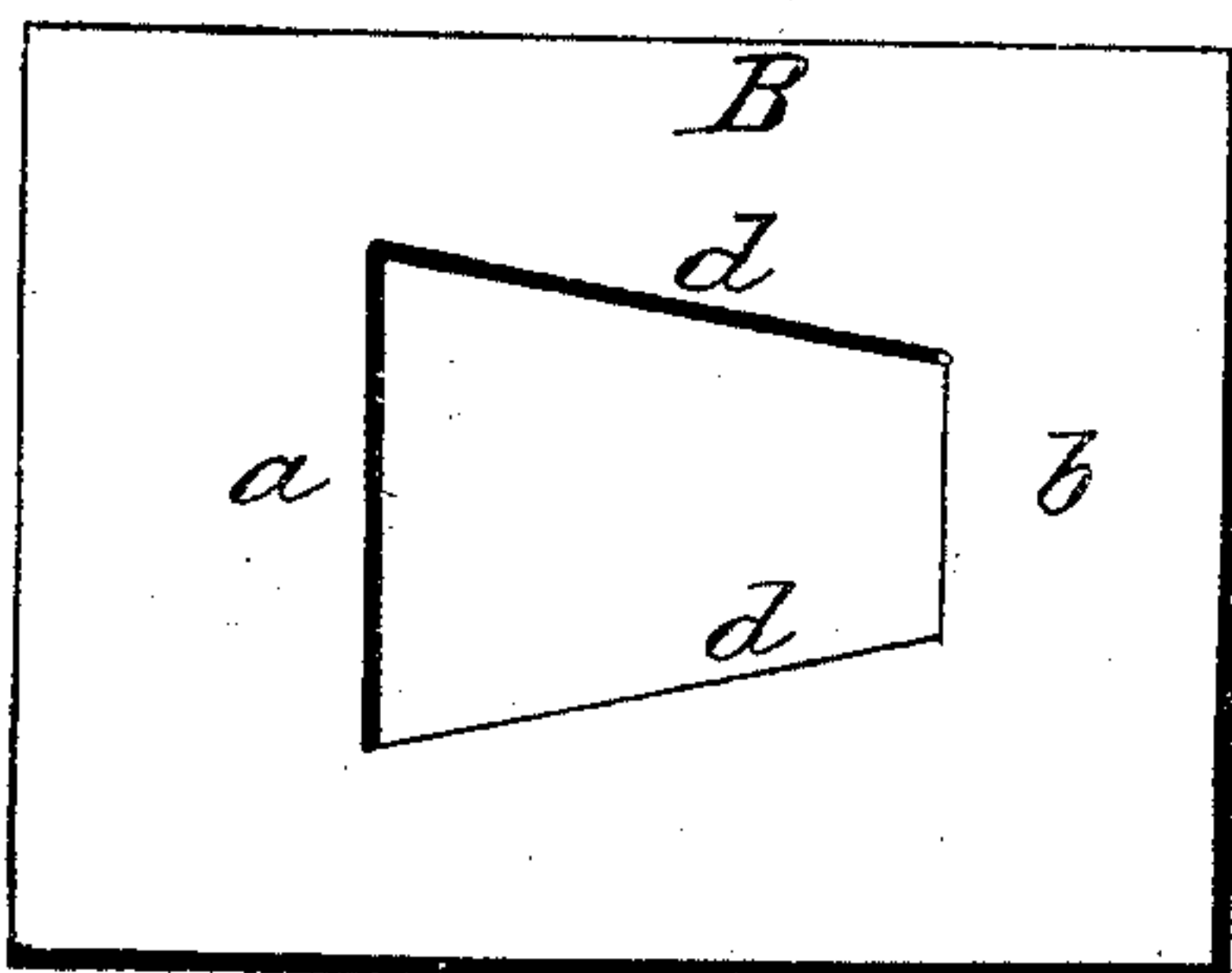


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

AYRES P. MERRILL, JR., OF NATCHEZ, MISSISSIPPI.

IMPROVEMENT IN LOCKS FOR COTTON-BALES.

Specification forming part of Letters Patent No. 28,392, dated May 22, 1860.

To all whom it may concern:

Be it known that I, AYRES P. MERRILL, Jr., of Natchez, in the county of Adams and State of Mississippi, have invented certain new and useful Improvements in Ties or Locks for Fastening the Ends of Metal Bands in Baling Cotton and other Material; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents the lock or tie on the ends of the hoop. Fig. 2 represents a longitudinal section through the ends of the hoop and the buckle. Fig 3 represents on an enlarged scale the manner of preparing one end of the hoop, and Fig. 4 represents on a similarly enlarged scale the shape of the buckle.

Similar letters of reference, where they occur in the several figures, denote like parts of the fastening in all the drawings.

My invention consists in making a tie, lock, or fastening in the bands of cotton or other bales by having a wedge or pyramidal shaped opening in the buckle and rounded-out notches in the end of the strap or hoop, and making the comparative widths of the opening in the buckle and that of the band or hoop between the notches such that the strain on the notched end of the band where it passes through the buckle shall tend to compress, instead of tear apart, said notched end, as will be explained. One end of the hoop or band A is simply bent over and catches upon the bar *a* of the buckle B. This buckle has a wedge or pyramidal shaped opening through it, the bar *a* inclosing the base, and that *b* the apex, of the pyra-

mid opening. The opposite end C of the hoop or band has a series of rounded-out notches, *c*, formed in it, and the width between the notches must be greater than the width of the apex in the opening in the buckle, so that the notched end of the strap, hoop, or band cannot come down upon said apex, but be caught by the sides *d* of the buckle, and the tendency of the strain upon the strap, band, or hoop in this condition is to press the fiber of the iron together instead of to tear it apart, as it would do were the width between the notches the same or less than the width of the apex of the opening in the buckle.

To fasten the notched end of the strap or hoop to the buckle, it is run through the larger end of the opening in the buckle, and as it is drawn down or toward the smaller end it is caught by the side pieces, *d*, and firmly held by them, the inclined sides of the buckle tending to crowd the fiber of the metal together.

What I term a "buckle" is sometimes called a "slide" or a "link." It is immaterial what it is called so long as it performs the function herein mentioned.

Having thus fully described the nature and object of my invention, what I claim is—

The combination of the rounded-out notches in the end of the strap, band, or hoop, and the pyramidal-shaped opening in the buckle for the purpose of forming a lock or fastening to the hoops of cotton and other bales, and when constructed to operate together substantially as herein described.

A. P. MERRILL, JR.

Witnesses:

WM. H. FORBES,

WM. ROBERTSON.