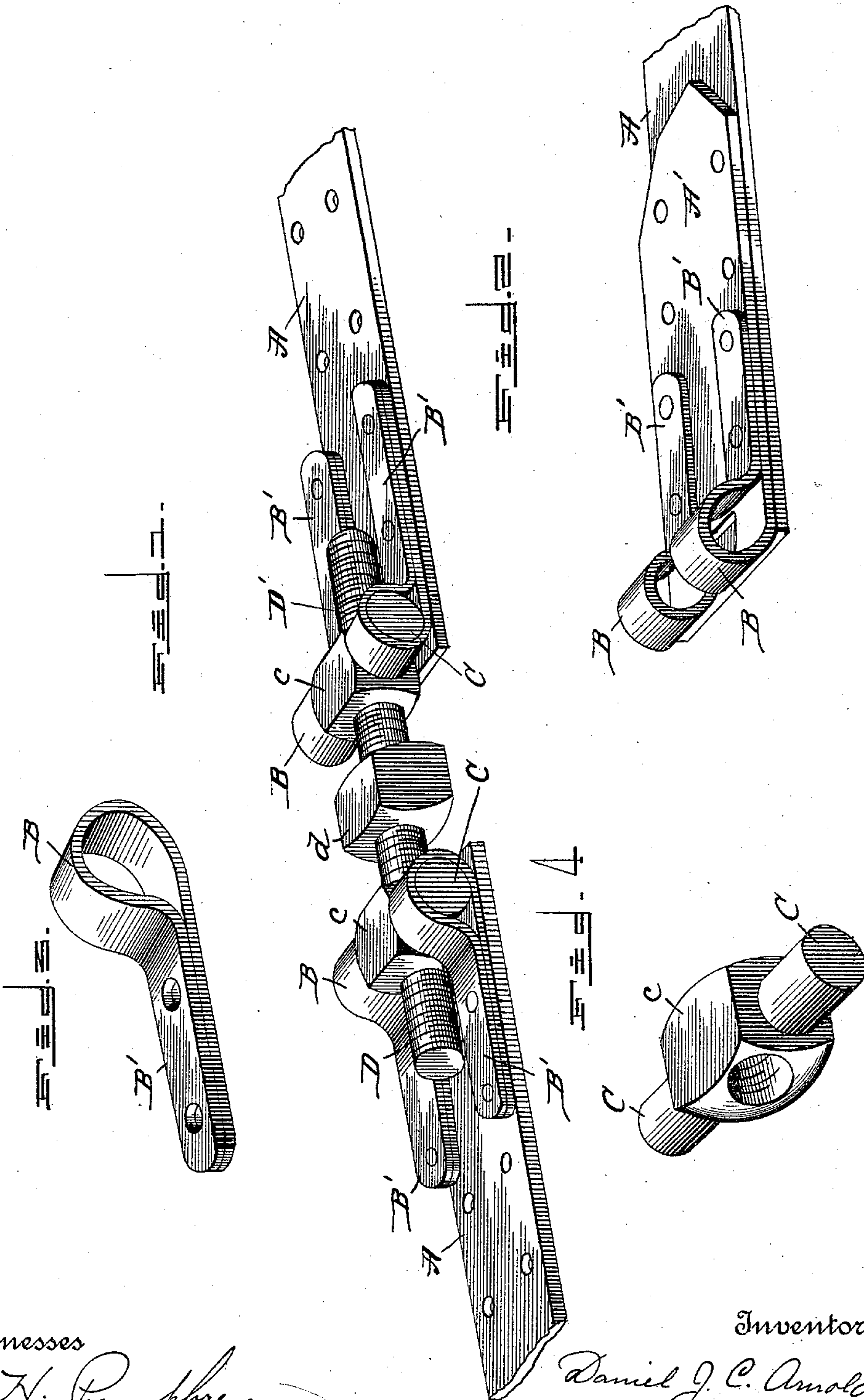


(No Model.)

D. J. C. ARNOLD.  
BAND TIGHTENER.

No. 485,484.

Patented Nov. 1, 1892.



Witnesses  
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# UNITED STATES PATENT OFFICE.

DANIEL J. C. ARNOLD, OF NEW LONDON, OHIO.

## BAND-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 485,484, dated November 1, 1892.

Application filed September 7, 1891. Serial No. 405,067. (No model.)

### *To all whom it may concern:*

Be it known that I, DANIEL J. C. ARNOLD, a citizen of the United States, and a resident of New London, county of Huron, State of Ohio, have invented certain new and useful Improvements in Band-Tighteners, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in band-tighteners; and its object is to produce a simple, powerful, and efficient form of tightener which can be easily adjusted to its position and to a circumference of any size upon which it may be bound.

My invention consists in the mechanism and details of combination and arrangement of parts, as hereinafter described, shown in the accompanying drawings, and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of my device directly attached to a metal band. Fig. 2 is a view of a similar form of attachment with the addition of a short plate. Fig. 3 is a detached view of the strap. Fig. 4 is a detail view of a portion of my band-tightener.

A A in the drawings are the extremities of the metal band.

B are loops formed of bent metal strips and secured by rivets to the band A at either extremity at B'.

C are pins crossing the extremities of the band A and pivoted within the loops B at either end. The centers of the pins are enlarged and squared at c and drilled and tapped transversely to form nuts for the insertion of the right and left hand screws D and D'. A

square or octagon head d joins the screws together, by which they can be turned to draw the nuts together when the band is in place and ready to be tightened. It will be seen that the pivotal action of the pins will cause them to turn readily at any angle and adjust the screw-bearings so as to work smoothly upon a circumference of any size.

In Fig. 2 a modified form shows a plate A', to which the loops B are attached, and which can be detachably secured to the band A at will.

The device described, while exceedingly cheap in construction, is adapted to any size of band or circumference.

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

In a band-tightener, the combination, with the metal blank which forms the body portion of the band-tightener, of the aligned loops B B, having integral extensions in proximity to the ends of the band A, riveted in parallel pairs to the upper faces of the ends of said band, and the pins C, seated in the loops B B and each having a rectangularly-disposed integral central portion tapped or threaded for the reception of the right and left screws D D', seated at their contiguous ends in the head d, which joins said screws together, whereby the screw-bearings may be adjusted to work smoothly upon circumferences of varying sizes, substantially as specified.

DANIEL J. C. ARNOLD.

Witnesses:

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