

(No Model.)

E. A. OLIVER.
BAND TIGHTENER.

No. 519,507.

Patented May 8, 1894.

Fig. 1.

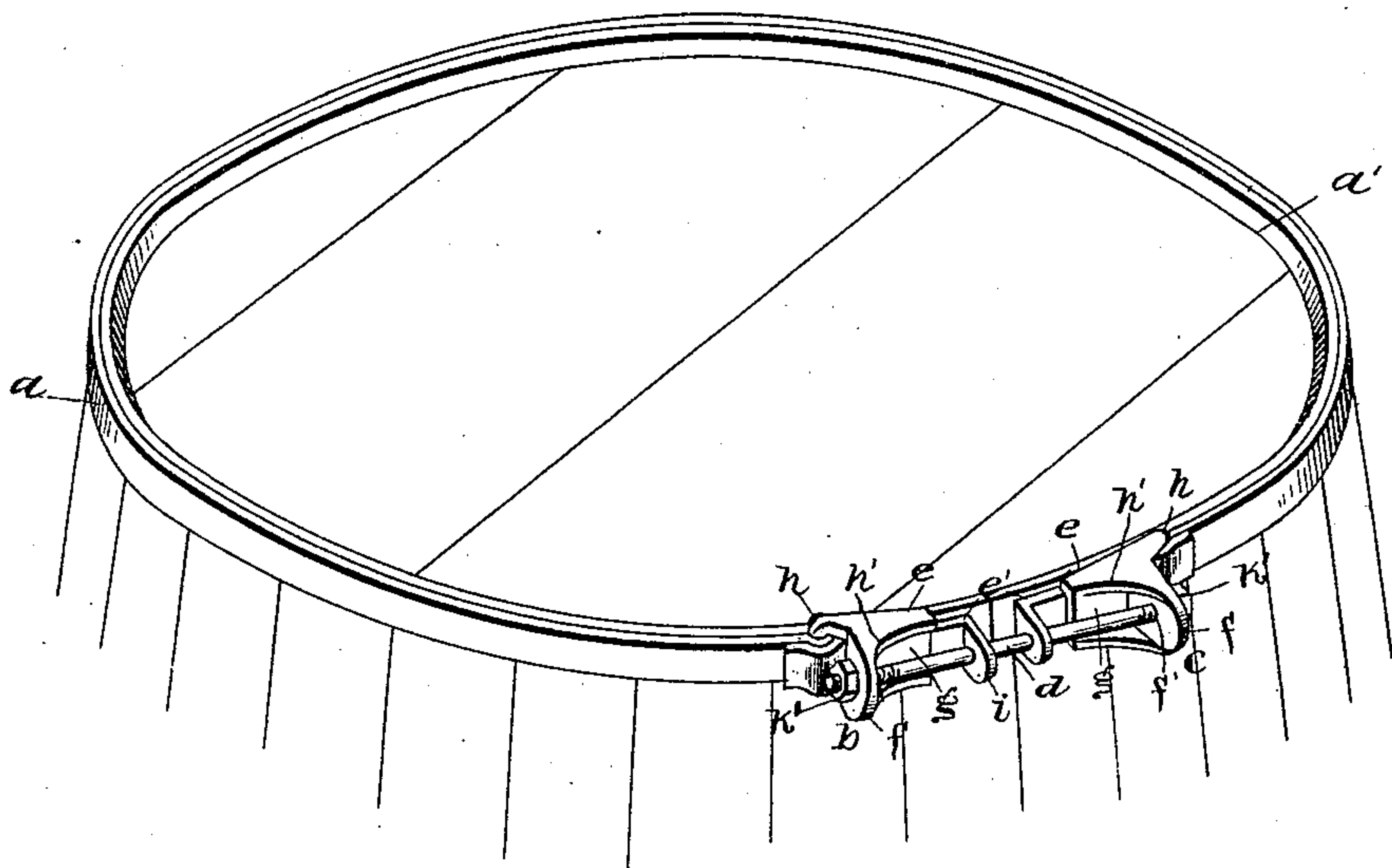


Fig. 2.

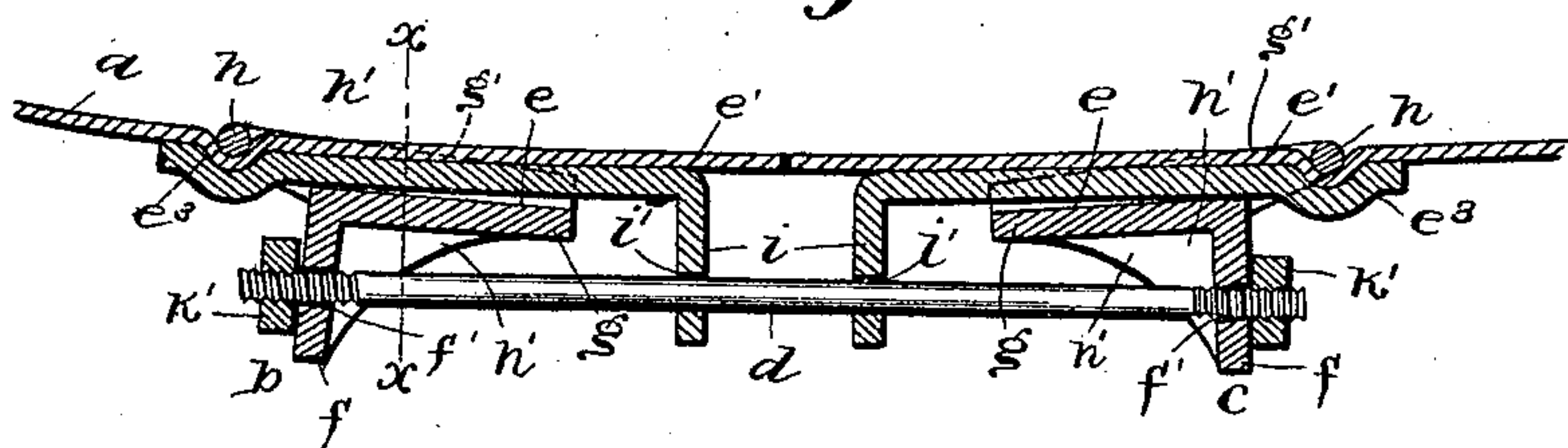


Fig. 3.

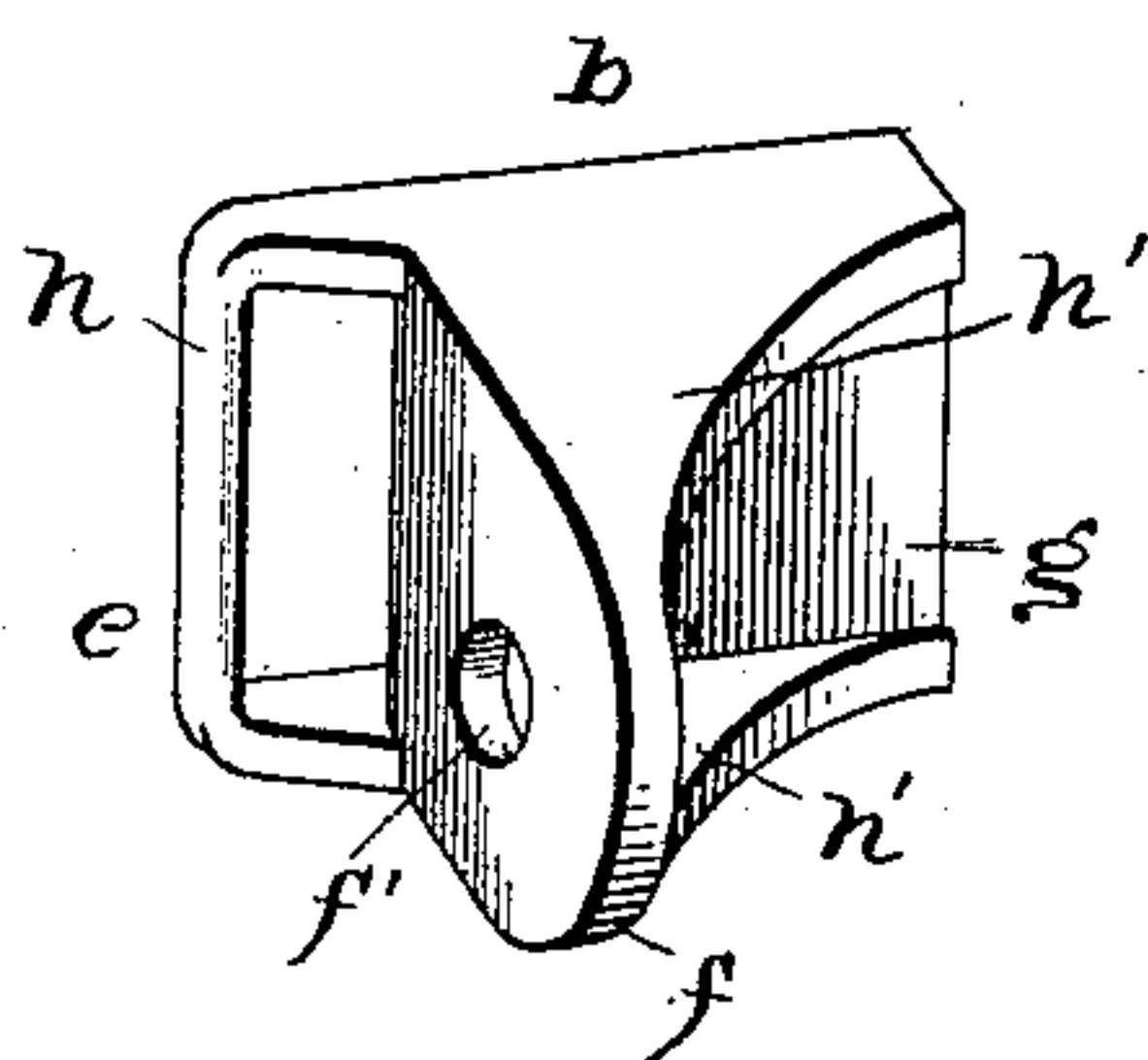


Fig. 4.

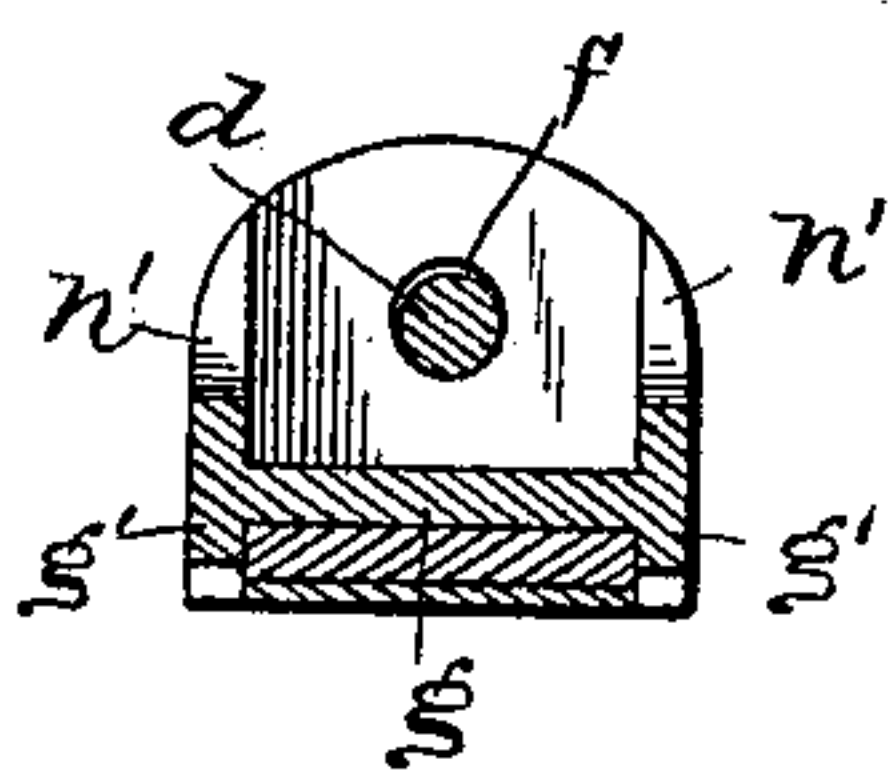
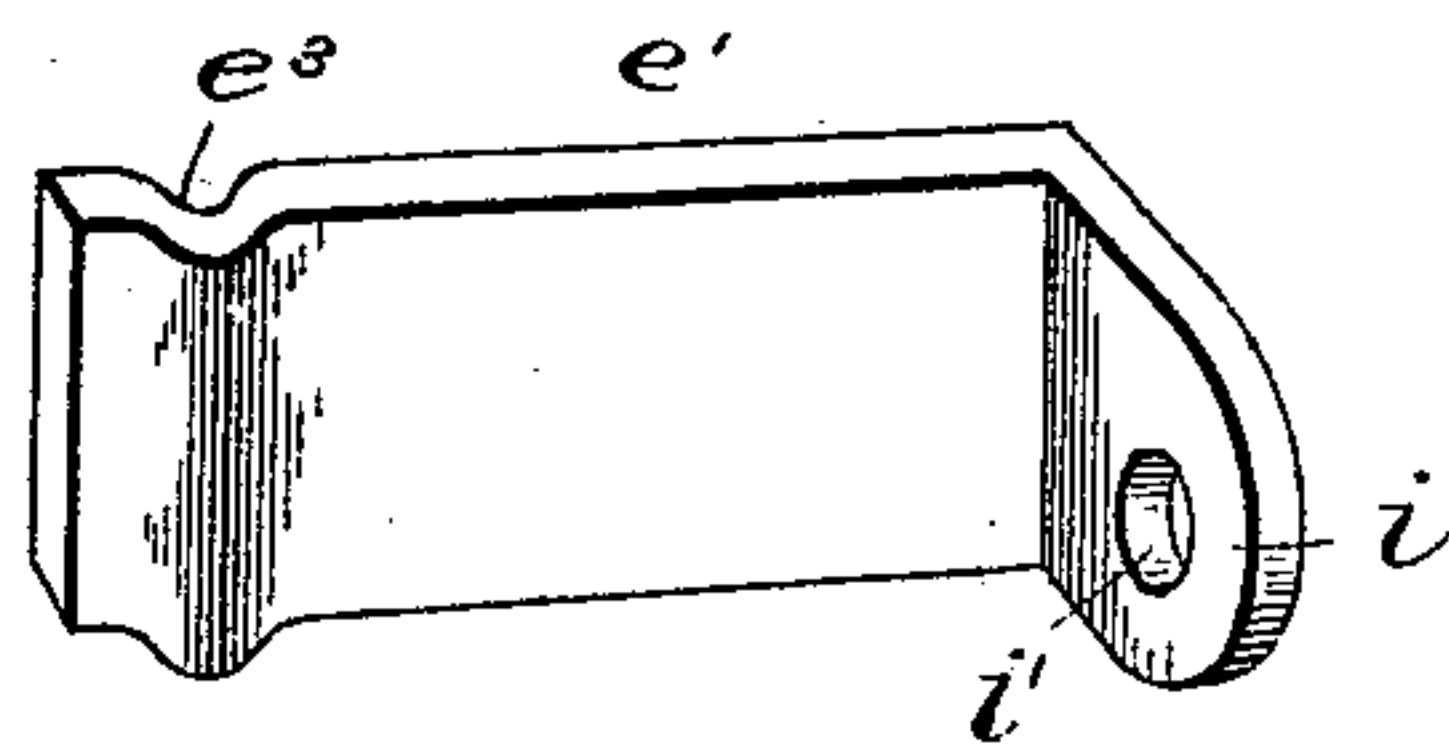


Fig. 5.



Witnesses

Chas. A. Ford.
[Signature]

By his Attorneys.

[Signature]

Inventor
E. A. Oliver,

UNITED STATES PATENT OFFICE.

ELAM A. OLIVER, OF BELLEVILLE, WISCONSIN.

BAND-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 519,507, dated May 8, 1894.

Application filed February 24, 1894. Serial No. 501,424. (No model.)

To all whom it may concern:

Be it known that I, ELAM A. OLIVER, a citizen of the United States, residing at Belleville, in the county of Dane and State of Wisconsin, have invented a new and useful Band-Tightener, of which the following is a specification.

My invention has for its object the production of a more superior band tightener and securer of the class wherein removable clips are employed and adapted to bind against the band, thus holding the ends together.

To this end it consists of certain improved features of construction and combination and arrangement of parts, which will be more fully described hereinafter and finally embodied in the claim.

In the accompanying drawings:—Figure 1 represents a perspective view of a tightener constructed after the manner of my invention; Fig. 2 a longitudinal section; Fig. 3 an enlarged perspective view of one of the clips or sections; Fig. 4 a cross-section on line $x-x$ of Fig. 2; Fig. 5 a perspective view of the remaining clip or section.

The reference letter a indicates the band to be joined, which is shown as embracing the tank a' . The securer consists of two duplicate clamping heads b and c , joined by the double threaded bolt d , whereby the ends of the band may be drawn together. Since the clamping heads are duplicates a description of one will suffice for both. The heads consist of two sections e and e' . Section e is shaped with a vertical portion f , having a bolt hole or eye f' therein and a horizontal portion g having the downwardly extending and parallel flanges g' formed integral therewith. These flanges extend rearwardly from the body of the section and are joined at their rear extremities by the cross bar h . Strengthening ribs h' are provided and extended from the vertical to the horizontal portion and on each side thereof, and the entire section is formed of an integral piece of metal. The flanges g' are of a distance apart which will admit the band a to be passed between them and lie flush with the horizontal portion g , while their depth is sufficient to admit the band and part of section e' to lie within them. The section e' consists of an integral strip of metal of a width and thickness that will al-

low it to be snugly received by the flanges g' of section e , and having at its forward end the upwardly extending arm i provided with the bolt eye i' . The rear end of the section e' is formed with a semicircular notch e^3 on its under side, and this is formed preferably by bending the section upwardly and thence downwardly, though it may be formed by casting.

d indicates the double bolt which is employed to draw the heads together, and this is provided with the nuts k' for so operating it. To assemble the parts of the head, the section e' is first placed on top the end of the band, and with its arm i , toward the end thereof. Section e is next placed in position by passing the end of the band and section e' between the bar h and the horizontal portion g , and moving the said section along the band until the cross bar h occurs directly under the semicircular notch e^3 . The bolt d is then passed through the eyes f' and i' of each head and the nuts k' tightened against the vertical portions f of the section e , which will draw the vertical portion of said section forwardly and downwardly and cause the bar h , to move upwardly, thereby bending the band a into the notch e^3 and causing the cross bar to move into said notch, and thereby lie above the plane of the band. When this operation has taken place the heads will be in position to move toward each other, thus tightening and securing the band.

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

A band fastener consisting of two duplicate heads adapted to be secured one to each end of the band and each formed of two sections, one section having a main portion adapted to lie upon the band, a depression in said section and opening toward the band and a longitudinally perforated arm projecting at right angles to the main portion and away from the band, and the remaining section having a main portion adapted to lie upon the main portion of the first and having longitudinal flanges on its sides and adapted to embrace the first section, a transverse arm on the second section and adapted to pass under the band and to press the same into the depression of the first section, a longitudinally per-

forated arm on the second section and projecting away from the band, and a bolt adapted to pass through the perforations of the arms on the two sections and from one head
5 to another, whereby the band is clamped between the two sections and the heads connected, substantially as described.

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

ELAM A. OLIVER.

Witnesses:

C. E. STEVENS,

W. J. OSMUNDSEN.