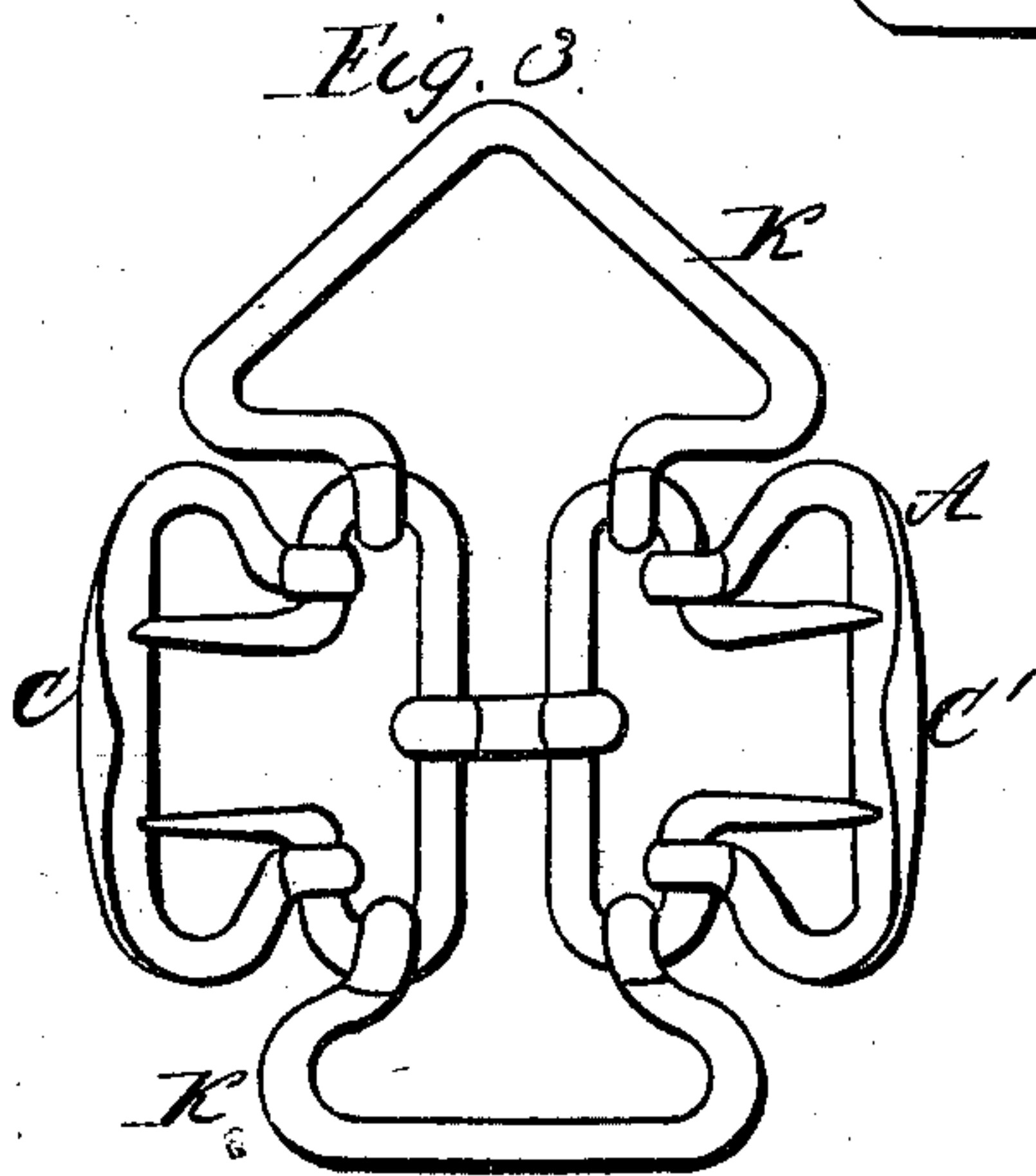
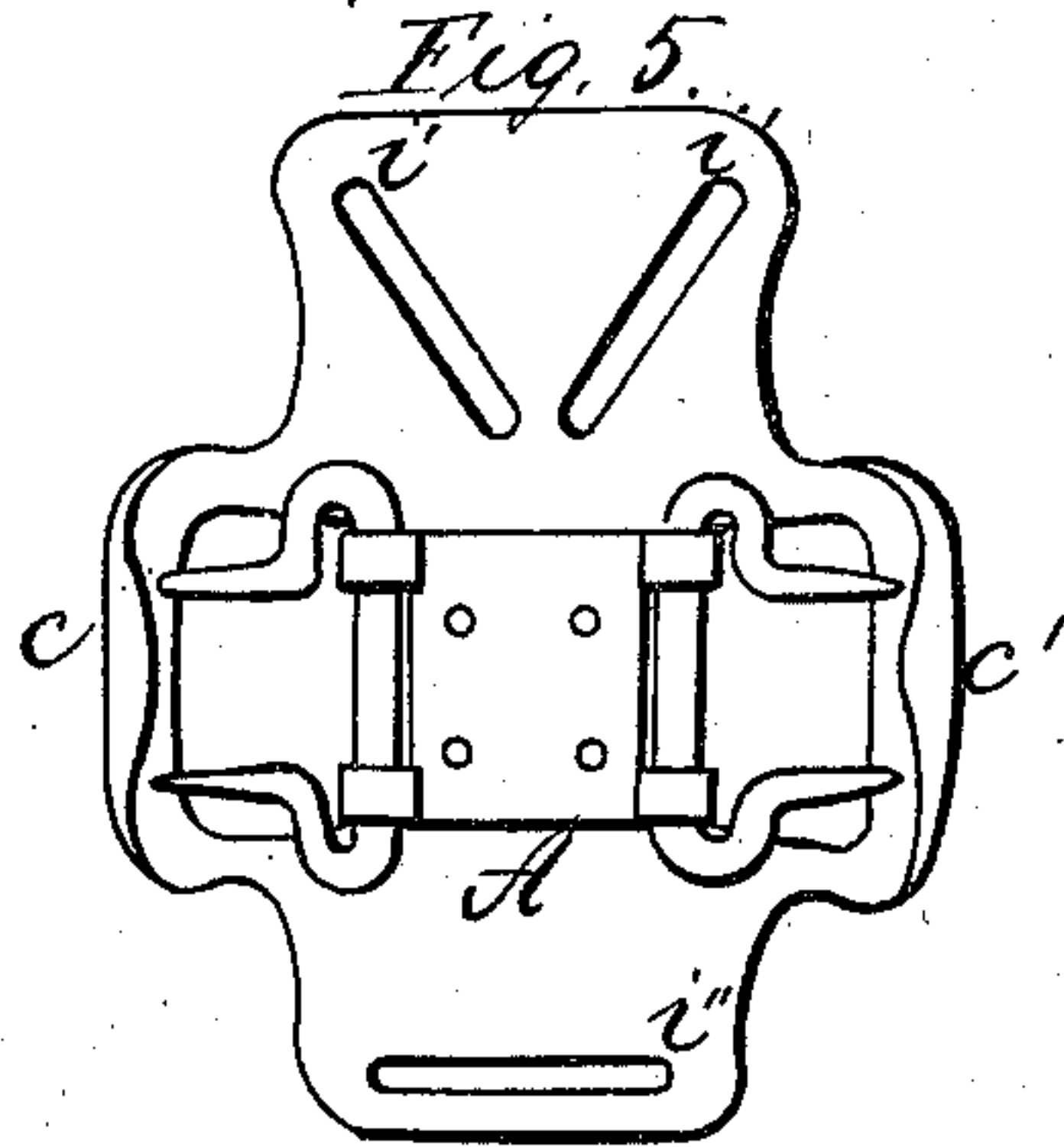
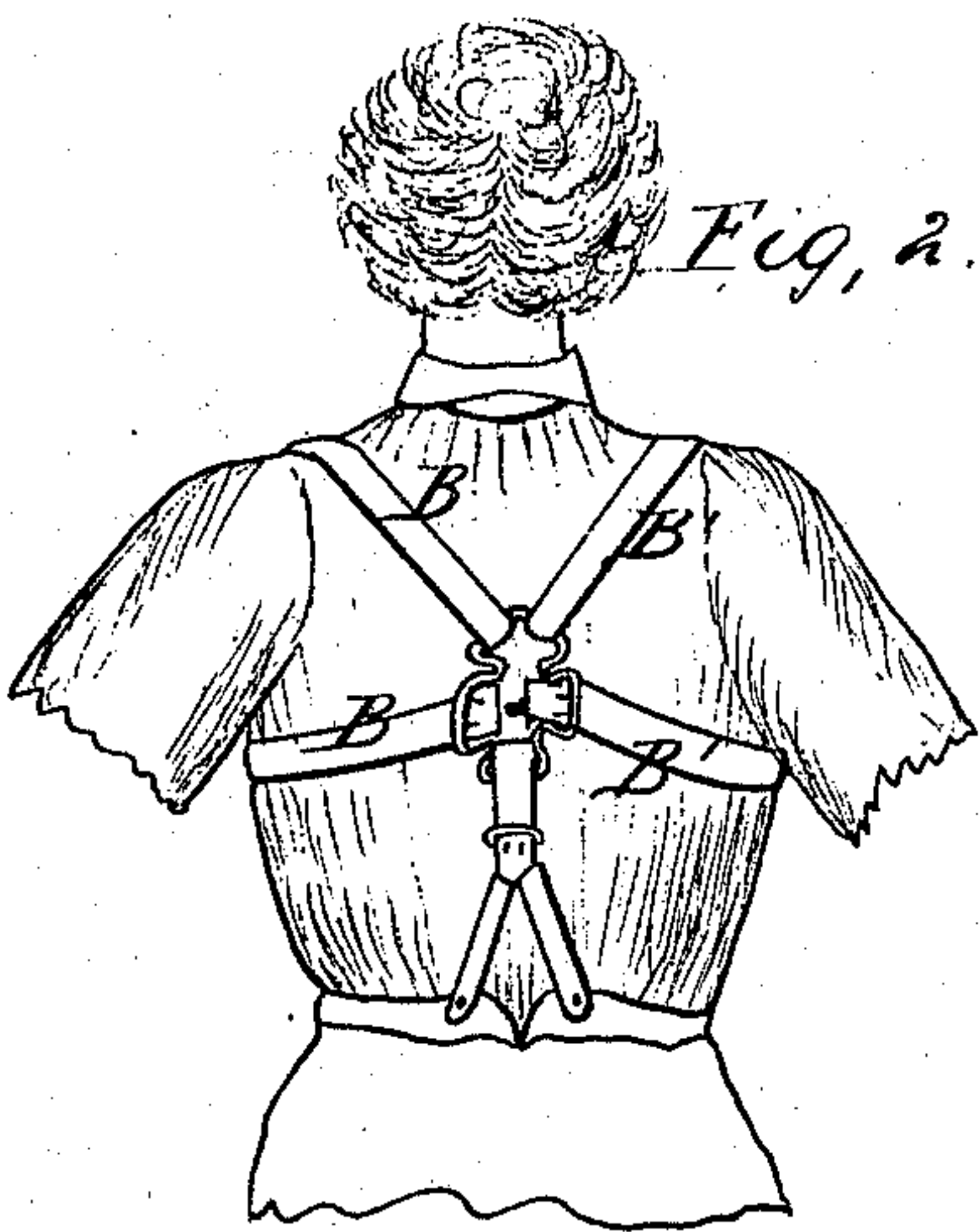
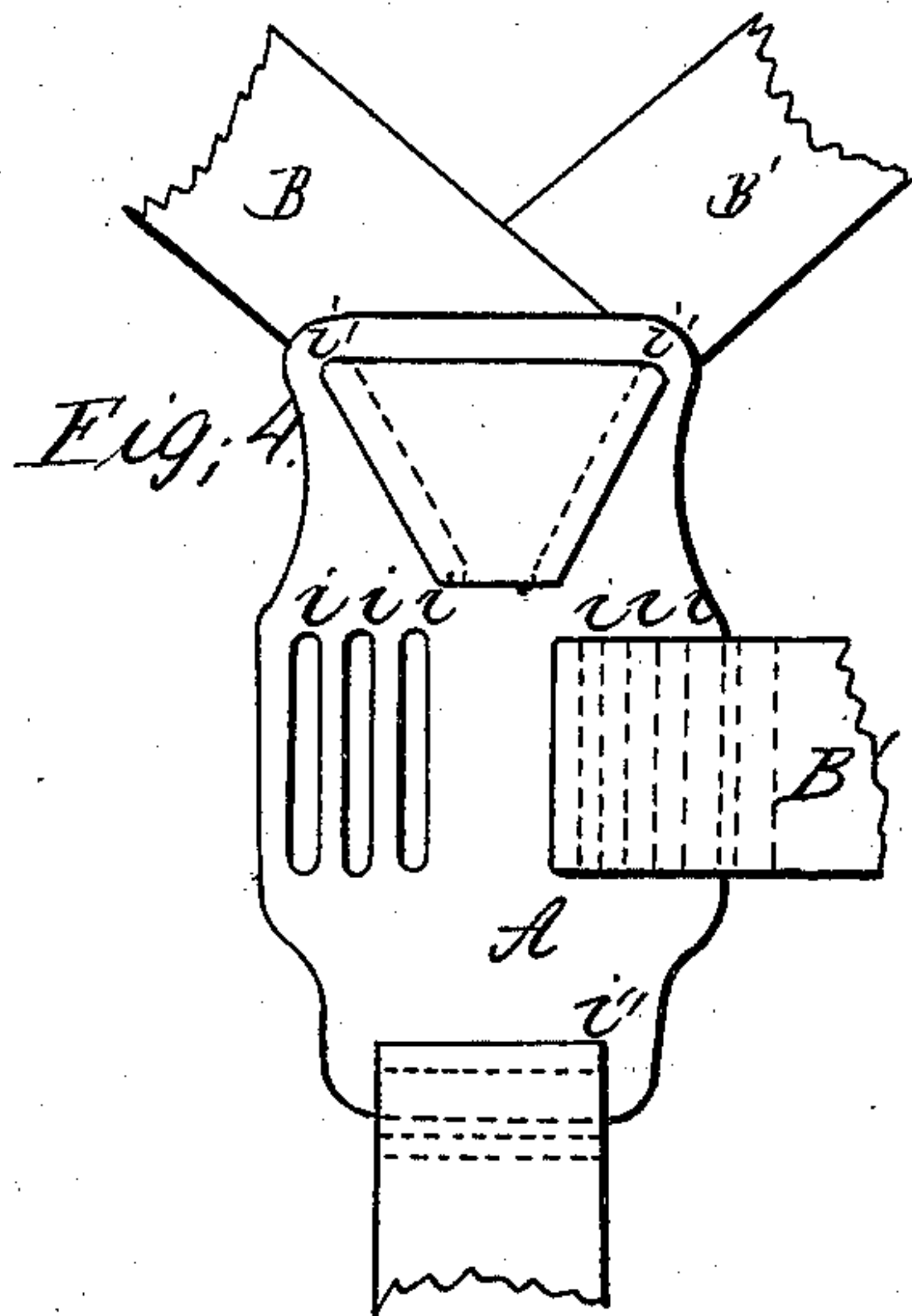


*H. B. Leach.*

*Bruce Suspender.*

*Nº 89,872.*

*Patented May 11, 1869.*



*Witnesses,*  
*R. R. Moffatt*  
*J. M. McPuckee*

*Inventor,*  
*H. B. Leach*



# United States Patent Office.

H. B. LEACH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO E. C. PENFIELD, OF THE SAME PLACE.

*Letters Patent No. 89,872, dated May 11, 1869. Antedated Apr 27, 1869.*

## IMPROVED COMBINED SUSPENDER AND SHOULDER-BRACE.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, H. B. LEACH, of Philadelphia, in the county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Combined Suspender and Shoulder-Brace; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 2 represents a pair of "suspenders and shoulder-braces," made with my improvement;

Figure 3 is a detached view, representing a modified construction of the same, when made from wire; and

Figures 4 and 5 represent modifications of the buckle-plate.

This invention consists in a novel buckle-plate, or frame, for arranging and combining the several straps composing the "shoulder-brace suspender," whereby the parts are rendered more perfectly adjustable, more desirable, and cheaper than are the present methods.

In the drawing, I show my invention applied to a suspender-brace, as also modifications of the same detached therefrom.

The buckle-plate is of peculiar formation, and yet very simple. It is made as represented in figs. 4 and 5, from a thin plate of metal, struck out by a die for that purpose.

The metallic plate A, fig. 4, has slits, or openings *i*, *i*, and *i*, which form a slide-buckle, for the purpose of receiving the straps, which are generally made of elastic webbing.

The slide-buckle, or openings *i'* and *i'*, are so situ-

ated that the shoulder-straps B and B', at their connection with the plate, form a right angle to each other, or nearly so, and are one piece.

At the sides of the plate A are buckles C and C', as seen in fig. 5, (or their equivalents, as shown in fig. 4, viz, the slits *i i i*), by means of which any desired position may be given to the shoulders, by shortening or lengthening out, at pleasure, the straps B and B'. Said straps form the shoulder-brace, as also the suspender, through the agency of the small straps *d* and *d'*, fig. 1.

Fig. 3 represents a modification of my invention, no metallic plate being used, but, instead of it, I employ pieces, or loops K K', constructed out of wire, and shaped substantially as shown, and attached to the buckles *c c'*, as represented.

The buckles themselves may be connected by a link, *l*. This gives great additional strength to the whole, to resist the pull of the straps upon the buckles. I prefer it thus made, as it presents less surface of metal.

Having thus described my invention,

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

1. The combined shoulder-brace and suspender, having a metallic buckle-plate, A, as represented in figs. 4 and 5 of the accompanying drawings, constructed substantially as and for the purpose herein described.

2. The combination of the bent wire loops *k k'* with the buckles *c c'*, substantially as shown and described.

H. B. LEACH.

Witnesses:

HENRY CORDS,  
J. G. TORBERT.