

(No Model.)

E. H. WHEELER.

BUCKLE.

No. 381,973.

Patented May 1, 1888.

Fig. 1.

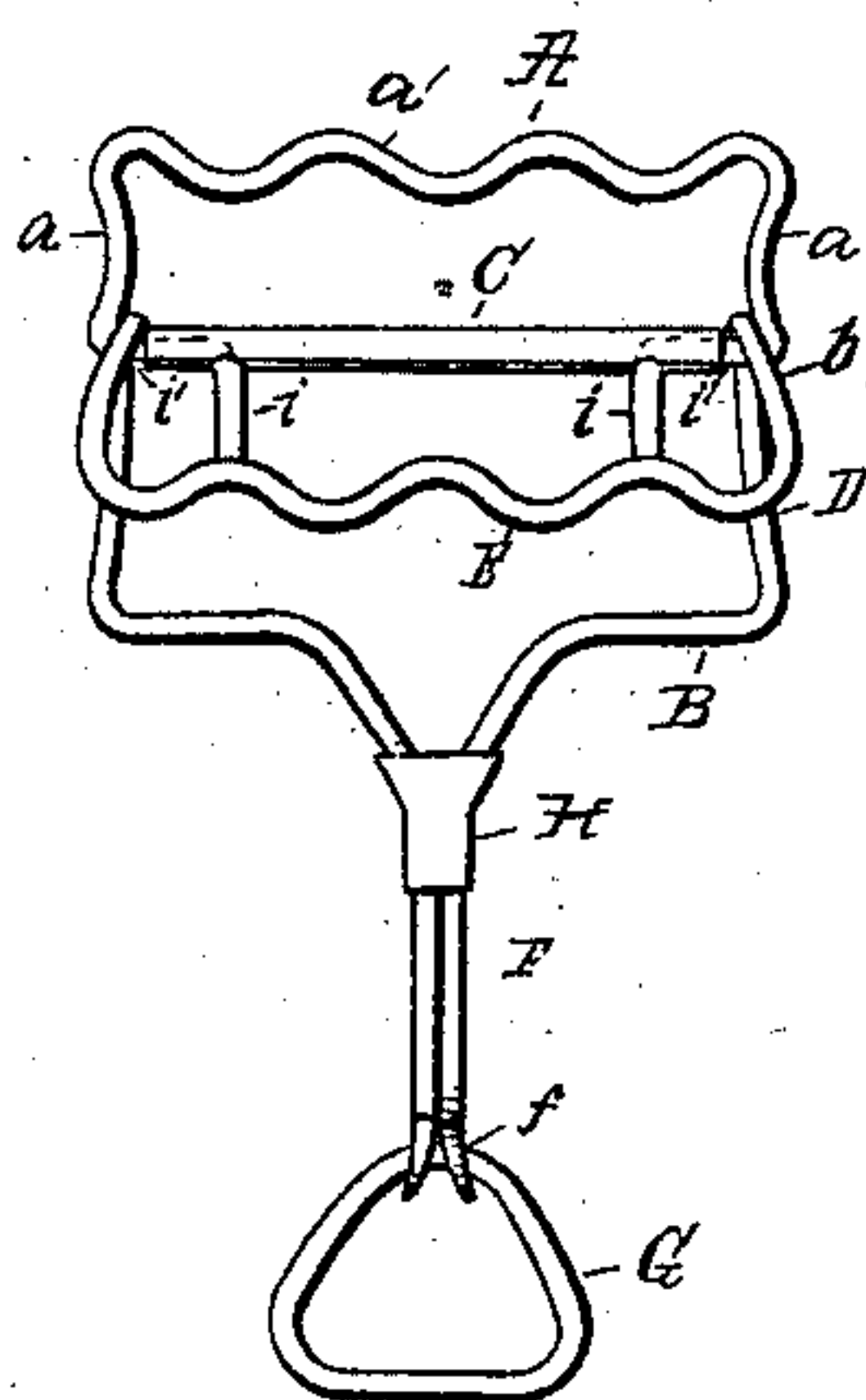


Fig. 2.

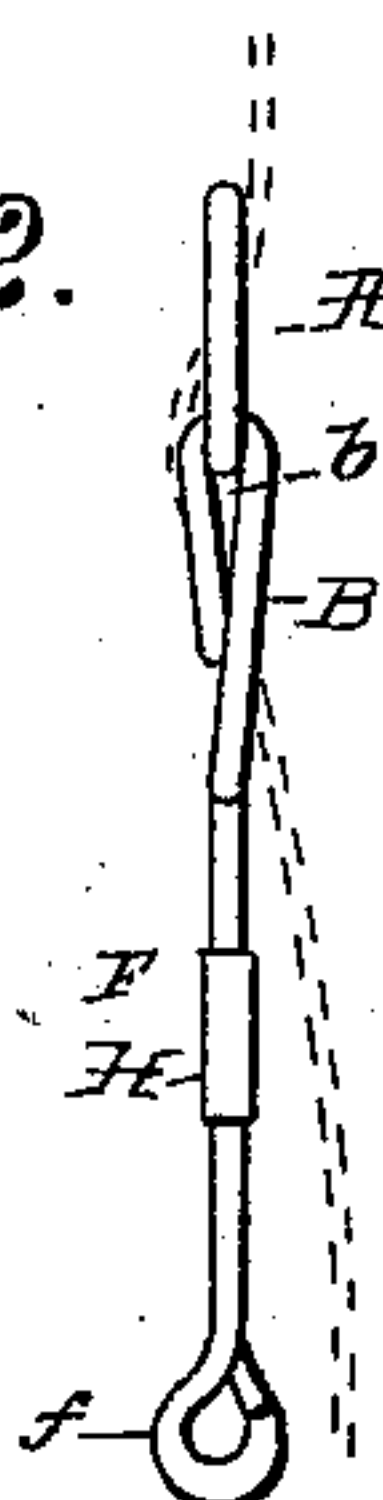


Fig. 3.

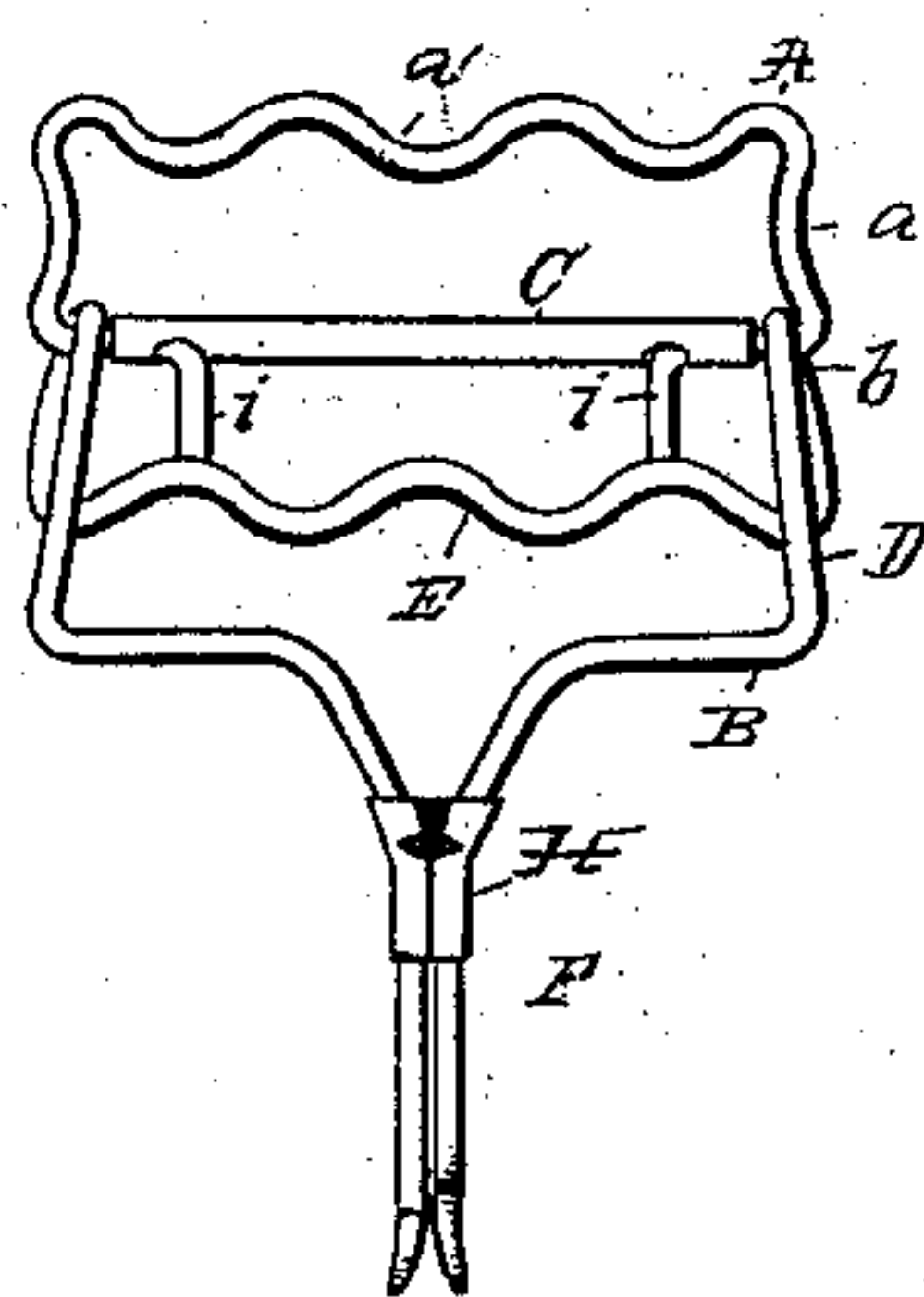


Fig. 4.

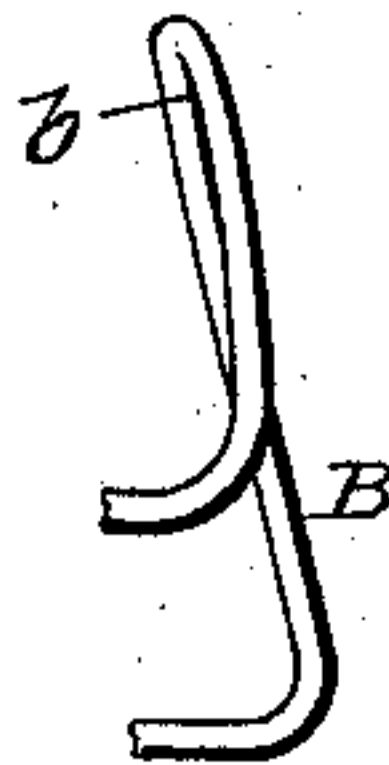


Fig. 5.

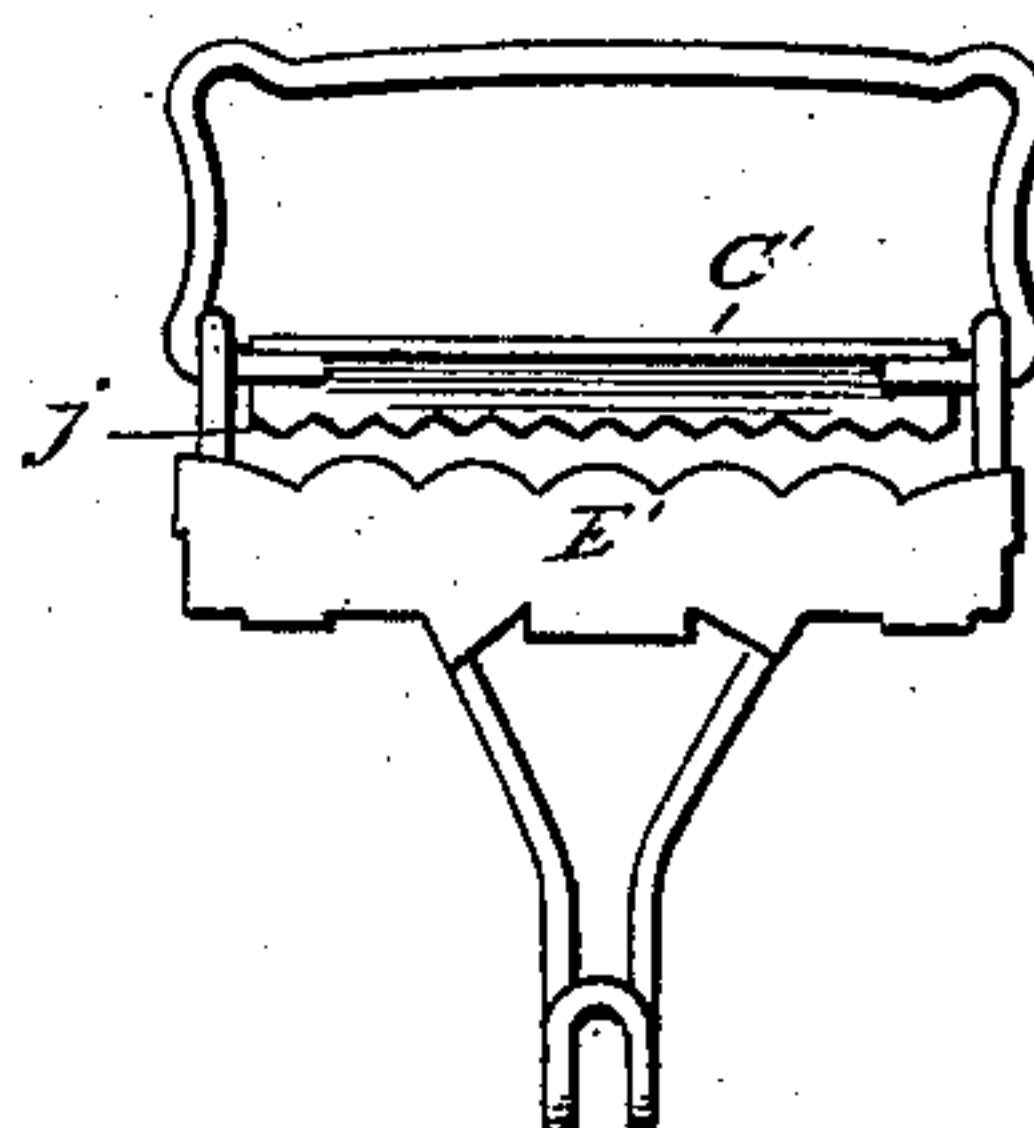
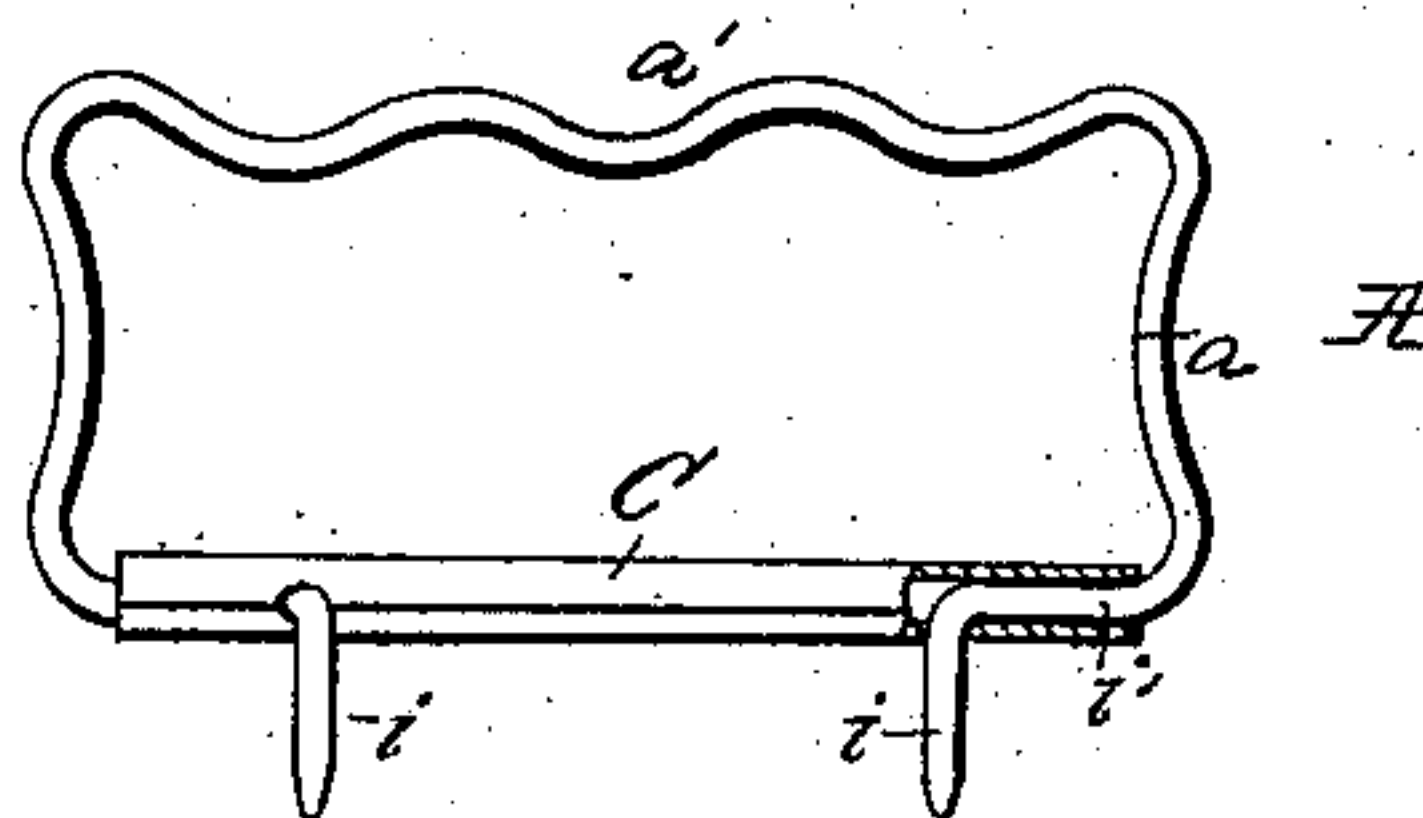


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDWARD H. WHEELER, OF WATERBURY, CONNECTICUT.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 381,973, dated May 1, 1888.

Application filed December 30, 1887. Serial No. 259,413. (No model.)

To all whom it may concern:

Be it known that I, EDWARD H. WHEELER, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Buckles; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to buckles for personal wear, such as suspenders, stocking-supporters, skirt-elevators, &c.

The object of the invention is the production of a buckle which will yield in its length when applied to a part of the person adapted to bend, so that when the body bends forward the buckle will accommodate itself to the angle of flexion without forcing its ends into the person and producing bruises and sore spots.

A further object of the invention is the production of a buckle which will be positive in its gripping action on the web to which it may be applied, and which will be simple, cheap, efficient, durable, and satisfactory in its results.

The improvement consists in the peculiar construction and combination of parts, which will be more fully hereinafter set forth and claimed, and shown in the annexed drawings, in which—

Figure 1 is a front view of a buckle of my invention; Fig. 2, a side view of the buckle, showing the web by dotted lines; Fig. 3, a rear view of the buckle; Fig. 4, a detail front view of one end of the buckle-frame on an enlarged scale; Fig. 5, a front view of a modification; and Fig. 6, a front view, part being broken away, of the tongue-frame on an enlarged scale.

The buckle is composed of two parts, A and B, pivotally connected together. The buckle-frame B has the tongue-frame A hinged to its top, the cross-bar C of the tongue-frame being journaled in loops *b*, formed at the upper corners of the buckle-frame. The loops *b* flare outwardly from back to front to form camways for the side bars *a* of the tongue-frame to ride on and compress the sides of the said buckle-

frame when the parts A and B are folded forwardly, so that when the pressure is removed the parts will be unfolded by the expansive force of the said buckle-frame.

The side bars D of the buckle-frame are folded on themselves, the bights of the folds forming the loops which receive the cross-bar C of the tongue-frame, to bring the end bar, E, between the cross-bar C and bottom of the frame B. The shank F, depending from frame B, is composed of two wires, which terminate in hooks *f*, which are oppositely disposed and have their lower ends oppositely beveled to permit the ready insertion of the ring G of the suspender-end. The hooks *f*, side bars D, and bar E are formed of a single wire bent to the form shown, the wires of the shank F being held together at their base by the clip H.

The bar E, on account of its function, will be designated and referred to in the claims as the "resistance-bar," because it acts in opposition to the tongues *i* to hold the web, and it is corrugated to give a more agreeable appearance, to permit the ready compression of the sides D, and to present projections between which and the tongues *i* the web is clamped.

The side bars *a* of the frame A are indented to prevent frame A from slipping down on frame B, and the top bar, *a'*, is correspondingly corrugated with bar E to present a symmetrical appearance.

The frame A is made of a single wire having its ends bent at right angles to form the side bars *a*, which are bent inward to form the supports *a'* for the ends of the cross bar C and outward to form the tongues *i*.

The cross-bar C is formed of a blank having notches in its edges and bent to form a tube, the ends of the tube being clinched about the supports *a'*, and the notches coming opposite the tongues *i* to permit them to project beyond the sides of the cross-bar.

The cross-bar C' (shown in Fig. 5) is trough-shaped, and one end is extended and serrated to form teeth *j*, and the resistance-bar E', which is a separate piece secured to the buckle-frame, is serrated on its upper edge to more firmly grip the web between the teeth of the cross-bar C' and the resistance-bar.

The web is passed back of the buckle and tongue frames and in front of the cross-bar,

and is clamped between the teeth of the cross-bar and the resistance-bar. The teeth of the cross-bar incline forwardly from the plane of the tongue-frame and are forced forward with
5 a yielding pressure by the inclined loops *b*, in a manner hereinbefore more fully described, and clamp the web in a positive manner.

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

1. The combination, with the herein specified tongue-frame provided with a cross-bar having teeth, of the buckle-frame provided with a resistance-bar having its upper edge
15 serrated to act in opposition to the said teeth, substantially as and for the purpose described.

2. The combination herein described, with the buckle-frame and the tongue-frame, of the supports extending from one frame and loops
20 or eyes on the other frame to receive the said supports, the loops being oppositely inclined or flared to form camways which bear against the sides of the frame having the supports to hold the two parts of the buckle distended or
25 open.

3. The herein-described buckle, composed of two frames hinged together, and a camway placed between the frames to bear against the side of one of the frames and hold the frames
30 distended, substantially as and for the purpose described.

4. The herein-described buckle, composed of two frames hinged together and having the sides of a frame flexible, and having the ends
35 of one of the frames made flaring to effect a deflection of the sides of the frame and create a tension when closing the buckles, which will automatically open the buckle when free from any external force, substantially as specified.

5. The combination herein described, with the buckle-frame having loops, of the tongue-frame having supports which are held in the loops and having its sides indented to overlap the said loops, whereby the tongue-frame is prevented from slipping over the buckle-
45 frame, substantially as described.

6. The buckle-frame having its side bars folded to form loops and bring the top bar below the cross-bar, for the purpose described, in combination with the tongue-frame jour-
50 naled in said loops and having its teeth adapted to act in opposition to the said top bar, substantially as and for the purpose described.

7. The herein-described buckle-frame, having its side bars folded to form loops, which
55 loops are flared, in combination with the tongue-frame journaled in the said loops, substantially as described.

8. The herein-described buckle-frame, composed of folded side bars, a resistance-bar,
60 shank and oppositely-disposed hooks made from a single wire, the opposing sides of the hooks being beveled, the clip uniting the wires of the shank, and the tongue-frame journaled in the loops formed by the folded side bars of
65 the buckle-frame, substantially as described.

9. The combination, with the buckle-frame and the tongue-frame having end supports, of the cross-bar secured at its ends to the said supports and having one edge extended and
70 serrated to form teeth, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD H. WHEELER.

Witnesses:

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DAVID H. SINSABAUGH.