

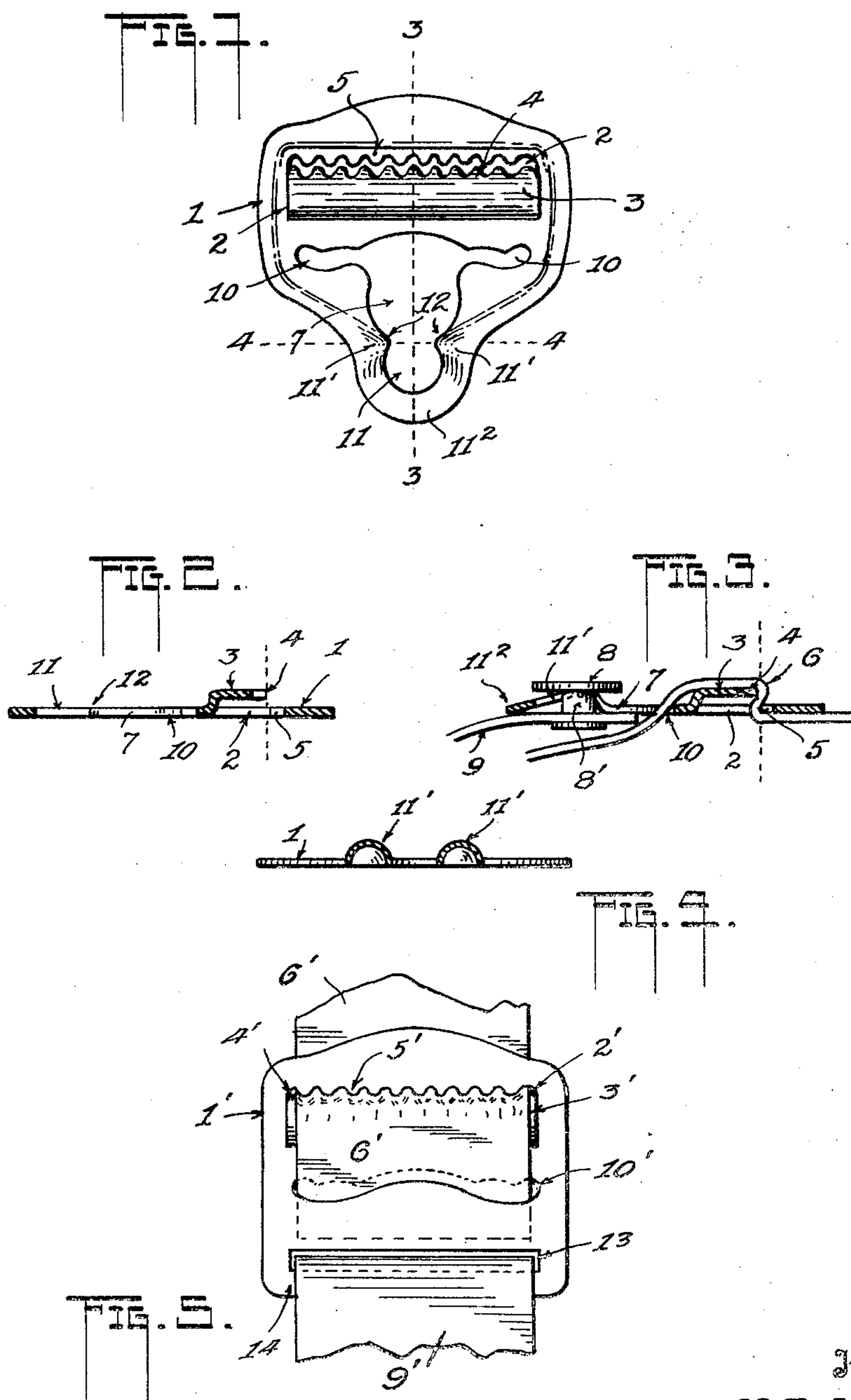
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H. D. ADAMS

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BUCKLE FOR GARMENTS

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Inventor
H. D. Adams,

By *L. M. Hurler*

Attorney

UNITED STATES PATENT OFFICE

HALE D. ADAMS, OF GALESBURG, ILLINOIS

BUCKLE FOR GARMENTS

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This invention relates to improvements in buckles of the type used for adjusting belts or straps on wearing apparel, said invention having to do with the form of a buckle comprised in a single stamping.

Objects of the invention are to furnish a stamped one-piece buckle low in cost of manufacture; a buckle that will provide an exceedingly positive grip on a strap threaded therethrough; a buckle that provides opposed serrated friction edges for positively gripping a strap and so disposed relatively that said strap cannot slip in either direction, yet permitting free adjustment of such strap.

A further object lies in providing a buckle having a series of serrations or teeth on each of two edges of a slot-opening, the said edges lying in spaced planes and the points of the two series of teeth substantially meeting a plane erected at right angles to the plane of the body and extending through said slot-opening.

Again, an object is to furnish a buckle having an opening for the passage of a strap-button and for receiving the button's shank, and to provide a constricted passage for the latter to prevent the accidental disengagement of the button.

Besides these objects, other objects and advantages will be recited herein, the appended drawing aiding in the complete understanding of the whole.

Figure 1 is a plan of a buckle constructed according to my invention.

Figure 2 is a longitudinal sectional elevation of the buckle in one of the forms it may take.

Figure 3 is a longitudinal sectional elevation of the buckle illustrated in Figure 1 on line 3—3 of that figure, included with which are strap portions, one having a button.

Figure 4 is a transverse sectional elevation on line 4—4 of said Figure 1, and

Figure 5 is a plan of a buckle showing part of my invention according to Figure 1, and part thereof having a different form of arrangement for attachment of a strap.

One of the purposes of my invention is to provide a buckle for use on certain types of garment that will secure a strap of such

garment securely so that it cannot slip in either direction of the length thereof, providing for that purpose a novel construction over the known art as will be pointed out.

In the drawing the numeral 1 designates a one-piece stamping having any usual or desired form of outline. Near one extremity the metal is partially severed by an inverted U-shaped cut 2 to produce a tongue 3 of elongated form laterally of the stamping or body. The dies of producing said cut 2 are so constructed as to create a serrated or toothed edge 4 on the longest edge of said tongue, and corresponding teeth or serrations 5 on the said body 1. Thus formed, the tongue is drawn out of the plane of the body in spaced relation thereto as shown particularly in Figures 2 and 3, the space between the planes of the tongue and body being of sufficient extent to permit a supporting-strap 6 to readily pass therethrough, see Figure 3, it being noted that the teeth substantially abut a plane erected substantially at right angles to the plane of the body as denoted in dotted lines in Figures 2 and 3. It is to be noted that the strap 6 in extending between the two sets of teeth describes a reverse curve and that, therefore, the said strap positively engages both said sets and cannot slip in either direction but must be loosened and disengaged from the teeth in order to permit any adjustment whatever.

The body 1 has an opening 7 spaced from the root of the tongue 3 through which to introduce a button 8 of any usual type carried by a strap 9 attached to the garment, not shown. As part of such opening 7 there is a slot 10 extending each toward the side edges of the body, the combined opening and slots providing for the passage therethrough of the extremity of the described strap 6, Figure 3, to carry it beneath the buckle for exposing the said opening 7, the contour of the slots 10 and the edge of the body within said opening 7 being of an irregular or reverse curve form, or an ogee form in this instance, whereby the said extremity of the strap is distorted when in position

therein and thereby prevented from moving due to friction. That is to say, the edge of metal of the body 1 at the top of the opening 7 is arched toward the tongue 3 and each slot 10 is laterally extended into the body beyond the opening 7, at each side, and communicating with the same. The said edge at each slot has one or more projections which extend into the slots toward the opposite edges of the metal, the slots then being directed at their extremities upwardly or toward the tongue 3. In addition, the said opposite edges, or those at the bottom of the slots and nearest the opening 7 form corners or projections directed toward the arched edge described, from which the edges are curved downwardly and outwardly opposite the first named projections. It is clear that the thus presented curves and projections serve to cause the strap inserted through the slots 10 and opening 7, as in Figure 3, to be distorted in a lateral direction and thus held from slipping.

Communicating with the opening 7 is a smaller opening 11 to receive the shank 8' of the button 8, a constriction being created between such openings by opposed extensions 12 of the body 1. This has been shown in both Figures 1 and 2, applying equally to each, said Figure 2 showing a flat body portion, while in Figure 1 a somewhat different body form is illustrated. That is to say, in the latter figure and in Figures 3 and 4 the metal is arched around the opening 11 as denoted at 11', being highest immediately adjacent the opening 7 and being sloped downwardly toward the lower edge 11² of the body as in Figure 3. Either the constricted neck at 12, or the arched form 11' may be employed in the buckle, or these may be used jointly, the purpose being to prevent the button from becoming detached from the body 1 during the movements of the wearer of the garment. Ordinarily, a metal button is used on garments such as worn by workmen, for example, attachment to the garment being made through the use of a metal shank such as 8' described. The construction at 12, 12 is such that the shank must be pushed therethrough in order to move the button 7 into the opening 7 to permit its disengagement through the latter. Again, there is a space between the button and the cloth to which the shank is secured, see Figure 4, and the width of this space, which is about the same in all buttons, determines the height of the arched portion 11' at the juncture of the two openings 7 and 11, the measurement of which height is slightly in excess of the distance between the button and the cloth at the base of the shank. As in the other instance, the button must be forced over the arch in order to release it. As has been intimated, either or both methods of control of the button are open for use, though other

ways may be adopted such as may be considered to lie within the meaning of certain of the claims to follow.

In Figure 5 a buckle is illustrated according to my invention with respect to the tongue 3' and its relation to the teeth 5' of the body 1', which structure has been described, said body in this instance having a slot 13 in its terminal portion 14 to receive the end of a strap 9' looped about said portion. This is shown merely as indicating a different form of the buckle while still retaining the structure above mentioned. In the figure it is noted that a slot 10' perforates the body 1' between the tongue 3' and the said slot 13 to receive the strap 6' in the same way as in Figure 3, said slot 10' taking substantially the same form as the slots 10 in Figure 1, the opening 7 of the latter figure being absent, however, providing a continuous slot across said body.

Since the tongue 3 and the body 1 have the teeth or serrations 4, 5 arranged so as to be opposed to each other in the manner shown and described, and since said teeth are provided the full length to the opposed edges they engage the entire width of the strap 6 and positively prevent that member shifting in either direction, there being no stretching or pulling unequally upon the parts of the same. The non-slipping is aided by having the two sets of teeth substantially meet in a plane substantially perpendicular to the plane of the body, as already outlined, requiring that the strap describe a reverse curve as it lies in the resultant slot 2.

My invention contemplates making the body 1 of metal of a more or less springy nature whereby the button in passing over the parts 11', and the shank in moving through the constriction between the extensions 12 will have a somewhat greater resistance than provided by unyielding metal.

I claim:

1. A buckle for securing the strap of a garment including a body having an opening of such size and shape as to receive a button on a second strap of such garment, there being a slot communicating with and extending beyond the opening at each side thereof, the said opening and the slots together having a closed T-form, the contour of the slots and the edge of the body within said opening being substantially the form of a reverse curve, and the edge of the metal opposite the said opening being continuous and having an arched form, the slots together with the upper portion of the opening being of a size and shape to receive therethrough the first named strap.

2. A buckle for securing the strap of a garment including a body having an opening of such size and shape as to receive a button on a second strap of such garment, there being a slot communicating with and extend-

ing beyond the opening at each side thereof, the said opening and the slot together having substantially a T-form, the edges of the metal within each slot having opposed projections and the contour of said slots and the edge of the body within said opening being the form of a reverse curve, the edge of the body at said slot which lies opposite the opening being continuous throughout.

3. A buckle for securing the strap of a garment including a body having an opening of such size and shape as to receive a button on a second strap, there being a second smaller opening of substantially circular outline suitable for freely receiving a shank on said button, the portion of the body having such second opening being extended laterally out of the plane of such body whereby to frictionally engage the under side of the button, the two openings being connected by a passage of less width than the said smaller opening, there being a slot in said body extended beyond the first named opening at each side thereof and communicating therewith, the resultant slots being of a size and shape to jointly receive through them the first named strap, that edge of the body within the slots and lying opposite the first named opening being continuous throughout for presenting a continuous friction surface to the last named strap.

4. The invention according to claim 3 wherein the slots describe substantially reverse curves.

5. A buckle for securing the straps of garments comprising a body having two lines of teeth whose points lie in opposed positions, one of said lines being spaced from the other in a lateral direction, the points of both lines of teeth substantially meeting a plane erected at right angles to the plane of the body, said body having an opening spaced from the lines of teeth of such a size and shape as to receive through it a button on one of the straps of the garment, there being a slot lying at each side of and connected with said opening, said slots also lying between the position of the teeth and that of the opening, and the edges of the metal within the slots having an irregular contour, the slots being of such size and shape as to receive through them a strap of the garment passing between the named teeth.

6. A buckle for securing the straps of garments comprising a body having two lines of teeth whose points lie in opposed positions, one of said lines being spaced from the other in a lateral direction, the points of both lines of teeth substantially meeting a plane erected at right angles to the plane of the body, said body having an opening spaced from the lines of teeth of such size and shape as to receive through it a button on one of the straps of the garment, there being a second smaller opening adjacent the first named

opening, the two being connected by a passage of less width than that of the said smaller opening, the metal at each side of the passage being extended away from the plane of the body in one direction, there being a slot at each side of the large opening communicating therewith and being of such shape and size as to receive through it another strap of the garment.

In testimony whereof I affix my signature.
HALE D. ADAMS.

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