

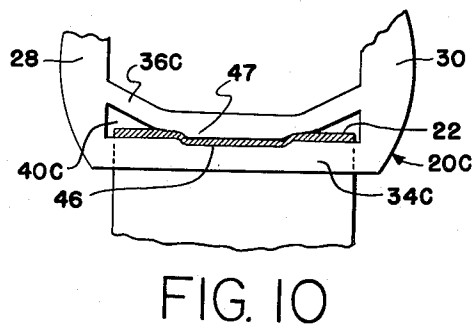
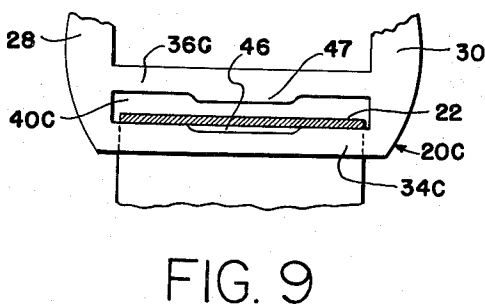
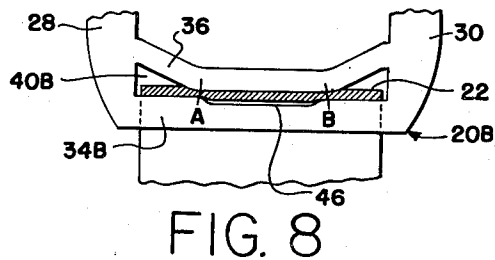
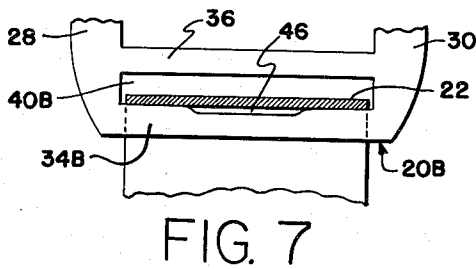
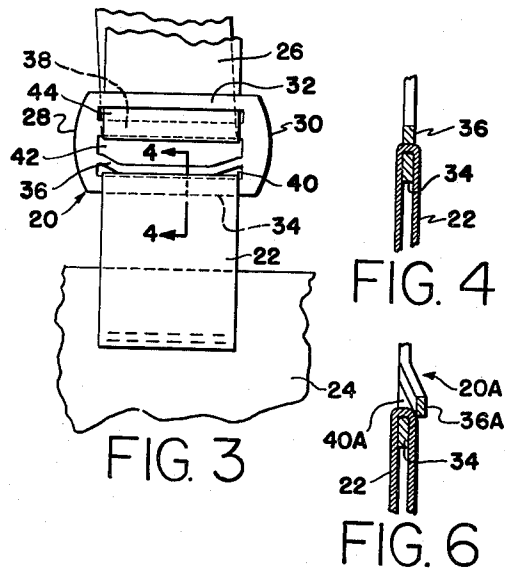
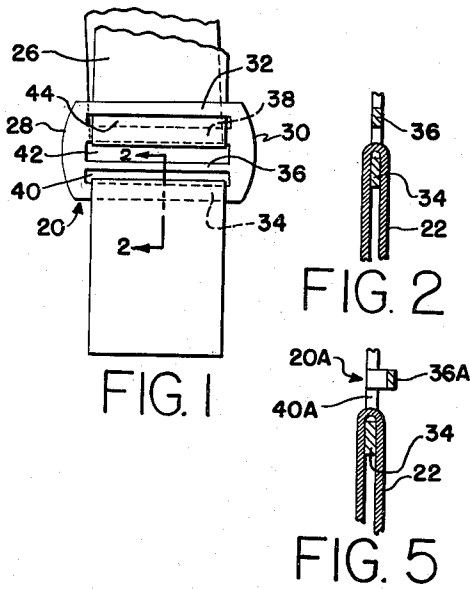
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P. W. WHITE

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TABBED BUCKLE

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INVENTOR.
PAUL W. WHITE
BY *Wason, Kalkbrenner,
Rathbun & Wyo.*
ATTORNEYS

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TABBED BUCKLE

Paul W. White, New Haven, Conn., assignor to Parva Products Company, Mount Carmel, Conn., a corporation of Delaware

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2 Claims. (Cl. 24-200)

This invention relates to tabbed buckle assemblies for use with lingerie garments and the like, and more particularly to a one-piece buckle with a tab assembled therewith before the tab is attached to the garment.

In the manufacture of lingerie garments such as slips and the like, it is desirable that the supporting straps for the garment be attached to the garment with a buckle already threaded on the fixed strap or tab. This is desirable since it is much easier to thread a buckle on a strap or tab separately than it is to thread the buckle on a strap which is attached to a cumbersome garment.

It is also desirable that the buckle be threaded on the strap or tab and retained thereon with sufficient firmness that the buckle will not slip off inadvertently during handling operations and yet will be still movable on the tab to the desired position of adjustment relative to the tab before the strap is fixedly secured to the garment.

It is further desirable to have a pre-threaded or tabbed buckle as described above that will prevent the strap or tab from bunching up or gathering at one side of the buckle, causing difficulty in adjusting the buckle for the desired length as well as discomfort to the wearer of the garment. Further, it is desirable to have a tabbed buckle that, while preventing bunching or gathering of the straps or tabs to one side of the buckle, will still be movable on the tab enough to accommodate off-center loads freely without causing excessive wear on the tab at the points of contact.

Therefore, it is an object of the present invention to provide a new and improved tabbed or pre-threaded buckle.

A further object is to provide a new and improved tabbed buckle which will not easily slip off the tab after the threading operation but will still be adjustable on the tab to the desired position before the tab is fixedly attached to the garment.

Another object of the present invention is to provide a new and improved tabbed buckle which will prevent the tab upon which it is threaded from bunching or gathering to one side of the buckle while yet allowing the buckle to move in order to equalize the tension on both portions of the tab.

The foregoing and other objects of the present invention are accomplished by providing a tabbed buckle adapted for use on lingerie garments and the like comprising a single piece buckle having a pair of side bars interconnected at their respective ends by a pair of end cross bars and interconnected intermediate their respective ends by a pair of intermediate cross bars. A short fixed length tab or strap is threaded into the opening defined between the lower intermediate cross bar and the lower end cross bar, and then the lower intermediate cross bar is downwardly deformed, clamping the tab within the opening.

In another form of the invention the lower intermediate cross bar is outwardly deformed from the plane of the buckle before the tab is threaded into the buckle, and after threading the lower intermediate cross bar is downwardly deformed, thus securing the tab within the opening. Another form of the invention provides a buckle having its lower end cross bar provided with a recess in a portion of the upper edge thereof for better securing the tab within the opening when the lower intermediate cross bar is downwardly deformed. Yet another form

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of the invention provides a buckle having its lower end cross bar provided with a recess in a portion of the upper edge thereof and a corresponding projecting portion or tongue on the lower edge of the lower intermediate cross bar for better securing the tab or strap within the opening when the lower intermediate cross bar is downwardly deformed.

Many other objects and advantages of the present invention will become apparent from considering the following description in conjunction with the drawings in which:

FIG. 1 is a plan view of a tabbed buckle as characterized by the features of the present invention;

FIG. 2 is a sectional view taken along line 2-2 of FIG. 1;

FIG. 3 is a plan view of the buckle of FIG. 1 illustrating the buckle after the downward deformation of the lower intermediate cross bar;

FIG. 4 is a sectional view taken along line 4-4 of FIG. 3;

FIG. 5 is a sectional view illustrating another embodiment of the invention having the lower intermediate cross bar of the buckle deformed outwardly from the plane of the buckle, and taken along a line similar to FIG. 2;

FIG. 6 is a sectional view illustrating the buckle of FIG. 3 after the downward deformation of the lower intermediate cross bar, and taken along a line corresponding to FIG. 4;

FIG. 7 is a partial plan view partly in section of another embodiment of the invention;

FIG. 8 is a partial plan view partly in section illustrating the buckle of FIG. 7 after downward deformation of the lower intermediate cross bar;

FIG. 9 is a partial plan view partly in section of another embodiment of the invention; and

FIG. 10 is a partial plan view partly in section illustrating the buckle of FIG. 9 after downward deformation of the lower intermediate cross bar.

Referring now to the drawings and particularly to FIGS. 1, 2, 3 and 4, there is illustrated a buckle 20 attached or assembled to a tab or strap 22 which is of fixed length and is adapted for attachment to a lingerie garment 24 by sewing or the like as shown in FIG. 4. The buckle is adapted to be assembled with an adjustable strap 26 having one end (not shown) attached to another portion of the lingerie garment and having its other end threaded through the buckle 20 in such manner that when tension is applied the strap 26 tightly engages the buckle 20 and slippage is prevented.

As is best shown in FIGS. 1 and 3, the buckle 20 is comprised of a pair of side bars 28 and 30 interconnected at their respective ends by a pair of end cross bars 32 and 34 and interconnected intermediate their respective ends by a pair of intermediate cross bars 36 and 38. An opening 40 is defined between the bars 36 and 34 into which the fixed length tab 22 is threaded. The free end of the adjustable strap 26 is threaded up thru an opening 42, defined between the bars 36 and 38, over the bar 38, down thru an opening 44, defined between the bars 32 and 38, and under the bar 32. Thus, when there is little or no tension on the strap 26, it can be adjusted to any desired length by pulling or slackening the pull on the free end thereof. When tension is applied to the strap 26, however, the buckle 20 holds the strap 26 firmly in position, preventing slippage.

After the fixed length tab 22 is threaded thru the opening 40 the cross bar 36 is downwardly deformed as is illustrated in FIG. 4. The downward deformation of the cross bar 38 reduces the opening 40 and clamps the tab 22 so it cannot easily slip out of the buckle 20. The clamping force can be adjusted so that it is possible to move the tab 22 by pulling on either end or it can be ad-

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justed so as to clamp the tab 22 absolutely tight within the opening 40. In either event, the tabbed buckles 20 can then be packaged and shipped to the garment manufacturer to be attached to garments and there is no danger that the tabs 22 will become separated from the buckles 20. The clamping action of the cross bar 36 also serves to prevent the tab 22 from gathering or bunching up at one side of the opening 40 when the pull on the tab 22 is uneven or unsymmetrical.

When the ends of the tab 22 are sewed on to the garment, if one side happens to be sewed tight and the other side loose, the buckle 20 will slip on the tab 22 to equalize the tension on both sides so that both sides of the tab 22 will lie flat. The clamping action of the cross bar 36 keeps the buckle 20 from shifting sideways and prevents the tab 22 from bunching up at one side of the buckle and thus it is not necessary for the garment manufacturer to sew both sides of the tab 22 together in close proximity to the lower edge of the buckle 20, as was necessary before, to prevent side slipping and bunching.

It can thus be seen that the use of a pre-threaded tabbed buckle 20 of the present invention makes possible a considerable saving in cost and labor to the garment manufacturer in addition to the advantageous features before described.

Buckles manufactured in accordance with the present invention are stamped or punched out of aluminum or steel sheets by suitable dies or punches in a variety of different sizes to accommodate a variety of straps. The buckles may be coated with a tough enamel to provide a smooth, durable and attractive finish of the desired color to match the straps and garments.

FIGS. 5 and 6 illustrate a slightly different form of a buckle 20A according to the invention having a lower intermediate cross bar 36A which is deformed outwardly from the plane of buckle 20A. Similar parts of the buckle of FIGS. 5 and 6 and of the embodiment of FIGS. 1 to 4 are identified by the same numerals. After the tab 22 is threaded through an opening 40A defined between the bars 34 and 36A, the outwardly deformed cross bar 36A is then downwardly deformed as illustrated in FIG. 6. Thus, in the buckle 20A only the left lower corner of cross bar 36A is in contact with the tab 22 in contrast to the whole lower surface of cross bar 36 of buckle 20 as illustrated in FIG. 5.

FIGS. 7 and 8 yet illustrate another form of buckle 20B according to the present invention and having a lower cross bar 34B with a slight recess 46 defined in a portion of the upper edge thereof. Similar parts of FIGS. 7 and 8 and the preceding embodiments are identified by the same numerals. The recess 46 serves to further prevent the tab or strap 22 from bunching or gathering at one end of the recess 40B by providing a pair of compression areas A and B on the tab 22 which have greater

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frictional contact with the cross bar 34B than over the rest of the contacting surface.

FIGS. 9 and 10 illustrate yet another embodiment of buckle 20C having a lower cross bar 34C with a slight recess 46 in a portion of the upper edge thereof and the lower edge of the intermediate cross bar 36C is provided with a corresponding projecting portion or tongue 47. Similar parts of FIGS. 9 and 10 and of the preceding embodiments are identified by the same numerals. The recess 46 and tongue 47 cooperate to aid in clamping the tab 22 within the opening 40C and prevent the tab from bunching or gathering to one side.

Although the present invention has been described with reference to the plurality of embodiments thereof, it should be understood that many other modifications and embodiments can be devised by those skilled in the art; for example, the lower intermediate cross bar in the embodiments of FIGS. 7 and 8 and of FIGS. 9 and 10 could be offset from the plane of the buckle similar to that illustrated in FIGS. 5 and 6. It is intended in the appended claims to cover all such modifications as fall within the true spirit and scope of the principles of this invention.

What is claimed as new and desired to be secured by Letters Patent of the United States is:

1. A tabbed buckle assembly for use with a lingerie garment and the like comprising a pair of side bars, an upper end crossbar joining the respective upper ends of said side bars, a lower end crossbar joining the respective lower ends of said side bars and provided with a centrally disposed recess to provide compression areas adjacent each end thereof in the upper edge thereof, a tab threaded over said lower end crossbar, an upper intermediate crossbar joining said side bars intermediate their ends, and a lower intermediate crossbar joining said side bars intermediate said lower end crossbar and said upper intermediate crossbar and deformed downwardly intermediate its ends in tab clamping relation with said lower end crossbar.

2. A tabbed buckle as described in claim 1 above, wherein said lower intermediate crossbar is provided with a projecting tongue portion complementary to and vertically adjacent said recess.

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