July 26, 1955 C. E. ANDERSON 2,713,708

SLIDE UNIT FOR CLOTHING

Filed April 20, 1953

Fig. 1.

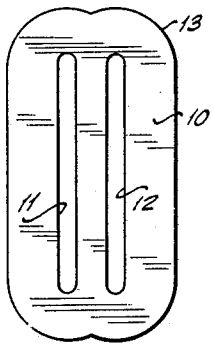


Fig. 2.

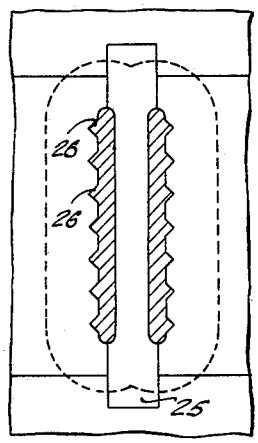


Fig. 3.

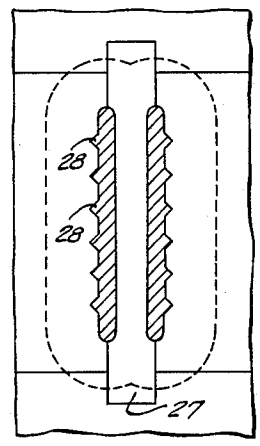


Fig. 4.

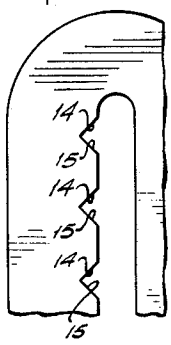


Fig. 5.

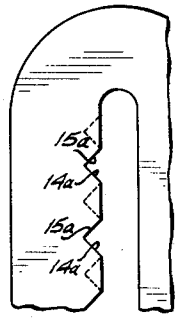


Fig. 6.

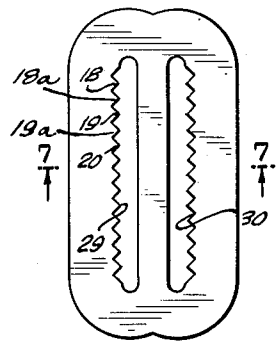


Fig. 10.

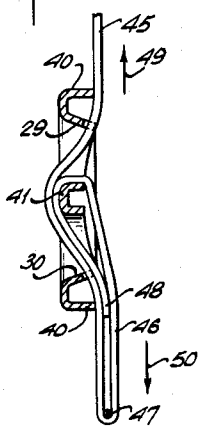


Fig. 8.

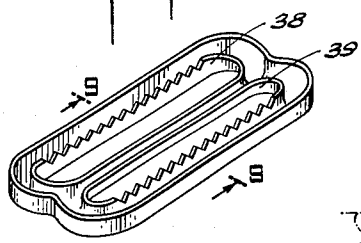


Fig. 7.

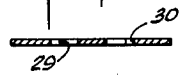
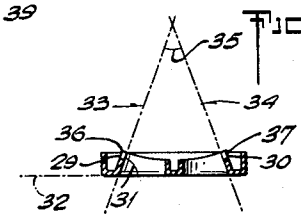


Fig. 9.



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SLIDE UNIT FOR CLOTHING

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Application April 20, 1953, Serial No. 349,742

2 Claims. (Cl. 24—198)

This invention relates to clothing, and more particularly to a slide unit for forming a loop on a length of strap in automatically gripping, binding and manually adjusted position thereon.

There has been for some time in the industry a demand for a slide unit which would operate in the highly effective and useful manner of the slide unit of this invention, and numerous attempts were made in the industry to provide a slide unit directed to the objectives above noted. The slide unit of the present invention attains these objectives in a novel and most satisfactory fashion, as will appear from the description and drawings.

The slide unit of the invention, as will appear from the drawings and description below, is of such structural features that the strap may be readily threaded therethrough to form a loop through which a garment portion, or a garment connector member may be passed.

The unit of this invention is of such structural features that the loop may be readily formed thereon to precisely the length desired, and, when so formed, will automatically grip and bind the slide unit; at the same time, the strap may be readily manually released or adjusted from time to time as may be desired.

These and other advantageous objects, which will appear from the drawings and from the description hereinafter, are accomplished by the structure of my invention, of which an embodiment is illustrated in the drawings. It will be apparent, from a consideration of said drawings and the following description, that the invention may be embodied in other forms suggested thereby, and such other forms as come within the scope of the appended claims are to be considered within the scope and purview of the instant invention.

In the drawing:

Fig. 1 is a plan view of a blank formed from a sheet of material to form a unit having the outline of a flattened "8,"

Fig. 2 is a partly sectional plan view, showing a step in the method of the invention for cutting oppositely angled adjacent faces of alternate teeth along parallel outer edges of the apertures of said unit, the latter being shown in dotted lines,

Fig. 3 is a similar view showing the next step in the method, wherein the blank with the thus formed alternate teeth is acted on by a die to impress the complementary oppositely angled adjacent faces of alternate teeth,

Fig. 4 is a fragmentary plan view of the unit formed pursuant to the step illustrated in Fig. 2,

Fig. 5 is a similar view of said unit in the step illustrated in Fig. 3,

Fig. 6 is a plan view of the unit after the same has been subjected to the steps of Figs. 2 and 3,

Fig. 7 is a transverse sectional view, taken on line 7—7 of Fig. 6,

Fig. 8 is a perspective view of the unit shown in Fig. 6, completed pursuant to additional steps of the method of the invention,

Fig. 9 is a transverse sectional view, taken on line 9—9 of Fig. 8, and

Fig. 10 is a medial sectional view of the completed unit, showing the manner in which the clothing loop on a clothing strap is formed thereon.

As shown in the drawings, the slide unit of the invention is initially fabricated as a blank **10** from a suitable sheet of material such as a metal, to provide a pair of parallel elongated apertures **11, 12**, said blank being provided with a generally corresponding outer edge **13**, thereby providing a unit of generally flattened "8" outline. In the next step of the method, oppositely angled adjacent faces **14, 15** of alternate teeth (Figs. 4 and 5), as, for example, the alternate teeth **18, 19, 20**, shown in Fig. 6 are formed as illustrated at Fig. 2, by a suitable means, such as, for example, the die member **25** provided with the oppositely angled adjacent face-forming projections **26** to form the adjacent faces, **14, 15** of alternate teeth shown in Fig. 4. In the next step in the process illustrated in Fig. 3, means such as a die member **27** provided with oppositely angled face-forming projections **28** spaced to complement the oppositely angled face-forming projections **26** of the die **25**, is provided; in the step of the operation illustrated in Fig. 3, the complementary oppositely angled adjacent faces **15***a*, **14***a* (Fig. 5) which with the previously formed adjacent faces **15, 14** of the first stage of the method shown in Figs. 2 and 4 are formed, to form the complete intermediate tooth portions designated in Fig. 6 as **18***a*, **19***a* between the alternate tooth portions **18, 19** and **20**. Thus, by the method described and shown in Figs. 2, 3, 4 and 5, a unit is provided with complete rows of teeth **29, 30** at the outer edges of the apertures **11** and **12**. In the next step of the method, the blank is formed from the single plane disposition thereof shown in Figs. 6 and 7 to its final form illustrated in Fig. 8. Following the Figs. 3 and 6 step, the rows of teeth **29, 30** are bent upwardly at an acute angle **31** to the plane **32** of the base of the article (Fig. 9). The projected planes **33, 34** of rows of teeth **29, 30** meet to define an acute angle **35** as shown in Fig. 9. The rows of teeth are further formed of such length that when so bent upwardly, their points will intersect the plane of the outer edges of the article, as noted at **36** and **37** of Fig. 9. The edges of the apertures not provided with the teeth **29, 30** are bent upwardly as noted at **38** and **39** in Fig. 8. The outer edge **13** of the article is also bent upwardly as noted at **40**. The portions **38, 39** and **40** are preferably bent at substantial right angles to the plane **32** of the article, as shown in Fig. 9.

The slide unit formed as above noted, embodying the invention, is highly efficient and practical in operation. The clothing strap **45** on which the loop **46** is to be formed to receive the member **47**, which may, for example, be a garment-holding member, is passed over the outer edge **40** of the article, over the row **29** of teeth and under the bar **41** of the article defined by the upturned inner edges of the apertures **11** and **12**, and over the row **30** of teeth and thence over the outer edge **40** of the unit. Then the strap is doubled upon itself to form the loop **46** and brought around and under the bar **41** and over the row of teeth **30**. The free end **48** of the strap **45** is disposed within the loop portion **46**; the upper end of the strap would normally be secured to one part of the garment; the tendency in the normal use of the garment would be to draw said end of the strap upwardly in the direction indicated by the arrow **49**. The loop end **46** of the strap would serve as a support for the other portion of the garment secured to the member **47**, which would serve to stress the loop **46** in the direction indicated by the arrow **50** in Fig. 10. Thus, in use, the normal stresses **49, 50**, to which the strap is subjected, will serve to simply more tightly bind the same on the points **36, 37** on the

rows of teeth **29**, **30**, which will, as shown in Fig. 10, after the formation of the strap loop and the adjustment of the strap on the slide unit of the invention "bite" into the material of the strap; the strap will wedge itself intermediate the bar **41** and rows of teeth **29**, **30**, and over the outer edge **40** of the article. Thus the strap will be automatically locked in adjusted position and the slide unit of this invention will have a binding gripping action on the strap and its loop. Any attempt to move the ends of the strap apart as shown at **49** and **50**, will simply further grip and bind the parts unto the strap. Even an intermittent reciprocation of the ends of the strap toward and away from each other will not dislodge the position of the strap in the slide unit. To alter the position of the strap thereon, it will be necessary to manually move the strap parts as desired. But the action of dislocation would not be attained automatically or in normal use. The effectiveness of the strap unit is attributable to the specific features of construction and relative disposition of the parts above described and shown in the drawings and forming the subject matter of the appended claims.

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

1. A slide unit for forming a loop on a length of clothing strap in automatically gripping and binding but manually adjustable position thereon, comprising an article having a flat base and provided with a pair of elongated, parallel apertures and with an outer edge forming, with said apertures, a unit of generally flattened "8" shape, and continuous rows of teeth in said article formed at the outer edges of said apertures and upwardly directed relative to the plane of said base at an acute angle thereto, the inner edges of said apertures being upwardly directed relative to the plane of said base and being so proportioned as to extend upwardly to a point substantially below the plane of the points of said teeth.

2. A slide unit for forming a loop on a length of clothing strap in automatically gripping and binding but manually adjustable position thereon, comprising an article having a flat base and provided with a pair of elongated, parallel apertures and with an outer edge comprising parallel walls extending upwardly relative to the plane of the base of the article, said outer edge forming, with said apertures, a unit of generally flattened "8" shape, and continuous rows of teeth in said article formed at the outer edges of said apertures and upwardly directed relative to the plane of said plane, the inner edges of said apertures being upwardly directed relative to the plane of said plane and being so proportioned as to extend upwardly to a point substantially below the plane of the points of said teeth.

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