March 16, 1937. S. M. WARD 2,074,035

SEPARABLE FASTENER

Filed Dec. 4, 1934

Fig. 1.

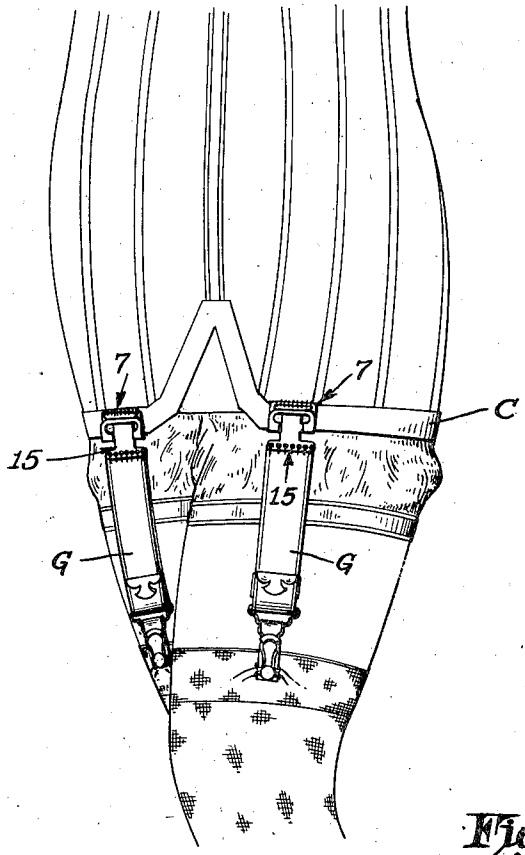


Fig. 2.

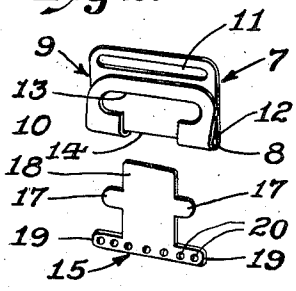


Fig. 3.

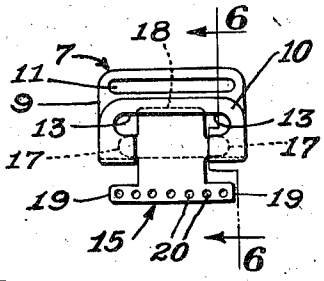


Fig. 4.

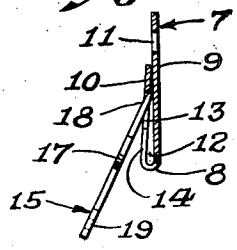


Fig. 5.

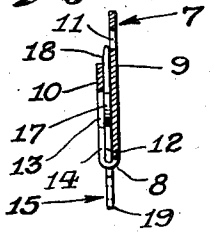
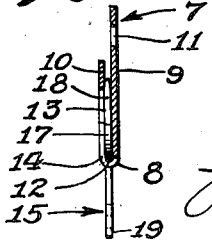


Fig. 6.



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UNITED STATES PATENT OFFICE

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SEPARABLE FASTENER

Sena M. Ward, Bronx, N. Y.

Application December 4, 1934, Serial No. 755,982

4 Claims. (Cl. 24—201)

My present invention relates to improvements in separable fasteners.

In my Patent No. 1,896,129, I have disclosed a separable fastener particularly designed and intended for use in connection with wearing apparel, such as ladies' undergarments, and especially adapted for association with girdles or corsets and garters for detachably connecting the garters to the girdles or corsets. The general practice prior to my invention disclosed in the said patent was to permanently attach the garters to the girdles or corsets so that when the latter were laundered it was also necessary to subject the elastic garters to the action of the washing fluids, which adversely affected the elasticity of the garters.

Also in my said patent I disclose a separable fastener which can be used in detachably securing garters to girdles or corsets, and which is of a substantially flat or thin nature so as to create no noticeable bulge on the garments worn thereabove. In the said patent I disclose a substantially flat U-shape part in cross-section which is attached to the garter, and provided in the crown of the fold with an opening to receive another member having a substantially flat tongue provided on its lower end with a flange or lip projecting at right-angles to the flange or tongue to engage beneath the edge of one of the arms of the U-shape member to prevent separation of the said members under natural stresses and normal conditions.

My present invention provides a construction of a separable fastener affording increased thinness or flatness to the fastener, further preventing noticeable bulges on garments when worn above the garters and girdles or corsets; and also provides a separable fastener which can be manufactured at a minimum of expense, and conveniently manipulated by the wearer to separate the garters and girdles and corsets, or other parts joined together by the fastener.

The foregoing is accomplished by providing that the two members of the separable fastener be thin and flat with all parts, when assembled, located in the same plane, instead of having any of the parts provided with portions projecting at an angle relative to the other.

In the accompanying drawing I have illustrated my new and improved separable fastener in preferred form, and

Fig. 1 is a view illustrating fasteners embodying the present invention applied to a girdle or corset and garters to join the same together;

Fig. 2 is a perspective view of the parts of the fastener detached and in related position for assembly;

Fig. 3 is a front elevation showing the parts assembled;

Fig. 4 is a central vertical sectional view showing the relative positions of the parts at the initial stage of assembly; as on line 4—4 of Fig. 2;

Fig. 5 is a view similar to Fig. 4 showing the parts at the intermediate stages of assembly; and

Fig. 6 is a view similar to Fig. 5 showing the parts fully assembled as taken on the line 6—6 of Fig. 3.

Referring to the drawing, in Fig. 1 the letter C designates generally the lower portion of a girdle or corset applied to a human figure, and having attached to the bottom thereof the female member of my separable fastener designated generally by the numeral 7, while the numeral 15 designates generally the male member of the separable fastener which is attached to the garter G.

Referring to Fig. 2 it will be noted that the member 7 is of generally U-shape in cross-section, and is formed preferably of very thin resilient sheet metal bent upon itself as at 8, to form two superposed substantially flat portions or wings 9 and 10. The portion 9 is longer than and extends above the portion 10 and is provided adjacent its top with a slot 11 through which the stitches can be passed when securing the member 7 to a corset or girdle or other garment, as shown in Fig. 1. Adjacent the fold 8 the portions 9 and 10 may be slightly separated as indicated by the numeral 12, to receive a part of the male member. The portion 10, which forms the front of the member 7, is provided with a transverse slot 13, which communicates with a longitudinal slot or groove 14 formed by cutting away the lower part of the portion 10 and preferably a part of the fold 8, as shown clearly in Fig. 2. The top of the portion 10 of the member 7 is preferably pressed in against and snugly engages the portion 9.

The other member of the separable fastener, that is, the member 15, comprises a flat thin piece, preferably metal, having intermediate its ends rounded lateral extensions 17 of substantially the same dimensions as the slot 13 in the member 7, so that they may freely pass thru the slot. Above the extension 17 is a tongue forming the top of the member 15, and at the bottom of the member 15 are lateral extensions 19 formed with perforations 20, which obvi-

ously may be a slot similar to the slot 11 of member 7, to receive the stitches to secure the member 15 to a garter.

While I have described the members as being made of thin resilient metal, I wish it to be understood that any other suitable material or combination of materials may be used so long as they possess the requisite tensile strength.

With the foregoing description in mind and referring particularly to Figs. 4, 5, and 6, I will describe the manner of assembling and disassembling the parts. To inter-engage the member 15 in the member 7, which serves as a keeper, the member 15 is disposed at an angle of inclination with respect to the member 7, as shown in Fig. 4, with the tongue 18 disposed in the slot 13 and under the top of the portion 10. Relative approaching movement is then imparted to the members until the extensions 17 are alined with the ends of the slot 13 at which time the member 15 is swung into the same plane as the member 7, as shown in Fig. 5, and at which time the tongue 18 projects above the top of the portion 10 of the member 7 and the extensions 17 are alined with the slot 13. Then the members are given relative opposing movement so that the extensions 17 ride down into the slight space 12 between the portions 9 and 10, and against the fold 8. The tongue 18 and extensions 17 are then resiliently gripped between the portions 9 and 10 of the member 7, and the abutting engagement of the lower edges of the extension 17 against the fold 8 prevents further opposite outward movement of the parts and consequently accidental separation of the parts. A face view of the parts in their fully assembled relation is shown clearly in Fig. 3.

The parts thus assembled are detachably locked together against accidental separation, and may be separated purposely, as for separate laundering of the garments joined thereby, or for other desired reasons, by imparting to the members 7 and 15 relative approaching movements causing the extensions 17 to be disposed in alinement with the slot 13. In this connection I will point out that the lateral extensions 19 on the part 15 are spaced from the extension 17 at a pre-determined distance, such that when the extensions 19 engage the fold 8 of the part 7 they will act as a stop to further relative movement of the members and will locate the extension 17 definitely in alinement with the slot 13. The lower end of the part 15 is then pulled out to remove the extension 17 from the slot 13 and to permit the parts to be separated by further relative opposite movements. To reassemble it is only necessary to repeat the simple assembling operation as previously explained.

Where a device is to be used in connection with wearing apparel I preferably construct the members 7 and 15 so that all exposed corners are rounded or smoothed so that they cannot cut or tear delicate fabrics or garments worn thereover, or to which they may be secured. I further prefer to make the said members of resilient metal, such as stainless steel, which will resist body acid and the action of perspiration, so as not to discolor the garments to which they are attached. However, there is a wide choice in the selection of materials from which the members may be made. Since the essential features of the preferred embodiment of the invention, and the manner of operating the same have been hereinabove described in detail, I deem no further description thereof necessary.

I claim:

1. A separable fastener comprising a retaining member of thin resilient material folded upon itself to provide a flat substantially U-shaped part in cross-section and having a portion of one of its arms cut out to provide a slot extending longitudinally upward from the bend, said slot having at its upper end lateral extensions, and a retained member of thin flat material having a tongue at its top insertable between the arms of the retaining member at the top of the slot, and lateral projections below said tongue insertable into the lateral extensions of the slot after the tongue has been inserted between said arms at an angle of inclination thereto, said projections on the retained member being located between said arms of the retaining member and against the fold thereof to prevent separation of said members by relative outward movement when the members are completely assembled by bringing said members into substantial parallelism after said projections enter said slot extensions and said members are moved in opposite directions.

2. A separable fastener comprising a retaining member of thin resilient material folded upon itself to provide a flat substantially U-shaped part in cross-section the arms of which are disconnected and normally resiliently urged toward each other and having a portion of one of its arms cut out to provide a slot extending longitudinally upward from the bend, said slot having at its upper end lateral extensions, and a retained member of thin flat material having a tongue at its top insertable between the arms of the retaining member at the top of the slot, lateral projections insertable into the lateral extensions of the slot when the tongue is inserted, said projections being located between said arms against the fold to prevent separation of said members by relative outward movement when the members are completely assembled, and means on said retained member to abut said bend and locate said projections at said slot extensions when the parts are moved toward each other during disassembly thereof.

3. A separable fastener comprising a retaining member having two thin flat metallic plates forming arms connected at their lower ends and resiliently urged toward each other above said connection and having their upper ends arranged in spaced relation, one of said arms having a part of its central portion removed to form a longitudinal slot having lateral extensions at its top, and a retained member of thin flat material having a tongue at its top insertable between the arms of the retaining member at the top of the slot at an angle of inclination to said arms, and lateral projections insertable into the lateral extensions of the slot after the tongue is inserted between said arms, said projections being located between said arms against the fold to prevent separation of said members by relative outward movement when the members are completely assembled.

4. A separable fastener comprising a retaining member having two thin flat metallic plates forming arms connected at their lower ends and resiliently urged toward each other above said connection, the upper ends of said arms and the side portions thereof being disconnected to provide a spring-like structure, one of said arms having a part of its central portion removed

to form a longitudinal slot having lateral extensions at its top, and a retained member of thin flat metal having a tongue at its top insertable between the arms of the retaining member at the top of the slot, lateral projections insertable into the lateral extensions of the slot when the tongue is inserted, said projections being located between said arms against the fold to prevent separation of said members by relative outward movement when the members are completely assembled, and means on said retained member to abut said connection and locate said projections at said slot extensions when the parts are moved toward each other during disassembly thereof.

SENA M. WARD.