Jan. 3, 1939. F. C. HALL 2,142,645

HOSE SUPPORTER

Filed June 26, 1937

Fig. 1.

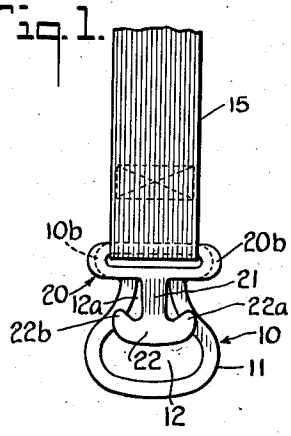


Fig. 2.

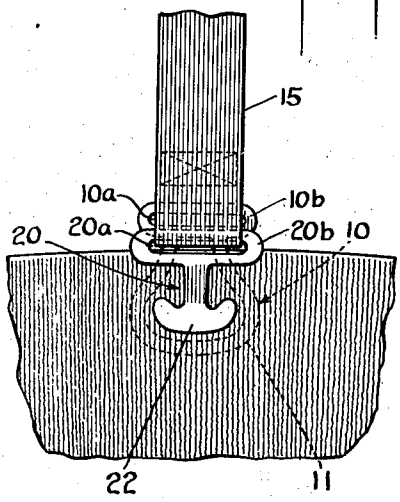


Fig. 3.

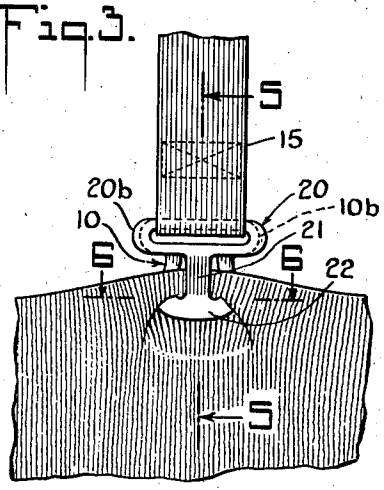


Fig. 5.

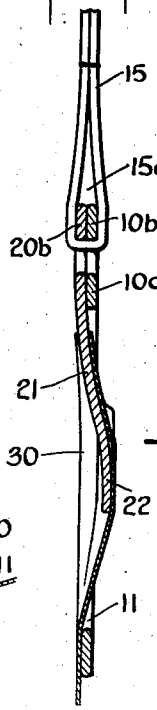


Fig. 4.

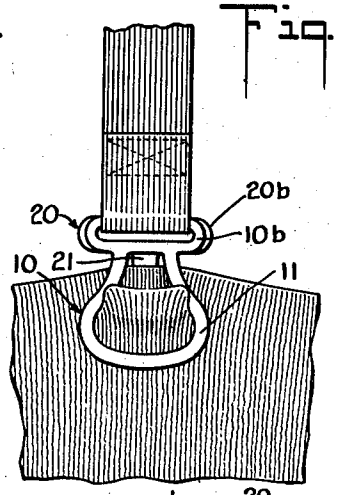


Fig. 6.

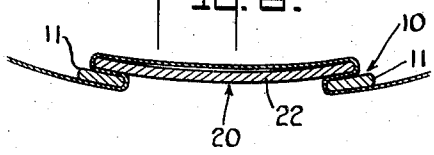


Fig. 7.

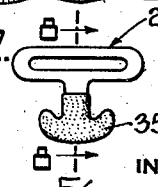


Fig. 8.



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UNITED STATES PATENT OFFICE

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HOSE SUPPORTER

Frances Cushing Hall, New York, N. Y.

Application June 26, 1937, Serial No. 150,426

5 Claims. (Cl. 24—245)

This invention relates to fasteners, and in particular to the type of fasteners used in connection with stocking or hose supporters.

Among the objects of the invention are, to provide a clasp which consists of two simple complementary parts, suitably coacting to hold the garment securely without damaging it; which can be manipulated with one hand without the necessity of extreme angular displacement or otherwise turning of one part with respect to the other; and which is composed of thin, essentially flat, elements which render the clasp inconspicuous beneath a tightly fitting outergarment.

In this invention, the coacting parts are, respectively, an undermember formed with a pear-shaped opening, and a holding member, relatively shorter than the under-member, and having spreading arms at its terminal end, the spread of the arms being less than the maximum width of the opening, but appreciably greater than the constricted portion thereof. The elements are preferably supported, in slidable relationship with each other, by a loop of ribbon-like fabric.

On passing a garment web between the coacting elements and moving the holding member downwardly relatively to the under-member, thumb pressure will urge the arms of the holding member through the opening and beneath the sides of the under-member, carrying a portion of the web therewith. By drawing the holding member upwardly, preferably through the medium of the elastic, clasp-supporting fabric, the web is caught upwardly on the rounded extremities of the arms, and by the cooperation of the arms and the under-members, a pleat or fold of the garment is tightly clamped therebetween; the clamping pressure serving effectively to hold the garment on the arms.

It is a feature of this invention that the coacting elements react to increased tensile pull on the garment by increasing the clamping pressure thereon, thus holding the garment with increased tenacity.

Other features and advantages will hereinafter appear.

In the accompanying drawing:

Figure 1 is an elevation of the clasp, showing the relative position of the coacting elements when idle;

Figure 2 is a view indicating the relative positions of the coacting elements of the clasp with respect to a stocking or other garment, preparatory to securing the garment with the clasp;

Figure 3 shows the action of the clasp in securing the stocking;

Figure 4 is a view representing the under side of the clasp and stocking of Figure 3;

Figure 5 is an enlarged elevation partly in section, taken along the lines 5—5, Figure 3;

Figure 6 is a horizontal section of the clasp and stocking taken along the lines 6—6 of Figure 3; and

Figures 7 and 8 designate respectively an elevation and a section of a modification of one of the elements of the clasp.

Referring to Figure 1, the illustrated embodiment of the invention comprises a pair of coacting elements 10 and 20, which are confined within a common loop 15*a*, see Figure 5, formed by passing an end of a fabric strap or other supporting means 15 through the narrow transverse slots 10*a*, 20*a* of the heads 10*b*, 20*b* of the respective elements. It will be observed, especially from Figure 2, that each element, although confined by the loop 15*a*, is independent and in slidable relationship one with the other.

The supporting fabric 15 may advantageously be in the form of a ribbon of elastic material, suitably attached, in accordance with familiar practice, to an undergarment, in women's wear, or to a leg-encircling band for men's wear.

Coacting elements 10 and 20 may be of metal, or of plastic materials, such as Celluloid, Bakelite, Tenite or the like. Suitable finishing processes, such as providing a smooth coating of enamel or the like, are contemplated, said processes being well understood in the art.

The configuration of the flat, edgewise curving, wall 11 of the under-element 10 essentially defines a pear-shaped loop, or inverted keyhole, having a wide bottom portion or mouth 12 which tapers to a relatively narrow neck 12*a* at the head end of the element. Preferably, the wall 11 has a flat surface.

The holding element 20 is preferably anchor shaped, having a relatively short shank 21 preferably integral with the head 20*b*, and having a terminal portion 22 which includes upwardly extending, smoothly rounded arms 22*a*, 22*b*. As is apparent from the drawing, the reach of the arms 22*a*, 22*b* is less than the width of the bottom portion of the loop 12, but substantially greater than the spacing of the side walls 11 when the arms are drawn upwardly into garment-supporting position.

It is to be noted, see Figures 1 and 4, that the preferred length of shank 21 brings the terminal end of the element 20 in juxtaposition with the neck portion 12*a* of the element 10, and that the wings 22*a*, 22*b* overlie the adjacent

side walls 11. Preferably, as shown in Figure 5, the shank 21 is obliquely angular with respect to the substantially parallel, but offset, planes of the head 20b and the terminal 22, to the end that when the wings 22a, 22b are brought beneath the walls 11 of the element 10, as later described, the said head and terminal portions of the element 20 will be in flatwise relationship to the element 10. The extent of the offset is thus approximately the thickness of the material of the element 10. It is also preferable, as indicated in Figure 6, that the device be slightly arcuate in horizontal section so that the clasp may generally follow the curvature of the leg and thus be rendered less conspicuous.

The terminal end 22 of the coacting element 20 may, if desired, be provided with a soft, relatively non-slippery sleeve 35, of rubber or the like, as indicated in Figures 7 and 8, this modification having particular application for clasps formed from metal stampings.

In the use of the clasp to secure a garment having a web of resilient material, such as a stocking 30, the coacting elements are initially disposed as shown in Figure 1, that is, with the element 20 overlying the element 10. The stocking is then slipped between the respective elements, with element 10 preferably being against the body. By stretching the fabric 15 downwardly, and at the same time holding the head-portion 20b against the bottom of the loop 15a, the terminal portion of the element 20 comes into register with the mouth 12, which, as is indicated clearly in Figure 2, is of greater width than the reach of the extended arms 22a, 22b. By thumb pressure, the terminal end of the element 20 may be urged beneath the wall 11 of element 10, carrying with it a portion of the fabric of the stocking 30. On relieving the tension on the elastic fabric 15, the entire cooperating element 20 is carried upwardly with respect to element 10, assuming a position as shown in Fig. 3. A portion of the fabric of the stocking is thus caught upwardly by the wings 22a, 22b, and, as shown in Figs. 3, 4 and 6, is tightly pleated or folded between arms 22a, 22b and their respectively cooperating portions of the wall 11 of element 10. The termini of the upwardly extending arms 22a, 22b form hooks on which the garment is caught; the rounded ends of the arms preventing puncturing or otherwise tearing the garment.

It is to be noted, especially from Fig. 5 that the interlocking of the arms 22a, 22b, beneath the wall 11 of element 10 causes a tight clamping of the garment 30 between the substantially parallel outer surface and under surface, respectively, of said arms and said wall, and thus serves to hold the stocking tightly on the arms. This clamping action is essentially derivative of the rotative effect resulting from the pressure of the lower face 10c of head 10b against the upper portion of shank 21 as the tension of the fabric web 15 urges the heads 10b, 20b into register. It will be obvious that increased strain or tensile pull on the fabric 15 correspondingly increases the rotative effect, and thus increases the clamping pressure exerted on the stocking.

It is a characteristic of the invention that the clasp is readily manipulated with one hand, and that it is not necessary to twist or otherwise sharply angularly displace the element 20 with respect to element 10 in passing the terminal end 22 through the loop 12. Mere sliding movement accompanied by suitable thumb pressure is sufficient. It is a further characteristic that the clasp is composed of essentially flat elements, without protruding parts such as sharp off-sets, buttons or the like which render a clasp conspicuous beneath a tightly-fitting outer garment.

Whereas I have described my invention by reference to specific forms thereof, it will be understood that many changes and modifications may be made without departing from the spirit of the invention.

I claim:

1. A garment supporter, comprising the combination of a garment-carrying member having a head portion and substantially flat arms disposed in spaced relationship therewith by an intermediate shank, said arms arranged for engagement with the garment for the support thereof and disposed substantially at right angles to said shank in a plane substantially parallel to the said head portion, and a second member having a head portion and side walls diverging therefrom to provide an aperture increasing in width from less than the reach of the said arms to greater than the reach thereof to afford the passage of the said arms flatwise through the said aperture to engage with a portion of the garment to be supported, the shank of said first member so positioning the arms thereof when in garment supporting status that the garment is confined between said arms and a surface of the said side walls of the second member.

2. A garment supporter comprising a pair of substantially flat elements having head portions for suspension from common supporting means, one of said elements having a flat wall defining a keyhole-shaped aperture, the greatest width thereof being remote from the head of said element, the second of said elements having a flat rigid shank extending downwardly and rearwardly from its said head portion and terminating in upwardly curving garment-supporting arms extending substantially at right angles to said shank, said head and said arms being in substantially parallel planes, the reach of said arms being less than the maximum width of said aperture and greater than the minimum width thereof, said arms wholly supporting the garment and arranged to press a portion of the garment forwardly into flat contact against the under side of the wall of the first mentioned member.

3. A garment supporter comprising two members having head portions arranged for suspension within a single supporting loop of fabric, said head portions having free movement within said loop, one of said members having an integral rigid shank terminating in a pair of substantially flat garment-supporting arms arranged substantially at right angles to said shank, the second of said members having edgewise curving side walls arranged in a common plane and defining a loop having a width at its lower extremity greater than the spread of the said arms and a constricted neck portion of less width than the spread of the said arms, the shank of said first member having an offset whereby when the arms of said member are brought beneath the walls of the second member the head and the said arms are in substantially parallel relationship to said second member, said first member wholly supporting the garment while pressing the fabric thereof against a surface of the side wall of said second member.

4. A garment supporter comprising two members having head portions arranged for suspen-

sion within a single supporting loop of fabric, said head portions having free movement within said loop, one of said members having an integral rigid shank terminating in a pair of substantially flat garment-supporting arms arranged substantially at right angles to said shank, the second of said members having edgewise curving side walls arranged in a common plane and defining a loop having a width at its lower extremity greater than the spread of the said arms and a constricted neck portion of less width than the spread of the said arms, the shank of said first member having an offset whereby when the arms of said member are brought beneath the walls of the second member the head and the said arms are in substantially parallel relationship to said second member, said offset shank coacting with said second member to urge the said garment-supporting arms into substantially flat contact with the under side of said second member.

5. A garment supporter comprising two members having head portions arranged for suspension within a single supporting loop of fabric, said head portions having free movement within said loop, one of said members having an integral rigid shank terminating in a pair of substantially flat garment-supporting arms arranged substantially at right angles to said shank, the second of said members having edgewise curving side walls arranged in a common plane and defining a loop having a width at its lower extremity greater than the spread of the said arms and a constricted neck portion of less width than the spread of the said arms, the shank of said first member normally disposing its therewith associated arms at the constricted neck portion of said second member, said shank having an offset whereby when the arms of said member are brought beneath the walls of the second member to engage a portion of the garment for the support thereof the head and the said arms are in substantially parallel relationship to said second member, said first member wholly supporting the garment while pressing the fabric thereof against a surface of the side wall of said second member.

FRANCES CUSHING HALL.