Nov. 26, 1935. B. N. SMITH 2,022,158

HOSE GRIP

Original Filed March 12, 1934

Fig. 1.

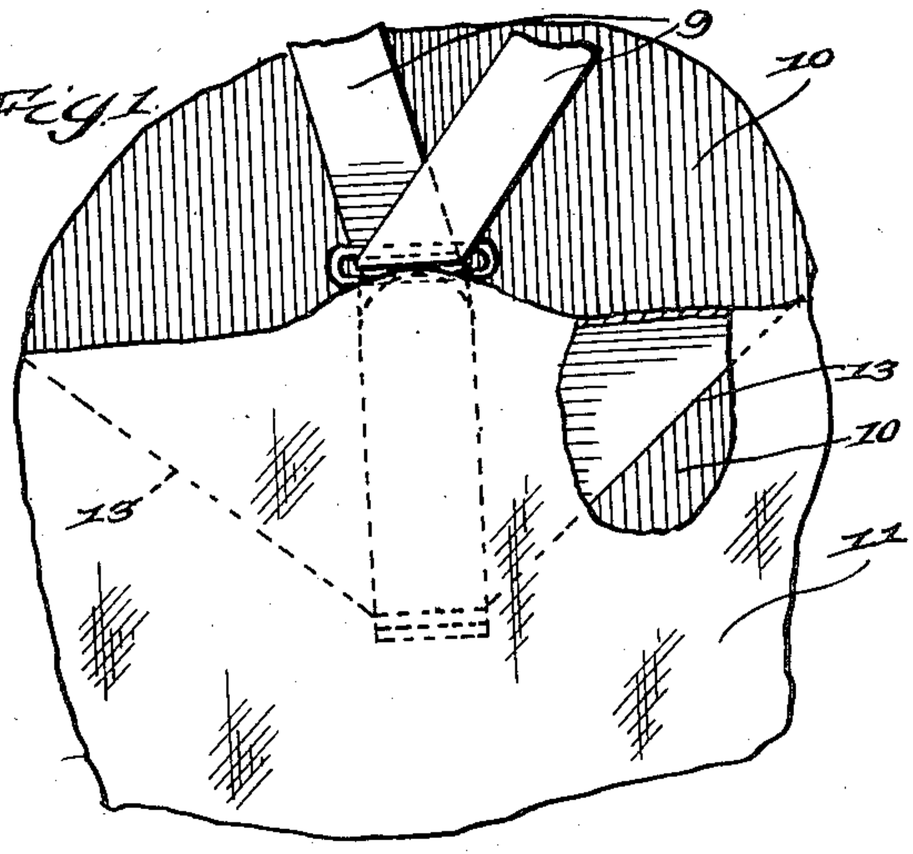


Fig. 2.

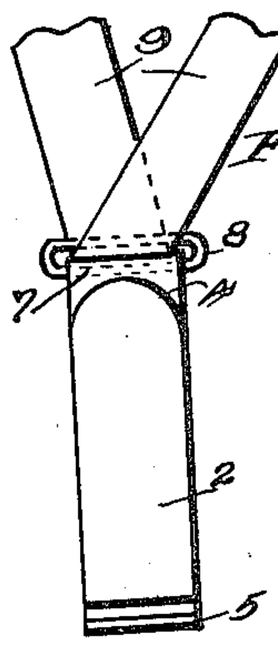


Fig. 3.

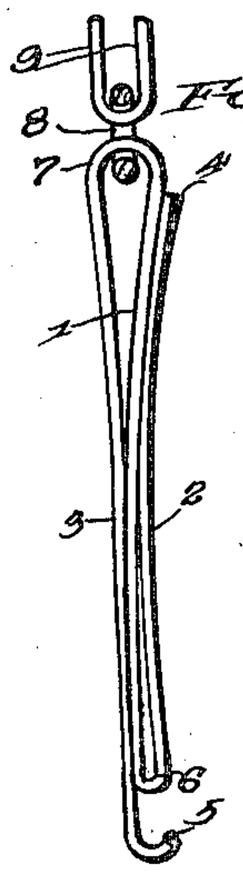


Fig. 4.

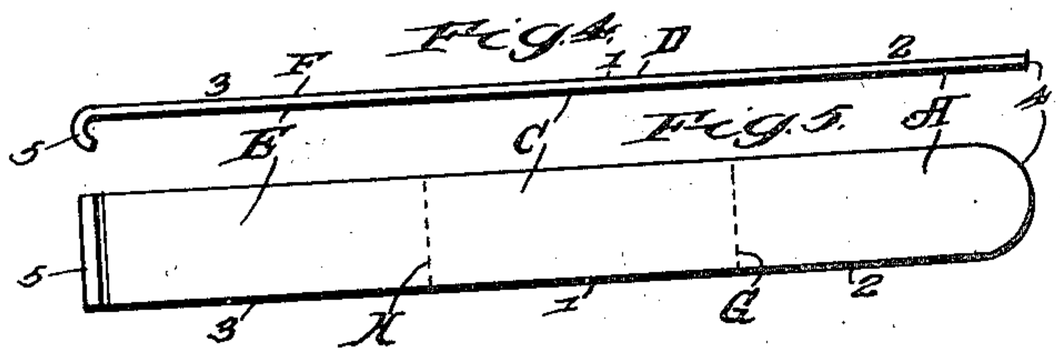


Fig. 6

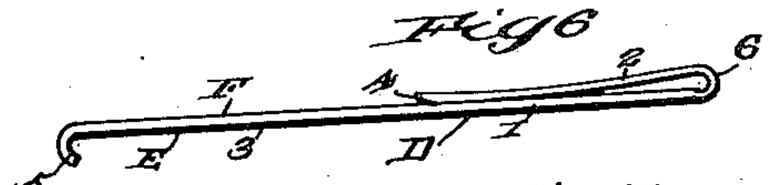


Fig. 8.

Fig. 7.

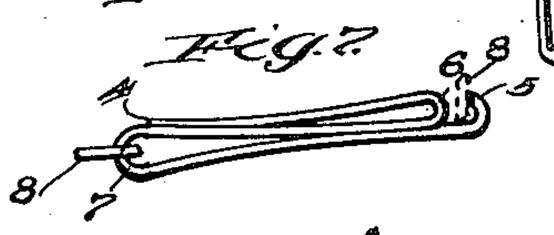


Fig. 9.

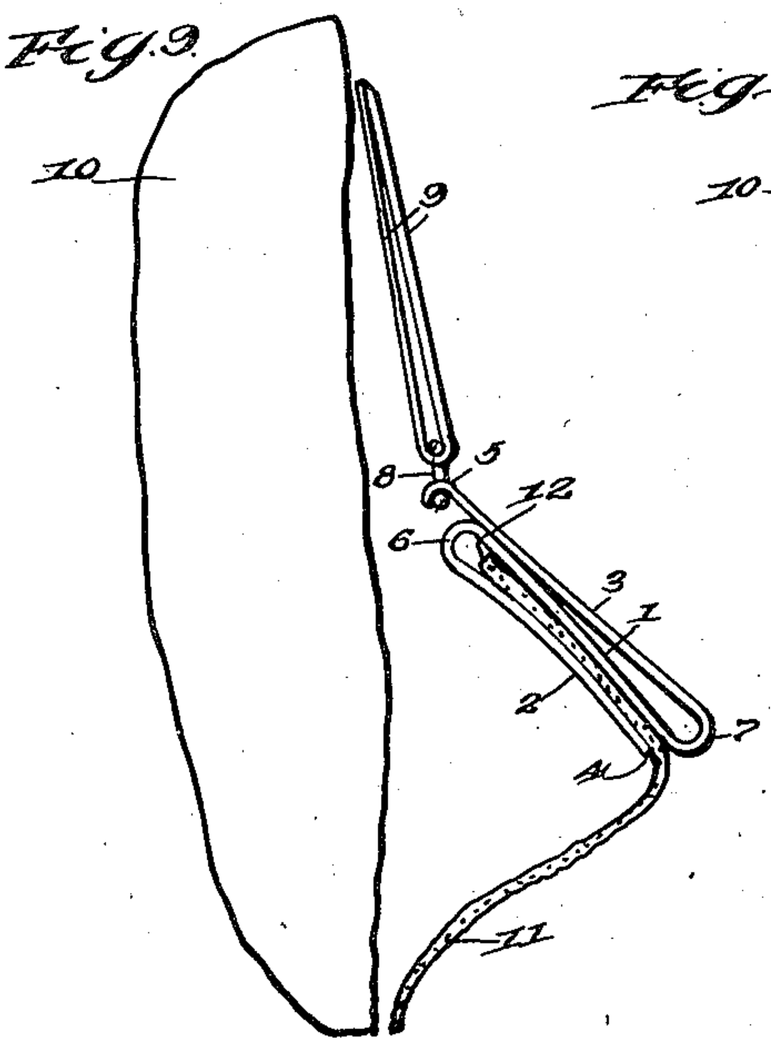


Fig. 10.

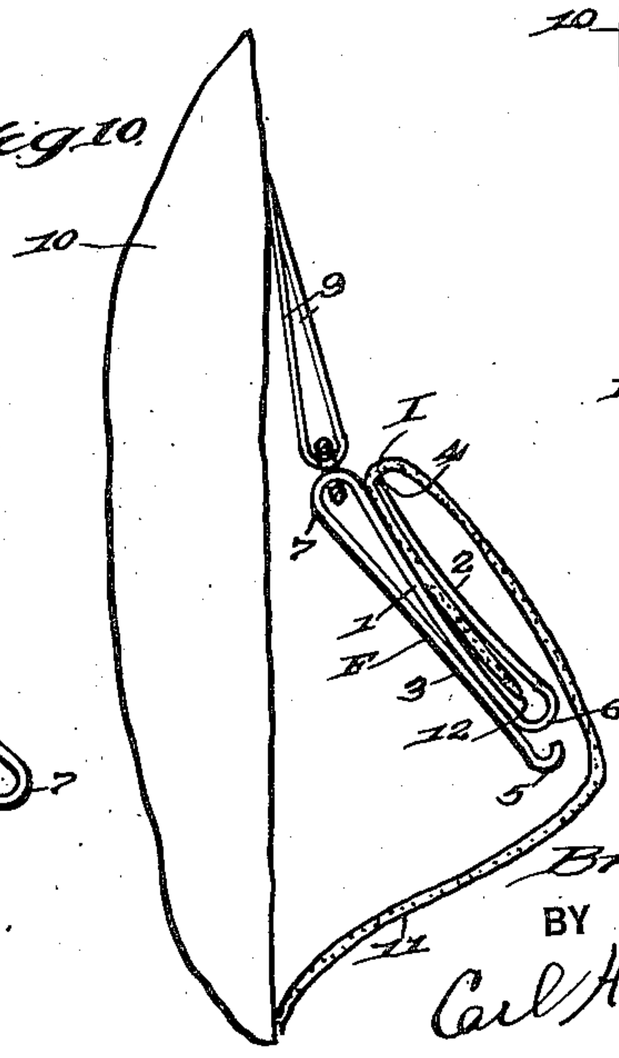
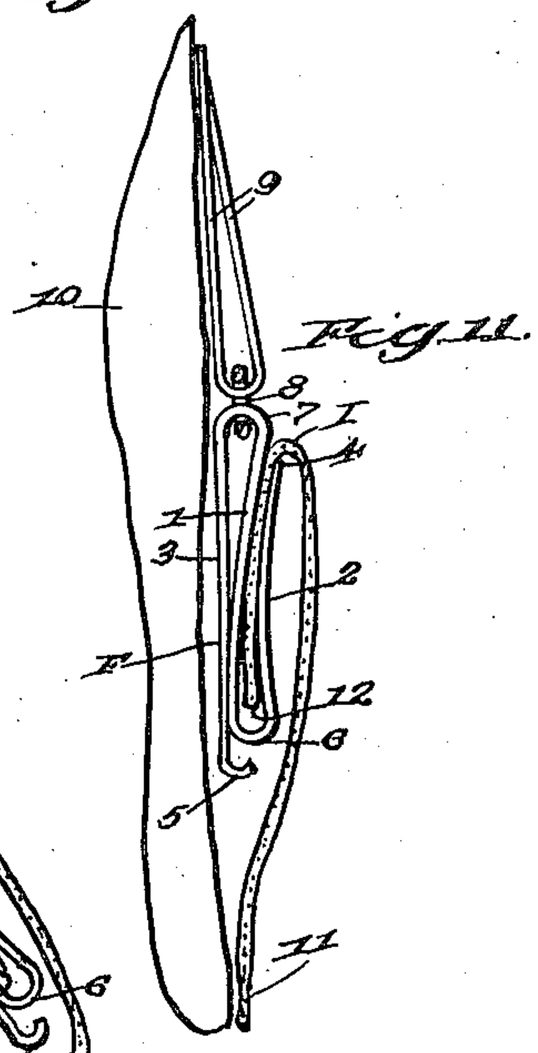


Fig. 11.



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2,022,158

HOSE GRIP

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Application March 12, 1934, Serial No. 715,104
Renewed August 2, 1935

3 Claims. (Cl. 24—73)

The object of this invention is to provide a novel and improved form of grip for socks, stockings or any form of hose, and the invention resides in the novel blank, from which the grip is formed, in the grip itself as an article of manufacture, and in the combination of the grip with the ring or eye to which the elastic or like supporting bands are connected.

It is a feature of the invention to provide a novel form of grip with which the supporting ring or eye can be readily attached or detached, so that the grip can be permanently attached to the hose except when the same is laundered.

The invention involves hose gripping and eye connecting loops so arranged and disposed as to afford the grip a minimum thickness thereby avoiding objectionable bulges with tight fitting gowns which now prevail.

A further feature consists in a grip formed of a single strip of material wherein the various loops function in the absence of any independently movable parts or extraneous fastening means.

A special feature resides in a grip having a novel construction such that an entirely smooth surface is presented both to the leg of the wearer and to the stocking.

The invention has many other features and advantages which will be more fully described in connection with the accompanying drawing and which will be more particularly pointed out in and by the appended claims.

In the drawing:—

Fig. 1 is a view in front elevation of a portion of the leg of a wearer and an upper part of the stocking and showing how the device of my invention appears in actual use.

Fig. 2 is a view in front elevation with the stocking omitted, and the device shown full size.

Fig. 3 is an enlarged edge view of the grip.

Fig. 4 is an edge view of the finished blank.

Fig. 5 is a face view thereof.

Fig. 6 is an edge view showing one section of the blank bent over to form a hose gripping and receiving loop.

Fig. 7 is an edge view, similar to Fig. 3 with the remaining end section bent to form the eye connecting loop.

Fig. 8 is a view of a rectangular eye adapted for connection with the grip.

Fig. 9 is a view of a portion of the leg of the wearer and with the stocking in section, showing the first position of attachment.

Fig. 10 shows the second position.

Fig. 11 shows the final position after the grip has been attached to the stocking and the ring or eye is in a final supporting position.

Like characters of reference designate similar parts throughout the different figures of the drawing.

Reference will first be made to the blank from which the grip is formed and which blank is shown in Figs. 4 and 5. Said blank consists of an elongated strip of material, preferably resilient, such for instance as stainless steel, and I will describe the finished blank illustrated because the mechanical preparation of the blank from the raw material is not pertinent to the invention. The blank is herein shown actual size except that the thickness of the material is slightly exaggerated for clearness of illustration.

The blank is scored or otherwise preferably subdivided into an intermediate section 1, and end sections 2 and 3, all disposed in a single plane and formed of a single piece of material. Section 2, has a terminal edge 4 that is rounded to present a curved contour to the fabric of the stocking which will be smooth and not injurious thereto. Section 3, has a bent over terminal 5, which functions as an eye or ring entrance lip, as will later more fully appear. In order clearly to describe the manner in which the grip is formed from this blank, I will designate the different faces of the sections by reference letters.

Referring to Figs. 6 and 7, I may first bend section 2 on line G, over upon and against section 1, with the face A of section 2, abutting against face C of the intermediate section 1, to form what I will term a hose entrance and gripping loop having a bight indicated at 6. The bend is made so that the greater length of section 2, will lie flat and in abutting relation against face C of section 1, as shown in Fig. 6.

It will thus be seen that in the endwise direction, this loop is normally closed against ingress or egress of the margin of the stocking and in order to insert the stocking margin, the end 4 will have to be separated slightly from section 1, in the present construction, although this is not an essential limitation, as will later appear. However, it will now clearly appear that this loop opens, or is opened, to the left of Fig. 6.

The next operation is to bend section 3, on line H, over and against section 1, but in a direction opposite to that of the first described bend. The face E of section 3, will be disposed against face D, of section 1 and the bight of this bend will be indicated at 7. This forms what I will term the ring or eye connecting loop and this loop opens to the right of Fig. 7, in a direction opposite to

the direction in which the loop first described, opens. Further, the bend is made so that the lip 5, is disposed slightly beyond the bight 6, to afford space in which to insert one limb of a rectangular ring or eye 8, shown in Fig. 8, and in dotted lines in Fig. 7, at the entering position, and in full lines at the bight 7, which is the connecting position.

Among many great advantages flowing from this novel manner of shaping the grip is the fact that the intermediate section 1, forms one limb of the hose gripping loop, and also one limb of the eye connecting loop which construction enables me to provide a double loop grip with a minimum thickness. With the gauge material employed in actual practice, the maximum thickness at bight 7, is less than five thirty seconds of an inch. This arrangement also affords the novel feature of the bights 6 and 7 being at opposite ends of the grip, and the loops opening in opposite directions endwise of the grip.

Reference will next be made to the manner in which the grip is used.

In Figs. 1 to 3, I have illustrated one way in which the elastic straps 9, which support the grip on the wearer, are connected with one bight of the eye 8, the wearer's leg being indicated at 10 and the hose at 11.

In Figs. 9 to 11, I have illustrated the initial, the intermediate and the final positions of the grip to show one method by which the same may be attached to the stocking. In any event, and in accordance with the present construction, the eye 8, is at all times permanently connected with the elastic supporting straps and is not permanently connected with the grip.

First referring to Fig. 9, the grip is disposed in the inverted position shown, with the section 2, next to the leg 10 and with the margin 12, of the stocking inserted into the hose gripping loop substantially up to the bight 6, thereof. This may be easily effected by slightly separating the end 4 from section 1, as will now be obvious. It will be noted that the eye connecting loop is now on the exterior of the stocking and this disposes the entrance lip 5, in an accessible position for disposing the eye 8, over the lip 5. The eye 8, is now in a position to be advanced toward and into the bight 7, and this movement is manually effected very readily without separating the section 3 except as it is automatically separated by advancing the eye 8. The final position of the eye 8, into bight 7, is shown in Fig. 10, and this may be effected, if desired, while the grip is in the Fig. 9, position.

The user will next turn the grip into the inverted position shown in Fig. 10, from that shown in Fig. 9, and this movement will dispose the entire grip inside the stocking as shown in Fig. 1. The face F, of section 3, will now be disposed against the leg of the wearer and the lip 5 will project outwardly so as to insure a smooth surface of the grip being next to the wearer's leg. By inverting the position of the grip from the Fig. 9, to the Fig. 10, position, a portion of the margin 12, of the stocking will be folded inside of the latter upwardly diverging lines 13, as clearly shown in Fig. 1. It will now be clear why the end edge 4, should be rounded off and made smooth with no sharply projecting portions since in the final position of the grip, the fold I, in the stocking, extends over the end 4. By reason of the fact that the grip is disposed wholly inside the stocking, in its final or normal hose supporting position, there is no danger of injury to delicate gown fabrics.

In Fig. 11, I have shown the device in the final or normal supporting position. It will be understood that the thicknesses of the metal and the fabric of the hose are necessarily exaggerated in all these views to make the separate layers clear for reduction purposes.

It will be understood that the grip can be secured to a sock or stocking, as shown in Fig. 9, for instance, and that it need not, and in practice is usually not removed from the stocking except when the latter is to be washed. Hence, in practice, while dressing, the wearer will simply dispose the grip in the Fig. 9, position for the purpose of either attaching or detaching the eye 8.

At this point it is desired to emphasize the advantageous importance of the loops opening in opposite directions as it will now be clear that when the grip has been attached to the margin 12 of the hose, as in Fig. 9, the lip 5 is in a convenient position for the eye 8 to be inserted and advanced into engagement with bight 7, whereupon, a single reverse or inverted movement of the grip into the Fig. 10, position, is all that is necessary to complete the fastening operation. The act of detaching the eye from the grip will likewise involve merely a reversal of the grip's position.

The elongated form of the device, in combination with its additional features, permits of a considerable area of the hose to be inserted for gripping contact and hence the danger of injury is correspondingly reduced.

There is a distinct advantage in having the section 3 extend the entire length of the grip and slightly beyond one end, especially when this section is provided with a laterally extending entrance lip since it will be clear that when the device is in place, the section 3 presents a flat and un-broken surface next to the leg of the wearer, and as the lip projects away from the leg, it cannot scratch or become uncomfortable.

It is believed that the invention will be clearly understood from the foregoing description, and while I have herein shown and described one specific form of the invention, and one manner in which the same may be used, I do not wish to be limited thereto except for such limitations as the claims may import.

I claim:—

1. In a hose grip, a single elongated strip of resilient material having an intermediate section, an end hose gripping section and an end eye connecting section, said hose gripping end section being bent against one face of said intermediate section in substantially flat and spring held engagement therewith and forming a hose gripping loop with a relatively reduced bight, said eye connecting end section being bent against the remaining face of said intermediate section in substantially flat and spring held engagement therewith and forming an eye connecting loop with a relatively reduced eye bight, the terminal of said eye connecting end section extending slightly beyond the bight of said hose gripping loop and having a bent over entrance lip, and an eye adapted to have one limb inserted against said lip and advanced lengthwise between said eye connecting section and said intermediate section until said limb has reached said eye bight.

2. In a hose supporter, an eye supporting strap adapted to be pendently hung from the person of the wearer, a hose grip eye having one limb thereof suspended by said strap, a resilient hose grip

having an intermediate section and end sections, one end section being bent against one face of said intermediate section to form therewith a hose gripping loop opening in one direction and having a bight and a rounded terminal end adapted to engage and support a fold of the stocking, the remaining end section being bent against the remaining face of said intermediate section to form therewith an eye connecting loop opening in a direction reverse from that of said hose gripping loop and having an eye engaging bight and an outwardly hooked terminal, whereby inversion of the grip for insertion of a margin of the stocking into said hose gripping loop will dispose said hooked terminal accessible for insertion of the remaining limb of said eye longitudinally through said eye connecting loop into engagement with said eye engaging bight, and whereby restoration of said grip into an upright position will fold the free margin of the stocking and said rounded terminal will engage the fold thereof.

3. In a hose supporter, an eye supporting strap adapted to be pendently hung from the person of the wearer, a hose grip eye having one limb thereof suspended by said strap, a resilient hose grip having a hose gripping loop opening upwardly with respect to the normally upright position of said grip and said loop having a downwardly disposed bight and an upwardly disposed fold engaging end for engaging the bight of a fold in the stocking, and said grip having an eye engaging loop opening downwardly and provided with an upwardly disposed eye engaging bight for insertion of the remaining limb of said eye into said loop and into engagement with said eye engaging bight.

BRUCE N. SMITH.