

March 9, 1948.

E. J. YOUNG

2,437,583

HOSIERY SUPPORTING MEANS

Filed Sept. 17, 1945

2 Sheets-Sheet 1

Fig. 8.

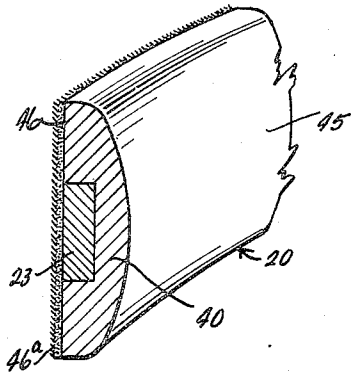


Fig. 9.

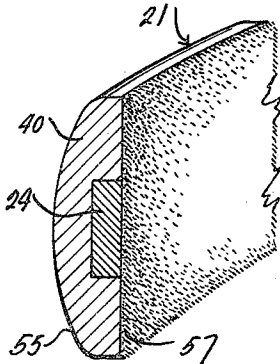


Fig. 10.

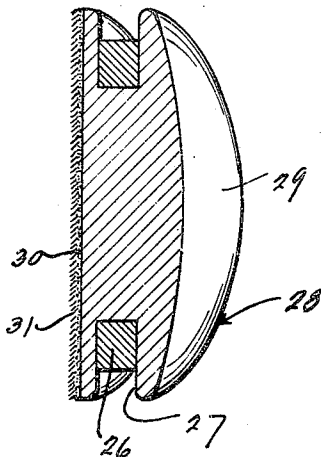


Fig. 1.

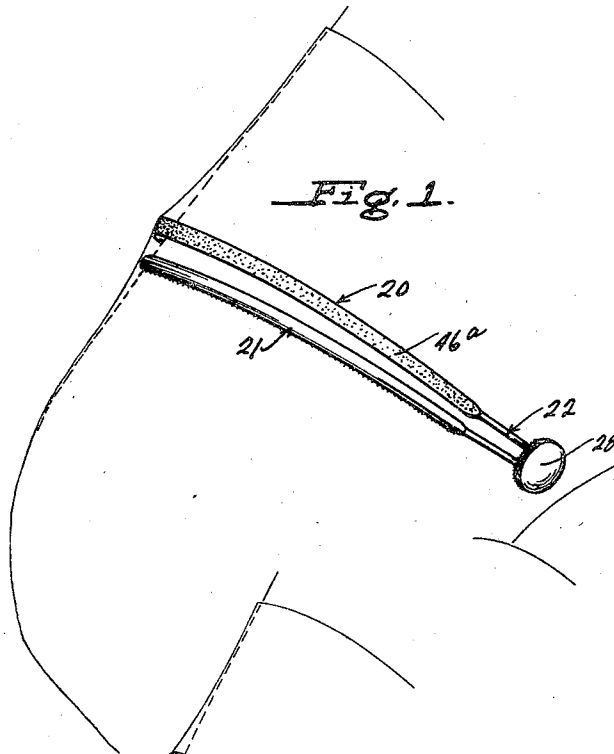
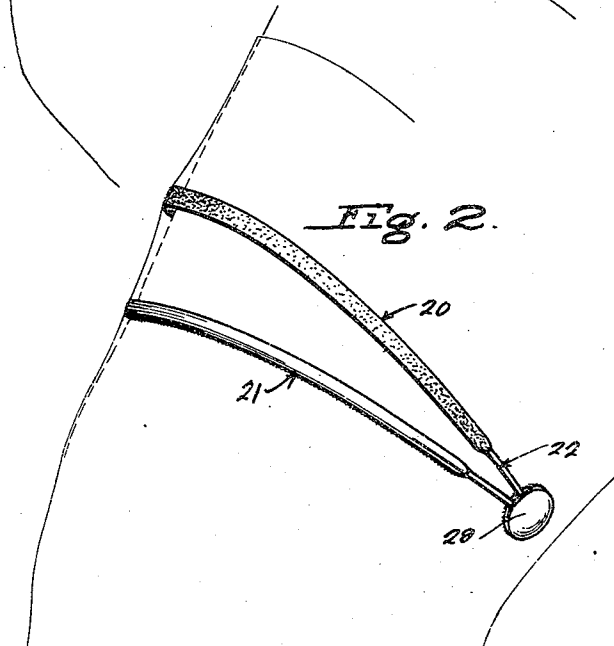


Fig. 2.



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Fig. 3.

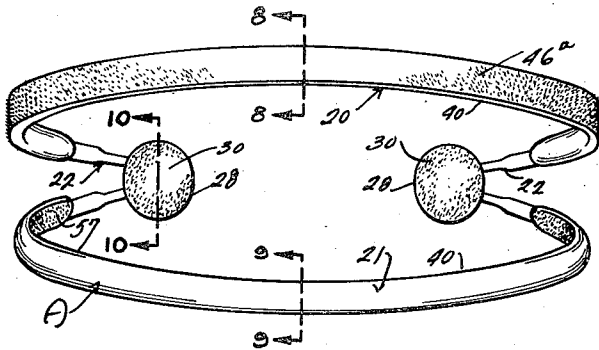


Fig. 6.

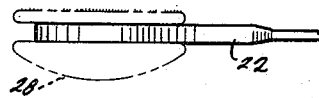


Fig. 7.

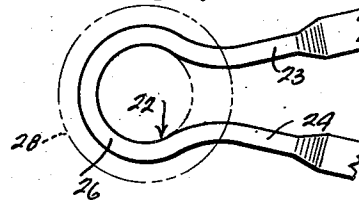


Fig. 4.

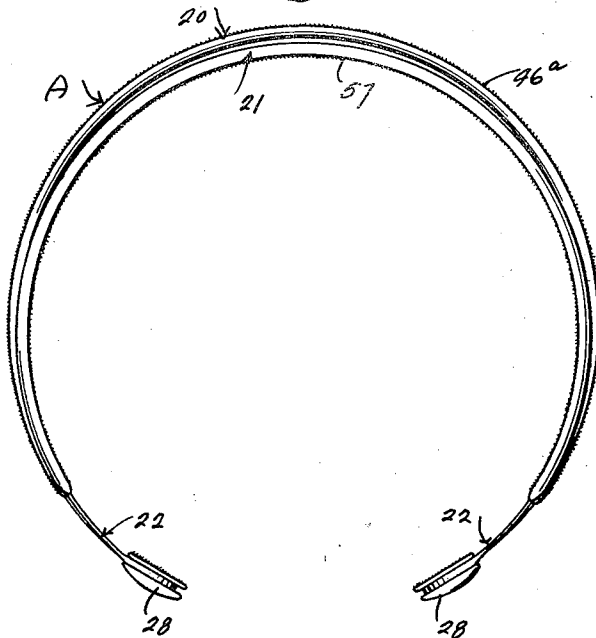
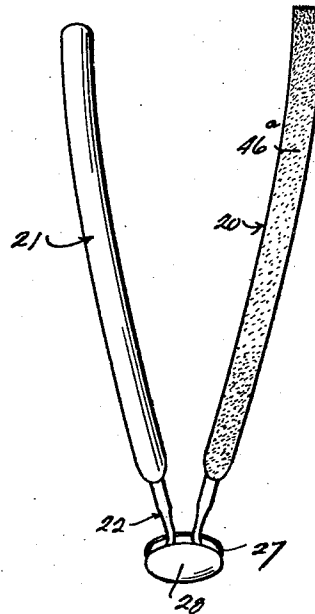


Fig. 5.



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UNITED STATES PATENT OFFICE

2,437,583

HOSIERY SUPPORTING MEANS

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Application September 17, 1945, Serial No. 616,676

10 Claims. (Cl. 2-309)

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This invention relates to improvements in hosiery supporting means.

The primary object of this invention is the provision of stocking supporting means which will maintain the stocking in comfortable non-wrinkled supported position upon the leg at all times.

A further object of this invention is the provision of an improved supporter for stockings adapted particularly for use in connection with the support of women's hosiery and of a nature to be used beneath the stocking for maintaining the stocking upon the leg in a non-wrinkle position at all times notwithstanding leg flexing.

It is well known that in connection with stockings which fit the leg to a point above the knee, flexing of the knee will cause stretching of the stocking and in the case of most types of hosiery supporters, the leg when returned to normal straight position will leave the stocking in a wrinkled condition adjacent the knee. It is the purpose of this invention to provide a stocking supporting means which will, under such circumstances, permit the stocking to resume a normal non-wrinkled appearance after bending of the knee; the same being of such nature that it will not act in a constricting manner upon the leg of the wearer nor unduly stretch and tension the stocking.

Other objects and advantages of the invention will appear in the following detailed description.

In the accompanying drawings, forming a part of this specification, and wherein similar reference characters designate corresponding parts throughout the several views,

Figure 1 is a view showing the position of the stocking supporter upon the leg of the wearer with the leg bent.

Figure 2 is a view showing the supporter with the leg returned to normal position and showing the manner in which the improved supporter will return the stocking to normal non-wrinkled position.

Figure 3 is a front elevation of the improved supporter.

Figure 4 is a plan view of the supporter.

Figure 5 is a side elevation of the improved supporter.

Figure 6 is an edge elevation of a portion of the supporter.

Figure 7 is a front elevation of the portion of the supporter shown in Figure 6.

Figures 8, 9 and 10 are enlarged cross sectional views taken substantially on their respective lines shown in Figure 3 of the drawings.

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In the accompanying drawings, forming a part of this specification, and wherein for the purpose of illustration is shown merely a preferred embodiment of the improved supporter, the letter A may generally designate the improved supporter. It includes upper and lower segmental-shaped portions 20 and 21 adapted to each partially encircle the leg of the wearer; the same being connected at their ends by U-shaped similarly shaped pieces 23 and 24 having U-shaped connections 22 of spring steel or beryllium copper. These connections 22 position the pieces 23 and 24 in divergent relation and they are preferably embedded or otherwise secured to or in the members 20 and 21. The connection 22 includes a segmental or other type of bight portion 26 which seats within an annular groove 27 of leg gripping discs or members 28. These members 28 each include an outer convex relatively smooth face 29 and an inner flat face 30 covered by fabric or some other material 31 which has a non-slip pile or roughened surface adapted to grip the leg of the wearer and remain in position against free sliding. The surface 30 may be of any shape desired altho it is preferably flat.

The members 20 and 21 may extend for any degree desired, preferably over 180° and less than a complete 360° circle. They are each formed of a body portion 40 of plastic or some resilient or springy material which will enable the extreme ends to be moved apart so that the supporter may be applied to the leg of the wearer. Referring to Figure 8 of the drawings, the cross sectional view of one member 20 will show that the body portion 40 has an inner concavo-convex smooth surface 45. The outer surface 46 of the body portion 40 is socketed to receive the piece 23 therein flush with the surface 46 as shown in Figure 8. Here it should be noted that the spring arms or pieces 23 and 24 are continued for the length of the members 20 and 21, to give them the desired springiness, altho it is possible to form the complete body portion 40 of springy material and eliminate the necessity of carrying the portions 23 and 24 completely around the members 20 and 21. The outer surface of the member 40 of member 20 is straight line in cross section, as shown in Figure 8, and over this surfacing 46 there is disposed some non-slip material 46^a, such as fabric, with an appreciable pile surfacing, altho any material which will cause the stocking to grip the same and prevent undue slipping will suffice.

The member 21 is similarly formed except in

reverse. Thus, as shown in Figure 9, the body portion 40 of the member 21 has an outer convex cross section surface 55 and its inner surface is of straight line cross section and provided with a socket for receiving the spring arm portion 24. The inner straight line cross sectioned surface of the body of the member 21 is provided with some material 57, such as fabric, having an appreciable pile surfacing, or other, means which will enable the same to grip the leg of the wearer and not easily slip therealong.

It will be noted from Figure 5 of the drawings, and also Figures 1 and 2 that the member 20 is struck from a greater radius than the member 21, so as to enable the snug fitting of the non-slip surface of the member 21 about the leg of the wearer and to enable the inner surface of the other member 20 to move through an arc between the positions of its extreme movements as shown in Figures 1 and 2, without engaging the leg of the wearer, although it is perfectly possible to make the members 20 and 21 of the same diameter if the inner surface of the member 21 is sufficiently smooth to permit it to slide without undue friction or difficulty along the leg of the wearer.

As a feature of the invention it is to be noted that the hosiery supporter is placed beneath the stocking which it is intended to support and upon the leg of the wearer. Through the connecting ends 22 and due to the springiness of the portions thereof as applied to the members 20 and 21, the discs 28 may be spread apart and the supporter placed at the desired position upon the leg of the wearer. The stocking is drawn over the leg of the wearer to the position shown in Figure 2 and at which time the gripping surface of the material 50 of the segmental member 20 will engage the interior of the stocking and hold the same from slipping down on the leg of the wearer. If the leg of the wearer is flexed to the position shown in Figure 1, due to the non-slip engagement of the member 20 with the stocking, a movement of the stocking incident to tension down over the leg of the wearer will cause the member 20 to move towards the member 21 (which grips the leg of the wearer in non-sliding engagement), to the position shown in Figure 1. When the leg is unbent and straightened it will be noted that due to the springiness of the members 20 and 21 the former will return to its normal position and bring the stocking back to normal position. During this movement of the stocking along the leg of the wearer it will slide freely over the surfacing 55 of the member 21. It will be noted from this that the stocking is not subject to any undue tension, as will be the case with suspender type of supporters attached to girdles, etc.

Various changes in the shape, size and arrangement of parts may be made to the form of invention herein shown and described without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. In a hosiery supporter the combination of a segmental-shaped leg gripping construction, a segmental-shaped hosiery gripping construction, and means resiliently connecting said two constructions so that the stocking gripping construction is normally urged resiliently away from the leg gripping construction, the outer surface of the leg gripping construction being smooth to permit a stocking to readily slide thereover, the outer surface of the hosiery gripping construc-

tion being of a non-slip nature to contact with a non-slip engagement the stocking.

2. A hosiery supporter adapted to be applied upon the leg of a wearer above the knee to return the stocking on the leg of a wearer to normal position after bending of the knee comprising a leg gripping construction for engaging the leg of the wearer, and a hosiery gripping construction above the leg gripping construction resiliently and movably connected with respect to the leg gripping construction and normally urged away from the leg gripping construction.

3. In a hosiery supporter the combination of a pair of resiliently connected segmental-shaped members, means at the ends of said members for gripping the leg of a wearer, one of said members on the inner surface having leg gripping means and the other member on the outer surface having non-slip stocking gripping means.

4. In a hosiery supporter the combination of a pair of resiliently connected segmental-shaped members, means at the ends of said members for gripping the leg of a wearer, one of said members on the inner surface having leg gripping means and the other member on the outer surface having non-slip stocking gripping means, the latter means having an inner surface adapted to freely be moved along the leg of a wearer as an incident of its movement towards and away from the leg gripping member.

5. In a stocking supporting means the combination of a segmental-shaped resilient extensible body having an inner leg gripping surface, a second segmental-shaped extensible resilient stocking engaging member having an external non-slip stocking engaging surface, and means connecting said members at their ends so that said members are normally urged away from each other a predetermined distance.

6. In a stocking supporting means the combination of a segmental-shaped resilient extensible body having an inner leg gripping surface, a second segmental-shaped extensible resilient stocking engaging member having an external non-slip stocking engaging surface, means connecting said members at their ends so that said members are normally urged away from each other a predetermined distance, and leg gripping discs connected at the connected ends of said members.

7. In a hosiery supporter adapted to be used upon the leg of a wearer beneath the stocking for holding the latter in position against wrinkling along the leg of a wearer, the combination of a segmental-shaped leg gripping member, a segmental-shaped stocking gripping member, means connecting said members at their ends to normally urge them yieldably apart a predetermined distance, the latter segmental-shaped member being struck from a radius greater than the radius of the first mentioned segmental member insofar as the inner surfaces thereof are concerned.

8. In a hosiery supporter the combination of a segmental-shaped hosiery gripping member having an inner smooth surface and hosiery gripping means on its outer peripheral surface, and means for holding said member upon the leg of the wearer with the segmental member arched about the leg of the wearer and in normally spaced relation with the leg of the wearer.

9. In a hosiery supporter the combination of a curved leg gripping band, a second curved hosiery gripping band, and resilient means connecting said bands together so that through their

major lengths they may axially move towards and away from each other.

10. In a hosiery supporter the combination of an arched leg gripping band, a second arched band means resiliently connecting said bands together for movement of the second band towards and away from the first member band, said means normally tending to move said bands apart, the said leg gripping band being of such size with respect to the second mentioned band that the latter may be moved over the leg of a wearer towards and away from the leg gripping band as an incident of movement of a stocking along the leg of a wearer.

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