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2,599,523

SHIELD FOR BUNIONS AND CORNS

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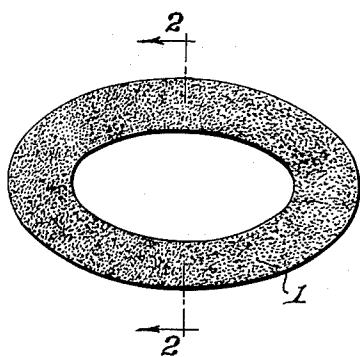


Fig. 1.

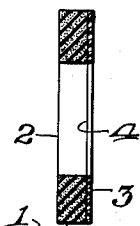


Fig. 2.

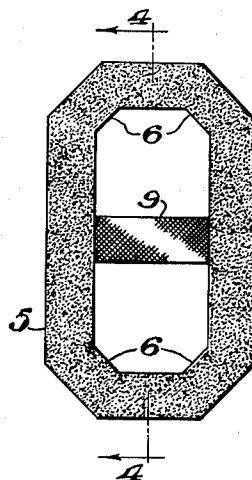


Fig. 3.

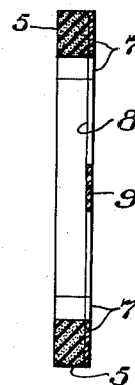


Fig. 4.

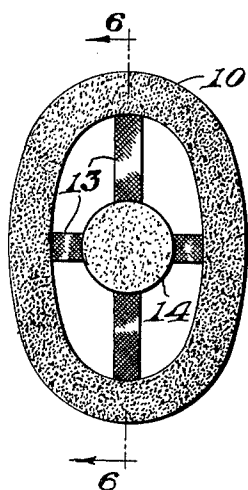


Fig. 5.

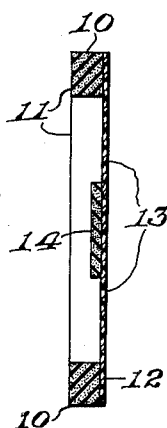


Fig. 6.

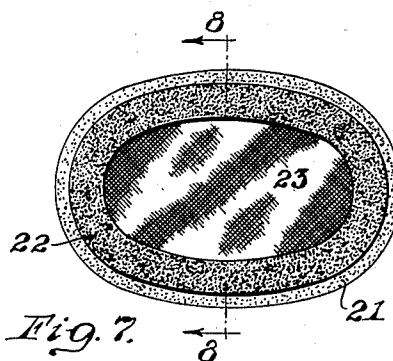


Fig. 7.

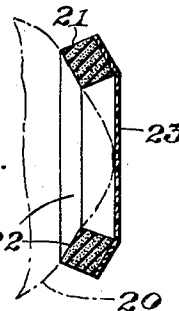


Fig. 8.

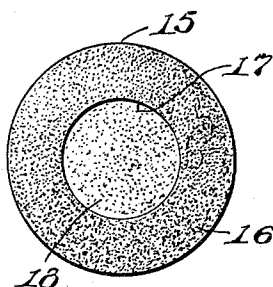


Fig. 9.

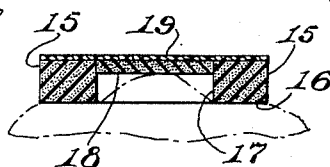


Fig. 10.

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UNITED STATES PATENT OFFICE

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SHIELD FOR BUNIONS AND CORNS

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8 Claims. (Cl. 128-153)

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The object of the invention is to provide improvements in shields for bunions, corns, callosities and the like, to which the joints of the human foot are particularly susceptible, though their application is by no means limited thereto.

Another object is to provide a device of this broad class that is particularly soft, as it is a well known fact that such ailments, whether requiring medical attention or not, tend to be among the most painful of the many to which human beings are susceptible.

A further object is to provide a shield that primarily comprises a generally encircling hollow ring, whether that of a true circle, an ellipse, a rectangle, or other geometrical figure, or combinations thereof, and consisting of a peripherally closed figure of sponge latex or equivalent ultra-soft substance, having an adhesive coating upon one side and also, if desired, its central hollow space being spanned by a flexible sheet of fabric to provide a suitable protection for the bunion, callous, or other form of swelling that is generally surrounded by such peripheral ring.

Still another object is to provide a hollow ring of sponge latex or other equivalently soft substance with one or more transversely extending ribs, that serve to prevent too wide a separation of the laterally opposite portions of said ring, and at the same time, if desired, being provided substantially centrally with a smaller disc like body of latex or other ultra-soft cushioning means for the tenderest central portion of the sore area, said centrally disposed smaller disc being of substantially less thickness in height than that of the surrounding hollow ring, and also if desired being provided upon its under surface with medication for the sore area.

And a still further object is to provide a generally smaller form of corn shield, that comprises a generally circular hollow ring of sponge latex, a relatively much thinner and initially separate disc of similarly soft substance completely spanning the hollow space surrounded by said ring and bearing suitable medicament upon its under surface, and a flexible layer of thin fabric or the like completely covering and securing together said ring and the surrounded disc.

With the objects thus briefly stated, the invention comprises further details of construction and function, that are hereinafter fully described in the following description, when read in conjunction with the accompanying drawings, in which Fig. 1 is a plan view of the simplest

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form of the invention; Fig. 2 is a section on the line 2-2 of Fig. 1; Fig. 3 is a plan view of a slightly modified embodiment of the invention; Fig. 4 is a section on the line 4-4 of Fig. 3; Fig. 5 is a plan view of still another modification; Fig. 6 is a section on the line 6-6 of Fig. 5; Fig. 7 is a plan view of a modification that is generally of concave cross section to adapt it to the larger types of swollen joints; Fig. 8 is a section on the line 8-8 of Fig. 7; Fig. 9 is a modification that is primarily designed as a combined shield and medicated applicator for corns and the like; and Fig. 10 is a diametrical section of Fig. 9.

Referring to Figs. 1 and 2, the simplest form or embodiment of the invention is shown as comprising an elliptical hollow ring 1 of ultra-soft sponge latex or equivalent very soft substance, as felt and even so-called sponge rubber is either uncomfortably stiff and unyielding, or in the latter case dries out in time and fails even when fresh and new to afford the soft and non-irritating effect that characterizes sponge latex. This ring may be of any desired shape, such for example as circular, elliptical, rectangular, triangular, or in fact any other geometrical figure or combination of such figures. Upon its normally under surface 2, it may be directly provided with suitable adhesive for securing it in the desired position to the toe, foot, or other portion of the anatomy, or instead may be provided with a very thin layer 3 of highly flexible fabric, such as is here shown as covering the normally outer surface 4 of said ring, in which case said fabric (when upon the under side) is provided with the adhesive. Thus, the under side may be covered by a layer of fabric, but whether so covered or left uncovered it is preferably provided with adhesive by which it is secured in position. Similarly in this form of the device, the outer surface 4 may, but need not, be covered by such a layer of thin fabric, but when so provided such a layer insures a smoother outer surface that lessens the tendency of the ring to catch and abrade the wearer's sock or stocking with frequent damage resulting thereto.

Referring to Figs. 3 and 4, the same descriptive details apply here as they do to Figs. 1 and 2, except that the ring 5 here shown has the shape of a hollow rectangle with either or both sets of its inner and outer corners 6 bevelled, while the similarly shaped ring 7 of thin fabric is definitely present upon the normally outer surface 8 of the base ring, and comprises a transversely or diametrically extending rib 9 of the same ma-

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terial, that serves to prevent undue separation of the sides of the base ring, when of relatively large dimensions.

Referring to Figs. 5 and 6, a generally elliptical shape of latex ring 10 is here shown as having adhesive upon its under surface 11, whether applied directly thereto or instead to an intervening fabric covering, while its outer surface is provided with a similarly shaped ring 12, having angularly related, diametrically extending ribs 13, to the center or point of intersection of which is secured a disc 14, preferably also of sponge latex and medicated upon its under surface, said disc being of less radial extent than the radially inner limits of said ring, so that substantial spaces exist between them and between said ribs, in order to aerate the sore area and permit free ventilation and resulting evaporation of perspiration therefrom.

Referring to Figs. 7 and 8, there is shown a protective shield that is designed to cover a swollen joint, bunion, or the like, and therefore is formed in a generally concave shape, or of such shape as to adapt it to a convex surface, such as that represented by the dot-and-dash line 20. The ring 21 here shown is of any geometrical configuration and is, of course, composed of the same type of ultra-soft sponge latex hereinbefore referred to. Its under surface 22 is provided with adhesive for attachment to the surface 20, and is generally conical, while its outer surface is covered and its central hollow space is spanned by a thin layer of fabric 23 of the same type as hereinbefore described, and may but need not be medicated, as preferred. This fabric layer may be covered upon its central inner surface with an unmedicated, relatively thin disc of the sponge latex for better protection of a tender bunion, if desired, as is generally suggested by the foam of the device shown in Figs. 9 and 10.

Referring finally to Figs. 9 and 10, there is here shown a form of the device that is particularly designed for use with corns, and comprises a ring 15 of the same soft sponge latex having its under surface 16, whether with or without a fabric covering, provided with adhesive for securing it to the skin surrounding the corn, while its entire central hollow area or cavity 17 is transversely spanned by a disc 18 of sponge latex that is of substantially less thickness or height than said ring, and is provided upon its lower surface with suitable medicament. Such a disc affords a very soft protective covering or shield for the head of the corn, while carrying curative medication for such head. Said ring and disc are secured together and with their outer surfaces in the same plane by means of an overall covering layer 19 of thin fabric.

Having thus described my invention, what I claim and desire to protect by Letters Patent of the United States is:

1. A shield for sore areas of the body, comprising a hollow geometrical ring of ultra-soft cushioning material of uniform thickness, adhesive upon its lower surface to secure it to the skin surrounding the sore area, and a ring of thin fabric secured to the outer surface of said first ring and having a diametrically extending rib to limit otherwise unrestrained expansion in one direction.

2. A shield for sore areas of the body, com-

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prising a hollow geometrical ring of ultra-soft cushioning material of uniform thickness, adhesive upon its lower surface to secure it to the skin surrounding the sore area, and a ring of thin fabric secured to the outer surface of said first ring and having a diametrically extending rib to limit otherwise unrestrained expansion in one direction, the central portion of said rib being provided with a protective disc for the head of a sore in said area, said disc being of substantially less height than said ring.

3. A shield for sore areas of the body, comprising a hollow geometrical ring of ultra-soft cushioning material of uniform thickness, adhesive upon its lower surface to secure it to the skin surrounding the sore area, a ring of thin fabric secured to the outer surface of said first ring and having diametrically extending intersecting ribs to maintain said first ring in substantially its original shape, and a disc of substantially less height than said first ring secured to and at the intersection of said ribs, to protect the head of a sore in said area.

4. A shield for sore areas of the body, comprising a hollow geometrical ring of ultra-soft cushioning material of uniform thickness, and adhesive upon its lower surface to secure it to the skin surrounding the sore area, and a transversely extending rib to limit the degree of separation between the opposite sides of said ring.

5. A shield for sore areas of the body, comprising a hollow geometrical ring of ultra-soft cushioning material of uniform thickness, and adhesive upon its lower surface to secure it to the skin surrounding the sore area, and a transversely extending rib to limit the degree of separation between the opposite sides of said ring, and a relatively thin disc of soft protective cushioning material carried by the central portion of said rib.

6. A shield for sore areas of the body, comprising a hollow geometrical ring of cushioning material, and a transversely extending rib between the opposite sides of said ring.

7. A shield for sore areas of the body, comprising a hollow geometrical ring of cushioning material, a transversely extending rib between the opposite sides of said ring and a piece of sponge latex carried by said rib.

8. A shield for a sore area of the body, comprising a hollow geometrical ring of cushioning material with a plurality of intersecting ribs connecting diametrically related portions of said ring.

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