

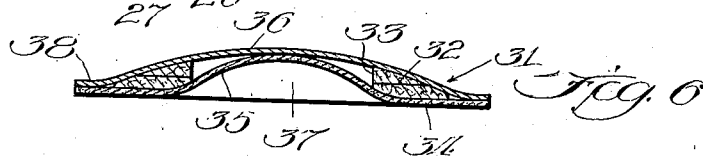
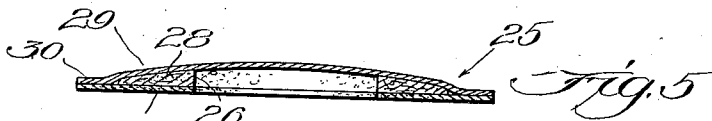
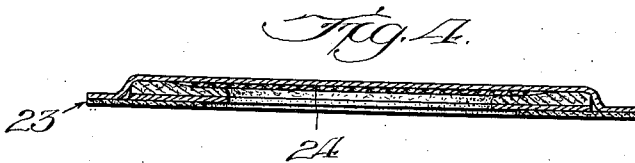
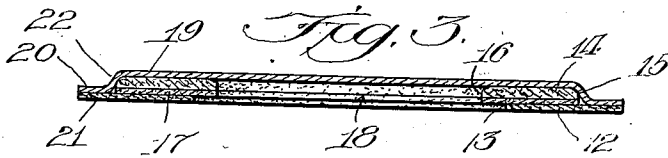
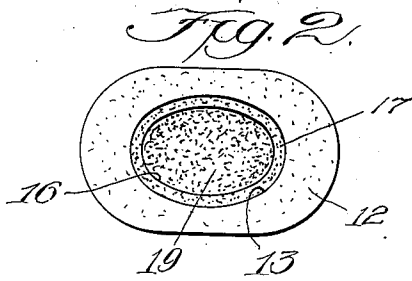
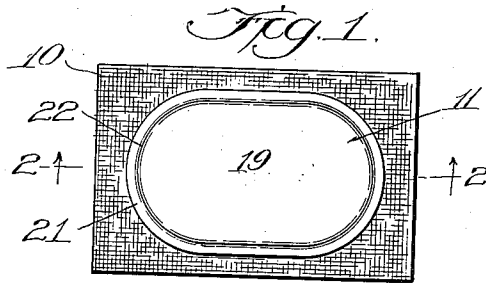
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FOOT PAD

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2,098,312

FOOT PAD

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2 Claims. (Cl. 128—153)

My invention relates to foot pads for protecting or treating sensitive places on the human foot, such as corns, calluses, bunions, and chafed areas, and more particularly to pads of this character which are composed of a plurality of adhesively united and superimposed plies of fabric or other flexible material.

Pads which are customarily used to protect sore or tender spots on the toes or feet are generally composed of superimposed layers adhesively united together and with the under surface of the lower layer having a coating of adhesive material to facilitate the fixation of the pad on the skin. These pads may have any desired marginal outline, but they are ordinarily so cut that the uppermost ply is imperforate while the lowermost plies are cut away to provide a shielding recess for receiving the sensitive portion of the skin.

In order to improve the cushioning action of pads when used in the treatment of sensitive places on the foot, there is frequently incorporated in the pad one or more layers or plies of felt, cotton padding or the equivalent. This cushion element either extends to the marginal edge of the pad or is otherwise insufficiently protected when exposed to the deteriorating action of moisture, such as when the foot is immersed in water. When the cushion layer becomes soaked with water, the pad becomes uncomfortable and unfit for continued use, because the cushion element naps down and becomes hard.

It is therefore one object of my invention to devise a foot pad of the adhesively united plies or layers type having a cushioning element which is definitely sealed and protected against moisture.

A further object is to provide a pad of the foregoing character in which the sealing of the cushioning element is accomplished by the adhesion of at least two of the sticky coated plies of the pad, one of which is the cover ply composed of a material impervious to water, and in which the margin of the cover ply is further beveled or sloped to eliminate the sharp shoulder that would otherwise be present and which is a frequent source of irritation.

A further object is to devise a foot pad in which the shielding recess is formed by bowing one or more of the lower plies upwardly through the perforation of the intermediate structure towards the cover ply, thereby providing a socket-shaped recess that is free of irritation and enabling a thicker cushion element to be used.

A further object is to provide a foot pad which

is provided with a medicated fabric ply that may be suitably impregnated or coated with antiseptic or a healing agent.

A further object is to devise a foot pad as indicated in which a graduated pressure relief for the tender area of the foot being treated is afforded by successively decreasing the areas of the perforations defining the shielding recess of the pad from the bottom toward the top of the pad.

These and further objects of my invention will be set forth in the following specification, reference being had to the accompanying drawing, and the novel means by which said objects are effectuated will be definitely pointed out in the claims.

In the drawing:

Figure 1 is a plan view of my improved pad as viewed from the exposed side thereof and showing the same mounted upon the customary carrying strip of gauze, crinoline, or the like.

Fig. 2 is a plan view of the pad looking at the under or foot-contacting side of the pad.

Fig. 3 is an enlarged, sectional elevation along the line 2—2 in Fig. 1, looking in the direction of the arrows, showing the stepped construction of the shielding recess and the sealing of the outer marginal edge of the cushioning element.

Fig. 4 is a view similar to Fig. 3, but showing a modified type of pad which is provided with a medicated gauze or fabric ply.

Figs. 5 and 6 are sectional views of other modified types, the former showing an unstepped, shielding recess, while the latter illustrates a convex shielding recess formed by bowing the lower ply upwardly through the usual perforation in the intermediate ply or plies.

Referring to the drawing, the numeral 10 designates the usual carrying strip of gauze or crinoline which is commonly employed for holding pads or plasters provided with an adhesive surface by which they are attached to the body of the user. In this case, the pad is designated by the numeral 11 and is indicated as being of the conventional oval corn or bunion pad shape, although the precise marginal outline of the pad forms no part of the present invention.

The pad is generally composed of a plurality of adhesively united plies whose number may be varied as desired in order to secure an appropriate thickness, it being understood that at least one of the plies is composed of felt, or generally any fabric that is napped sufficient to provide a soft and springy resistance to pressure, thus providing an effective cushioning structure for re-

lieving pressure on and preventing rubbing of the sensitive portion of the foot being treated.

Accordingly, the pad comprises a base ply 12 which is cut to the desired shape and whose under surface is provided with an adhesive coating in order to insure its fixation on the skin. This adhesive coating possesses a viscous, sticky character and this characteristic is retained in the pads after manufacture and during their period of use. The ply 12 is also apertured as at 13 and overlying the ply 12 and symmetrically disposed with reference thereto is a cushion ply 14, composed of felt or a material having equivalent cushioning characteristics, the outer marginal edge 15 of the ply 14 being located inwardly of the corresponding edge of the ply 12 for a purpose hereinafter explained. The ply 14 is also apertured as at 16 and the under surface thereof carries a layer 17 of suitable adhesive material, or the cushion ply 14 may be provided with an adhesive under surface or coating by means of which the ply is adhesively and fixedly united to the base ply 12. The axes of the two apertures are aligned and thus form a shielding recess 18 which is intended to receive the skin portion to be treated. It will be noted from Fig. 3 that the wall of the recess 18 is characterized by a stepped construction which insures that the tender area of the skin can be more readily received within the recess and that the body of the pad will more easily conform to the curvature of the skin portion with a consequent and added pressure relief over existing structures.

A cover ply 19, composed generally of a material that is impervious to water, such as a rubberized fabric, is adhesively united to the upper surface of the cushion ply 14 and overlies the shielding recess 18. The edge of the ply 19 extends beyond the outer marginal edge of the cushion ply and is bent downwardly and adhered to the exposed portion 21 of the base ply 12 which extends beyond the edge 15 of the cushion ply 14. The extending portion of the cover ply 19 is designated by the numeral 20 and it will be noted from Fig. 3 that the portions 20 and 21 define a band that provides a very definite seal against the ingress of moisture or egress of adhesive substance to the otherwise exposed outer marginal edge of the cushion ply 14. For example, in an oval pad whose major and minor axes have lengths of two and one and one-half inches, respectively, the width of the sealing band may be of the order of one-eighth of an inch. This dimension may be varied as desired, dependent upon the thickness and/or size of the pad, but will in all cases be sufficiently wide to insure the firm adhesion of the indicated portions of the cover and base plies. This seal extends completely around the pad, so that when the latter is in position on the wearer's foot, the cushion ply 14 is completely protected, notwithstanding that the foot may be immersed in water. Sealing the edges also prevents any of the adhesive substance coming in contact with the wearer's hose.

In bending down the outer portion of the cover ply for sealing contact with the base ply 12, a distinctly beveled edge or sloping margin 22 is provided around the pad, whereby the latter may be made with relatively great thickness and yet provide for a comfortable fit on the foot without irritation to the user, because of the gradual uplift of the shoe over the pad by reason of the sloping margin 22, as compared with the other-

wise abrupt lift characteristic of pads provided with upstanding marginal walls.

The cushion ply 14 may be made of any desired thickness and of any desired material consistent with the obtaining of a substantial cushioning effect. Felt or heavily napped fabric have been found suitable for this purpose and the sealing protection provided for the cushion layer 14 effectively prevents the subsequent hardening or napping down of the material comprising the cushion ply that would otherwise result from the absorption of moisture by the cushion.

This sealing characteristic of my improved pad is associated with the sloping margin 22 heretofore described and with the stepped construction of the shielding recess 18, thus providing a foot pad which is not only characterized by a substantial cushioning capacity, but also one that will readily conform to the curvature of the indicated places on the foot and hence will provide a certain preciseness in pressure relief to the tender areas.

In Fig. 4 is illustrated a modified type of pad 23 which is substantially identical with that illustrated in Fig. 3, except that a medicated ply composed of gauze, surgical dressing fabric, or equivalent material is interposed between the cover and cushion plies so as to overlie the shielding recess of the pad. This medicated ply 24 may be suitably treated, as by impregnation or coating, with a local anodyne, such as is customarily employed in foot pads, or with a suitable antiseptic or healing agent. A pad of the type illustrated in Fig. 4 will therefore not only embody the cushioning characteristics already described, but will also be provided with suitable medication for the treatment of the tender areas of the foot. Moreover, the medicated fabric ply will be located in a position that will also be protected and sealed against the ingress of moisture when the pad is on the foot.

In Fig. 5 is illustrated a further modified type of pad 25 which is provided with a straight walled, shielding recess 26 formed by simply perforating a base ply 27 and a cushion ply or element 28 in accordance with usual practice. The base ply 27 may be adhesively coated or otherwise conditioned for affixation to the skin and the cover ply 29 overlies the recess 26 and is extended beyond the edge of the cushion element 28 for sealing affixation to the base ply, as indicated by the numeral 30, and for the purpose hereinbefore described. As indicated in the figure, the cushion element 28 may have its upper surface rounded or beveled in order to enable the cover ply 29 to easily conform thereto and provide a dome or convex-shaped top surface for the pad.

A further modified type of pad 31 is illustrated in Fig. 6 which employs a cushion element 32 that may be formed by superimposed layers of the material to which reference has already been made and which is perforated as at 33. Underlying the cushion element 32 is a base ply 34 that is suitably treated as already noted for affixation to the skin and whose intermediate portion is bowed upwardly as at 35 through the perforation 33 toward the cover ply 36, thus forming a socket or dome-shaped shielding recess 37. The upper surface of the cushion element 32 may be rounded to enable the cover ply 36 to assume the convex shape shown and the periphery of the cover ply 36 extends beyond the periphery of the cushion element 32 for sealing affixation to the similarly extending portion of the base ply 34, as indicated by the numeral 38. The non-per-

forated base ply type of pad illustrated in Fig. 6 provides an entirely satisfactory construction for foot pads and is particularly desirable where a rather thick cushion structure is preferred.

It will be understood that notwithstanding that the particular disclosure of this application relates to a foot pad, the essential features of the present invention are likewise adapted for and capable of use in connection with medical pads in general, such as are frequently required for surgical dressings which require a cushioning element of some type and a protective covering therefor.

I claim:

1. A pad for application to the human body comprising a thin, perforated base ply having one surface coated for adhesive attachment to the body skin, a fibrous, cushion element united to the opposite surface and lying within the marginal edge of the base ply and having a perforation registering with the perforation of the base ply to form the shielding recess of the pad, and a thin, imperforate, water-proof, cover ply overlying

ing the recess and extending beyond the marginal edge of the element, the extending portions of the plies being adhered together to seal the element against moisture penetration when the pad is in position on the skin.

2. A pad for application to the human body comprising a thin, perforated base ply having one surface coated for adhesive attachment to the body skin, a substantially flat, fibrous, cushion element lying within the marginal edge of the base ply and having a perforation registering with the perforation of the base ply to form the shielding recess of the pad, and a thin, imperforate, water-proof, cover ply overlying the recess and extending beyond the marginal edge of the element, the element being adhered to one of the plies and the extending portions of the plies being adhered together to seal the element against moisture penetration when the pad is in position on the skin, the marginal edge of the cover ply terminating at the marginal edge of the base ply to form and stiffen the edge of the pad.

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