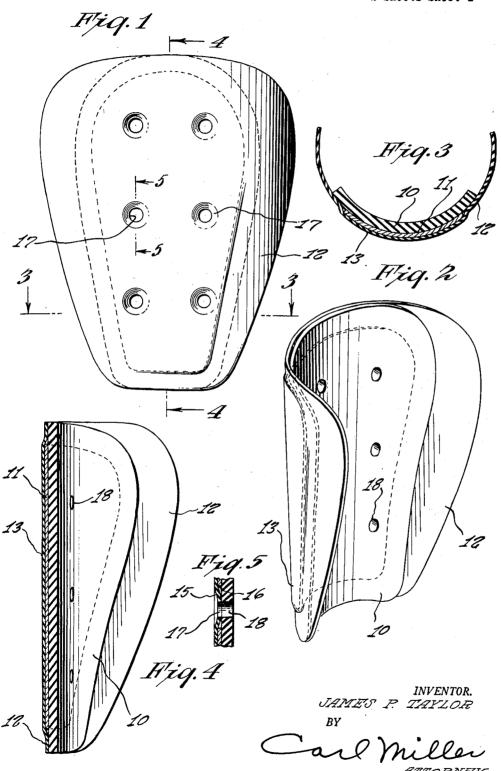
SELF-GRIP WATERPROOF BLOW DISTRIBUTING SHIN GUARD

Filed Nov. 15, 1948

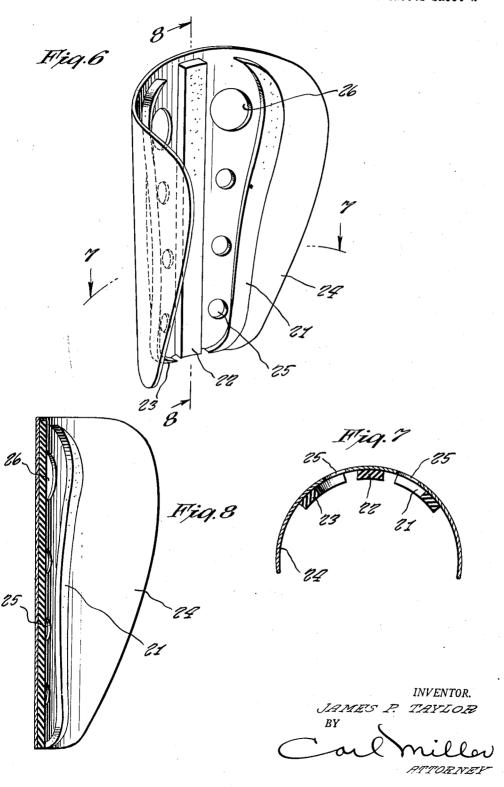
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## UNITED STATES PATENT OFFICE

2,553,612

## SELF-GRIP WATERPROOF BLOW DISTRIBUTING SHIN GUARD

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Application November 15, 1948, Serial No. 60,041

3 Claims. (Cl. 2-22)

This invention relates to a self-grip waterproof blow-distributing shin guard such as used for protecting the body from blows and injury when engaged in bodily contact sports such as football, soccer, and the like.

This application is a continuation in part of the invention disclosed in my pending application, Serial No. 32,619, filed June 12, 1943,

It is an object of the present invention to provide shin guards which will have a sufficient 10 area to partially surround the leg and so that the ends of the same may have gripping engagement with the leg and wherein some support of the shin guard can be effected by the stocking the above pending application and whereby to eliminate the use of extraneous bands, straps or buckles or other fastening devices which have been heretofore used with shin guards.

Other objects of the present invention are to  $^{20}\,$ provide a soft gripping shin guard which is waterproof, sanitary, can protect against blows equivalent to that of a hammer, weighs no more on a wet day than on a dry day, moisture-proof, of simple construction, inexpensive to manufacture, easy to apply to the shins of the player, has nonslipping material engaging with the skin and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to 30 the following detailed description taken in connection with the accompanying drawing, in which

Fig. 1 is a front face view of the improved shin guard embodying the features of the present invention.

Fig. 2 is a rear perspective view of the shin guard shown in Fig. 1.

Fig. 3 is a transverse sectional view of the shin guard shown in Fig. 1 and as viewed on line 3-3 of Fig. 1.

Fig. 4 is a vertical sectional view taken on line 4-4 of Fig. 1.

Fig. 5 is a fragmentary and detail sectional view taken through an opening in the shin guard and on line 5-5 of Fig. 1.

Fig. 6 is a rear perspective view of a modified form of the invention.

Fig. 7 is a transverse sectional view taken on line 7-7 of Fig. 6.

Fig. 8 is a vertical sectional view taken on line 50 8—8 of Fig. 6.

Referring now particularly to Figs. 1 to 5, 10 represents a soft sponge rubber engaging member which has direct contact with the skin on the front of the shin. This rubber is such as to 55

provide a frictional engagement of the guard with the shin and will need to support the same vertically on the shin. The sponge rubber 10 is bonded to a blow-distributing plate !! and to a front curved plate 12 of spring material and of arcuate section. The front plate 12 is preferably formed of rubber or rubberized material and is resilient so as to engage the sides of the leg and to also tend to retain the guard in the elevated position on the leg.

The front part of the plate 12 is pressed outwardly as indicated at 13 to receive the blowdistributing plate of more rigid material and to provide a pocket in the stocking which is pulled when in place as with the shin guard defined in 15 over the leg so that through the stocking the guard can be held in place.

> The blow-distributing plate !! is made of a hard substance, metal or plastic, vulcanized rubber, or other suitable material.

In order to provide for a better retention of the blow-distributing plate II within the outer plate 13, openings are extended through the assembly and portions of the outer plate 13 are depressed into the opening in the blow-distributing plate, as indicated at 15. The opening in the blow-distributing plate is larger, as indicated at 16, than the openings 17 and 18 through the outer plate and the foam rubber. The sides of the outer plate 12 are carried about the leg sufficiently to have gripping engagement therewith and when taken with the frictional engagement of the sponge rubber pad or member 10 with the leg and the retention of the guard by the stocking over the outwardly pressed portion 13 35 of the plate 12, the guard will be firmly held upon the leg of the wearer.

Referring now to Figs. 6, 7 and 8, there is shown a modified form of the invention wherein a guard plate of resilient or spring material is lined with vertically extending sponge rubber strips 21, 22 and 23 laterally spaced from one another, the strip 22 lying in the center. The guard plate is indicated at 24 and is sufficiently wide to surround the sides of the leg. In the plate 24 are two rows of vertically spaced air openings 25 and 26. The openings 26 lying at the top of the guide plate 24 where it is wide. The sponge rubber members 21 and 23 are inclined outwardly and upwardly to conform to the wide upper portion of the plate 24. The plate 24 is made of resilient material, such as vulcanized rubber or plastic or any other suitable material, which can engage with the flesh without scratching or rupturing it. This guard will be held upon the leg by the gripping action of the sides of the plate 24 and by the

friction of the sponge rubber pieces with the leg surface. The stocking will cover the guard and by its engagement with the edges will also tend to hold the guard in place upon the leg.

While various changes may be made in the 5 detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

Having thus set forth and disclosed the nature 10 of my invention, what is claimed is:

1. The herein described guard comprising an inner pad of soft yieldable material for covering the front area of the shin of a user, a rigid distributor plate disposed outwardly of said pad and of less area than that of said pad, the latter bonded to said plate, and a relatively extensive outer resilient member engaging the distributor plate and also engaging the outer boundary margin of said pad, said outer member including lateral portions for holdingly engaging the leg muscles at the sides and partly at the back of the leg.

2. A guard according to claim 1 wherein said outer member is formed with a recess to fittingly receive said distributor plate at the front surface 25 thereof.

3. The herein described guard, comprising an inner pad of yieldable material for covering the front area of the shin of a user, a rigid distributor disposed forwardly of said pad and of less

area than that of said pad, the latter bonded to said distributor, and a relatively extensive outer front resilient member engaging the distributor and also engaging the outer boundary margin of said pad; said member formed with a front projection providing a recess for said distributor, said member having lateral portions formed for holdingly engaging at the sides and partly at the back of the leg muscles, said projection adapted also to be engaged by the stocking of the user for retaining said lateral portions in the engaged position.

JAMES P. TAYLOR.

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