PATENT SPECIFICATION

671,022

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COMPLETE SPECIFICATION

Improvements in or relating to Shin Guards

I, JAMES PHILIP TAYLOR, of 503 East 4th Street, Brooklyn, New York, United States of America, a citizen of the United States of America, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement :—

This invention relates to shin guards such as are used for protecting the body from blows and injury when engaged in bodily contact sports such as soccer or rugby football and the like.

It is an object of the present invention to provide an improved waterproof shin guard which will have a sufficient area to partially surround the leg so that the ends of the same may have self gripping engagement with the leg.

It has been previously proposed to provide a shin guard comprising a main plain metal guard having its longitudinal edges suitably flanged to receive and grip the edges of a removable shock absorbing pad which follows the contours of the main guard.

According, however, to the present invention there is provided a shin guard having a blow-distributing plate and lateral portions associated therewith adapted to have a clamping engagement with the sides of the leg when the guard is disposed thereon, characterized by the provision of a soft yieldable material adherently bonded to the interior of the plate to cushion the plate upon the leg of a user and to have frictional engagement with the skin surface of the shin.

The preferred embodiments of the invention will now be described by way of example with reference to the accompanying drawings 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 8–8 of Fig. 6.

Referring now particularly to Figs. 1 to 5, 10 represents a soft sponge rubber engaging member or pad which has direct contact with the skin on the front of the shin. This rubber is such as to provide a frictional engagement of the guard with the shin and will need to support the same vertically on the shin. This sponge rubber 10 is bonded to a blow-distributing plate 11 and to a front curved plate or outer member 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 blow-distributing plate of more rigid material and to provide a pocket in the stocking which is pulled over the leg so that through the stocking the guard can be held in place.

The blow-distributing plate 11 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 11 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

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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 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 or blow-distributing plate of resilient or spring material is lined with vertically extending sponge rubber strips 21, 22 and 23 bonded thereto and laterally spaced from one another, the strip 22 lying in the centre. 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 guard 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.

WHAT I CLAIM IS :—

1. A shin guard having a blow-distributing plate and lateral portions associated therewith adapted to have a clamping engagement with the sides of the leg when the guard is disposed thereon, characterized by the provision of a soft yieldable material adherently bonded to the interior of the plate to cushion the plate upon the leg of a user and to have frictional engagement with the skin surface of the shin.

2. A shin guard as claimed in claim 1, having a pad of soft yieldable material adherently bonded to a rigid blow-distributing plate disposed outwardly of the pad and of less area than said pad, and wherein there is provided a relatively extensive outer resilient member or plate engaging the distributor plate and also engaging the outer boundary margin of said pad.

3. A shin guard as claimed in claim 2, wherein the outer member or plate is formed with said lateral portions for holdingly engaging the leg muscles at the sides and partly at the back of the leg.

4. A shin guard as claimed in claim 2 or 3, wherein the outer member or plate is formed with a recess to receive fittingly said distributor plate at the front surface thereof.

5. A shin guard as claimed in claim 4, wherein the recess is provided by a front projection formed in said outer member or plate, said projection being engageable by the stocking of the user for retaining said lateral portions in the engaged position.

6. A shin guard as claimed in claim 5, wherein the projection is pressed outwardly at the front of said outer member or plate.

7. A shin guard as claimed in any of claims 2 to 6, having openings extending through the outer member or plate, the blow-distributing plate and the pad of yieldable material, and wherein the outer plate is depressed about the openings therein and extended into the corresponding openings of the blow-distributing plate.

8. A shin guard as claimed in claim 1, wherein the lateral portions are formed integrally with the blow-distributing plate.

9. A shin guard as claimed in claim 1 or 8, wherein the yieldable material is arranged in three laterally spaced strips, the outer strips being inclined upwardly and outwardly, and wherein the blow-distributing plate is formed with vertically spaced openings therein lying in rows in the spaces between said strips of yieldable material.

10. A shin guard as claimed in any preceding claim, wherein the yieldable material is soft rubber such as sponge rubber.

11. A shin guard substantially as described and as shown in either figures 1 to 5 or figures 6 to 8 of the accompanying drawings.

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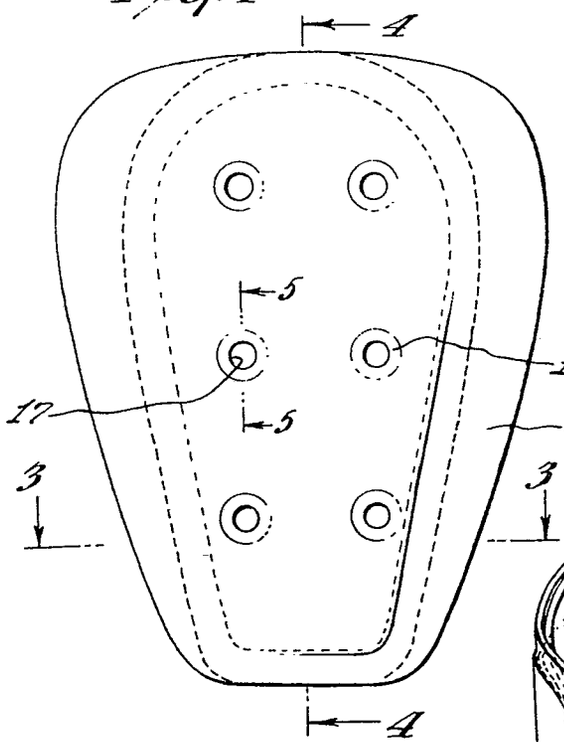
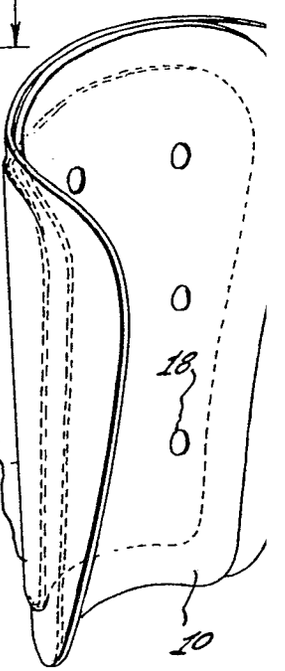
Fig. 1



Fig

Fig



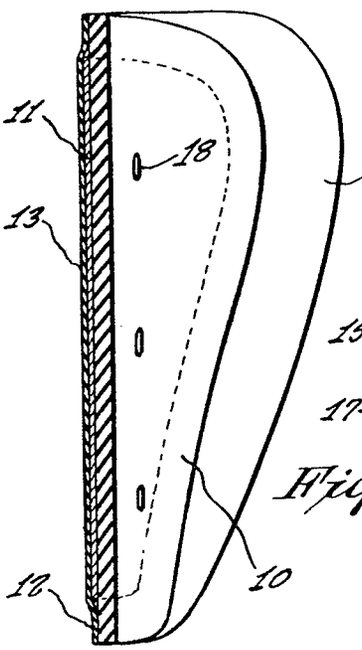


Fig. 4

Fig. 5

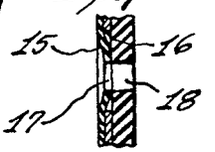


Fig. 3

Fig. 2

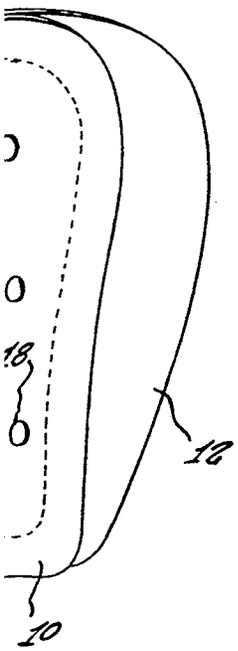
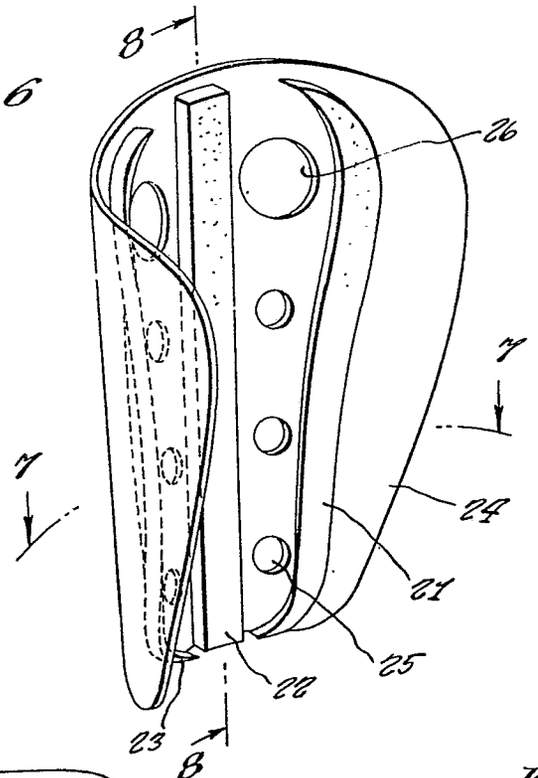


Fig. 6



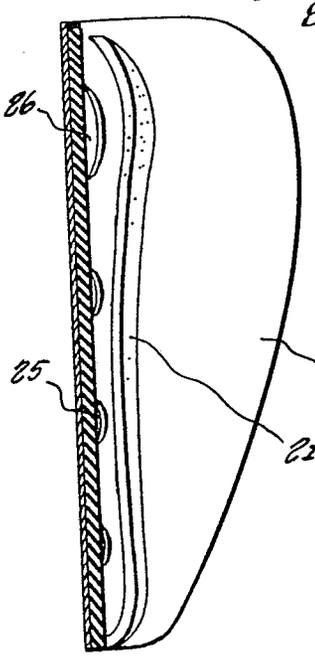
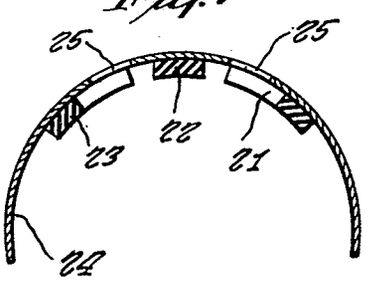


Fig. 8

Fig. 7



671,022 COMPLETE SPECIFICATION 2 SHEETS SHEET 1

2 SHEETS SHEET 2

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