July 12, 1949. H. W. STROH 2,475,859

FOOTWEAR SPLASH GUARD

Filed Aug. 19, 1947

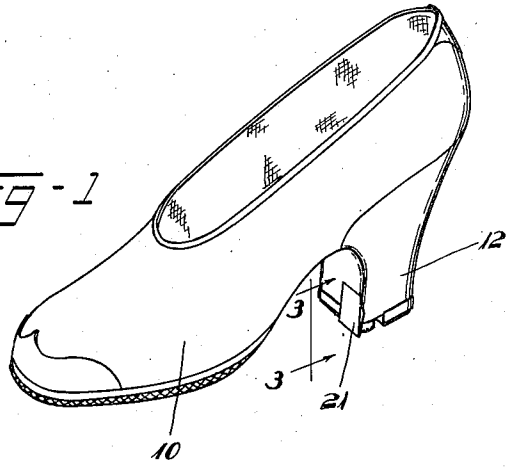


Fig - 1

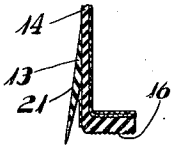


Fig - 5

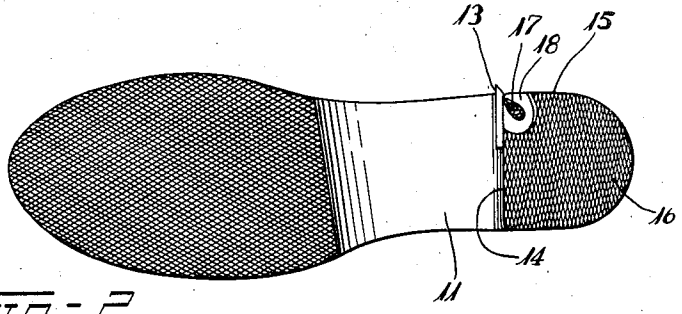


Fig - 2

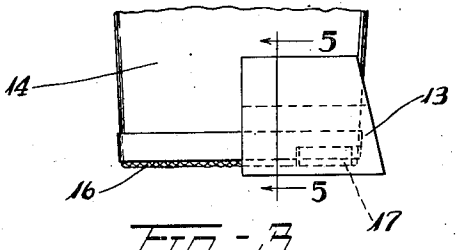


Fig - 3

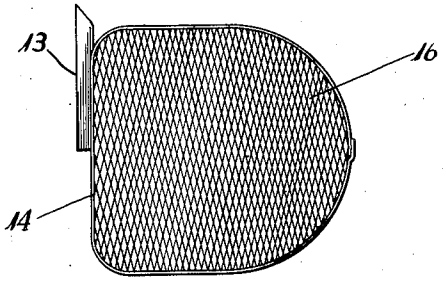


Fig - 4

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Patented July 12, 1949

2,475,859

UNITED STATES PATENT OFFICE

2,475,859

FOOTWEAR SPLASH GUARD

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Application August 19, 1947, Serial No. 769,501

8 Claims. (Cl. 36—70)

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This invention relates to a splash guard member for footwear and is particularly concerned with a splash guard member adapted to direct the flow of mud and water discharged from the forward inner corner of the heel face of an article of footwear.

A person walking on a wet or muddy surface is frequently troubled by indiscriminate splashing of mud and water on the legs and ankles due to water adhering to the heel face when the heel is lifted from the wet surface, which water is then thrown over on the opposite leg of the person walking due to the upward and forward motion of the heel.

A number of constructions have been proposed to overcome this problem, generally by directing the flow of water off the face of the heel. Walper in U. S. Patents Nos. 2,349,216; 2,380,349 and 2,395,597 provides means for directing the flow of water from the heel face either forwardly against the sole of the article of footwear by means of a forwardly extending tongue member or in a directed stream off the normal forward inner corner of the heel face. Dunbrook in Patent No. 2,453,002 provides means for channeling water off the breast of the heel and the forward inner corner of the heel by a construction in which a tear-drop shaped forward inner corner portion of the heel face is separated from the remainder thereof by a generally arcuate channel extending from the inner edge of the heel to the breast thereof.

The constructions adapted to discharge water off the normal forward edge of the heel or the normal forward inner corner thereof provide protection against splashing in many cases. Some persons, however, due to certain peculiarities in walking, are not protected entirely by such constructions.

It is, therefore, an object of this invention to provide a splash guard adapted to be used in combination with a heel for an article of footwear by means of which water being discharged from the forward inner corner of the heel proper or the breast of the heel adjacent the inner edge thereof (i. e., the edge adjacent the other foot of the wearer), is prevented from splashing on the opposite leg of the person walking. Other objects will be apparent from the description which follows.

I have discovered that a suitable splash-preventing construction comprises a heel for an article of footwear having a splash guard secured to the breast of the heel adjacent the inner edge thereof, the guard extending down the breast of the heel with the lower part projecting below the heel face and extending laterally from a region near the center of the breast of the heel to a point beyond the inner edge of the heel in front of the forward inner corner of the heel face. Such a construction effectively prevents splashing while walking when the splash guard is used in combination with a conventional heel and particularly when used in combination with a heel having means for directing water off the normal forward edge of the heel face including the forward inner corner thereof.

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The invention is best described with reference to the accompanying drawings of a preferred embodiment thereof.

Of the drawings:

Fig. 1 is a perspective view of a rubber overshoe including a heel having a water-directing surface and a splash guard for the heel;

Fig. 2 is a plan view of the bottom of the overshoe shown in Fig. 1;

Fig. 3 is a fragmentary view taken on line 3—3 of Fig. 1;

Fig. 4 is a plan view of a conventional heel provided with a splash guard embodying the invention; and

Fig. 5 is a section on line 5—5 of Fig. 3.

In the preferred embodiment of the invention as shown in Fig. 1 and Fig. 2, a rubber overshoe 10 having a raised shank 11 is provided with a heel 12 having a splash guard 13 secured to the breast 14 of the heel adjacent the inner edge 15 thereof.

The tread surface 16 which forms the face of the heel has a forward inner corner portion 17 thereof separated from the remainder of the tread by a channel 18 extending from the inner edge 15 of the heel to the breast 14 thereof. The channel 18 is preferably generally arcuate so as to isolate a tear-drop shaped portion of the tread. Channel 18 serves to direct water from the heel face off the forward edge of the heel with a part of the water being cast off the tip of the tear-drop shaped corner portion.

To prevent the water from being thrown over on the opposite leg, splash guard 13 is positioned on the breast 14 of the heel extending across the end of channel 18 where the channel converges with the breast of the heel. Splash guard 13 which is formed of a resilient material, preferably rubber or rubber-like material, extends downwardly along the breast and projects a short distance below the heel face, preferably extending $\frac{1}{16}$" to $\frac{1}{8}$" below the plane of the heel face, with the lower edge of the guard generally

parallel to the plane of the heel face. Guard 13 extends laterally beyond the inner edge 15 of the heel with at least a lower portion extending in front of the forward inner corner of the heel face. Preferably, the inner end of guard 13 slants downwardly away from the inner edge of the heel so that the top inner corner of the guard lies in the plane of the inner edge of the heel with the bottom inner corner extending preferably 1/8" to 1/4" beyond the plane of the inner edge.

The lower portion of guard 13 across the extent thereof preferably is beveled or undercut so as to slant downwardly away from the breast of the heel from a point on the breast above the bed of channel 18. In the preferred embodiment, the forward face 21 of guard 13 converges with the breast of the heel along the top edge of the guard and slants downwardly and forwardly from the breast to converge with the beveled lower portion at a feather edge which forms the lower edge of the guard.

In walking, the water which is picked up by the heel face is directed off the forward edge of the heel. That portion of the water which leaves the heel adjacent the inner edge or at the inner corner is thrown against the splash guard and is either deflected downwardly from the heel or is deposited on the ground when the heel again touches the walking surface. Since the guard extends beyond the inner edge of the heel, it prevents splashing due to water which might be cast in an inward path from the corner rather than forwardly as would normally be expected. The construction thus provides protection even for those persons whose peculiarities in walking render a conventional water-directing heel useless.

The invention has been described in considerable detail with reference to a particular overshoe in which the heel is provided with a particular means for directing the path of the water from the heel face. The splash guard may be used, however, in combination with a conventional heel as shown in Fig. 4; or with any other heel for an article of footwear having means for directing the path of water so as to cast it from the forward edge of the heel including the forward inner corner thereof. Furthermore, the invention may be embodied in any article of footwear having a raised shank and a heel therefor. It is not intended that the invention shall be limited to the particular embodiment described in detail and it will be understood that variations and modifications may be effected within the spirit and scope of the invention as defined in the appended claims.

I claim:

1. In combination with a heel for an article of footwear, a resilient splash guard member overlying and secured to an area of the breast of said heel adjacent the inner edge thereof, said member extending downwardly beyond the plane of the heel face with at least a lower portion of said member projecting laterally inwardly beyond the inner edge of said heel, the lower portion of said member being beveled downwardly away from the breast of the heel, said guard member presenting an unbroken face to the forward edge of the heel face and spaced therefrom.

2. In combination with a heel for an article of footwear, a resilient splash guard member secured along the breast of the heel adjacent the inner edge thereof, said member extending downwardly beyond the lower edge of the breast of the heel with the lower edge of said member generally parallel to the plane of the heel face, the inner end of said member being slanted downwardly away from the plane of the inner edge of the heel so that said member extends in front of the forward inner corner of the heel, and the lower portion of said guard member being beveled downwardly away from the breast of the heel across the transverse extent of said guard member, said guard member presenting an unbroken face to the forward edge of the heel face and spaced therefrom.

3. In combination with a heel for an article of footwear, a resilient splash guard member secured along the breast of the heel adjacent the inner edge thereof and extending downwardly beyond the lower edge of the breast of the heel with the lower edge of said member generally parallel to the plane of the heel face, the forward face of said guard member slanting forwardly and downwardly from the breast of said heel to the lower edge of said member, the lower portion of said guard member across the transverse extent thereof being beveled outwardly and downwardly away from the breast of the heel and intersecting with said forward face of the member along a feather edge, the end of said guard member adjacent the inner edge of the heel slanting downwardly and outwardly beyond said heel edge so that the guard member extends in front of the forward inner corner of the heel, said guard member presenting an unbroken face to the forward edge of the heel face and spaced therefrom.

4. In combination with a heel for an article of footwear having means for directing water off the forward edge of the heel face, a resilient splash guard member secured to the breast of said heel adjacent the inner edge thereof and extending downwardly below the heel face with at least a lower portion of said member extending beyond the inner edge of the heel in front of the forward inner corner of the heel face, the lower portion of said member across the transverse extent thereof being beveled downwardly away from the breast of the heel, said guard member presenting an unbroken face to the forward edge of the heel face and spaced therefrom.

5. In combination with a heel for an article of footwear comprising a tread member having a channel extending from the inner edge of the heel to the breast thereof across the forward inner corner portion of said tread member, a resilient splash guard member secured to the breast of the heel in advance of said channel and extending downwardly below the lower edge of the breast of the heel and laterally in front of the forward inner corner of the tread member, the lower portion of said guard member across the extent thereof being beveled downwardly away from the breast of the heel, said guard member presenting an unbroken face to the forward edge of the heel face and spaced therefrom.

6. In combination with a heel for an article of footwear comprising a tread member having a generally arcuate channel separating a forward inner corner portion of the tread member from the remainder thereof, a resilient splash guard member secured to the breast of the heel extending in advance of the channel and projecting beyond the inner edge of the heel in front of the forward inner corner of the tread member, the lower portion of said guard member across the extent thereof being beveled downwardly away from the breast of the heel, said guard member

presenting an unbroken face to the forward edge of the heel face and spaced therefrom.

7. Article of footwear including a raised shank, a heel having means for directing water off the forward edge of the heel face, and a resilient splash guard member secured to the breast of the heel adjacent the inner edge thereof, said splash guard member being generally flattened and extending downwardly with the lower portion of the member projecting below the heel face with the lower edge generally parallel to the plane of the heel face, at least the lower portion of one end of said guard member projecting beyond the inner edge of the heel in front of the forward inner corner of the heel face, the lower portion of said member being undercut across the extent thereof to slope downwardly away from the breast of the heel, said guard member presenting an unbroken face to the forward edge of the heel face and spaced therefrom.

8. In combination with a heel for an article of footwear, a resilient splash guard member secured along the breast of the heel adjacent the

inner edge thereof, said member comprising a generally flattened wedge-like element having the rear face of the upper portion thereof secured to the breast of the heel in face-to-face abutting relation, the lower portion of said element being beveled across the transverse extent thereof with the rear face slanting outwardly and downwardly away from the breast of the heel and terminating downwardly in a feather edge, said member extending laterally beyond the inner edge of the heel and having the lower edge thereof below and generally parallel to the face of the heel, said member presenting an unbroken face to the forward edge of the heel face and spaced therefrom.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,416,944	Noilin	Mar. 4, 1945