Aug. 30, 1932. F. D. REYNOLDS 1,875,152

SHOE PLATE

Filed Dec. 13, 1929

Fig. 1.

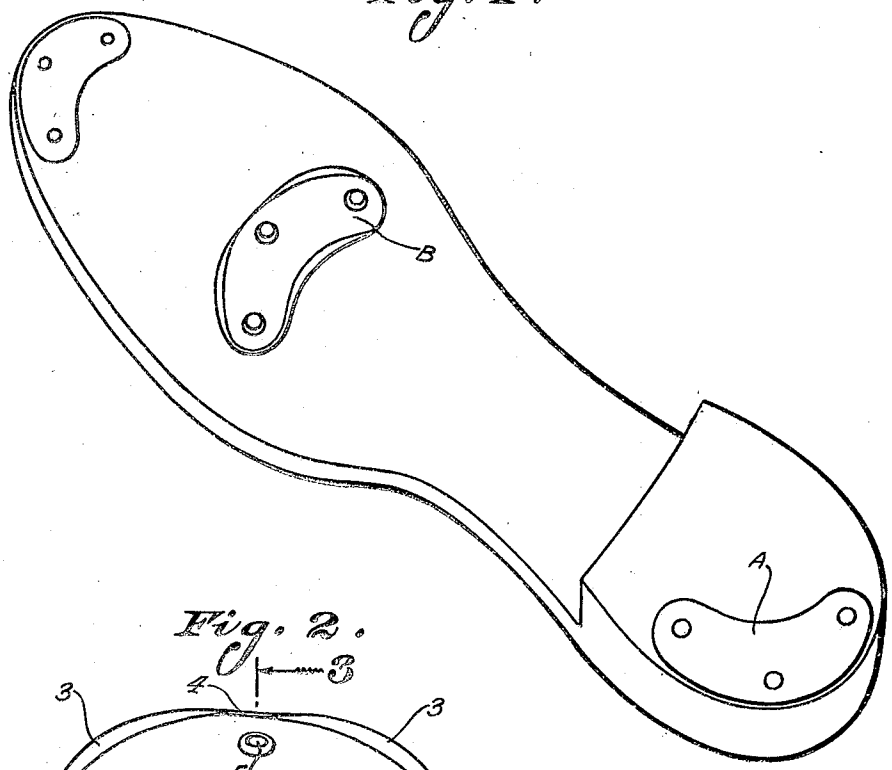


Fig. 2.

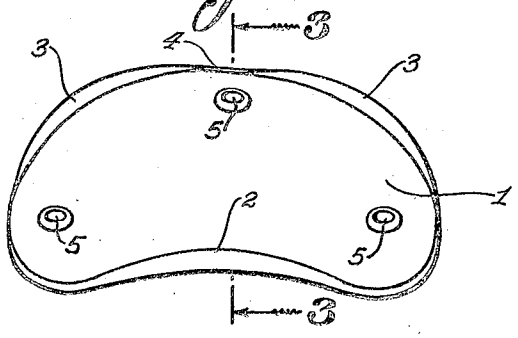
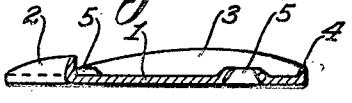


Fig. 3.



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UNITED STATES PATENT OFFICE

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SHOE PLATE

Application filed December 13, 1929. Serial No. 413,720.

This invention pertains to shoe plates.

One of the objects of this invention is to provide a shoe plate which may be used as a reinforcing plate for the heel or toe and also as a cleat for the sole or heel of a shoe to prevent slipping when walking on ice or the like, or for sport shoes.

Another object of this invention is to provide a shoe plate of novel design which will be easy to apply and secure as to its holding properties.

Further objects will appear from the following description taken in connection with the accompanying drawing, in which:

Figure 1 is a perspective view showing a shoe sole having shoe plates embodying this invention applied thereto;

Figure 2 is an enlarged view of a shoe plate embodying this invention; and

Figure 3 is a section on line 3—3 of Figure 2.

Referring now to the drawing, this shoe plate comprises a crescent-shaped body 1 of metal or other suitable strong material. This body is provided along the inner arc thereof with an upstanding sharp-edged flange 2. Along the outer arc of the body 1 is a similar flange 3 but having a depression 4 at its middle portion so as to provide in effect a two-part flange.

The flanges 2 and 3 are, however, made sufficiently short to permit them to be readily driven into the bottom face of a shoe sole or heel.

This plate may be formed by any well-known method, preferably by stamping in such a way that the flanges 2 and 3 are turned up during the stamping operation. Any suitable number of screw or nail holes 5 may be punched in the body to provide for fastening the same in place.

This shoe plate may be applied to a shoe as a heel plate, as illustrated at A in Figure 1. In this case the flanges 2 and 3 are turned against the leather and forced into the material of the heel or sole by pressing or hammering the plate down upon the leather. The plate may be secured by suitable fasteners inserted through the holes 5. When applied in this way the plate may be made to conform closely to the contour of the heel or toe thereof, since the depression 4 renders the plate flexible at its middle portion, so that it may conform to the uneven surface of a worn heel. This also enables the plate to conform to the shape of the sole when applied at any other point where re-enforcement may be required. The provision of both inner and outer flanges results not only in a good seating of the plate but also prevents foreign matter from working under the plate and which might loosen it. The outer interrupted flange, forming as it does scallops, not only permits bending of the plate, but also provides a series of prongs for entering the sole or heel when attached thereto.

The plate may also be applied as indicated at B in Figure 1. In this case the flanges 2 and 3 are turned outwardly from the sole and provide gripping edges or creepers adapted to prevent slipping on the ice or for sport shoes. In this application also the flexibility provided by the depression 4 renders the plate capable of conforming somewhat to the movement of the sole. This construction also provides two points of contact for the flange 3 instead of only one, as would be the case without the depression 4. Accordingly, three entering edges are provided. These are arranged in triangularly spaced relation to one another so that their combined gripping power when used in either the A or B relation of Figure 1 is greatly increased.

It is obvious that various changes may be made in details, within the scope of the appended claims, without departing from the spirit of this invention. It is, therefore, to be understood that this invention is not to be limited to the specific details shown and/or described.

Having thus described the invention, what is claimed is:

1. A shoe plate comprising a crescent-shaped body provided with an interrupted short, sharpened, penetrating flange along the outer arc thereof, a short, sharpened penetrating flange along the inner arc thereof, and extended depressed portions between said flanges to permit bending of the plate.

2. A shoe plate comprising a crescent-

shaped body provided with a short, sharpened, penetrating flange along its outer arc, said flange having a depression at the middle portion thereof to permit bending.

3. The combination with a shoe sole of a crescent-shaped plate, a plurality of fastening elements for maintaining the plate against removal from the sole, and a short, sharpened, penetrating flange on said plate extending therebeyond around the periphery thereof and in penetrating engagement with said sole throughout the periphery of said plate but having a depression at the middle to permit bending thereof, said flange being adapted for maintaining said plate against lateral movement relative to said sole and to prevent loosening of said fastening elements consequent to such lateral movement.

In testimony whereof, I affix my signature this 6th day of November, 1929.

FREDERICK D. REYNOLDS.