April 25, 1961 P. LOMBARDO 2,981,011

SOLE FOR SHOES, NOT SLIPPERY, PARTICULARLY RUBBER-MADE

Filed Oct. 31, 1958

FIG.1.

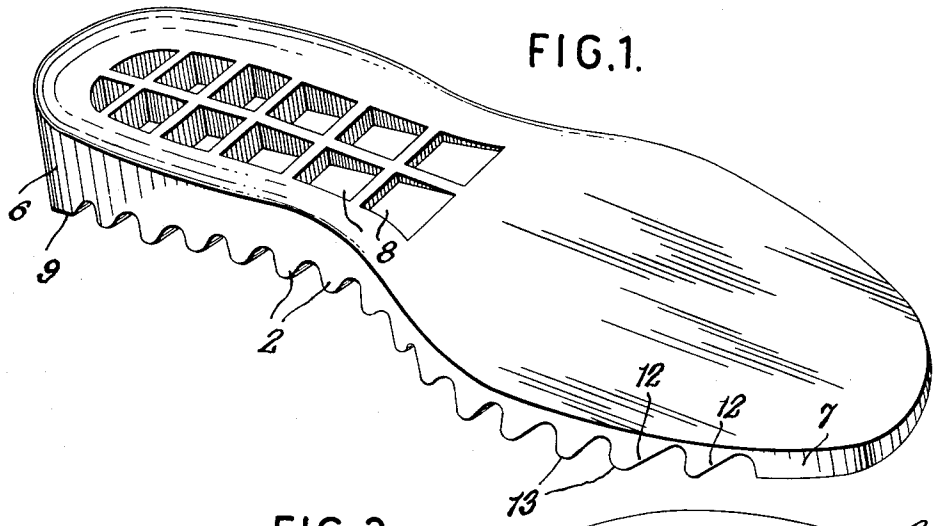


FIG.2.

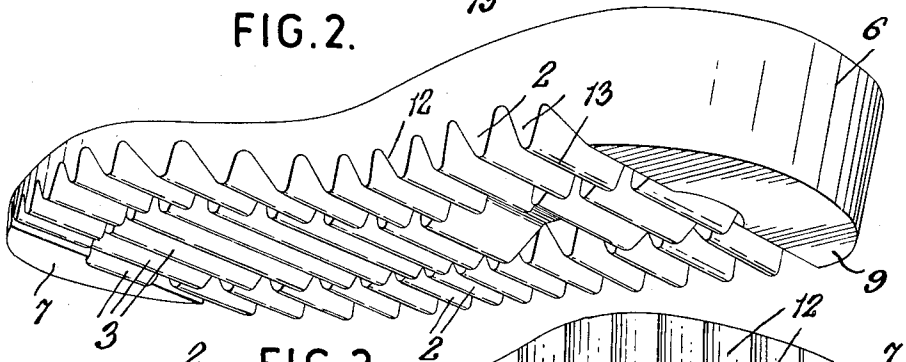
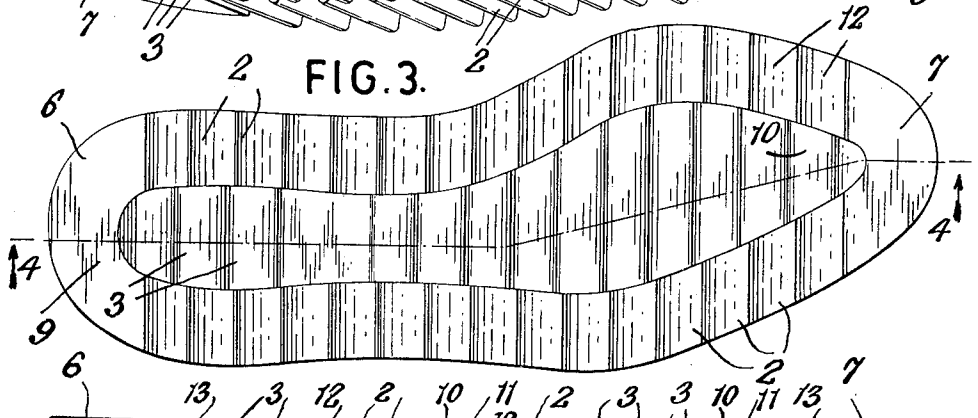


FIG.3.



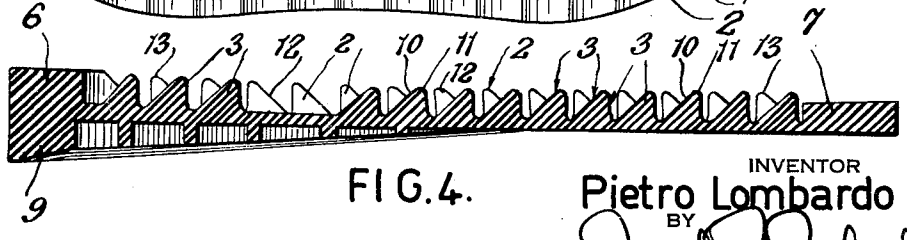


FIG.4.

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SOLE FOR SHOES, NOT SLIPPERY, PARTICULARLY RUBBER-MADE

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1 Claim. (Cl. 36—59)

This invention relates to the bottom portions of footwear, such as shoe soles, or combined soles and heels, and more particularly to such articles as are composed of a resilient material such as rubber, foamed plastic or material of similar characteristics.

There is a general tendency for soles composed of such materials, and particularly after becoming worn, to slip or skid on wet surfaces, and in an effort to counteract such tendency, it has been proposed that the soles be transversely ribbed across their width. This however, has been found to be only partially effective.

It is an object of the invention to provide a shoe sole which shall be transversely ribbed by ribs which are substantially triangular in cross-sectional shape, and in which the sole shall be divided into two areas namely, a central area in which the triangulated ribs shall have inclined surfaces extending from the apices of such triangular ribs toward the rear of the sole, and an outer or marginal edge area in which the inclined surfaces of the ribs in such area shall extend forwardly or toward the front end of the sole.

This arrangement of the transverse ribs, with the ribs in the two groups inclined in different directions, results in a substantially greater degree of friction between the sole and the ground than is the case when all of the ribs on the sole are inclined in the same direction.

With these and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be described, and more particularly pointed out in the claim appended hereto.

In the acompanying drawing, wherein an illustrative embodiment of the invention is disclosed,

Fig. 1 is a perspective view of a shoe sole, or combined sole and heel, constructed according to the invention;

Fig. 2 is a perspective view of the same from below;

Fig. 3 is a view looking at the bottom face of the sole, and

Fig. 4 is a sectional view, taken substantially on the line 4—4 of Fig. 3, looking in the direction of the arrows.

The sole shown in the drawing is preferably molded from rubber, or other resilient material of similar characteristics, and it is thickened at the rear, as shown at 6 to provide a suitable heel portion. This portion may, for lightness and resiliency, be hollowed out as shown at 8. The bottom of the sole is formed with two sets of transverse ribs indicated respectively at 2 and 3. The ribs shown at 2 are located in a marginal edge area of the sole, and which area extends almost completely around the edge of the sole, being interrupted only in the heel part as indicated at 9 and in the toe extremity, as indicated at 7. The ribs shown at 3 are located in the central area of the sole and are bordered by those shown at 2.

The ribs in both areas of the sole may be described as being saw-toothed or triangular in shape in cross section. Those shown at 3, and located in the central area of the sole, have inclined surfaces 10 extending downwardly from the apices 11 of said ribs toward the rear or heel portion of the sole. The ribs 2 located in the marginal edge area of the sole, have their inclined faces extending downwardly from their apices toward the front end of the sole. There is thus provided in the sole a central or inner area having ribs presenting surfaces of one inclination, which area is at least partially surrounded by a marginal area of ribs having contacting surfaces of a different or opposite inclination. In the drawing, the inclined surfaces of the outer ribs 2 are indicated at 12 and as will be noted, the same incline from the apices 13 of these ribs downwardly (in the inverted position of the sole as seen in Fig. 4) toward the front end of the sole.

The arrangement of the ribs in the manner described is such that continuity of any transverse channels across the sole is interrupted and the result is that there is a surprising absence of slip or skid of the sole, even on very wet ground surfaces and thus a secure contact with the ground is at all times attained. Also by reason of the rib arrangement disclosed, a comfortable effect in wear is secure since the sole is very springy and resilient under foot and is also very durable and of long wear.

While I have herein described the ribs in the outer marginal edge portion of the sole as having their inclined surfaces extended in a direction toward the front end of the sole, with those in the central area extended in the opposite direction or toward the rear of the sole, it will be apparent that the arrangement of the ribs might be reversed, with those in the center extending forwardly and those in the outer marginal area extending rearwardly.

Having described a single embodiment of the invention, it is obvious that the same is not to be restricted thereto but is broad enough to cover all structures coming within the scope of the annexed claim.

What I claim is:

A shoe sole having an under surface provided with triangulated ribs contained in two groups on the sole, one of the groups being in the form of a marginal edge strip extending at least partly around the edge of the sole, and the other group being a central group located between parts of the edge group, each of the ribs in both groups presenting an inclined contacting surface toward the ground when the sole is attached to a shoe, the inclined surfaces in the ribs in one group extending in a direction opposite to the direction of the inclined surfaces of the ribs in the other group, the ribs in one of the groups being depressed rearwardly and the ribs in the second group being depressed forwardly under the weight of the wearer, whereby resistance to slippage both forwardly and rearwardly is obtained.

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