April 28, 1936. C. WATANABE 2,038,972

SOLE

Filed March 12, 1934

FIG. 1.

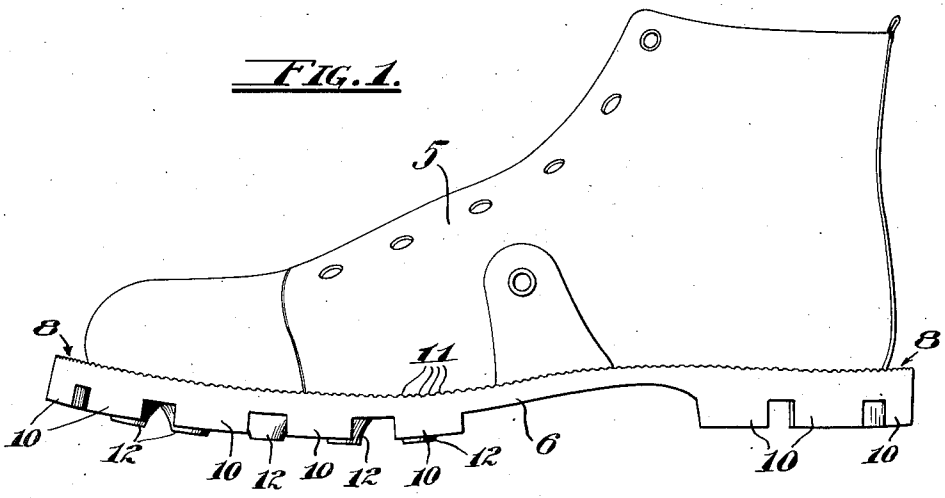


FIG. 2.

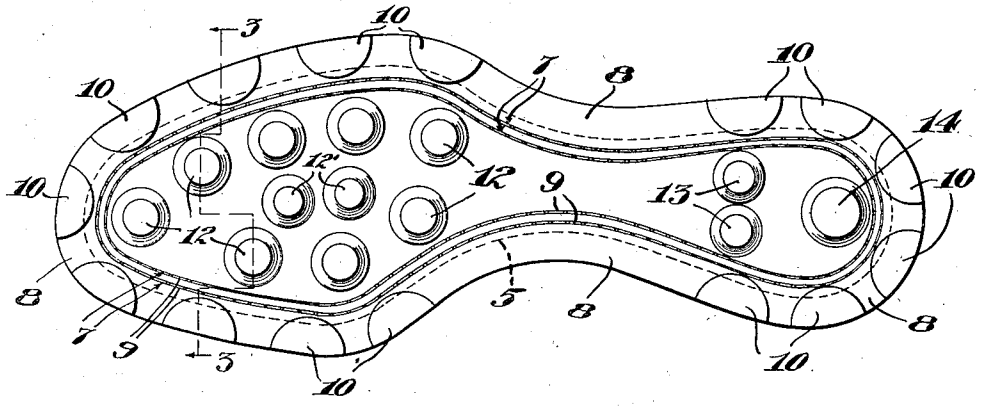


FIG. 3.

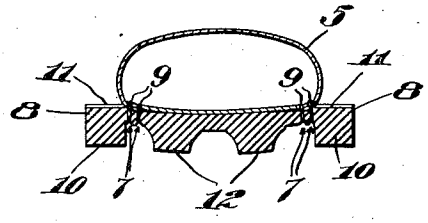
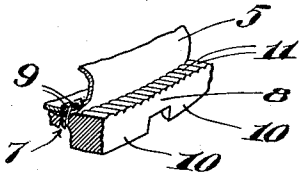


FIG. 4.



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2,038,972

SOLE

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Application March 12, 1934, Serial No. 715,059

2 Claims. (Cl. 36—32)

The present invention relates to improvement in soles, and more particularly to rubber soles embodied in sport shoes as well as general use.

The object of this invention is to provide a sole, which affords a firm foundation for the foot, and at the same time effectually prevents slipping or rolling on the ground.

A further object is to provide for soles of rubber or rubber composition which shall have the requisite wearing qualities.

A preferred form of my invention is illustrated in the accompanying drawing, in which,

Figure 1 is a side elevation of a shoe showing the present invention.

Fig. 2 is a plan view of the sole tread illustrating my invention.

Fig. 3 is a sectional view of the sole taken upon the line 3—3 of Fig. 2.

Fig. 4 is a fragmentary perspective view partly in section showing a marginal portion of the sole of the invention.

Referring more particularly to the drawing, the numeral 5 designates the top or upper portion of a shoe fabricated from leather or any suitable material in a conventional manner and is provided with a sole 6 molded from a suitable rubber composition. The sole 6 is provided with a marginally spaced channel or slit 7 following the outline of the sole and forming a substantially wide marginal portion 8 extending well beyond the general outline of the top portion 5. The channel 7 being of sufficient depth to embed the securing stitches 9 thereby projecting said stitches from wear. On the bottom surface of the marginal portion 8 and extending around the ball and heel portions of the sole are formed semi-circular projections or lugs 10, and upon the upper surface of the marginal portion 8 are located reinforcing ribs 11 of substantially semicylindrical shape extending inwardly from the edge of the sole. A series of anti-slip lugs 12 are formed just inwardly of the channel 7 and arranged to support the ball portion of the foot, and smaller lugs 12' interpositioned within said series. Also within the boundary of the stitch channel 7 but located on the part of the sole that forms the forward portion of the heel are provided similar lugs 13; and the rear portion of said heel is supported by a largest lug 14 presenting a wider wearing surface.

In a shoe of this type that is designed primarily to be worn by a contender in football, basket ball and like games where the players must frequently and suddenly change their running direction, the tread portion comprising the lugs 12 is very effective in preventing the wearer from slipping, and the marginal portion and the lugs 10 extending well beyond the foot serve to prevent turning of the ankle. The lugs 12, 12', 13, and 14 are substantially frusto-conical in shape having the larger diameter at the sole and extending in an arcuate direction inwardly and downwardly terminating in a tread portion of smaller diameter. Being formed integral with the sole, which is molded from rubber and pliable, the lugs are sufficiently rigid to resist slipping and yet resilient enough to be an effective cushion for the foot of the wearer.

What is claimed is:

1. A full sole for shoes, having a continuous groove in the tread face thereof equidistantly spaced inwardly throughout its length from the marginal edge of said sole to define a marginal tread rib, and a plurality of spaced lugs extending downwardly from and formed integral with said rib in outwardly spaced relation to said groove, said lugs being semi-cylindrical and having their rounded surfaces innermost.

2. A full sole for shoes, having a continuous groove in the tread face thereof equidistantly spaced inwardly throughout its length from the marginal edge of said sole to define a marginal tread rib, a plurality of spaced lugs extending downwardly from and formed integral with said rib in outwardly spaced relation to said groove, and other lugs on said sole spaced inwardly from said groove, said first-named lugs being semi-cylindrical and having their rounded surfaces innermost and disposed to define between said first-named lugs spaces which increase in width toward said groove.

CHIKAZO WATANABE.