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2,098,412

RUBBER SOLED FOOTWEAR

Filed June 16, 1936

Fig. 1.

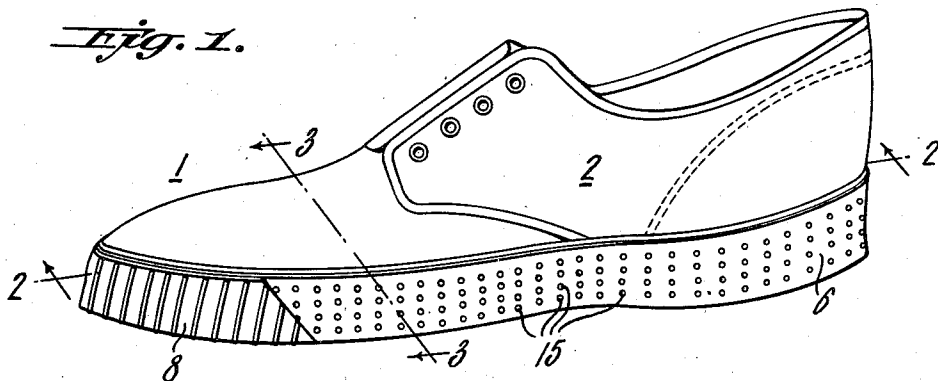


Fig. 2.

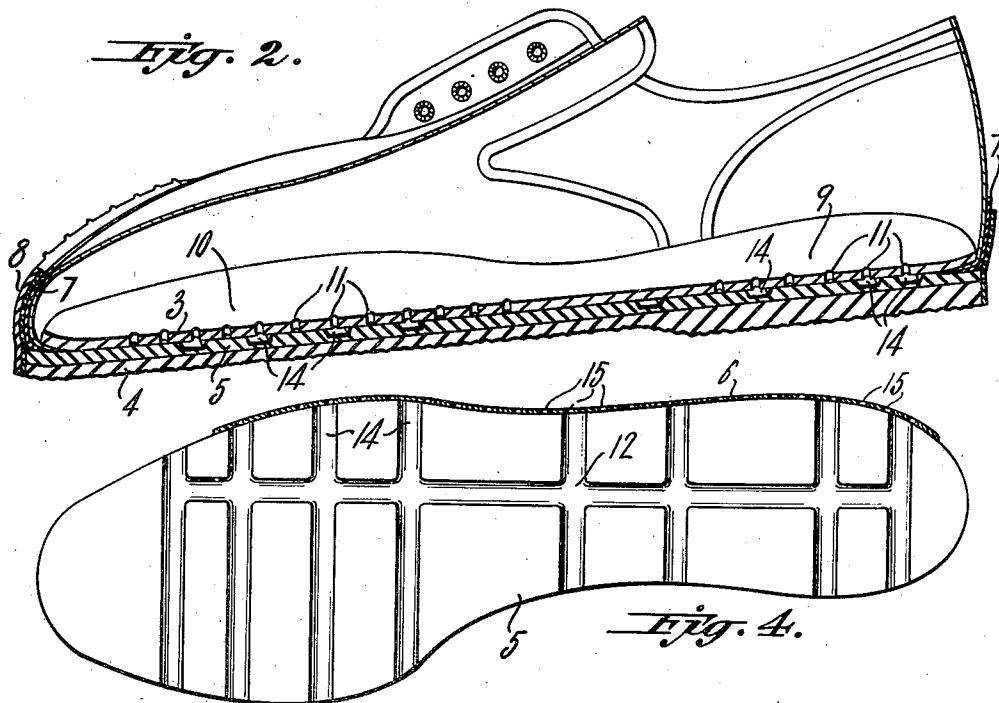


Fig. 4.

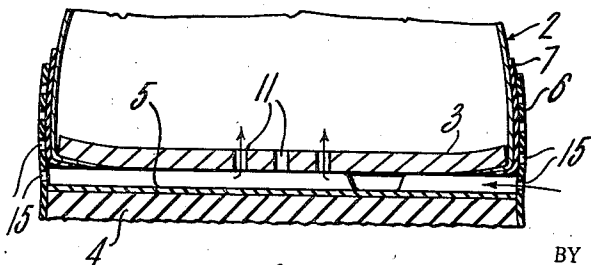


Fig. 3.

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RUBBER SOLED FOOTWEAR

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2 Claims. (Cl. 36—3)

My invention relates to rubber soled footwear and more particularly to the ventilation thereof.

In wearing rubber soled footwear objection is often made to the lack of ventilation and the consequent humidity or "drawing" of the foot of the wearer. Attempts have heretofore been made to ventilate such footwear by providing air passageways through and/or around the rubber sole. In such previous constructions a careful matching of openings has been required in assembling the component parts of each shoe. In some constructions the outlet openings have been so large as to admit dirt.

I provide a ventilated rubber soled shoe in which air passageways are provided from the interior through the usual foxing which do not require precise assembling of the shoe parts and in which the exposed openings are sufficiently small to preclude the entrance of objectionable dirt.

The accompanying drawing illustrates a present preferred embodiment of the invention, in which:—

Fig. 1 is a perspective view of a canvas and rubber shoe embodying my invention;

Fig. 2 is a longitudinal sectional view thereof taken along the section line 2—2 of Fig. 1;

Fig. 3 is a cross-sectional view taken along the section line 3—3 of Fig. 1; and

Fig. 4 is a plan view of a sole filler with a portion of the foxing attached.

Referring to the drawing, I provide a shoe 1 having an upper 2 preferably of fibrous material, usually canvas, an inner sole 3 of any suitable material, an outer sole 4, and a filler 5, preferably of rubber composition, and a rubber foxing 6, all of which are united by a vulcanized bond as is customary in the art. An inner foxing strip 7 is usually secured to the lower edge of the upper 2 and curved therewith between the inner sole 3 and the outer sole 4 for the attachment of the foxing 6. If desired, a toe guard 8 may be applied over the foxing 6.

As is particularly shown in Fig. 2, the inner sole 3 in the heel area 9, and the ball area 10 is provided with a multiplicity of small perforations 11. In an assembled shoe these perforations open against the upper face of the filler 5. The latter is provided with a pattern 12 of communicating longitudinal and transverse channels having openings 14 along the filler edges so that a plurality of passageways are provided from the interior of the shoe to the openings 14. It is to be understood that a wide variety of patterns 12 may be employed, so long as the channels in the pat-

tern open opposite a sufficient number of the perforations 11 to provide a desired amount of circulation. In assembling the shoe the inner sole and filler are brought together without particular care to insure the completion of the passageways, it being left largely to chance which of the channels oppose particular perforations 11, many of the latter being closed by the flat surface of the filler.

The foxing 6 is provided with a large number of small perforations 15 of the order of $\frac{1}{16}$ inch in diameter. The foxing strip 6 is applied to the assembled shoe upper 2, filler 5, outsole 4, at random with regard to the registration of particular openings 15 with the channel openings 14. The spaces between the edges of the perforations 15 are preferably slightly less than the depth or width of the grooves of the pattern 12 and a sufficient number of perforations are provided so that they will register with the channel openings 14 to complete a sufficient number of ventilating passages extending from the interior of the sole to the outside. The small diameter of the openings 15 also prevents the passage of large particles of dirt through the foxing and into the channel pattern 12. Also, the presence of the small openings in the foxing adds to the ornamental effect of the shoe.

Accordingly, I have provided a ventilated canvas and rubber shoe which is easily and cheaply manufactured and which gives the advantages of air circulation without permitting the passage of undesirable quantities of dirt and at the same time gives a pleasing and decorative appearance to the shoe.

While I have shown and described a present preferred embodiment of my invention, it is to be understood that the invention may otherwise be embodied within the spirit thereof and the scope of the appended claims.

Having now described my invention, what I claim and desire to protect by Letters Patent is:—

1. An article of footwear comprising an upper of fibrous material, an inner sole having a plurality of perforations disposed throughout the heel and ball areas, an outer sole of rubber composition, a filler disposed between the outer sole and the inner sole and having a plurality of channels formed in the inner sole engaging face which channels extend to the side edges of the filler and are in communication with said perforations in the inner sole, and a foxing placed around the edges of the outer sole, the filler and the upper and secured to the outer sole, filler and upper by a vulcanized bond, said foxing having a plurality

of small perforations of the order of one-sixteenth inch in diameter, at least some of which are in accidental alignment with the openings of the filler channels whereby passageways are provided for the circulation of air from the interior of the article through the foxing, the admission of dirt through the foxing is materially reduced owing to the small size of the openings, and an ornamental effect is produced.

2. An article of footwear comprising an upper of fibrous material, an inner sole having a plurality of perforations disposed throughout the heel and ball areas, an outer sole of rubber composition, a filler of rubber composition disposed between the outer sole and the inner sole and having a plurality of channels formed in the inner sole engaging face which channels extend to the

side edges of the filler and are in communication with said perforations in the inner sole, and a foxing placed around the edges of the outer sole, the filler and the upper and secured to said outer sole, filler and upper by a vulcanized bond, said foxing having a plurality of small perforations of the order of one-sixteenth inch in diameter, at least some of which are in accidental alignment with the openings of the filler channels whereby passageways are provided for the circulation of air from the interior of the article through the foxing, the admission of dirt through the foxing is materially reduced owing to the small size of the openings, and an ornamental effect is produced.

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