Sept. 26, 1939. A. MORCATE 2,174,473

VENTILATED FILLER SOLE

Filed Jan. 29, 1937

Fig. 1.

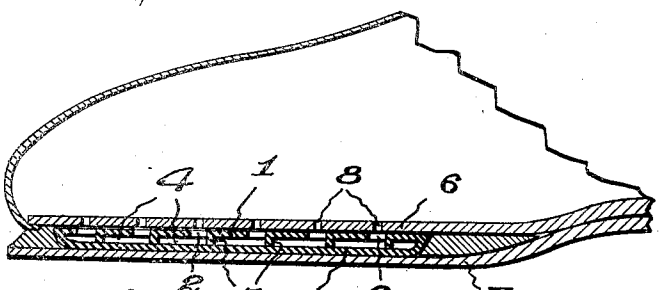


Fig. 2.

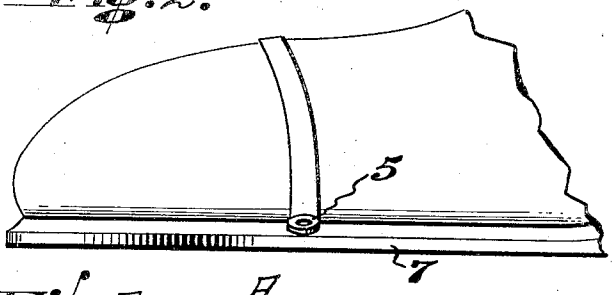


Fig. 5.

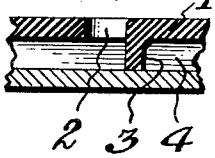


Fig. 3.

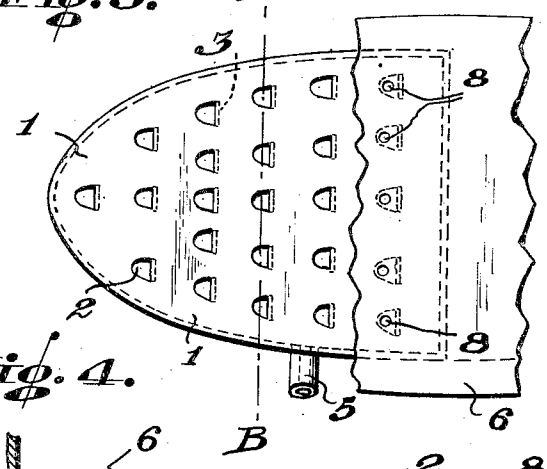
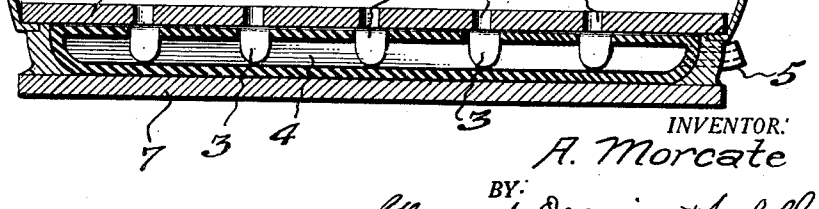


Fig. 4.



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VENTILATED FILLER SOLE

Angel Morcate, Montevideo, Uruguay

Application January 29, 1937, Serial No. 123,049
In Argentina August 25, 1936

1 Claim. (Cl. 36—3)

This invention refers to improvements in the manufacture of footwear provided with a device for ventilating the foot, thus eliminating the forced confinement which the foot suffers with the use of the footwear known heretofore and which causes such foot troubles as muscular tiredness, itiching, eczema, fetid perspiration and the like.

My invention consists of a device in the shape of a flat box, of any convenient form, perferably that following the shape of the sole, provided with a number of orifices in its upper cover which communicate with the interior space of the footwear and of one or more conduits which connect the interior or chamber of the device with the ambient air.

The present invention is preferably adapted to be applied between the insole and outsole of footwear, the insole having orifices whereby the ventilation of the foot is efficiently effected.

In order that my invention may be fully understood and carried into practice, I have illustrated it in the accompanying drawing in which—

Fig. 1 is a longitudinal section of a shoe, in elevation, showing my device.

Fig. 2 shows an elevation of the shoe which is shown in Fig. 1.

Fig. 3 is a plan view of my device as applied to the shoe.

Fig. 4 is a cross section of Fig. 3 on line A—B.

Fig. 5 is a view of one of the orifices in my device.

My invention consists of a boxlike device having in its upper part or cover a number of orifices 2. So as to avoid the crushing or flattening of my device by the weight of the person using it, my device may be provided with suitable means, such as vertical supports 3 formed by the downwardly depressed part of the material of the upper part of the box 1 partly cut out to form the orifices 2, as shown in Figs. 1, 4 and 5.

The present invention which comprises the member 1 may be made of one or more pieces, the principal object in its construction being the formation of a space or air chamber 4 between the two surfaces or covers of the box. This chamber 4 is provided with one or more conduits communicating with the ambient air for example by means of a conduit 5 which terminates, openly or partly concealed, at any convenient point at the edge of the sole, preferably at that side corresponding to the big toe, as shown in Figs. 2, 3 and 4.

The insole member 1 is preferably placed, as shown in Figs. 1 and 4, between the insole 6 and the outsole 7. To this end and in order to obtain the desired ventilation, insole 6 is provided with a number of orifices 8 which coincide with orifices 2 of member 1.

In order to securely place and adapt insert member 1 between the sole and insole of the footwear, suitable means known in the manufacture of footwear, such as supplements, fillings and the like may be used.

It is to be understood that the position of the ventilating device which I have invented is not limited to that shown in the drawing, as the device may be positioned to cover part or the whole of the sole and/or instep and/or heel.

In actual practice the foot receives through conduit 5, chamber 4 and orifices 2 and 8 the necessary air for cutaneous respiration thus preventing excess and/or fetid perspiration with all its inconveniences, especially in long walks and in summer time.

The member 1 may also be flexible for better comfort and in taking in and expelling the air from chamber 4 when walking and in similar movements of the foot, in this manner the air being constantly renewed. Also, orifices 8 may not be necessary if the insole is made sufficiently porous.

In order to prevent water entering the shoe through conduit 5 in rainy weather and the like, conduit 5 may be conveniently closed by any suitable means, such as a stopper, or by carrying the outlet or mouth of conduit 5 to a position higher than the thickness of the sole. In such case conduit 5 may be square or of any other shape.

It is to be understood that certain modifications in the construction of my device may be made wtihout departing from the object of the invention as claimed in the following claim.

I claim:

In a shoe, the combination with an outer sole and an inner sole, of a hollow air chamber interposed between said soles and comprising a lower wall and a perforated upper wall, supports interposed between said walls to retain said walls in spaced relation, said supports comprising downwardly bent projections struck out from the upper wall at the time the perforations are provided therein, and said air chamber having a connection providing an air passage between said inner sole and said chamber and the exterior of the shoe.

ANGEL MORCATE.