E. J. LARSON.

VENTILATED SHOE,

APPLICATION FILED AUG. 17, 1916.

1,248,873.

Patented Dec. 4, 1917

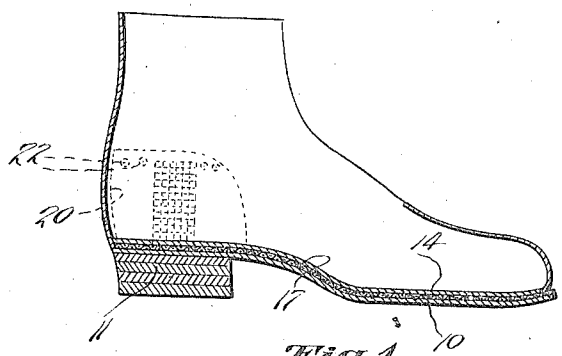


Fig. 1.

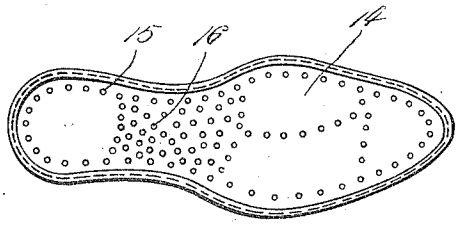


Fig. 2.

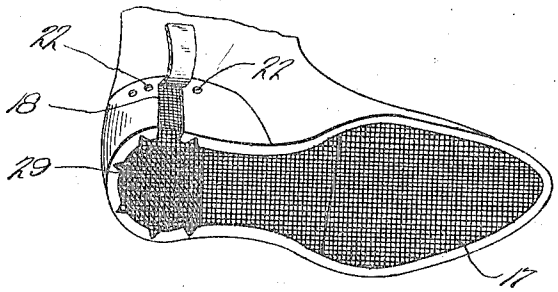


Fig. 3.

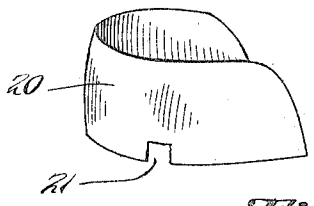


Fig. 4.

Witnesses
James Lobligon
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Inventor:
Enoch J. Larson

UNITED STATES PATENT OFFICE.

ENOCH J. LARSON, OF NEW YORK, N. Y.

VENTILATED SHOE.

1,248,873. Specification of Letters Patent. Patented Dec. 4, 1917.

Application filed August 17, 1916. Serial No. 115,562.

To all whom it may concern:

Be it known that I, ENOCH J. LARSON, of city of New York, state and county of New York, have invented a certain new and useful Improvement in Ventilated Shoes and Footwear, of which the following is a specification.

This invention relates to improvements in boots and shoes, and has as its principal object the provision of means for the admission, circulation and outlet of air from the lower portion of the shoe, whereby the interior is maintained in a dry and comfortable condition.

This and other similar objects are attained by the novel construction and combination of parts hereafter described, and shown in the accompanying drawing, forming a material part of this disclosure, and in which:—

Figure 1 is a vertical sectional view taken through an ordinary form of shoe, indicating its construction.

Fig. 2 is a plan view of the inner sole as used.

Fig. 3 is a perspective view looking from the lower side of a shoe and indicating the improved construction, the outer sole and heel being removed, and

Fig. 4 is a perspective view of the counter as used.

The construction of the shoe involves the use of a continuous outer sole 10, and heel 11, in all respects of the usual formation.

A relatively thick inner sole 14 is provided and has formed through it a row of perforations 15 extending closely around the marginal edges, similar perforations 16 being disposed at the instep arch and also near the toe joints, the perforations being of considerable size to allow an unobstructed air passage and which will not readily be stopped up.

Disposed between the inner and outer soles are one or more layers of coarse meshed, woven netting acting as a filler 17 and adapted to give a certain amount of resiliency to the inner sole, the filler having a bent rear portion 18 passing upward from the doubled portion 29 at the heel between the counter 19 and stiffening counter 20, in a hollow space formed therebetween, the same being held in position by means of a cut-out or recess 21 formed in the stiffening counter 20, while a plurality of openings 22 are formed through the outer covering or counter 19 open to the atmosphere.

In using the shoes the inner sole is caused to rise and fall at each step creating a pumping effect by means of which the air is drawn inwardly through the openings 22, thence between the inner and outer soles, through the interstices of the filler 17 and passed outwardly through the openings 15 and 16 so as to make direct contact with the foot, thus creating a continual circulation of air, which, entering at a point remote from contact with the surface, provides a constant ventilation without the admission of water, etc.

Obviously, the filler may be made of any preferred material, as for instance corrugated leather, rubber, fiber, or cork, although the metallic arrangement indicated is considered preferable. It is to be noted that the appearance of the shoe is in no wise affected by the improvements herein indicated and that the cost of applying the same is negligible.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. In a shoe having inner and outer soles, a flexible, pliable, woven wire filler disposed to completely cover the adjacent surfaces of said soles, said filler having an extension turned vertically upward within a space formed between the counter and counter stiffener at one side thereof, said counter having perforations therethrough for the admission of air to said extension.

2. In a shoe, the combination of an outer sole, a flexible filler comprised of woven wire covering its entire area, a relatively heavy inner sole having marginal perforations, and an element formed integral with said filler extending upward into a cavity formed at the rear of the shoe at the side thereof, the shoe having means for the inlet of air to said element.

In testimony whereof I have affixed my signature in presence of two witnesses.

ENOCH J. LARSON.

Witnesses:
WILLIAM H. LUSK,
WILLIAM T. F. KEENAN.