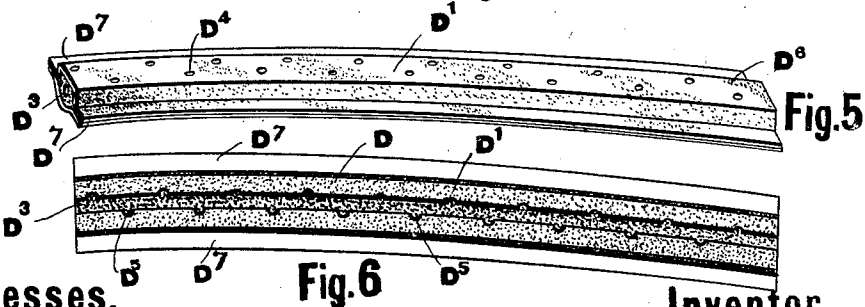
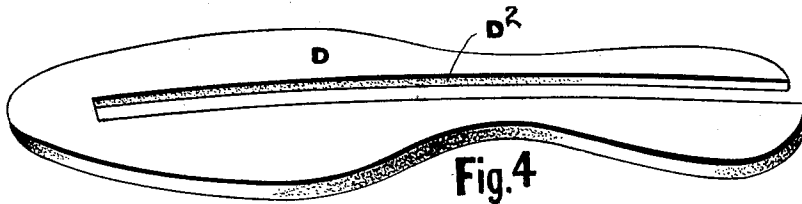
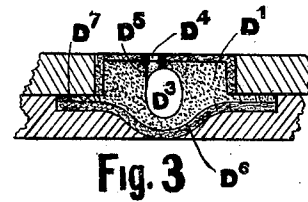
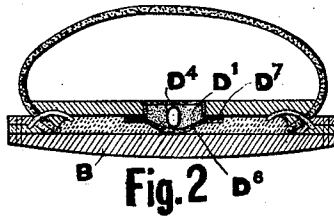
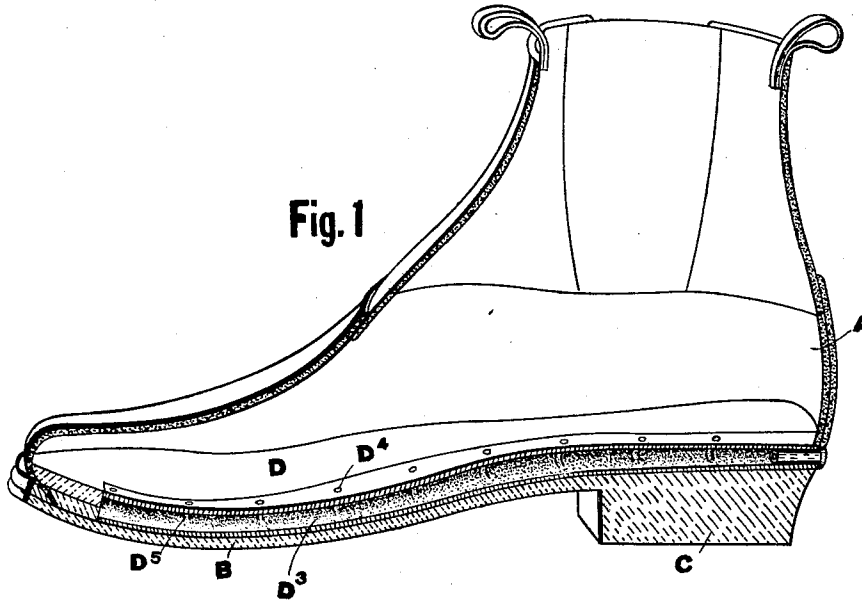


G. VALIANT.
VENTILATED BOOT AND SHOE.
APPLICATION FILED JUNE 17, 1905.

1,005,674.

Patented Oct. 10, 1911.



Witnesses.
Gerald B. Rosburgh.
W. J. Smith.

Fig. 6

Inventor .

By *G. Valiant*
Frank Valiant
Att'y

UNITED STATES PATENT OFFICE.

GEORGE VALIANT, OF TORONTO, ONTARIO, CANADA.

VENTILATED BOOT AND SHOE.

1,005,674.

Specification of Letters Patent.

Patented Oct. 10, 1911.

Application filed June 17, 1905. Serial No. 265,737.

To all whom it may concern:

Be it known that I, GEORGE VALIANT, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have
5 invented certain new and useful Improvements in Ventilated Boots and Shoes, of which the following is the specification.

My invention relates to improvements in ventilated boots and shoes and the object of
10 the invention is to devise a simple, cheap and efficient means for ventilating a shoe, whereby the imperfections heretofore comprised in all other methods of ventilating boots and shoes, namely the subsidence and
15 choking of the ventilating channels through pressure of the foot and the weakening of the insoles where the channels are cut, are entirely avoided.

It consists essentially of an insole having
20 a longitudinal aperture cut out of the same, and an air duct located in the aperture and extending throughout its length.

In lasting a shoe the upper when turned over the insole forms a ridge around the insole thus creating a longitudinal depression
25 in the center thereof, varying in depth in different methods of shoemaking, and my ventilating duct as hereinafter described when inserted in the aperture in the insole is
30 designed to lie flush with the upper surface of the same, and extends through to a line across this ridge forming at same time a portion of the filler, leaving depressions on each side of the duct which are filled in
35 with the filler which is ordinarily used to fill the larger single depression above referred to.

Figure 1, is a sectional perspective view of a boot showing my improved method of ventilation. Fig. 2, is a cross section of
40 same. Fig. 3, is an enlarged cross sectional view of the air duct. Fig. 4, is a perspective detail of the insole showing the aperture cut therein to receive the supporting air-duct. Fig. 5, is a perspective detail of my
45 method of providing supporting air-duct. Fig. 6, is an interior view of the air-duct.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the upper, B the outer sole, C the heel
50 and D the insole, which is provided with a longitudinal aperture D^2 cut out of it preferably from the heel to a point in proximity with the toe and running substantially mid-way of the insole.

55 I do not wish to confine myself to the exact location or length of aperture or the number

of apertures cut in the insole, but whatever the number may be they will be provided with a supporting air duct or ducts preferably of the form of a molded duct which I
60 shall now describe.

D^1 is a filling forming a ventilating duct
65 d^3 and formed preferably of rubber or other suitable material, the bottom being preferably arc-shaped in cross section and the top
65 preferably rectangular in cross section and adapted to fit the longitudinal aperture in the insole. The bottom of the duct depends below the lower surface of the insole forming a portion of the filler, such depending
70 portion of the duct varying in thickness according as the insole in which it is inserted is thick or thin. The filling around the duct varies proportionately. The filling forming the duct has laterally extending flanges D^7
75 as indicated, such flanges extending longitudinally from end to end of the duct and being designed to form a shoulder to support and unite the divided edges of the insole which form the aperture. The flanges
80 preferably extend laterally underneath the insole. D^3 is the central channel of the duct and D^4 are perforations extending down into the central channel from the top, such perforations communicating with the main
85 body of the channel and the notches D^5 formed in the sides of the channel. The filling forming the duct is preferably provided with a fabric covering D^6 , which it will be noted extends to the outside of the flanges
90 on both sides practically forming the flanges. The air duct D^3 formed as described is designed to supply a durable and strong foot supporting surface over the air channel a
95 result which is not attainable by any other construction in which the insole or outsole forms the top and bottom of the channel, and consequently there is no liability in my invention of any subsidence or compression of the channel, which in other constructions
100 is frequently occasioned by pressure and moisture. The perforations are preferably arranged to alternate in the sides of the channel leaving the center free from perforation and liability to stoppage through any
105 separate perforation becoming plugged, the edge or wall of the notches D^5 supporting the top around the perforations. It will thus be seen that a very strong and durable duct is provided in the insole in which there
110 will be no danger of subsidence or displacement.

I am aware of the various means adopted for securing ventilation in shoes which are usually by means of channels cut in the insoles, wire or other ducts inserted in channels between the soles and the insertion of sole separating devices, in all of which methods the air space is practically limited in depth to the substance of an insole thus making a greater width of duct necessary to secure sufficient ventilation, and by this increased width, correspondingly increasing the liability of the duct to subsidence and stoppage from foot pressure.

By reference to the drawings it will be seen that in my invention, I am enabled to narrow the width of the interior of the air duct by increasing its depth, which is only limited by the space between the upper surface of the insole and the inner surface of the outer sole, and thereby produce an air channel that is sufficient in capacity and at the same time proof against subsidence and stoppage from foot-pressure. The duct is connected with the outer air preferably at the heel seat, thus forming a channel that can be readily cleaned by the use of a small instrument for that purpose. The bottom of the duct being without perforations renders accidental choking of the air-duct in the process of shoe-manufacture and in wear, practically impossible, and further makes the shoe waterproof from the outer-sole side even when the outer sole is worn through, neither of which advantages, to the best of my knowledge accrue from any other method of ventilating shoes. The duct being complete in itself avoids the necessity for perforating the insole and minimizes the other extra work usually involved in the production of a ventilated shoe as compared with that of an unventilated shoe.

Although I describe my ventilating duct as being a molded duct it will of course be understood that the manner of making the

duct may be changed without departing from the spirit of my invention. I may also mention that the portion of the duct depending below the lower surface of the insole may be laterally extended or widened so as to dispense with, or form the flaps or flanges and thereby forming a substitute for the same without departing from my invention.

What I claim as my invention is:

1. As an article of manufacture a ventilating section of an insole provided with perforations in its upper surface and having flanges extending laterally and longitudinally from the body thereof as and for the purpose specified.

2. In a ventilated shoe, the combination with the insole having an aperture cut through from face to face, of a ventilating section designed to unite the opposite edges of such aperture and provided with perforations in its upper surface, and having lateral and longitudinal attaching flanges as and for the purpose specified.

3. In a ventilated shoe, the combination with the insole having an aperture cut through from face to face, of a ventilating section designed to unite the opposite edges of such aperture and to extend from the upper surface of the insole through and below its lower surface and provided with attaching flanges as specified.

4. As an article of manufacture a sectional ventilating insole comprising a plurality of members, a central portion provided with a longitudinal ventilating tube and attaching margin and an outer or surrounding portion designed to fit and attach to said central portion as and for the purpose specified.

GEORGE VALIANT.

Witnesses:

P. P. TYEL,
E. M. SHEPPARD.