

R. C. ROSS.
SHOE.

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1,009,859.

Patented Nov. 28, 1911.

Fig. 1.

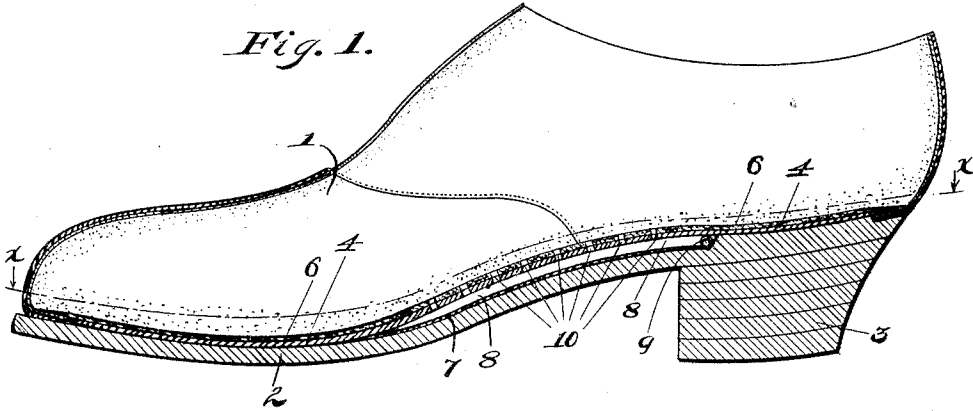


Fig. 2.

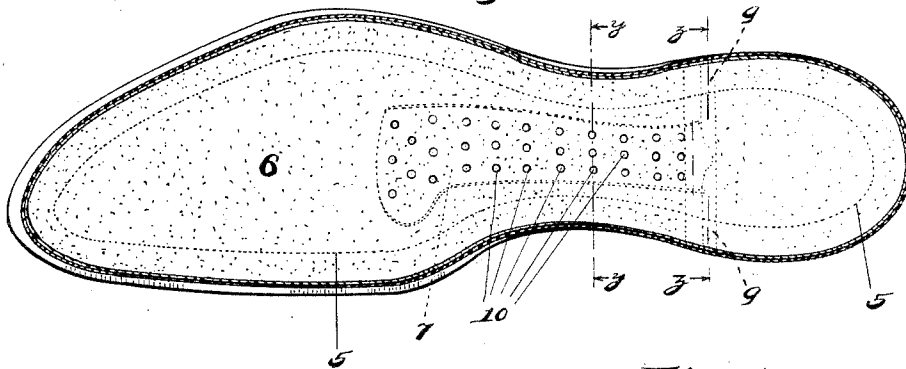


Fig. 3.

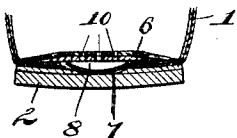


Fig. 4.

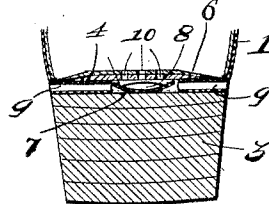
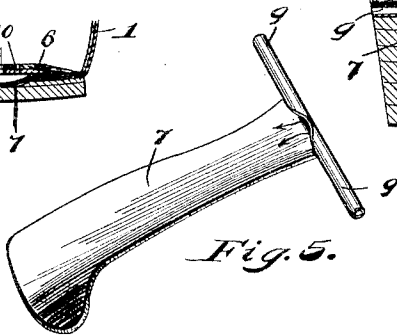


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SHOE.

1,009,859.

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To all whom it may concern:

Be it known that I, ROBERT C. ROSS, a citizen of the United States, and a resident of the city of Wilmette, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Shoes, of which the following is a specification.

My invention relates to improvements in shoe construction and has for its object the production of a shoe which will be thoroughly ventilated and cushioned in such a manner as to be conducive to ease and comfortable in wearing.

A further object is the provision of a shoe as mentioned which will be of durable and economical construction and efficient in operation.

Other objects will appear hereinafter.

With these objects in view my invention consists in an improvement in shoe construction characterized as above mentioned and in certain details of construction and arrangement of parts all as will be hereinafter fully described and particularly pointed out in the appended claims.

My invention will be more readily understood by reference to the accompanying drawing forming a part of this specification and in which,

Figure 1 is a central vertical longitudinal section of a shoe embodying the preferred form of my invention, Fig. 2 is a longitudinal section taken on line $x-x$ of Fig. 1, Figs. 3 and 4 are vertical transverse sections taken on lines $y-y$ and $z-z$ respectively of Fig. 2, and, Fig. 5 is a perspective view of the improved shank included in my invention, detached from the shoe.

The preferred form of my invention as illustrated in the drawing is embodied in a shoe which consists of the upper 1, the outer sole 2, and the heel 3 which are arranged and connected together in the usual manner. Arranged within the shoe is the inner sole 4 which is formed of comparatively thin flexible leather. Secured, preferably by stitching 5, to the inner sole 4 at the upper side thereof is a resilient preferably felt covering 6. The sole 4 is smaller than the covering 6 so that the periphery of the latter projects, as clearly shown in Figs. 1, 3, and 4, beyond the peripheral edge of said sole. Said edges of said sole and covering are skived or beveled as indicated so that an abrupt edge to contact with the sole of the

foot will be eliminated thereby conducing to comfort and ease when walking.

Arranged under the sole 4, the same being embedded in the upper or inner side of the outer sole 2 is the shank 7. The latter is formed of a suitable rigid material preferably metal since the primary object thereof is to serve as a support for the arch of the foot. Said shank is transversely curved or arched, as clearly shown in Figs. 3, 4, and 5, so that a longitudinally extending air passage 8 will be formed in the shoe immediately below the central portion of the inner sole 4.

Formed at the rearward extremity of the shank 7 are integral laterally or transversely extending tubes 9, the outer extremities of which terminate flush with the sides of the heel 3. The inner extremities of said tubes lead to the rearward end of the passage 8 so that, with this provision, an open communication is established between said passage and the outside atmosphere. Formed in the sole 4 and the covering 6 is a plurality of perforations 10 which communicate with the passage 8 as clearly indicated. With this provision it will be observed that communication is established between the interior of the shoe and the outside atmosphere and hence thorough ventilation thereof, when the shoe is in use, is insured.

I am aware that shanks of a similar design have already been employed in a similar capacity. However, such shanks have been provided with rearwardly projecting tubular portions leading from the air passages therein. The air tubes so arranged terminate at the rearward side of the heel and it has been found, through usage, that after wearing a shoe so provided but a short time the shank therein loosens and is forced or slid rearwardly, causing the rearward extremity of the tube to protrude from the heel when the same, not infrequently, causes the tearing of the skirts or trousers of the wearer. For this reason such shoes have proved unsatisfactory, it being with the end in view of perfecting such construction that I have invented the improvement above described. In the shank therein described and shown in the drawing the air tubes 9 extend laterally from or transversely of the shank proper. With this arrangement secure anchoring of the shank in the sole and heel of the shoe is insured and

the above mentioned undesirable feature eliminated.

A shoe designed as set forth is of simple and economical construction and is comfortable in use.

5 While I have shown what I deem to be the preferable form of my shoe improvement I do not wish to be limited thereto as there might be various changes made in the
10 details of construction and arrangement of parts described without departing from the spirit of the invention comprehended within the scope of the appended claims.

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

1. In a shoe a cushioned inner sole and an outer sole, in combination with a metallic shank embedded in said shoe between said
20 soles, said shank being formed of sheet metal and longitudinally shaped to conform to the arch of the foot, said shank also being transversely curved forming a concave upper face constituting a longitudinally extending air
25 passage immediately below said inner sole, said inner sole being provided with a plurality of perforations communicating with

said passage, and lateral extensions at the rear end of said shank curled into tubular form and extending to the side faces of the shoe heel, and the tubular portion being cut
30 away at the center to form a communication between the same and the air passage of the shank, substantially as described.

2. A ventilating device adapted to be placed between the inner and outer sole of a shoe and comprising a shank formed of sheet metal curved transversely to form a longitudinal air passage way, and lateral
35 extensions at one end of said shank curled into tubular form and adapted to extend to the side faces of the shoe heel, and the tubular portion being cut away at the center to form a communication between the same
40 and said passage way, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT C. ROSS.

Witnesses:

HELEN F. LILLIS,
JOSHUA R. H. POTTS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."