

H. OTTERSTEDT.
VENTILATING SOLE.
APPLICATION FILED AUG. 27, 1908.

904,891.

Patented Nov. 24, 1908.

Fig. 1

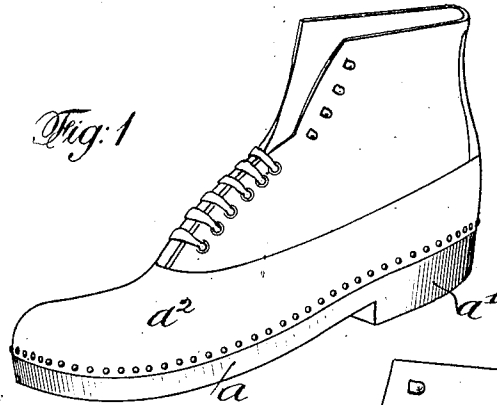


Fig. 2

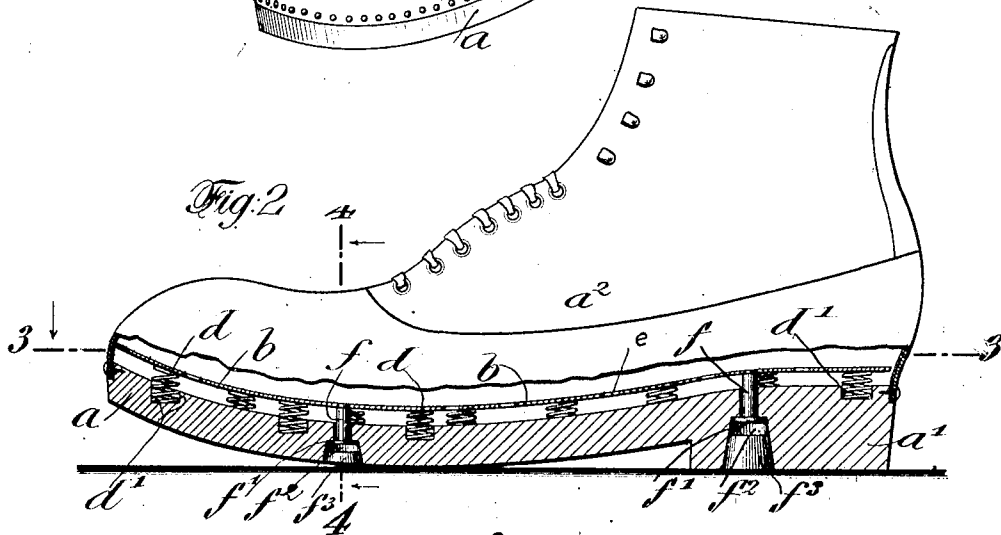


Fig. 3

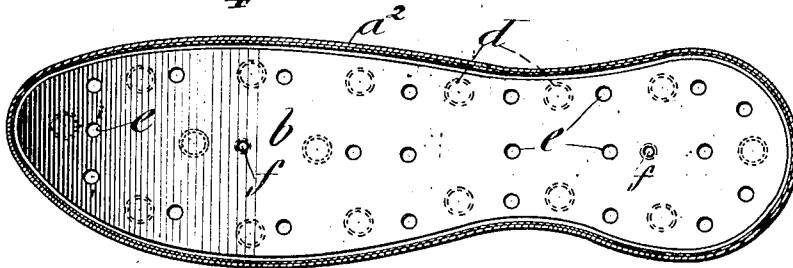
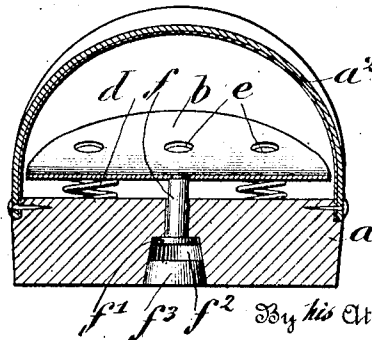


Fig. 4



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY OTTERSTEDT, OF JERSEY CITY, NEW JERSEY.

VENTILATING-SOLE.

No. 904,891.

Specification of Letters Patent.

Patented Nov. 24, 1908.

Application filed August 27, 1908. Serial No. 450,497.

To all whom it may concern:

Be it known that I, HENRY OTTERSTEDT, a citizen of the United States of America, residing in Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Ventilating-Soles, of which the following is a specification.

This invention relates to an improved ventilating sole for motormen, employees in breweries and others who are compelled by the nature of their employment to work in moist places or places exposed to cold, it being an improvement on the ventilating sole for which Letters Patent were granted to me on May 1, 1906, No. 819,449, as it was found necessary to simplify and cheapen the construction shown in the patent referred to. For this purpose the invention consists of a ventilating sole which is made of an outer wooden sole provided with a wooden heel, a sheet-metal inner sole provided with ventilating openings, cushioning springs between the outer and inner soles, and guide-posts attached to the inner sole and guided in socket-openings of the outer sole, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawing, Figure 1 represents a perspective view of a shoe with my improved ventilating sole, Fig. 2 is a side-elevation of the shoe with my improved sole in vertical longitudinal section, the upper being broken away, Fig. 3 is a section on line 3, 3, Fig. 2, and Fig. 4 is a vertical transverse section on line 4, 4, Fig. 2.

Similar letters of reference indicate corresponding parts throughout the several figures.

Referring to the drawing, *a* represents the outer sole, which is preferably made of wood of suitable thickness and in such a manner that a heel *a*¹ is formed, in one piece with the sole. The outer sole is provided at its upper edge with a groove in which the upper part *a*² of the shoe is nailed or otherwise secured. An inner sole *b*, which is preferably made of sheet-metal, such as tin, aluminum, etc., is

supported on a number of helical cushioning springs *d* on the outer sole, the lower ends of said springs being attached in sockets *d*¹ of the outer sole, while the springs bear by their upper ends on the under-side of the inner sole. A number of ventilating openings *e* are arranged in the inner sole *b*, said openings communicating with the free space between the outer and inner soles and permitting the free movement of the air on every depression of the inner sole.

The inner sole is supported at the ball and heel portions on guide-posts *f*, which are provided at their lower ends with disks *f*¹ which are guided in socket-shaped openings *f*² in the ball and heel portions of the outer sole, the guide-posts themselves being guided in holes of the outer sole above the socket-holes. The socket-holes are closed by means of wooden plugs *f*³ after the guide-posts are inserted. The guide-posts are intended to prevent the sidewise motion of the inner sole and produce the regular up and down motion of the same on the pressure of the foot.

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

1. A ventilating sole consisting of an outer sole, an inner sole provided with ventilating openings, intermediate cushioning springs between the outer and inner soles, and guide-posts at the ball and heel portions of the inner sole, said posts being guided in socket-holes of the outer sole.

2. A ventilating sole consisting of an outer sole, an inner sole provided with ventilating openings, cushioning springs interposed between the outer and inner soles, and guide-posts supporting the ball and heel portions of the inner sole and having disks guided in socket-shaped recesses in the outer sole.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

HENRY OTTERSTEDT.

Witnesses:

PAUL GOEPEL,
HENRY J. SUHRBIER.