No. 611,830. Patented Oct. 4, 1898.

G. BRUCK.

VENTILATED SHOE.

(Application filed May 17, 1897.)

(No Model.)

Fig. 4.

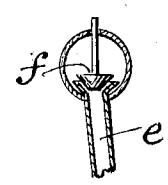


Fig. 1.

Fig. 2.

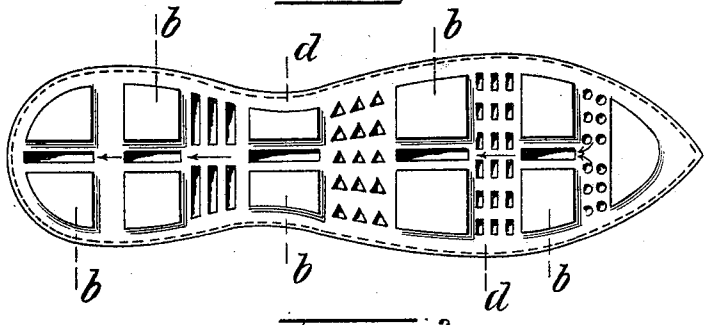
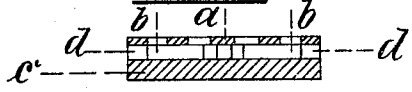


Fig. 3.



Witnesses.
J. C. Hebert.
C. P. Block.

Inventor.
Georg Bruck,
By Wodelbo.
Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORG BRUCK, OF BERLIN, GERMANY.

VENTILATED SHOE.

SPECIFICATION forming part of Letters Patent No. 611,830, dated October 4, 1898.

Application filed May 17, 1897. Serial No. 636,913. (No model.)

To all whom it may concern:

Be it known that I, GEORG BRUCK, a subject of the German Emperor, residing at Berlin, Germany, have invented certain new and useful Improvements in Shoes, of which the following is a specification.

My invention relates to a ventilated shoe adapted to allow of the free exhalation of the foot, whereby the introduction of dust, dirt, or moisture is prevented, and the foot is also protected against injurious influences of the temperature.

The new shoe is illustrated in the annexed drawings, making a part of this specification, and wherein—

Figure 1 shows a longitudinal section of the new shoe. Fig. 2 shows a bottom view of the sole, the outer sole being removed; and Fig. 3 shows a transverse section of the sole. Fig. 4 shows a detail view of the valve.

The sole of the shoe consists of the inner sole *a*, which may be replaced by any equivalent part, the stays *b*, and the outer sole *c*.

The inner sole *a* is made of an air-permeable material, or, if impermeable material is used, it is provided with suitable air-passages.

Between the inner sole *a* and the outer sole *c*, that are made in the usual manner, an air-chamber is formed, the two soles being kept apart by suitable stays *b*. The formation and arrangement of these stays are not essential, the purpose being only to afford a sufficiently solid support for the foot resting upon the inner sole.

The air-chamber between the two soles is of course closed by a rim *d*, so that if the inner sole should be sufficiently strong the stays *b* might be eliminated. This air-chamber between the two soles is provided at one or more suitable places with an air-opening—for instance, at the heel—which opening *e* may be closed by a valve, so that no moisture or dust can penetrate into the air-chamber. A clack-valve *f* can be used.

When walking, the foot moves in the shoe, and thus drives the air through the inner sole into the air-chamber, and the air passes out at the exhaust-opening *e*. The clack-valve will prevent dust or moisture from penetrating into the air-chamber. The clack-valve may be displaced by a simple wad, which should be renovated from time to time. Fresh air will enter into the upper part of the shoe, which is never closed air-tight.

If the foot is at rest, no circulation of air occurs in the shoe, and the layer of air acts then as an insulation, so that neither the heat nor the cold of the floor will affect the foot. The air-space can also be filled with any disinfecting material.

Having now described my invention, I claim—

In a boot or shoe, an inner sole that will permit air to pass through the same, an outer sole separated from the inner sole to form an air-space between the two soles, and an air-exhaust in communication with said air-space and leading upward therefrom to exhaust the air from the space, and means to prevent impurities passing through the exhaust into the air-space, substantially as and for the purposes described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

GEORG BRUCK.

Witnesses:
W. HAUPT,
HENRY HASPER.