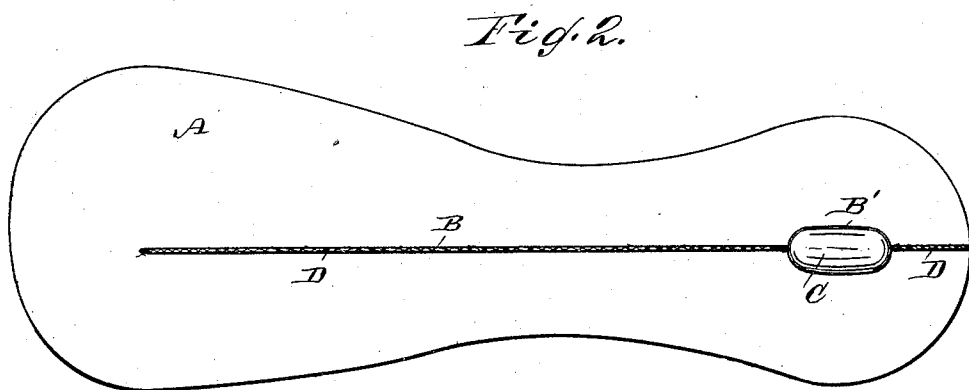
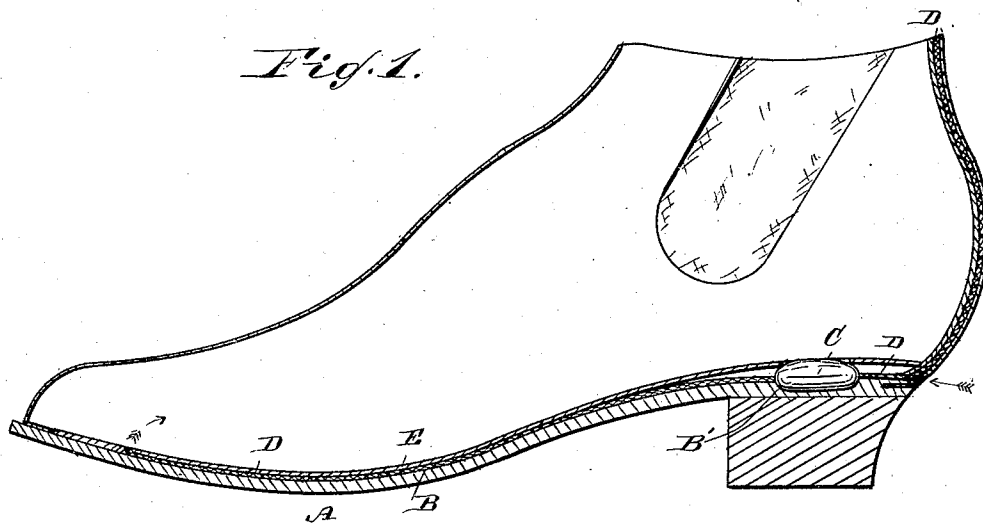


(No Model.)

A. J. TRASK.
BOOT OR SHOE VENTILATOR.

No. 311,046.

Patented Jan. 20, 1885.



WITNESSES:

Thos. G. Foster.
Chas. Lurcott

INVENTOR:

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BY *Munn & Co*
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UNITED STATES PATENT OFFICE.

ADONIRAM J. TRASK, OF NOBLEBOROUGH, MAINE.

BOOT OR SHOE VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 311,046, dated January 20, 1885.

Application filed September 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, ADONIRAM J. TRASK, of Nobleborough, in the county of Lincoln and State of Maine, have invented a new and Improved Boot and Shoe Ventilator, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved device for ventilating boots or shoes on the feet, so as to keep the feet dry and cool and prevent moisture from entering.

The invention consists of a flexible bulb or chamber disposed at the heel end of the shoe or boot in a cavity, in combination with the insole, having an aperture directly above or in line with the bulb or chamber; said bulb or chamber communicating by a tube with the inside of the shoe or boot and with the external air by a second tube, said tubes having air check-valves, substantially as herein-after fully set forth and claimed. The bulb is alternately compressed and expanded, and air is forced from the same into the front part of the shoe.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a longitudinal sectional elevation of a shoe provided with my improved boot and shoe ventilator. Fig. 2 is a plan of the top of the sole and the ventilator.

The sole A is provided in its upper surface with a groove, B, extending from the heel nearly to the toe end, and near the heel the groove is enlarged to form a cavity, B', for receiving a rubber or other flexible bulb, C, from both ends of which rubber tubes D extend. One tube D extends to the front of the groove B, in which it is placed, and the other tube D extends to the heel end of the shoe, the tubes D being covered by the false or upper sole, E, usually secured on the upper surface of the sole A. A hole is formed in

the said upper sole above the bulb C, to permit the upper part of the latter to lie therein, and thus prevent its being held down or subjected to continuous pressure by the insole. The rear tube D extends up the back of the shoe to the top of or above the counter, between the counter and stiffening, and its upper end is open. A hole is made in the false sole E, to establish a communication between the interior of the shoe and the other tube, D. When the heel part of the foot is brought down, the bulb C is compressed, and the air in the same is forced through the front tube D into the interior of the shoe, and circulates around the foot and passes out through the top of the shoe. By compressing the bulb a vacuum is formed when the heel part of the foot is raised, and the bulb is again filled with air through the rear tube. The air is again forced out at the front when the foot is brought down, and so on. The rear tube D must be provided with a check-valve, to prevent the air being forced out through it, and the front tube D must be provided with a check-valve to prevent the air being drawn in through it.

I am aware that it is not new to employ air-ducts under the insole having connection with the foot-chamber and the outside air, and that it is not new to employ, in connection with such air-ducts, a bellows or compressor.

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

In a boot or shoe, the flexible air bulb or chamber, in combination with the insole having an aperture or opening which receives the upper portion of said bulb partially, the lower sole having a corresponding aperture to receive the lower portion thereof, and the air-tubes having check-valves, substantially as and for the purpose set forth.

ADONIRAM J. TRASK.

Witnesses:

THOS. P. KEENE,
WM. JOHNSON.