

(No Model.)

J. BRESMAN.

## SPRING HEEL FOR BOOTS OR SHOES.

No. 572,103.

Patented Dec. 1, 1896.

Fig. 1.

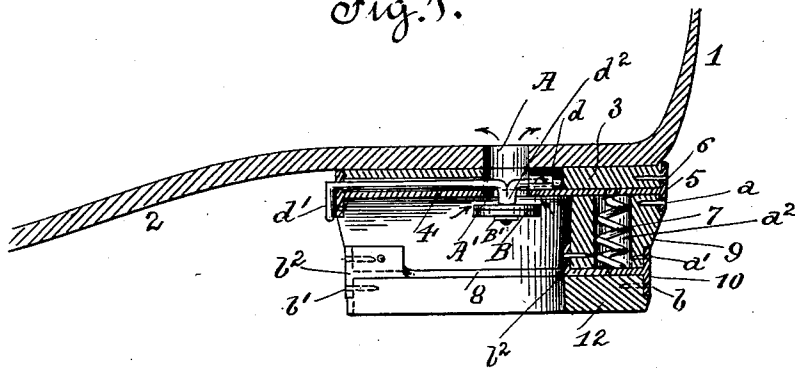


Fig. 2.

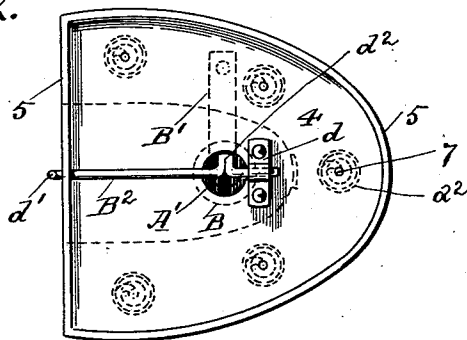
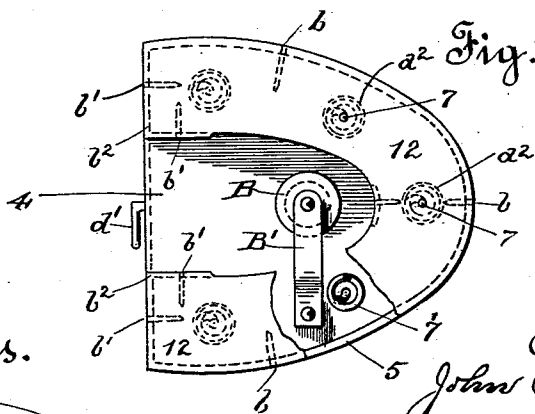


Fig. 3



Witnesses.

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S. Monteverde.

Elmer Wickes

Inventor.

John Freeman

by passing any

# UNITED STATES PATENT OFFICE.

JOHN BRESMAN, OF SAN FRANCISCO, CALIFORNIA.

## SPRING-HEEL FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 572,103, dated December 1, 1896.

Application filed March 9, 1896. Serial No. 582,350. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BRESMAN, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Spring-Heels for Boots or Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof.

The present invention relates to a certain new and useful spring-heel for boots or shoes, which consists in the arrangement of parts and details of construction, as will be hereinafter fully pointed out in the drawings and described and pointed out in the specification.

The object of the invention is to provide an improved and novel construction of a heel for boots or shoes, whereby the heel is permitted to give or yield to the weight of the wearer of the boot or shoe in order that jarring may be overcome as the foot is placed upon the ground, and by means of which the boot or the shoe may be ventilated at the pleasure of the wearer thereof, so as to prevent undue perspiration of the foot incased within the boot or the shoe.

In order fully to understand my invention, reference must be had to the accompanying sheet of drawings, forming a part of this application, wherein—

Figure 1 is a sectional view in elevation of a shoe with the spring-heel secured thereto. Fig. 2 is a top plan view of the heel; and Fig. 3 is a bottom plan view of the heel, partly broken away.

The numeral 1 indicates an ordinary shoe. The numeral 2 indicates the sole thereof, and the numeral 3 indicates the top layer of the heel, which is secured to the sole. To this top layer 3 (which is composed of leather) is secured the metal plate 4, the upper edge of the band 5 of the plate 4 embracing the edge of the top layer 3 and being secured thereto by pins 6. The plate 4 has connected thereto by a series of springs 7 the lower U-shaped metal plate 8, the upper end of the springs 7 being soldered or otherwise fastened to the plate 4 and the lower end to the U-shaped plate 8. Between these plates is interposed the rubber cushion 9, which is embraced at its upper end by the lower projecting portion

of the band 5, surrounding the plate 4, and at its lower end is embraced by the upper edge of the band 10, secured to the U-shaped plate 8, the bands 5 and 10 being secured to the rubber cushion by the pins  $a a'$ . The central portion of the rubber cushion is cut away so as to conform to the shape of the U-shaped plate 8, and said cushion is provided with a series of vertical openings  $a^2$ , within which fit the springs 7. By fitting the springs 7 within the vertical openings  $a^2$  of the rubber cushion they are hidden from view and protected from dirt.

By providing or interposing the rubber cushion between the plates 4 8 considerable strain or weight of the wearer is removed from the springs 7 and I am enabled to make use of much lighter springs than otherwise would have to be employed.

To the under face of the U-shaped plate 8 is secured the leather heel-tap plate. The outer edge of the tap 12 is embraced by the lower projecting end of the band 10, and it is held in place by the pins  $b$ , passing through the band into the edge of the tap, and by the pins  $b'$ , passing through the ears  $b^2$  of the plate 8 into the edge of the tap.

Through the sole of the shoe and top layer 3 of the heel is formed the air-opening A, with which registers the opening  $A'$ , cut through the metal plate 4, when the said plate is in position. The opening of this plate is closed by the valve B, fastened to the inner or free end of the spring-arm  $B'$ , secured to the under face of the plate 4. This valve is forced downward, so as to open or uncover the air-opening, by the movement of the oscillating valve-rod  $B^2$ , which rod is secured to the upper face of the plate 4 by the bearing-plate  $d$ , the outer end of the said rod projecting beyond the plate 4 and being bent at a right angle, so as to form a handle  $d'$ , by means of which the valve-rod may be oscillated. That portion of the valve-rod crossing the air-opening  $A'$  of the plate 4 is bent so as to form a crank-arm  $d^2$ , or has a lug secured thereto, so as to engage with and press downward upon the valve B, in order to open the same as the valve-rod is oscillated by the downward movement of the handle  $d'$ , Fig. 1. As the handle  $d'$  is thrown upward the crank-arm or lug  $d^2$  moves away from the valve B and the valve is thrown

upward to close the air-opening by the spring of the arm B'. It will thus be noticed that the opening or closing of the ventilator mechanism is under the control of the wearer of  
5 the boot or shoe at all times.

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

1. In a spring-heel for boots and shoes, the  
10 combination with the upper metallic plate, of a ventilator connected therewith, a lower U-shaped metallic plate, a series of springs forming connection between the upper and the lower plates, and a rubber cushion interposed  
15 between the plates, said cushion conforming to the shape of the lower plate and having a

series of openings therein within which the springs fit.

2. The combination with a boot or shoe, of a spring-heel secured thereto, an air-passage 20 leading from the spring-heel within the boot or shoe, a valve covering said air-passage and an oscillatory valve-rod for controlling the valve.

In testimony whereof I affix my signature, 25 in presence of two witnesses, this 28th day of February, 1896.

JOHN BRESMAN.

Witnesses:

N. A. ACKER,  
LEE D. CRAIG.