P. S. DEVLAN.

METALLIC SPRING HEEL.

No. 6,610. Patented July 24, 1849.

Fig. 5.

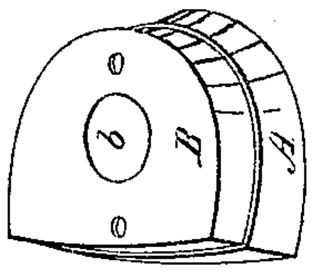


Fig. 6.

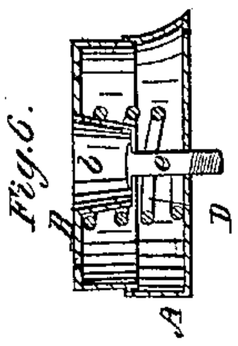


Fig. 2.

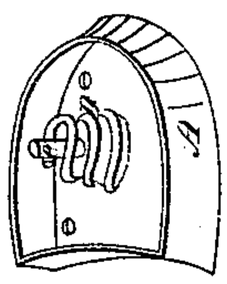


Fig. 3.

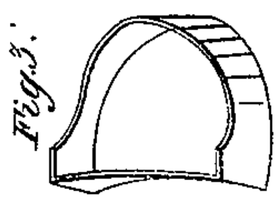


Fig. 4.

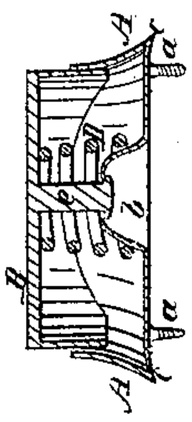
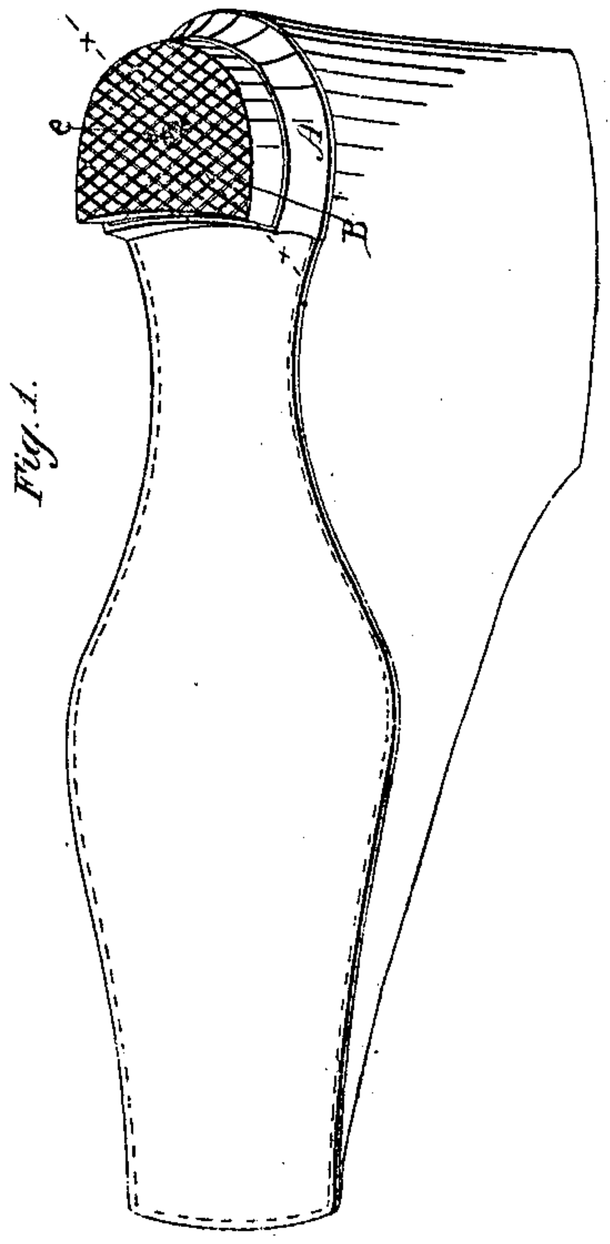


Fig. 1.



UNITED STATES PATENT OFFICE.

P. S. DEVLAN, OF READING, PENNSYLVANIA, ASSIGNOR TO G. S. LANGDON.

METALLIC BOOT-HEEL.

Specification of Letters Patent No. 6,610, dated July 24, 1849.

To all whom it may concern:

Be it known that I, PATRICK S. DEVLAN, of Reading, in the county of Berks and State of Pennsylvania, have invented a new and useful Metallic Spring-Heel for Boots and Shoes, of which the following is a full and exact description, reference being had to the annexed drawings of the same, making part of this specification, in which—

Figure 1 is a view of the heel attached to a shoe, placed bottom upward; Fig. 2 is a similar view, but with the tread or moving part of the heel removed to expose the pivot by which it is held in place, the helical spring upon which the weight of the body rests, and the interior of the upper or fixed portion of the heel; which, as well as the lower part, is hollow; Fig. 3 is a view of the tread or lower part of the heel inverted; Fig. 4 is a vertical section through the line *x x* of Fig. 1; Fig. 5 is a perspective view of a modified form of the heel, and Fig. 6 is a vertical section through the line 22 of the same.

The same letters indicate the same parts in all the figures.

My invention and improvement consists in making a hollow metallic heel for shoes and boots in two parts, one placed within the other, with a spring between them to support the weight of the body, and prevent the unpleasant shocks produced by the concussion of the ordinary boot heel upon a hard surface when the wearer is walking fast.

The lower part turns on a pivot in every direction so that it always rests flat upon the surface on which the wearer may be walking and thus wears level, instead of being worn unevenly, as is the case with the common heel.

In its exterior configuration the heel may be made of the usual fashionable shape, or otherwise. It is made in two parts, which are hollow and of metal cast in the usual way, both parts are cup-shaped and when properly fixed in their respective places as in Fig. 1, the mouth of one is inserted into that of the other. The upper part A which I shall call the socket, is secured by means of screws or rivets (*a* Fig. 4) to the heel of the shoe, and the under part (B) which I shall call the tread is secured to the upper part (A) by a pivot *e* whose head is held in a depression (*b*) in which it is free to rise and fall as the tread is elevated into, or forced out of the socket by the variations in the reciprocal action of the spring and insisting pressure.

The upper edge (*c* Fig. 4) of the socket (A) spreads outward and is slightly inclined upward for the purpose of affording a broader support to the heel, and holding the socket more securely to the leather. The bottom of the tread is roughened to prevent slipping.

Surrounding the pivot which connects the tread and socket, is placed an open helical spring (D) of such strength that it will not be entirely collapsed by the weight of the body. Metallic springs for this purpose may be made and arranged in various ways, and under certain circumstances gum elastic may be advantageously substituted for the metal.

I do not claim filling a cased heel for shoes or boots with indian rubber which projects beyond the case to form an elastic tread nor the employment of either india rubber or other springs to give elasticity to the heel, when a metal tread is not used. But

What I do claim as my invention and desire to secure by Letters Patent is—

Making a metallic tread for the heels of shoes and boots, separate from, but secured within the casing of the heel, in such a manner that it shall be free to change its position to accommodate itself to the inequalities of the surface of the ground, whereby it wears more evenly, and is less fatiguing to the foot than a rigid heel in the manner set forth.

PATRICK S. DEVLAN.

Witnesses:

H. A. GUNNAN,

JOHN M. GOWAN.