

(No Model.)

M. B. KERR.

SPRING HEEL FOR BOOTS AND SHOES.

No. 255,871.

Patented Apr. 4, 1882.

Fig. 1.

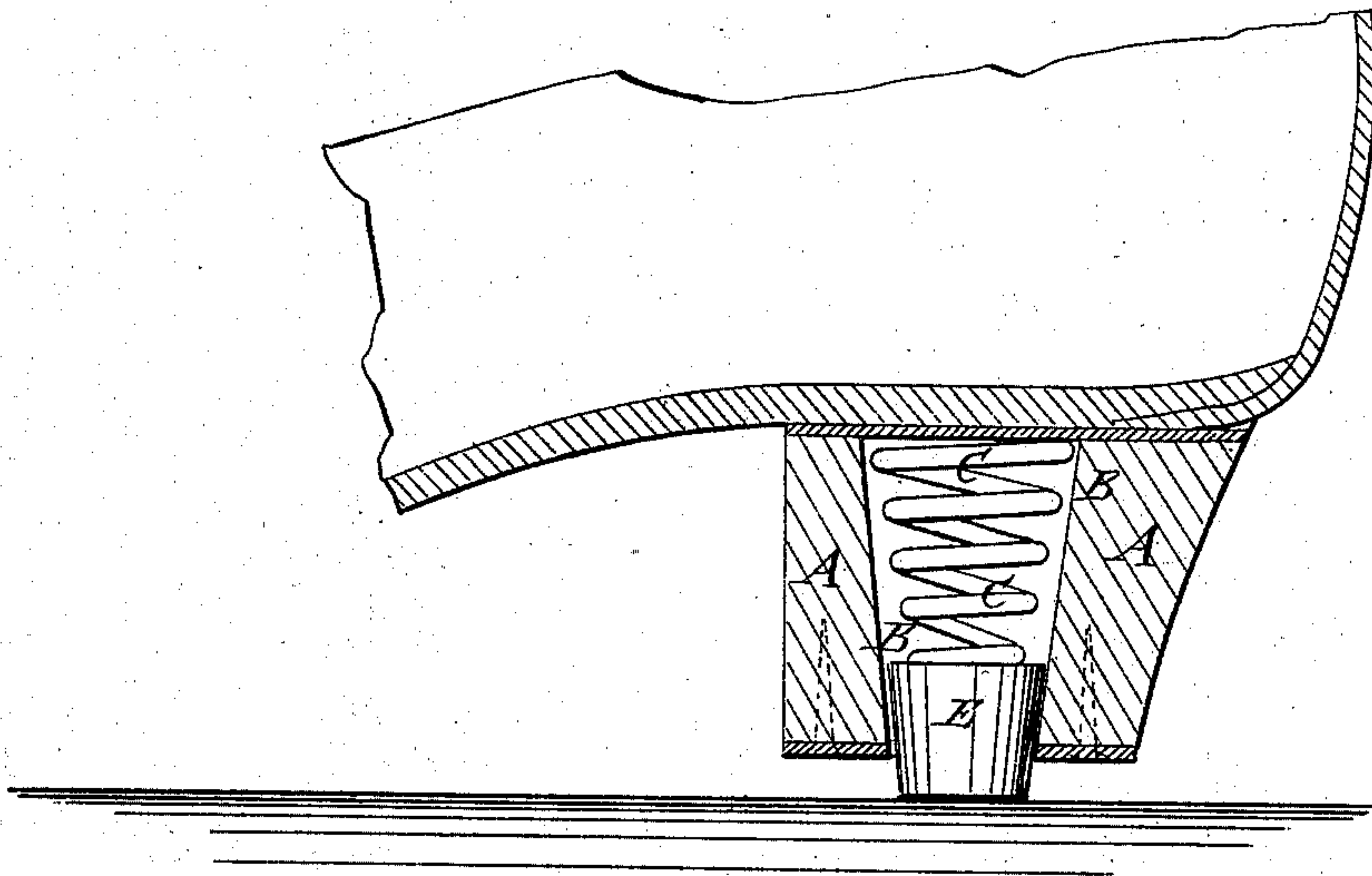


Fig. 2.

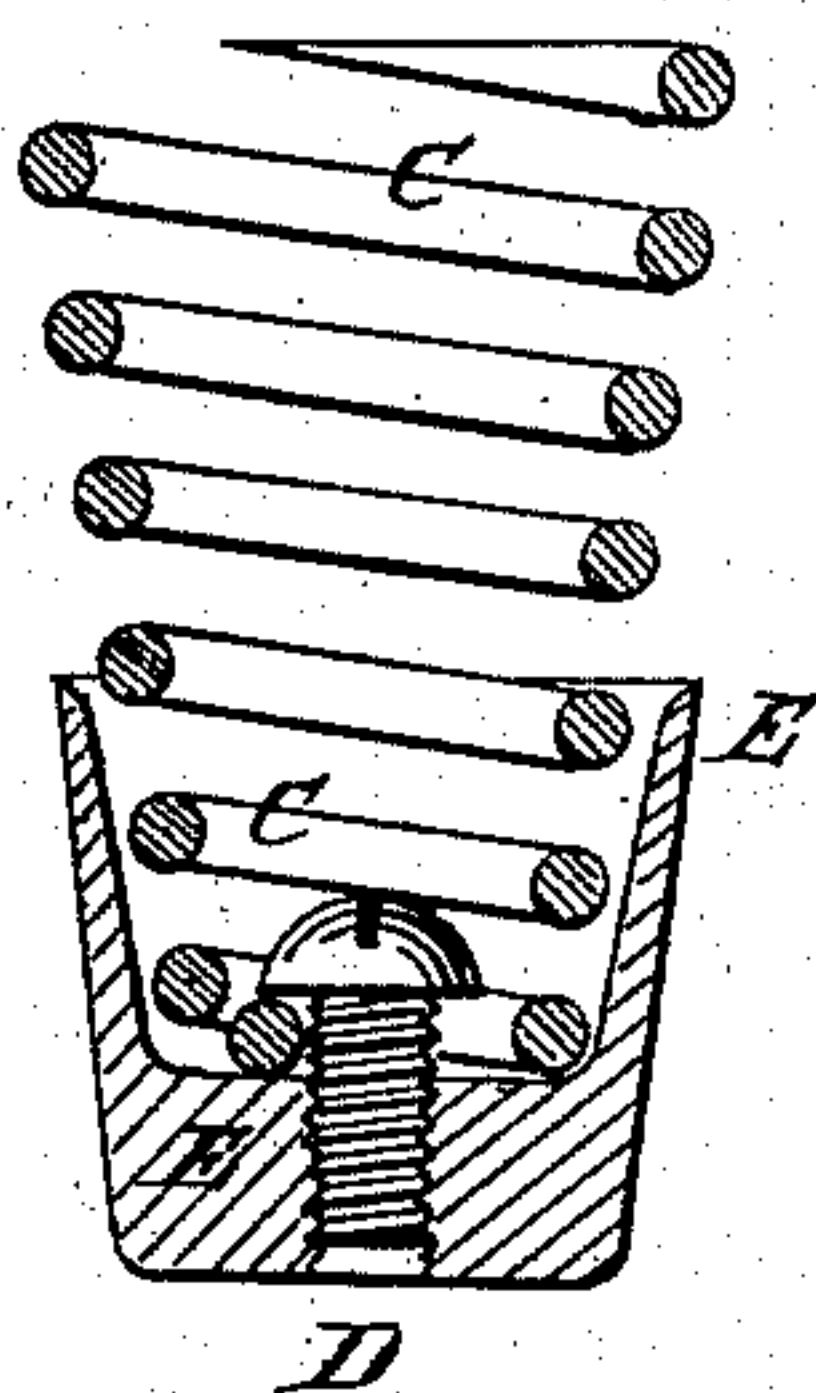
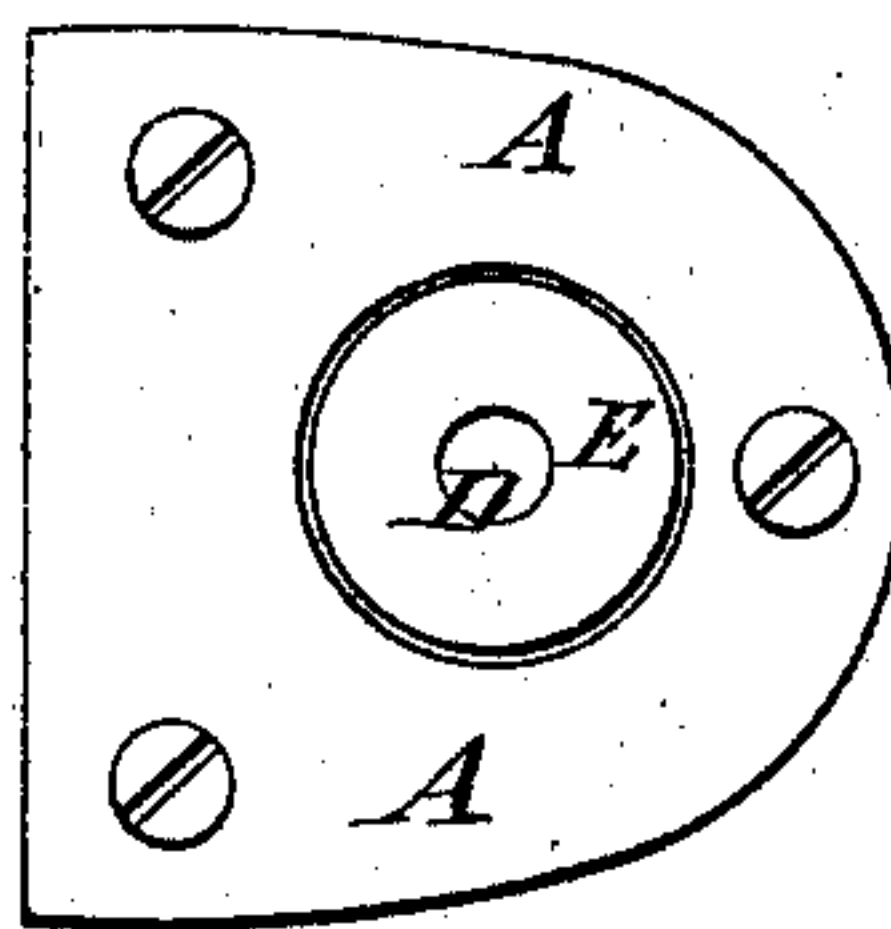


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

MICHAEL B. KERR, OF NEW YORK, N. Y.

SPRING-HEEL FOR BOOTS AND SHOES.

SPECIFICATION forming part of Letters Patent No. 255,871, dated April 4, 1882.

Application filed March 24, 1880. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL B. KERR, of the city, county, and State of New York, have invented a new and useful Improvement in Spring-Heels for Boots and Shoes, of which the following is a specification.

Figure 1 is a side elevation of the improvement, the heel being shown in section. Fig. 2 is a sectional side elevation. Fig. 3 is a bottom view.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish spring-heels for boots and shoes so constructed as to lessen the jar when the heel is placed upon the ground in walking and to give the heel an upward impulse when the weight is thrown upon the toes in taking a step.

This invention consists in the combination, with a heel provided with a tapering bore or passage, of a tapering chambered block loosely arranged in the lower end of the said bore or passage and adapted to freely move vertically therein, a coiled spring bearing at its lower end upon the chambered block, and a screw secured in said block and having its head confining the lower end of the spring in position, all of which will be more fully described hereinafter in detail.

A represents the heel of a boot or shoe, through which is formed a tapering or conical hole, B.

C is a tapering or conical spiral spring, which is made to fit into the tapering hole B. To the lower and smaller end of the spring C is secured by the head of a screw, D, a tapering or conical block, E, which is chambered to receive the lower end of the coiled spring and is made of such a size that its lower end may project from the bottom of the heel A. The shape of the spring C and block E prevents the said block from projecting too far. The spring C and block E may be further secured in place by passing the upper ply of the heel or a plate attached to the upper part of the heel through the upper coil of the spring C.

The heel A may be secured to the boot or shoe sole in the ordinary manner, or by a metal plate and screws, or in any other suitable manner.

If desired, a metal plate may be attached to the bottom of the heel A.

With this construction, when the heel is placed upon the ground in walking, the block E first comes in contact with the ground and the spiral spring receives the jar or shock. As the weight of the walker comes upon the heel the block E is forced up into the cavity B, compressing the spring C. As the weight is thrown upon the toes in taking a step the elasticity of the spring C forces the block E outward and gives an upward impulse to the heel, making the operation of walking easier.

If desired, the upper coil of the spring C may be made enough larger than the next lower coil to allow the said upper coil to rest in a rabbet or upon a shoulder in the upper part of the heel A to prevent the spring C and block E from dropping down too far.

A boot or shoe heel has heretofore been provided with a cavity in which is arranged a coiled spring, the upper end of which supports a flap located inside the boot or shoe. A boot or shoe heel has also been composed of two metallic shells, between which is arranged a coiled spring, the outer shell having a cavity through which a screw is passed to secure the heel to the boot or shoe, and a boot or shoe heel has also been composed of a wooden body having an india-rubber guard arranged in an aperture therein and projecting therefrom to form an elastic tread. Such constructions of boot or shoe heels, however, do not constitute my invention and are not claimed by me.

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

The combination, with the heel A, provided with the tapering bore or passage B, of the tapering chambered block E, loosely arranged in the lower end of the said bore or passage and adapted to freely move vertically therein, a coiled spring, C, bearing at its lower end upon the block, and the screw D, secured in the said block and having its head confining the lower end of the spring in position, substantially as described.

MICHAEL B. KERR.

Witnesses:

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