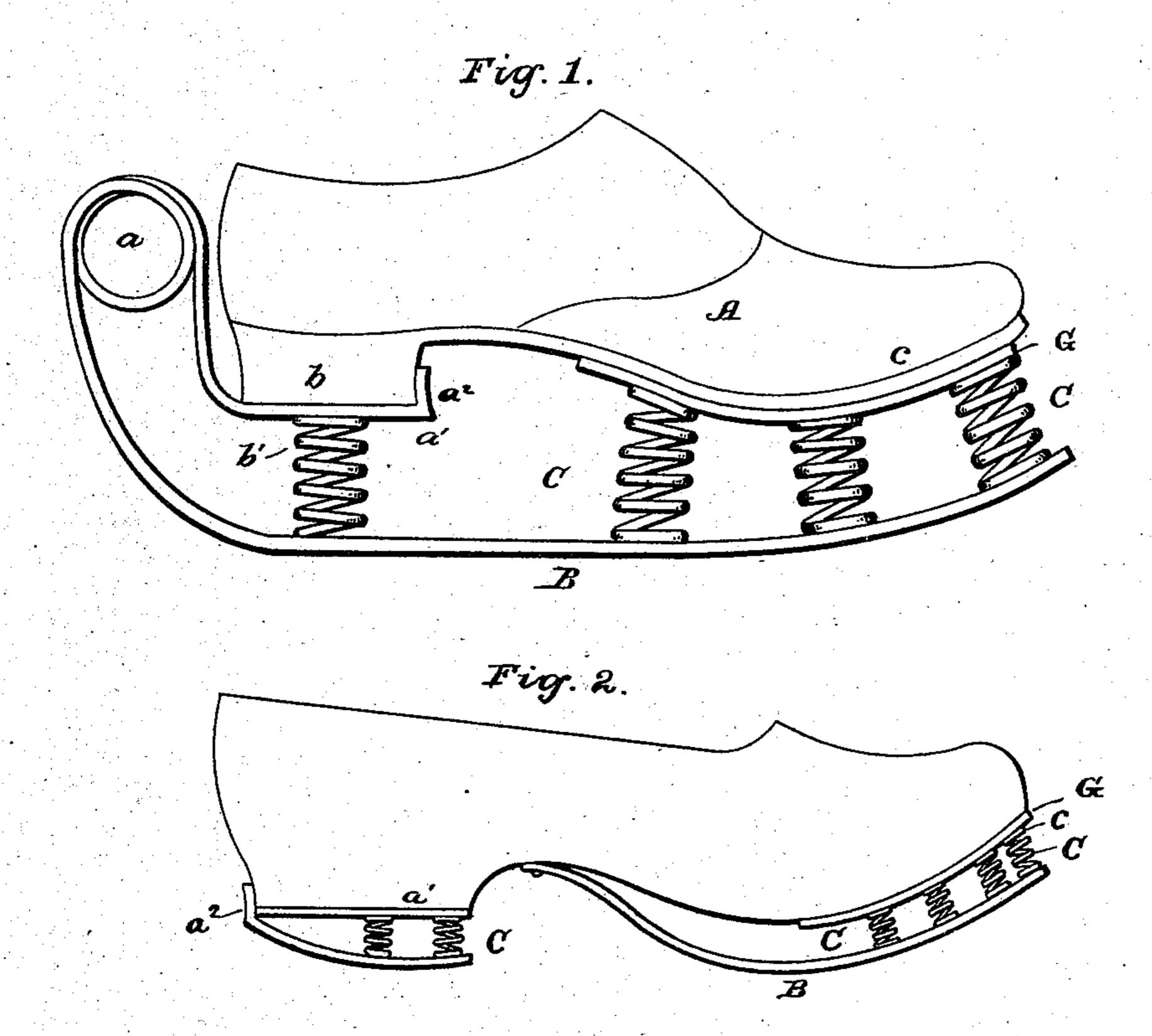
(No Model.)

J. S. WALKER.
SPRING SHOE.

No. 413,693.

Patented Oct. 29, 1889.



Attest. Nictor of Evans. A. S. Evans. John S. Walker Inventor. By G. M. Jacoch Atty.

N. PETERS, Photo-Lithographer, Washington, D. C.

## United States Patent Office.

JOHN S. WALKER, OF CLAREMONT, NEW HAMPSHIRE.

## SPRING-SHOE.

SPECIFICATION forming part of Letters Patent No. 413,693, dated October 29, 1889.

Application filed June 27, 1889. Serial No. 315,767. (No model.)

To all whom it may concern:

Be it known that I, John S. Walker, a citizen of the United States, residing at Claremont, in the county of Sullivan and State of New Hampshire, have invented certain new and useful Improvements in Improved Spring-Shoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in spring-shoes; and my objects are, first, to afford a positive heel-seat for the tread of the device; second, to afford a sole-seat independent of the heel-seat, and to combine with these devices certain springs beneath the foot, and when required a spring posterior to the heel. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a spring-shoe, showing my compound spring. Fig. 2 is a side view illustrating the independent spring attachment and the independent sole and heel plates.

Referring to the annexed drawings by letter, A designates a boot or shoe, and b the heel thereof.

30 By reference to Fig. 1 it will be observed that I take a plate B, bend it to form a tread; that I curve this plate upward behind the heel and form a coil α. I then curve the plate downward beneath the heel of the boot or shoe and direct it forward and then upward, forming a heel-seat. This plate, with its spring

and heel-seat, is integral. The base of it forms a spring-tread, the posterior portion forms a spring, and the front extension forms a heel-seat, as clearly shown in Fig. 1 of the draw- 40 ings.

G designates a sole-plate, which is adapted to the front portion of the foot, and which may be attached thereto in any suitable manner. Between this sole-plate and the tread 45 B are coiled springs C, and between the heelplate and the said tread B is a coiled spring b'.

Referring to my modification, (shown in Fig. 2,) it will be observed that I rigidly secure the rear end of the sole-plate at the instep and use the same plate G and springs C; also, in this modification I employ a heel-plate a', an independent heel-tread B, and an upturned portion  $a^2$ , corresponding to the similar portion  $a^2$ . (Shown in Fig. 1.) In 55 this modification, as well as in Fig. 1, I may employ one or a number of helical springs.

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

A spring-shoe having a tread B extended from the toe of the boot or shoe back of the heel, provided with a posterior spring and a heel-seat all formed integral, in combination with a sole-plate and intermediate springs, as 65 specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN S. WALKER.

Witnesses:

M. E. SABINE, MARY E. WAITE.