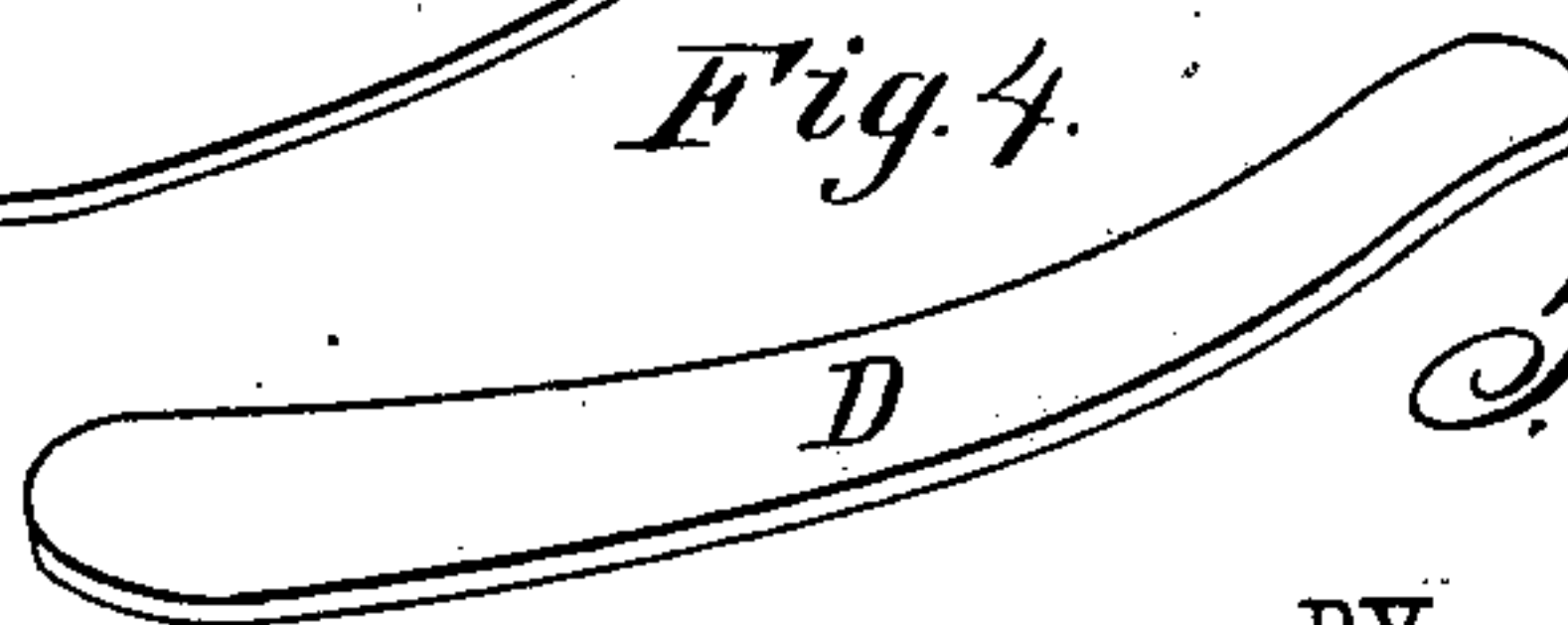
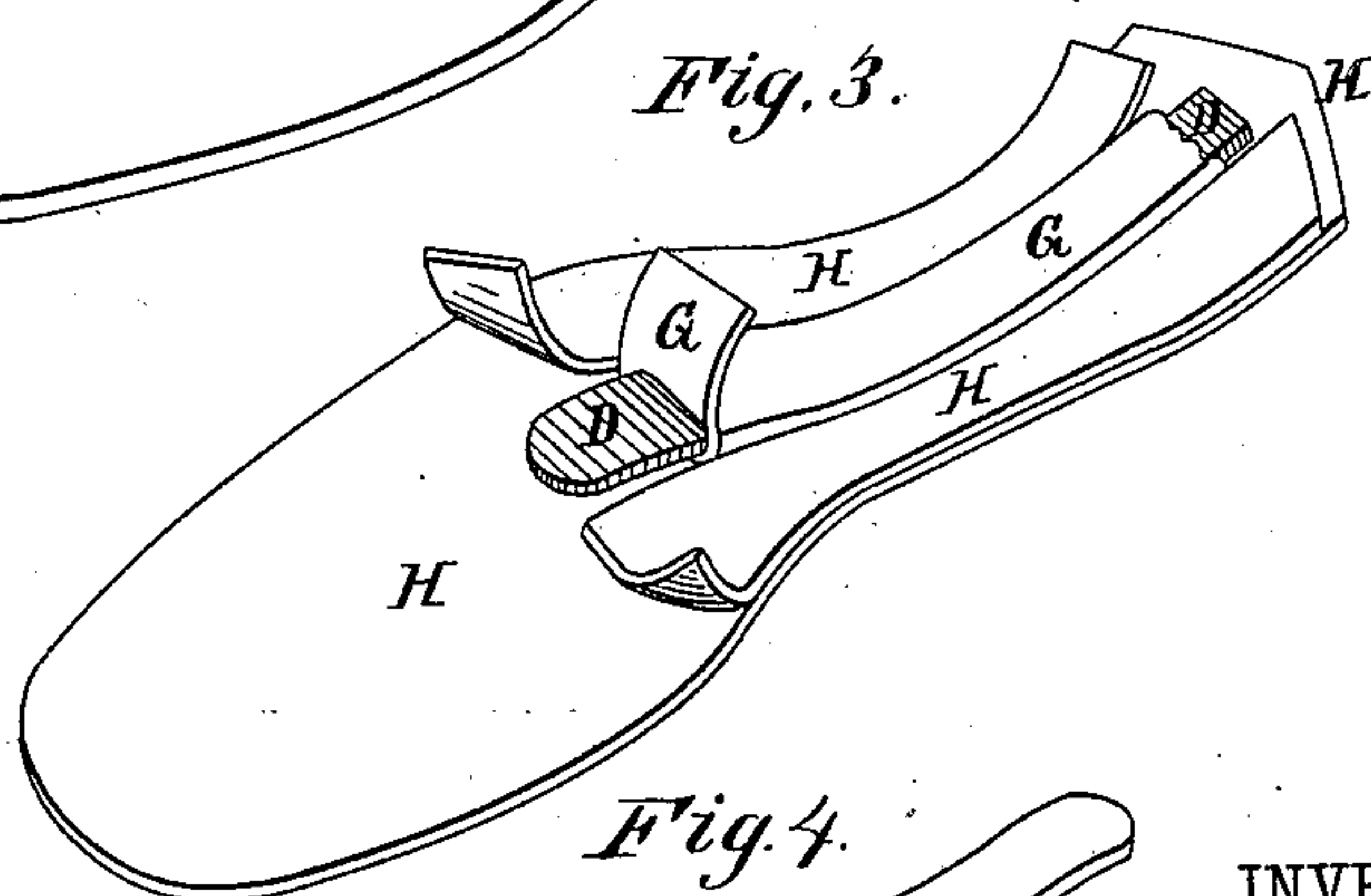
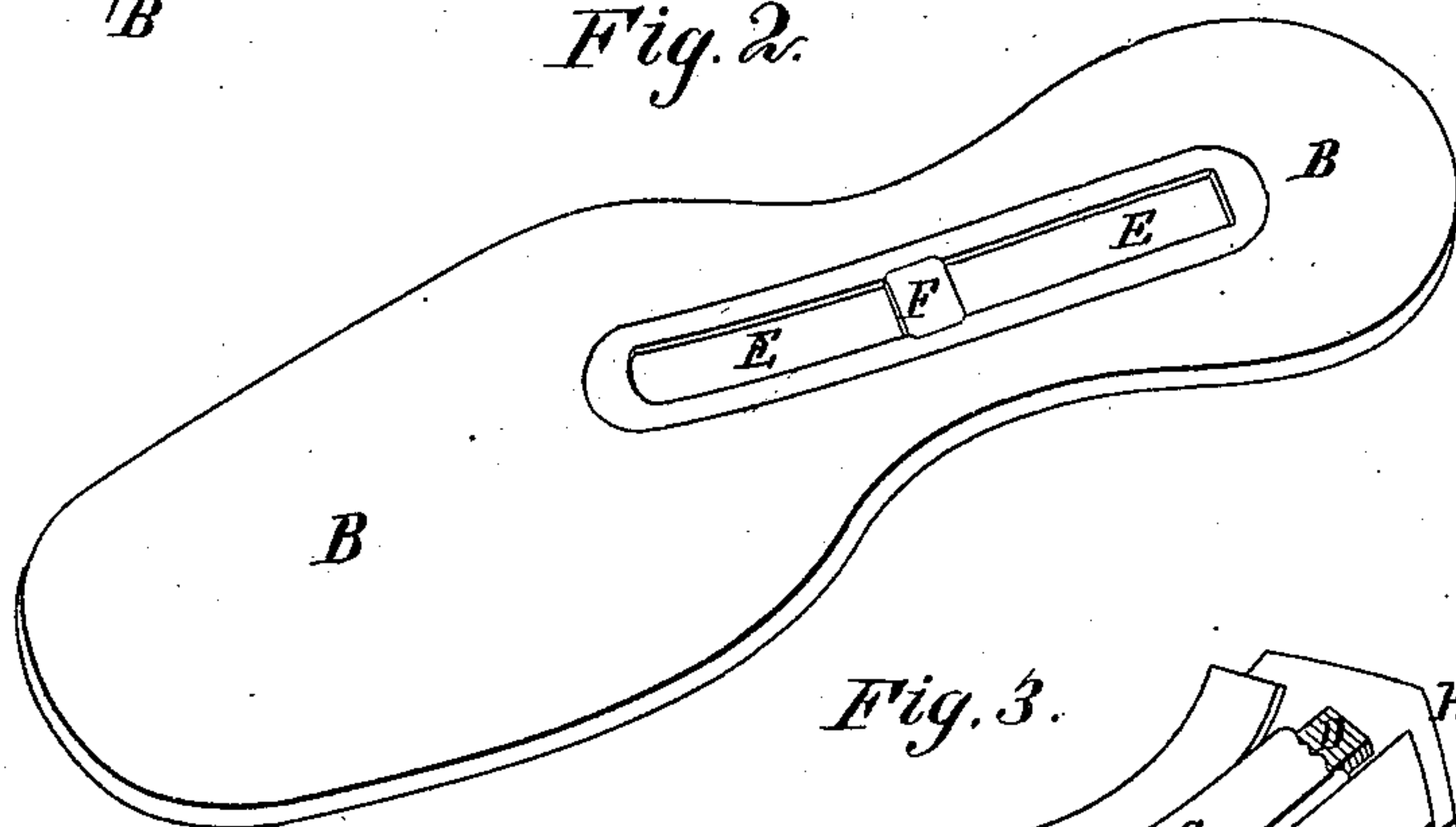
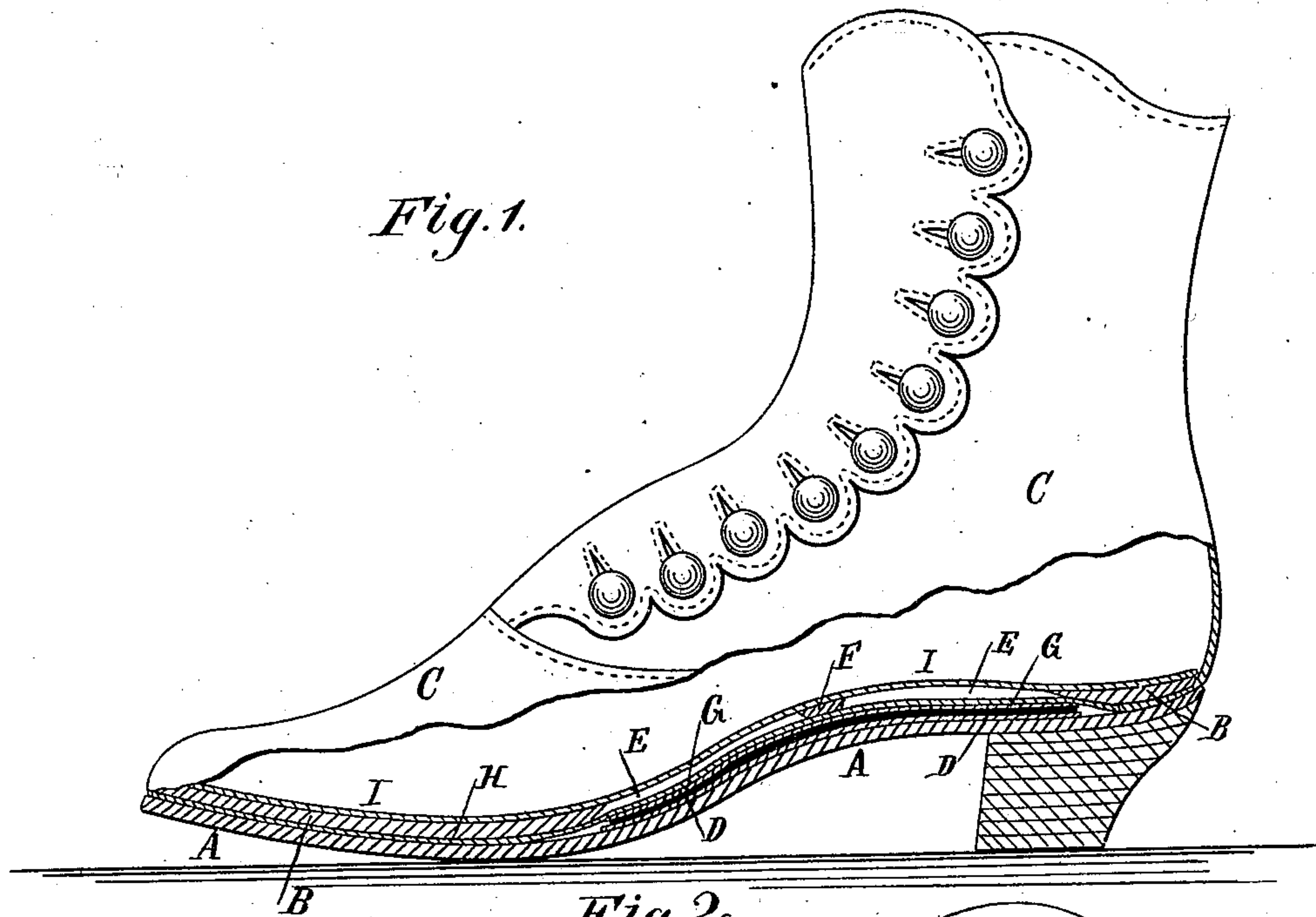


T. NUTHMANN.
Spring-Soled Boots and Shoes.

No. 226,541.

Patented April 13, 1880.



WITNESSES:

Henry N. Miller
C. Sedgwick

INVENTOR:

T. Nuthmann

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

THEODORE NUTHMANN, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF
AND OTTO DIERKING, OF SAME PLACE.

SPRING-SOLED BOOT AND SHOE.

SPECIFICATION forming part of Letters Patent No. 226,541, dated April 13, 1880.

Application filed September 22, 1879.

To all whom it may concern:

Be it known that I, THEODORE NUTHMANN, of Brooklyn, in the county of Kings and State of New York, have invented new and Improved Spring-Soled Boots and Shoes, of which the following is a specification.

Figure 1 is a side elevation, partly in section, of a shoe illustrating my improvement. Fig. 2 is a perspective view of the inner sole. Fig. 3 is a perspective view, showing the spring in place. Fig. 4 is a perspective view of the spring.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish spring-soled boots and shoes so constructed as to give the spring more freedom of movement, give more elasticity to the boot or shoe, better support the foot, and prevent the sole from spreading, as it is liable to do when the spring is inserted in the usual way.

The invention consists in making the inner sole with a slot or recess to receive the metal spring, and with a bridge-piece to rest upon the arch of the spring, to give freedom of movement and increase the elasticity of the completed sole, as will be hereinafter fully described.

A represents the outer sole, B the inner sole, and C the upper, of a shoe. D is a metal spring, which is inserted in a slot or recess in the inner sole, B, and is bent or curved to give the desired arch to the sole. The slot or recess E, formed in the inner sole, B, to receive the spring D, has a bridge-piece, F, across its middle part, to rest upon the arch of the spring D and keep the spring in place, as shown in Figs. 1 and 2. The sole B is beveled along

the edges of the slot E, and the bridge-piece F is cut away or thinned upon its lower side, as shown in Fig. 2. The spring D is wrapped in kid G or other soft leather before being inserted in its seat, and strips H are interposed between the soles A B at the sides and ends of the spring D.

With this construction the recess in the sole B and the bridge-piece F prevent the sole B from spreading or opening at its edges, and thus keep the shoe-sole A B in proper shape.

With this construction, also, the bridge-piece F, by resting upon the arch of the spring D, serves as a fulcrum-point for the spring to press against in preserving the arch of the sole.

The inner surface of the inner sole, B, is covered with a lining or insole, I, in the usual way.

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

1. As an improvement in the manufacture of boots and shoes, the inner sole provided with the longitudinal slot E, for receiving the shank-spring D, all substantially as shown and described.

2. In combination with the slotted inner sole, B, the spring D, resting in the said slot, and the bridge-piece F, all arranged to support the arch of the foot and preserve the form of the shoe, substantially as shown and described.

THEODORE NUTHMANN.

Witnesses:

JAMES T. GRAHAM,
C. SEDGWICK.