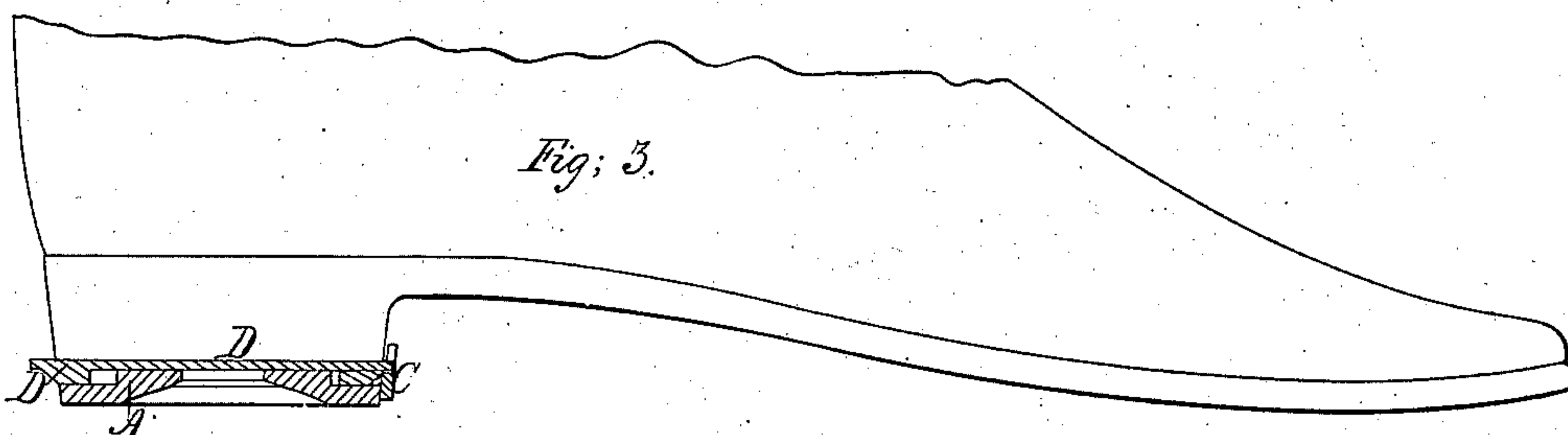
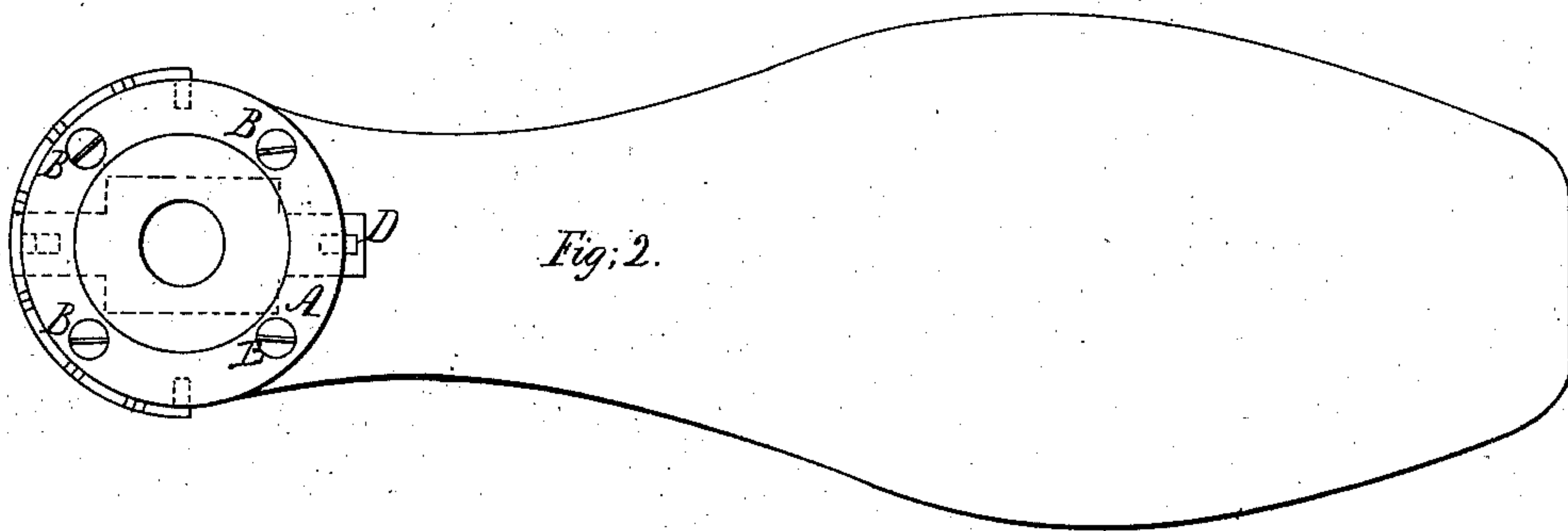
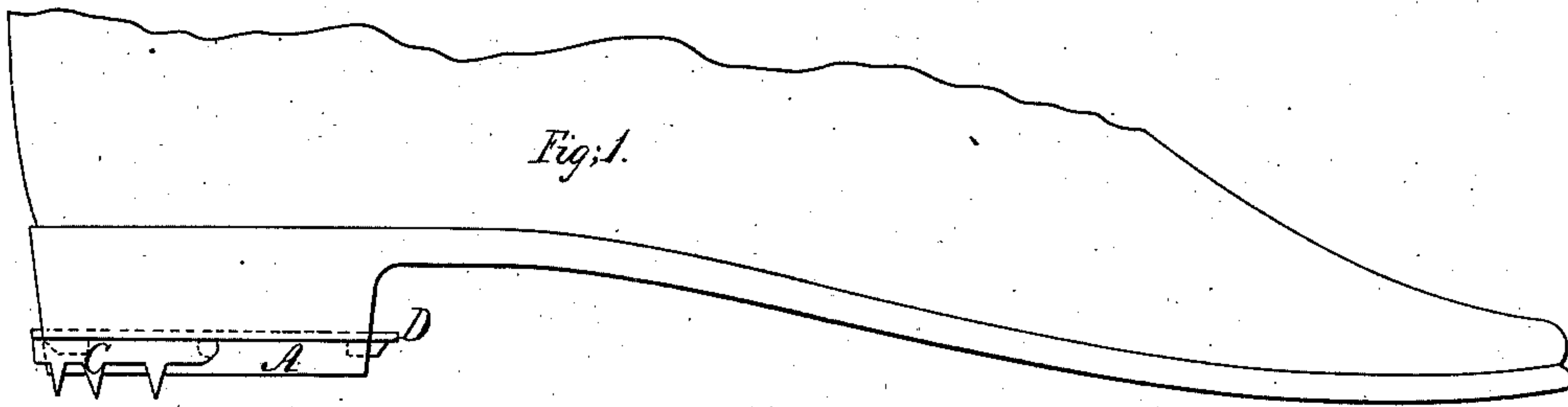


No. 39,514.

PATENTED AUG. 11, 1863.

W. WEAVER.  
HEEL IRON AND ICE CALK.



Witnesses.  
*J. P. S. Otterdin.*  
*A. Munro.*

Inventor.  
*Wm. Weaver.*

# UNITED STATES PATENT OFFICE.

WILLIAM WEAVER, OF NASHUA, NEW HAMPSHIRE.

## IMPROVED HEEL-IRON AND ICE-CALK.

Specification forming part of Letters Patent No. 39,514, dated August 11, 1863.

*To all whom it may concern:*

Be it known that I, WILLIAM WEAVER, of the city of Nashua, county of Hillsborough, and State of New Hampshire, have invented a new and Improved Heel-Iron and Ice-Calk; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a plan. Fig. 3 is a longitudinal vertical section of my invention, as applied to the soles of boots or shoes.

My invention consists of a combined heel-iron and ice-calk, to be worn on the soles of boots and shoes, and so constructed as to furnish a permanent fixture, which may be readily converted into an ice calk to prevent the wearer from slipping when walking on ice, and when not used for this purpose will serve as a protection to the heel from wearing out.

A is a ring or plate of iron or steel, which is intended to be permanently fastened to the sole of the boot or shoe by means of the four screws B B B B, placed at equal distances apart. This not only serves as a protecting-plate to the heel, to prevent its wearing out, but is intended also to serve as a frame to which the other parts are attached.

C is a semicircular spring-band of steel, each end of which is but at right angles toward the center of the circle, thus forming an axis on which the band turns. These ends work in slots made to receive them in the ring A. One edge of the band C is serrated and the other smooth. When the band is turned so that it rests on the back of the heel, the serrated edge is exposed, and the tread of the foot causes it to take sharp hold of the

ice; but when the band is turned in the opposite direction, as shown in section in Fig. 3, the serrated edge is turned toward the foot and the smooth edge is exposed. The advantage of this arrangement is readily seen. When a person is obliged to walk on ice or slippery sidewalks, the serrated edge is exposed, and he can do so with safety; but when he arrives at his house the calks become worse than useless, for they would injure his floors and carpets; he has simply to reverse the band, and his heel becomes smooth and harmless. The band C is so made and arranged that when thrown to its seat either forward or backward, it is sprung onto the ring A by the force of the person treading upon it, and holds itself firmly in place. Now, in order that the wearer may without trouble or difficulty reverse the band C, I have provided the double sliding wedge D. By kicking with the foot so as to bring one end of this wedge against the door step or scraper it drives the other end of this wedge against the band in such a manner as to loosen it, so that it can easily be turned in the opposite direction by the foot alone, thus avoiding all necessity of touching it with the hand.

I do not limit my claim to the particular form of wedge as herein shown, but extend it to any other substantially the same.

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

The double sliding wedge D, used for the purposes and in the manner as herein set forth.

WM. WEAVER.

In presence of—

J. P. S. OTTERSON,  
F. MUNROE.