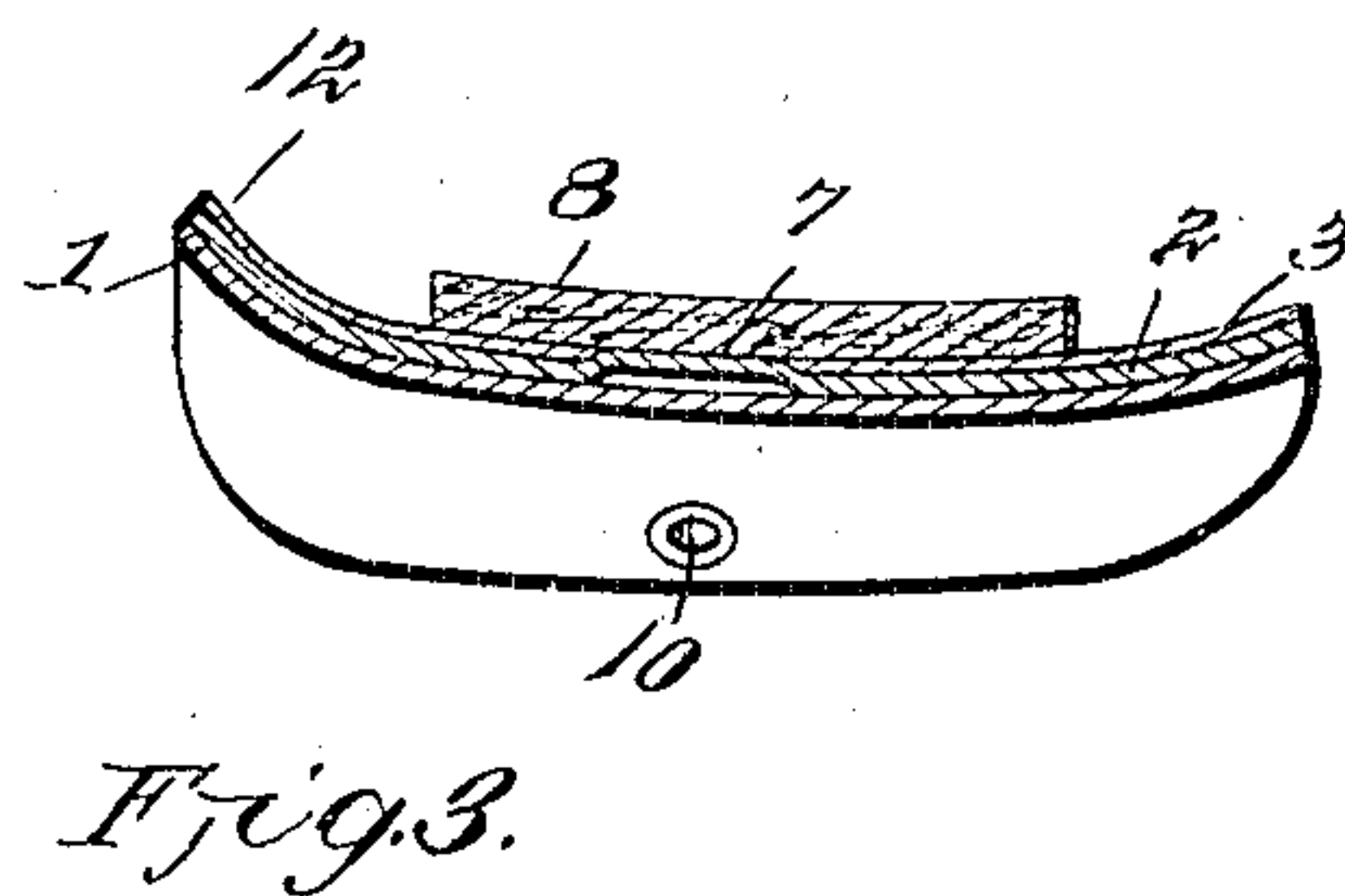
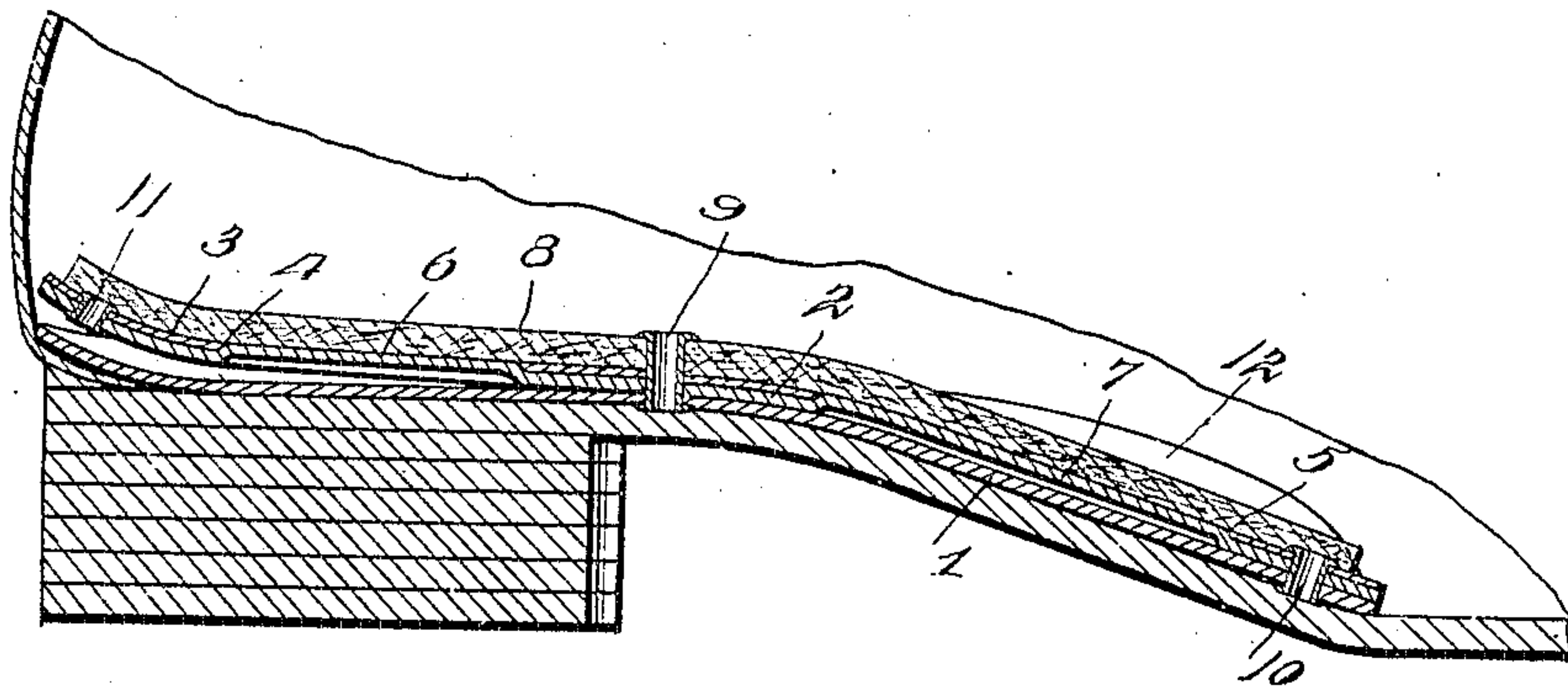
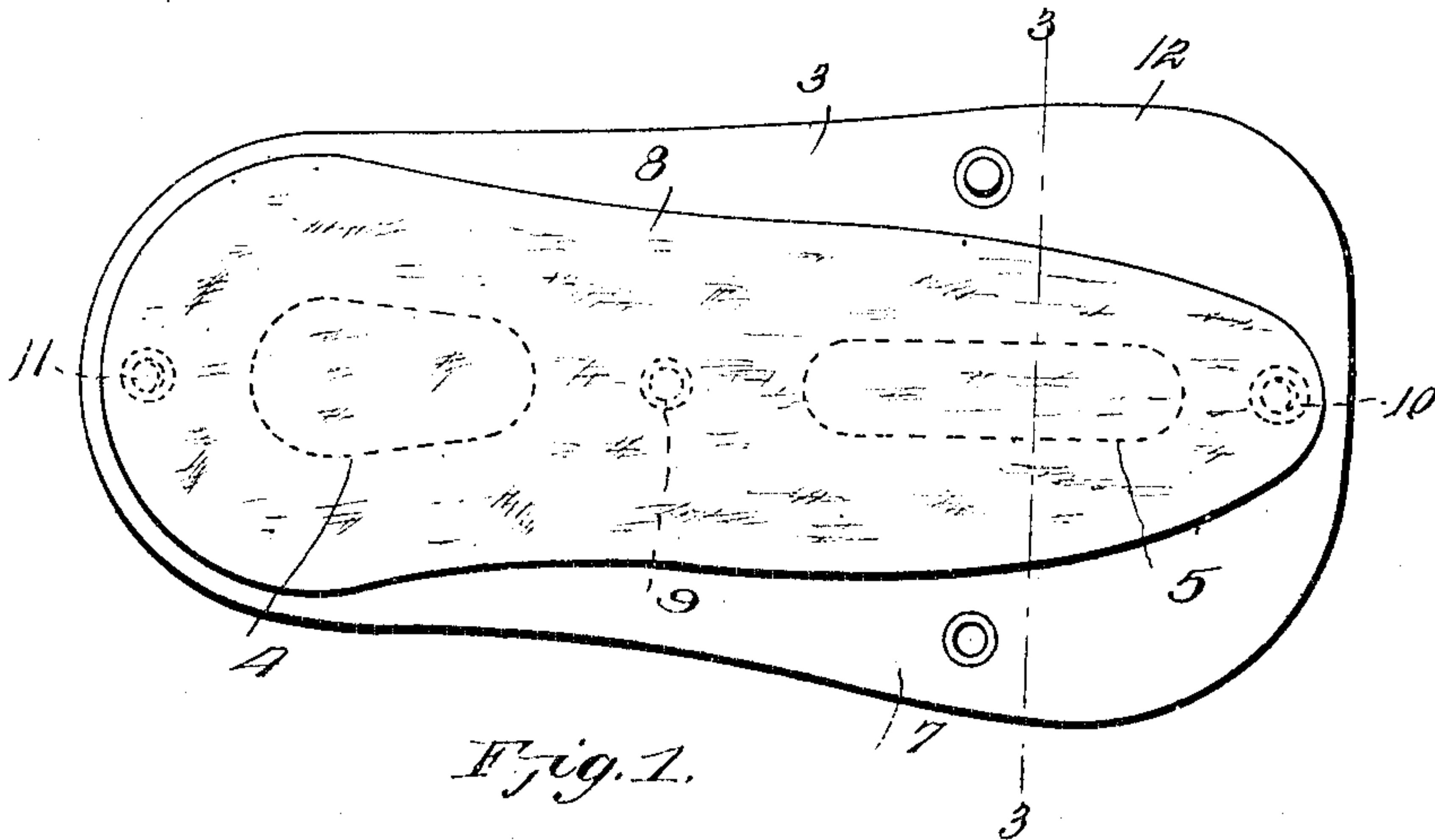


No. 843,441.

PATENTED FEB. 5, 1907.

H. O. CAN DEE.
ELECTRIC INSOLE.
APPLICATION FILED FEB. 7, 1906.



Witnesses
Frank Hough
A. J. Elmore.

Inventor
H. O. Can Dee,
By Victor J. Evans.
Attorney

UNITED STATES PATENT OFFICE.

HENRY O. CAN DEE, OF SYRACUSE, NEW YORK.

ELECTRIC INSOLE.

No. 843,441.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed February 7, 1906. Serial No. 299,992.

To all whom it may concern:

Be it known that I, HENRY O. CAN DEE, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented new and useful Improvements in Electric Insoles, of which the following is a specification.

This invention relates to electric insoles for shoes of the type disclosed in Patent No. 647,647 granted to me April 17, 1900.

The present invention has for its objects to provide a simple inexpensive device of this character which in practice will afford a firm support for the instep-arch, one whereby suitable voltaic currents will be generated through the feet and limbs for relieving rheumatic and other pains, and one whereby a yieldable support will be afforded for the heel of the wearer.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a top plan view of an insole embodying the invention. Fig. 2 is a central longitudinal section through the sole, showing the same applied to a shoe. Fig. 3 is a vertical cross-section taken on the line 3 3 of Fig. 1.

Referring to the drawings, 1 designates a base-plate composed of spring-steel and having applied to its normally upper face an electric or galvanic couple comprising a zinc plate 2 and a copper plate 3, in turn applied to the upper face of the plate 2 and forming a covering therefor, there being provided in the plate 3 a pair of elongated openings 4 and 5, disposed, respectively, adjacent opposite ends of the insole and adapted to receive opposite projections 6 7, struck or pressed from the plate 2 during the formation thereof, whereby the portions 6 7 of the zinc plate are exposed within the plane of the copper plate.

Applied to the normally upper face of the insole and for partially covering the face of plate 3 is a felt or other suitable absorbent pad 8, secured to the insole by means of a central fastening member or rivet 9, which serves to connect the plates 1, 2, and 3 at the center of the sole, the said plates being connected at the forward end of the sole by means of a fastening member or rivet 10, while the plates 2 and 3 are united at the heel end of the sole by means of a fastening mem-

ber or rivet 11, it being noted that the rear portion of the duplex plate or couple 2 3 is wholly free from engagement with the plate 1 and is adapted to spring or yield relatively thereto for imparting the requisite amount of elasticity to the heel portion of the device.

The insole is curved upwardly along one edge, as at 12, to properly support the adjacent or inner side of the foot, the sole being properly shaped to fit the bottom of the foot.

In practice the sole is placed within the shoe and the moisture of the foot acting on the zinc and copper forming the galvanic couple produces an electric current which passes through the foot and limbs and serves to eliminate the uric acid from the blood, thus curing rheumatic or other pains, the acid and perspiration which is freed through the voltaic action being absorbed by the pad 8, as will be readily understood.

It is to be particularly noted that in the use of the device and owing to the portions 6 and 7 of the zinc being exposed within the surface of the copper plate 3 the moisture may act more readily upon the plates in producing the electric currents, and, further, that the rear portion of the duplex plate serves to yieldably support the heel and afford a cushioning action of the latter during the action of walking.

Having thus fully described my invention, what I claim is—

1. In a device of the class described, a spring-metal base-plate, a voltaic couple applied thereto and comprising a pair of coacting metal plates arranged one over the other, fastening members at the ends of and for securing said plates together, and an intermediate fastening member connecting the plates together and to the base-plate, the uppermost plate of the couple having openings through which portions of the underlying plate are exposed.

2. In a device of the class described, a metal base-plate, a voltaic couple applied thereto and comprising a pair of coacting metal plates arranged one over the other, a fastening member applied through the plates of the couple and the base-plate at the forward end of the latter, a second fastening member connecting the plates of the couple at their rear ends, a pad applied over the couple, and an intermediate fastening member extended through the base-plate, couple and pad for connecting said parts together,

the uppermost plate of the couple having openings through which portions of the underlying plate are exposed.

3. In a device of the class described, a
5 metal base-plate, an electric couple attached thereto and comprising a pair of coacting metal plates, said couple having its rear portion wholly free from engagement with the base-plate and adapted to yield relative

thereto for yieldably supporting the heel of the wearer.

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

HENRY O. CAN DEE.

Witnesses:

NATHAN ABELSON,
K. BRENNAN.