

(No Model.)

F. RICHARDSON.

RUBBER SHOE.

No. 250,972.

Patented Dec. 13, 1881.

Fig. 1.

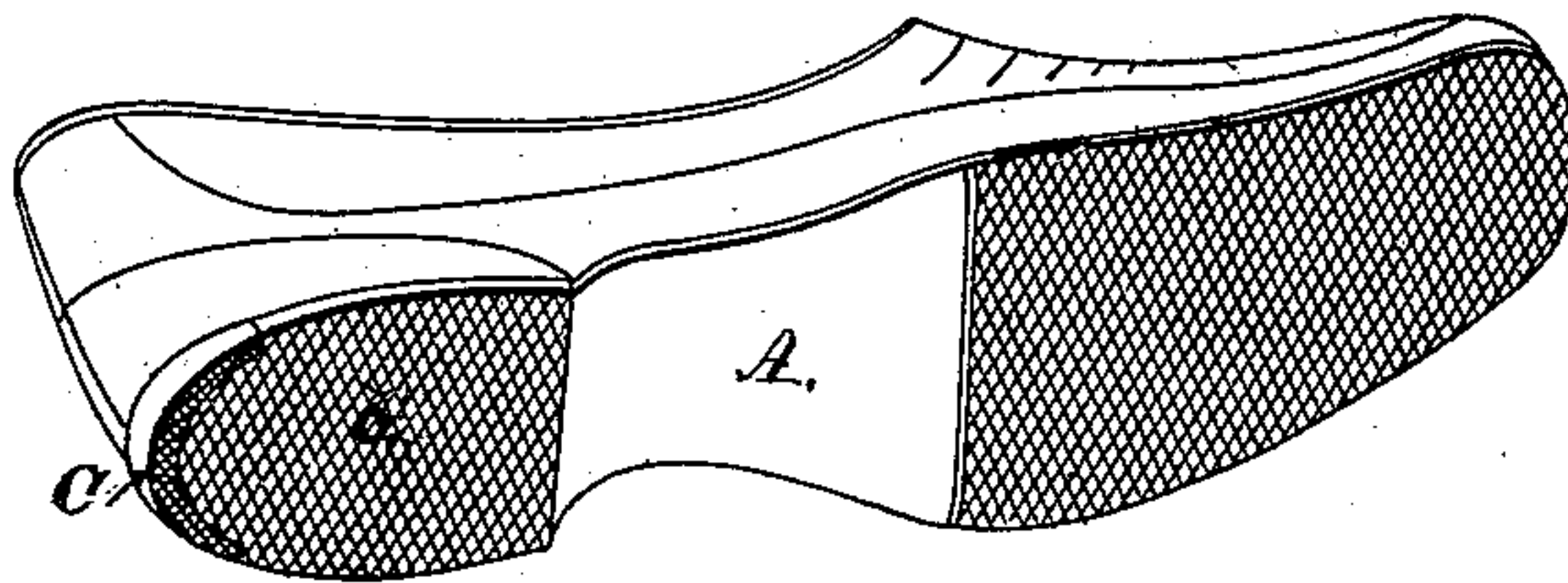


Fig. 2.

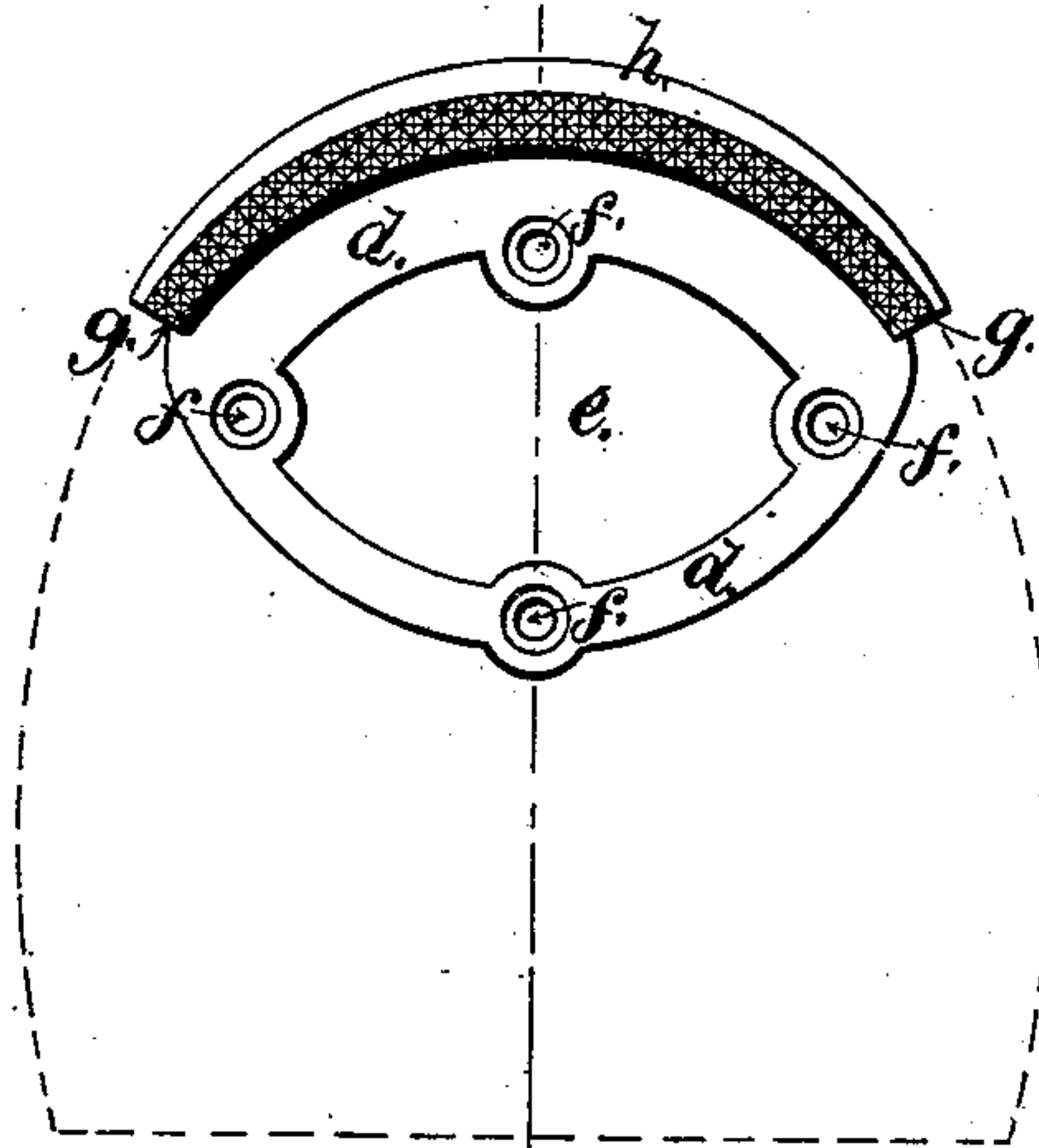


Fig. 3.

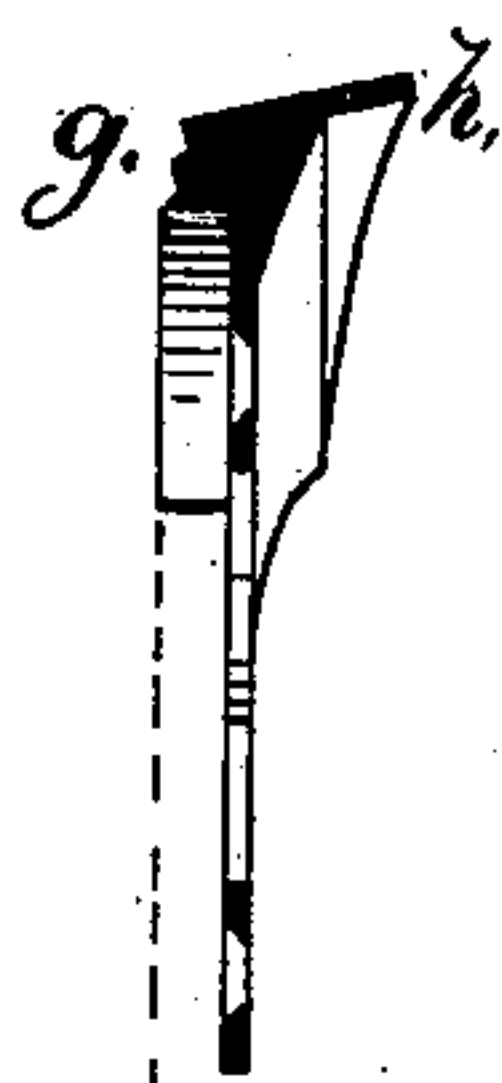


Fig. 4.

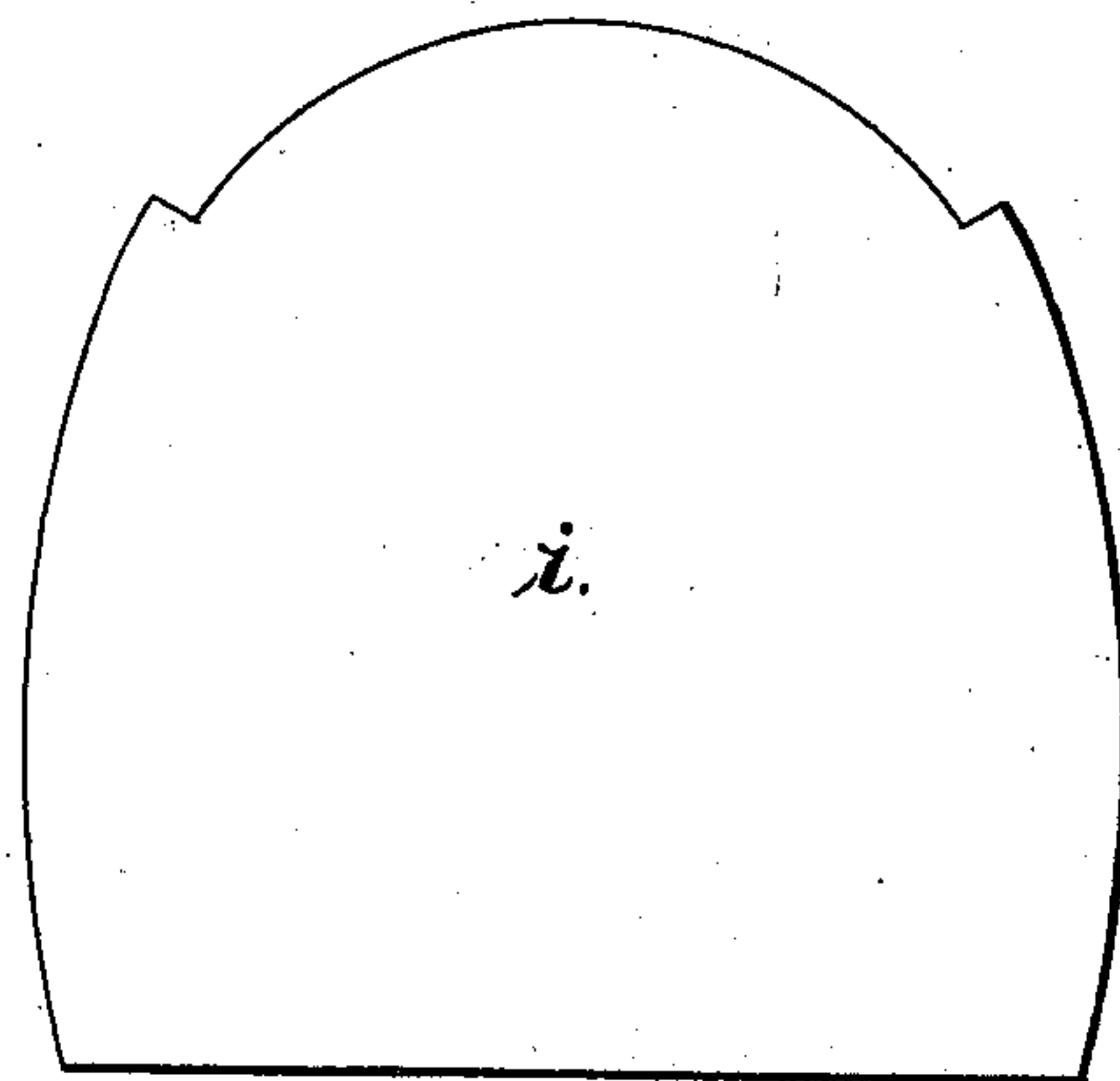
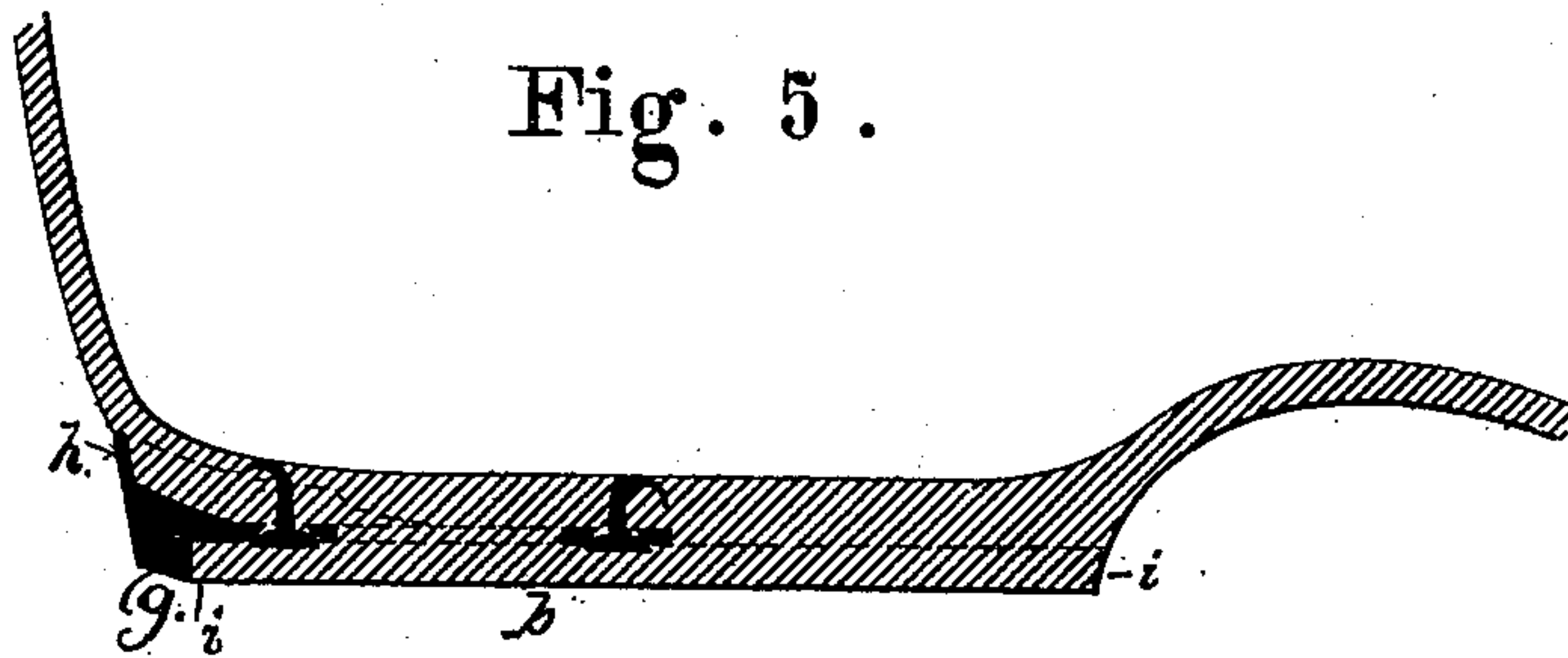


Fig. 5.



WITNESSES:

Joseph A. Miller & Co.
Wm. L. Corp.

INVENTOR:

Frederick Richardson
by Joseph A. Miller atty

UNITED STATES PATENT OFFICE.

FREDERICK RICHARDSON, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO
THE REVERSIBLE HEEL COMPANY, OF SAME PLACE.

RUBBER SHOE.

SPECIFICATION forming part of Letters Patent No. 250,972, dated December 13, 1881.

Application filed May 9, 1881. (No model.)

To all whom it may concern :

Be it known that I, FREDERICK RICHARDSON, of the city and county of Providence and State of Rhode Island, have invented a new and useful Improvement in Rubber Shoes; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

In rubber shoes, and more particularly in rubber overshoes, the rear end of the heel is more liable to wear than any other part of the shoe, and as these heels consist only of sheets cemented to the sole, and have not the usual thickness of heels on other shoes, the wearing of this part causes the water to enter the shoe and make the same useless. To protect this part of the shoe is the object of this invention.

The invention consists in securing to the rear part of the rubber-shoe heel a metal wearing-surface, partly embedded in the rubber and partly exposed, provided with an upward-extending rim, by which the end of the sole is also protected, as will be more fully set forth hereinafter.

Figure 1 is a perspective view of a rubber overshoe, having the rear end of the heel protected by metal. Fig. 2 is an enlarged view of the metal heel-protector. Fig. 3 is a sectional view of the metal heel-protector. Fig. 4 is a view of the rubber sheet cemented over the heel and part of the protector-plate. Fig. 5 is a sectional view of the heel of a rubber overshoe, showing the heel-protector secured and embedded in the same.

In the drawings, A represents the shoe, *b* the heel, and C the metal heel-protector. *d* is an oblong metal rim, having the large opening *e* and the holes *ff*. *g* is a projecting and preferably roughened wearing-surface, and *h* is an upward-projecting guard-rim. The whole device C is made of one piece of metal, preferably cast-iron. The metal heel-protector is secured during the manufacture of the rubber shoe. It is embedded in the soft rubber of the sole by pressing into the same until it is even with, or nearly even with, the surface. Nails are now driven through the holes *ff*, as shown in Fig. 5, with the piece *i* (shown in Fig. 4) cemented over the whole. The shoe is now subjected to the usual process of vulcanizing by heat, and all the parts become one solid mass.

The weakest part of the shoe is by this invention protected against wear, and the durability of the shoe is vastly increased.

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

The combination, with a rubber shoe, of the guard C, consisting of the oblong rim *d*, provided with the holes *ff*, the protecting wearing-surface *g*, and the raised rim *h*, secured to the heel, as and for the purpose described.

FREDERICK RICHARDSON.

Witnesses:

J. A. MILLER, Jr.,
WM. L. COOP.