

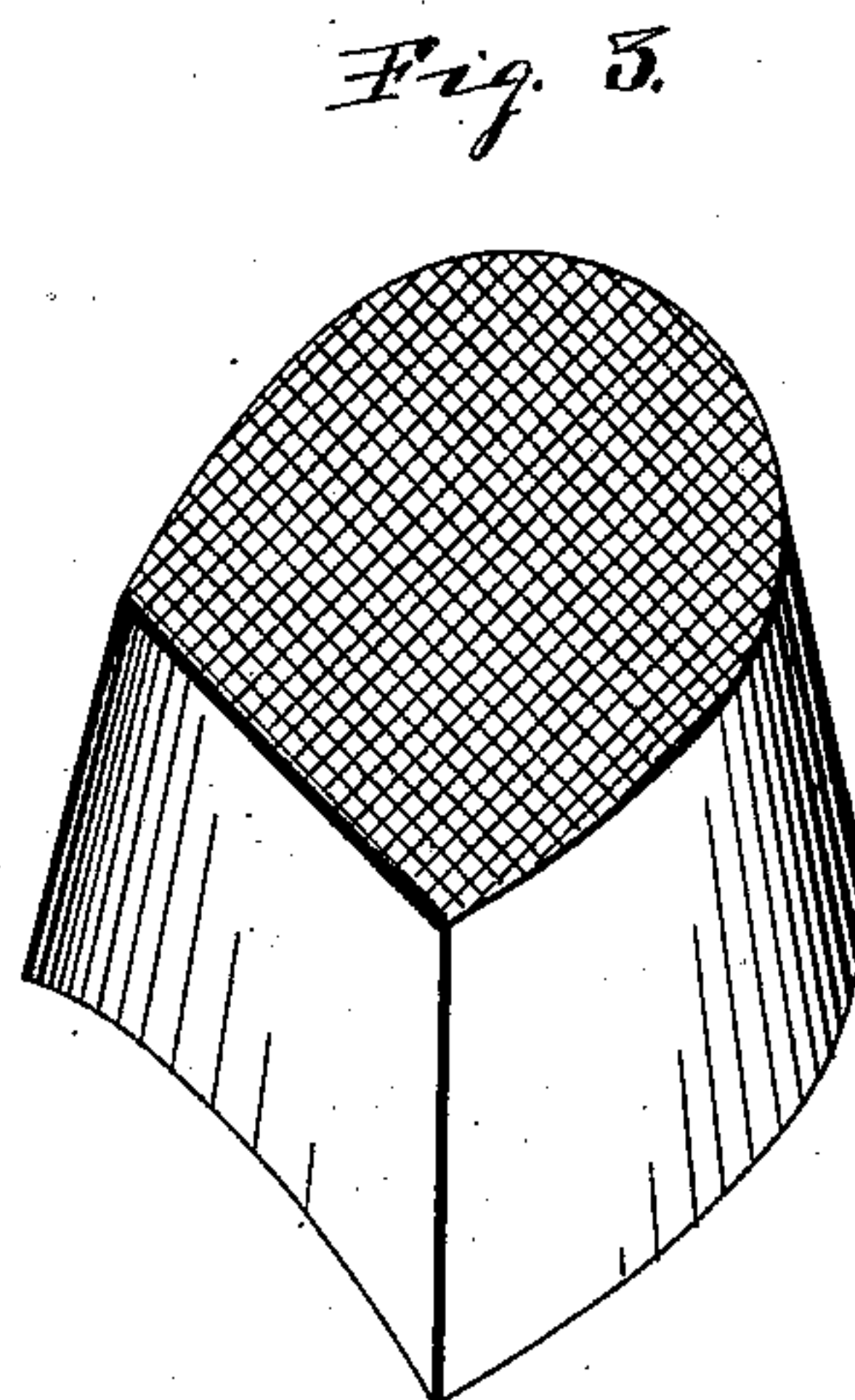
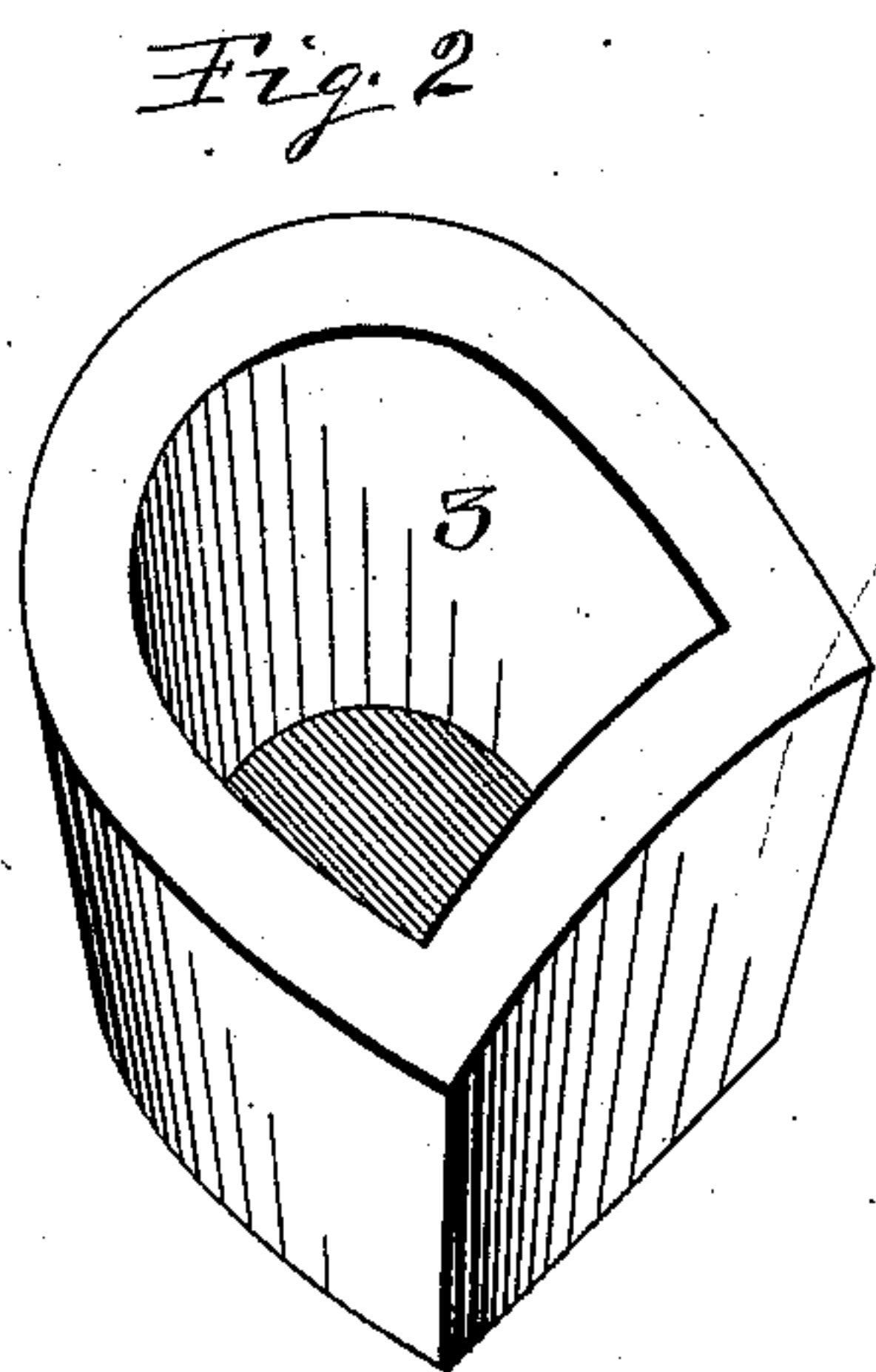
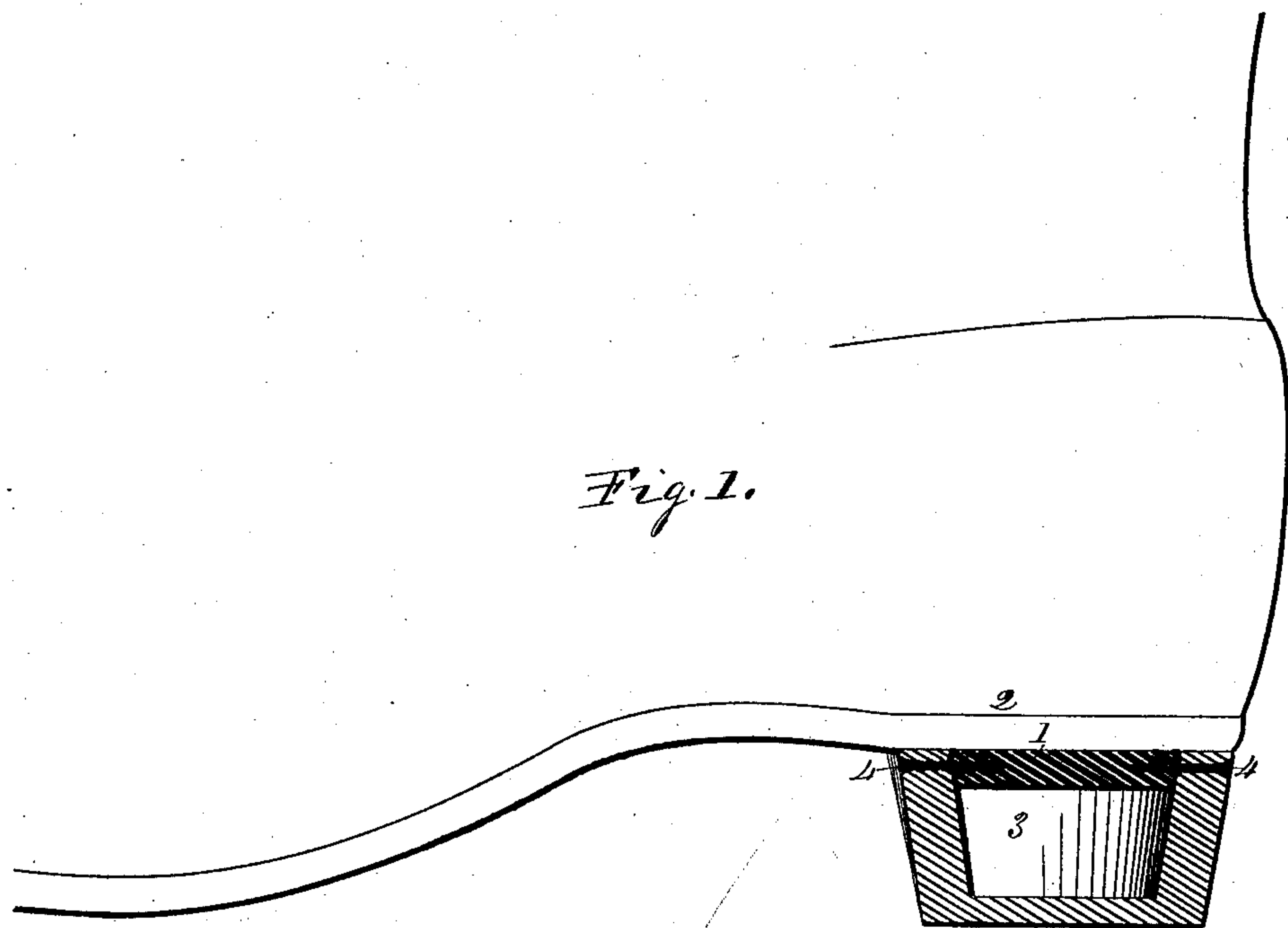
(No Model.)

J. LINDSTROM.

SHOE.

No. 379,172.

Patented Mar. 6, 1888.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

JOHN LINDSTROM, OF ROCKFORD, ILLINOIS.

## SHOE.

SPECIFICATION forming part of Letters Patent No. 379,172, dated March 6, 1888.

Application filed February 24, 1887. Serial No. 228,667. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN LINDSTROM, a citizen of the United States, residing at Rockford, county of Winnebago, and State of Illinois, have invented new and useful Improvements in Shoe-Heels, of which the following is a specification.

This invention relates to the manufacture of shoes. Its object is to produce as an article of manufacture an elastic heel for boots or shoes. It consists in a heel of cup form, produced of vulcanized caoutchouc or india-rubber, having a construction adapted to be readily attached in the manufacture of shoes, and also capable of use in repairing shoes, and capable of being repaired.

To this end I have designed and constructed the heel represented in the accompanying drawings, in which—

Figure 1 is a vertical lengthwise central section of a shoe, showing my improved heel in place thereon and the manner of its attachment. Fig. 2 is an isometrical upper face representation of my improved heel, and Fig. 3 is an isometrical under face representation of my improved heel.

My improved heel is produced of caoutchouc vulcanized, or of other known articles employed in the manufacture of the article known in the trade as "india rubber" or "rubber."

I prefer to produce my improved rubber heel to the required conformation of the cup or open-center form shown, in one piece, from suitably-prepared caoutchouc or other known articles employed in the manufacture of rubber goods, by molding, pressing, building, or in other manner known to the art in the manufacture of rubber goods, and then vulcanizing the articles in the usual and well-known manner to produce a heel possessing the required firmness and elasticity to meet the requirements of the article produced.

In the application of my improved heel, a lift, 1, of leather or other suitable material, is cemented or otherwise firmly fixed to the heel portion 2 of the shoe. This lift, however, is first prepared to the required size and conformation to enter the cup-formed central opening, 3, in the heel proposed to be employed. The heel is then cemented or otherwise fixed in place on the shoe embracing the lift 1, and if required to more securely fix it in place nails 4, or screws, may be driven at

proper intervals through the rubber into the lift 1.

The cement employed in securing the heel to the lift is of Swedish manufacture, and is used as follows: The cement is placed in proper quantities along the portion of the surface of the lift and heel to be cemented, and is softened by means of a hot iron. The said surfaces are then subjected to sufficient heat to reduce the cement to a thick liquid or viscid consistency, and are then brought into close contact to exclude air, and are so held until the cement solidifies, when the work will be completed.

In the manufacture of my improved heels it is proposed to produce them of the various sizes, of the various conformations, and of the various degrees of firmness, and possessing the various degrees of elasticity necessary to meet the demands of the trade as near as may be; but these features of my improvement of necessity must be determined by the demands of the trade and the judgment of the manufacturer to meet the demands.

In the manufacture of my improved heel it is proposed, so far as practicable, to make the lifts of leather, rubber, or other suitable material of the proper size and conformation to correspond with the various sizes of heels produced.

I claim as my invention—

1. The combination herein described, with the sole and the lift firmly attached to the sole, of a hollow heel consisting entirely of elastic material molded in one piece and provided with an opening in its top completely surrounded by the elastic material and adapted to snugly receive the said lift, the heel being secured in position on the lift by cement, substantially as set forth.

2. The combination, with the sole and the lift attached to the sole, of a hollow heel consisting entirely of elastic material molded in one piece and provided with an opening in its top adapted to snugly receive the said lift, the heel being secured in position by cement and further secured by a fastening extending through the side of the molded heel into the wall of the lift, substantially as set forth.

JOHN LINDSTROM.

Witnesses:

JACOB BEHEL,  
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