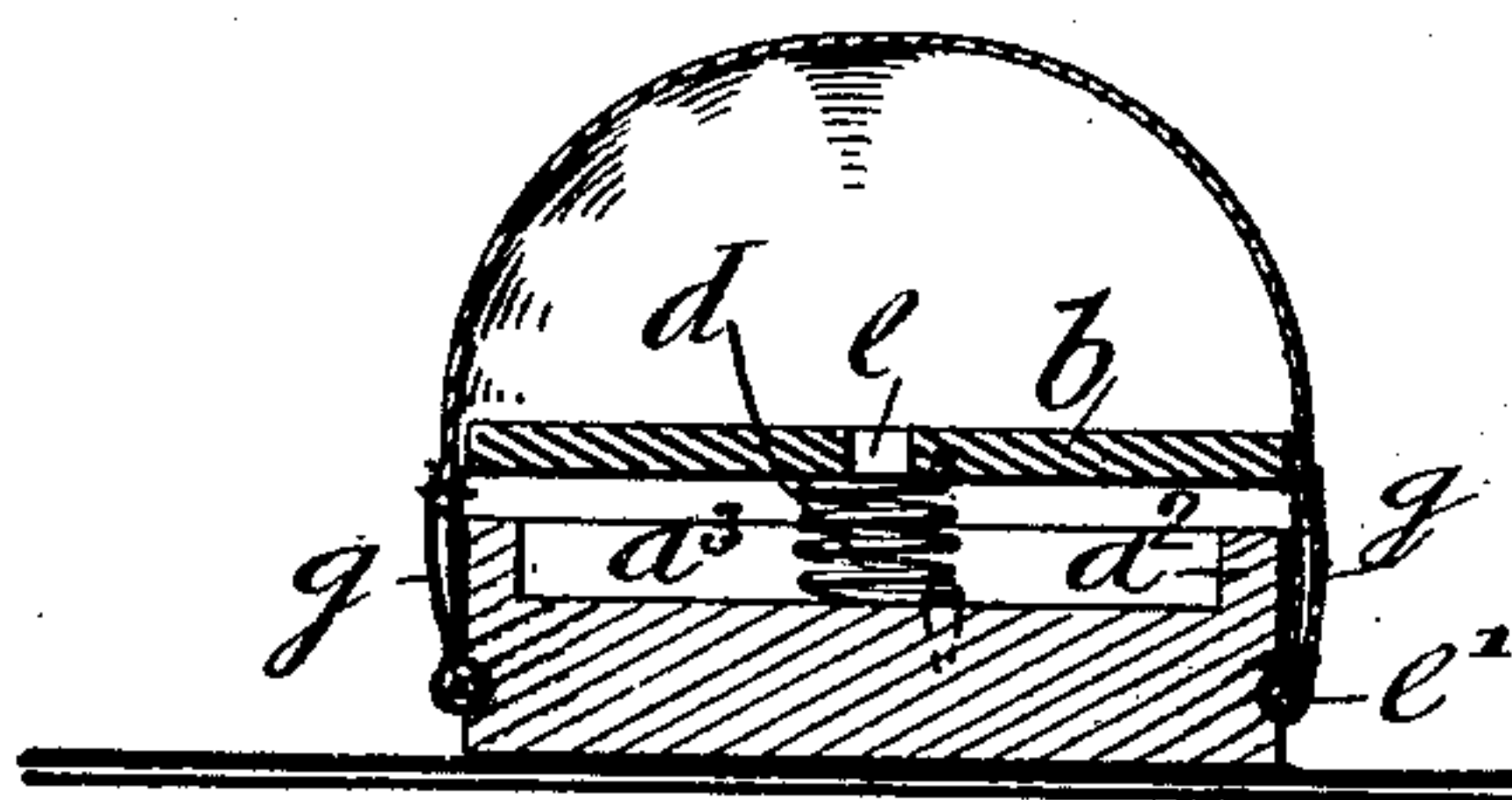
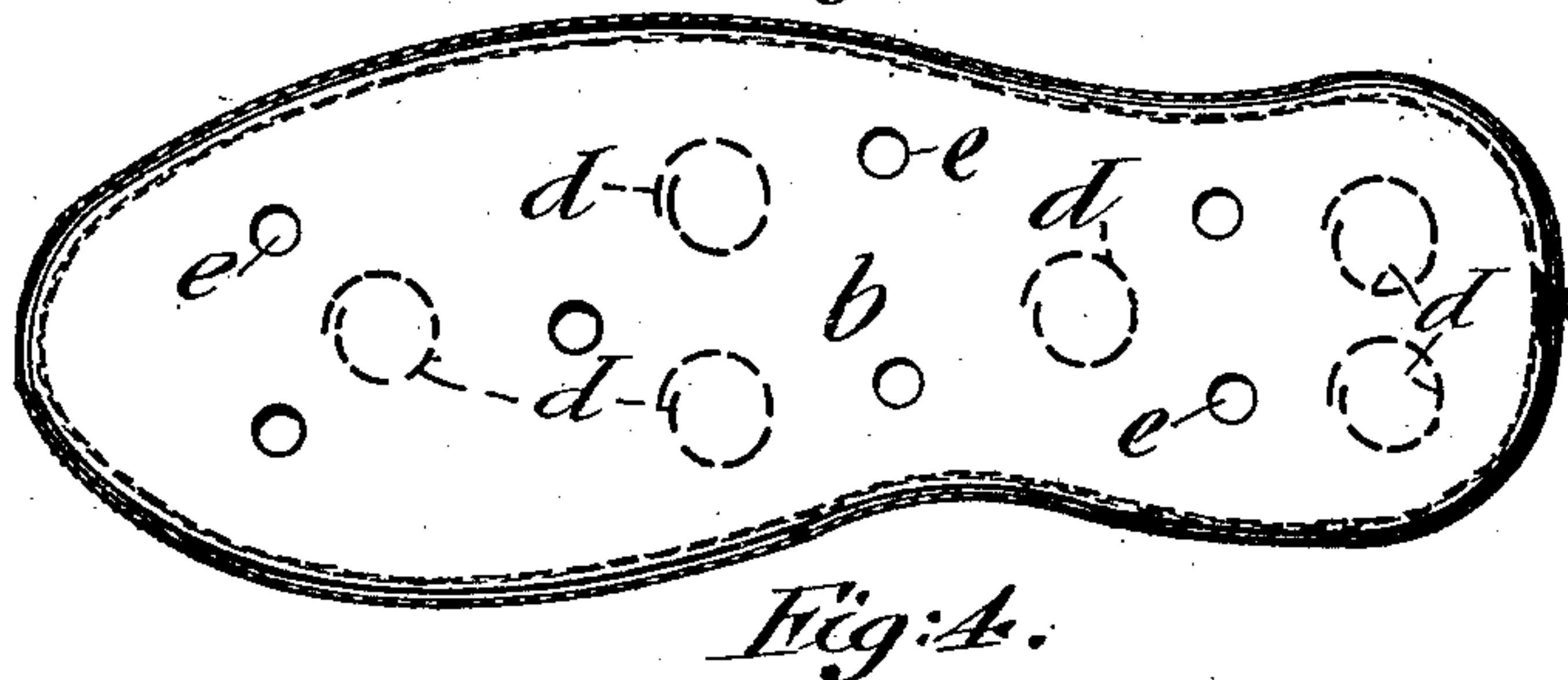
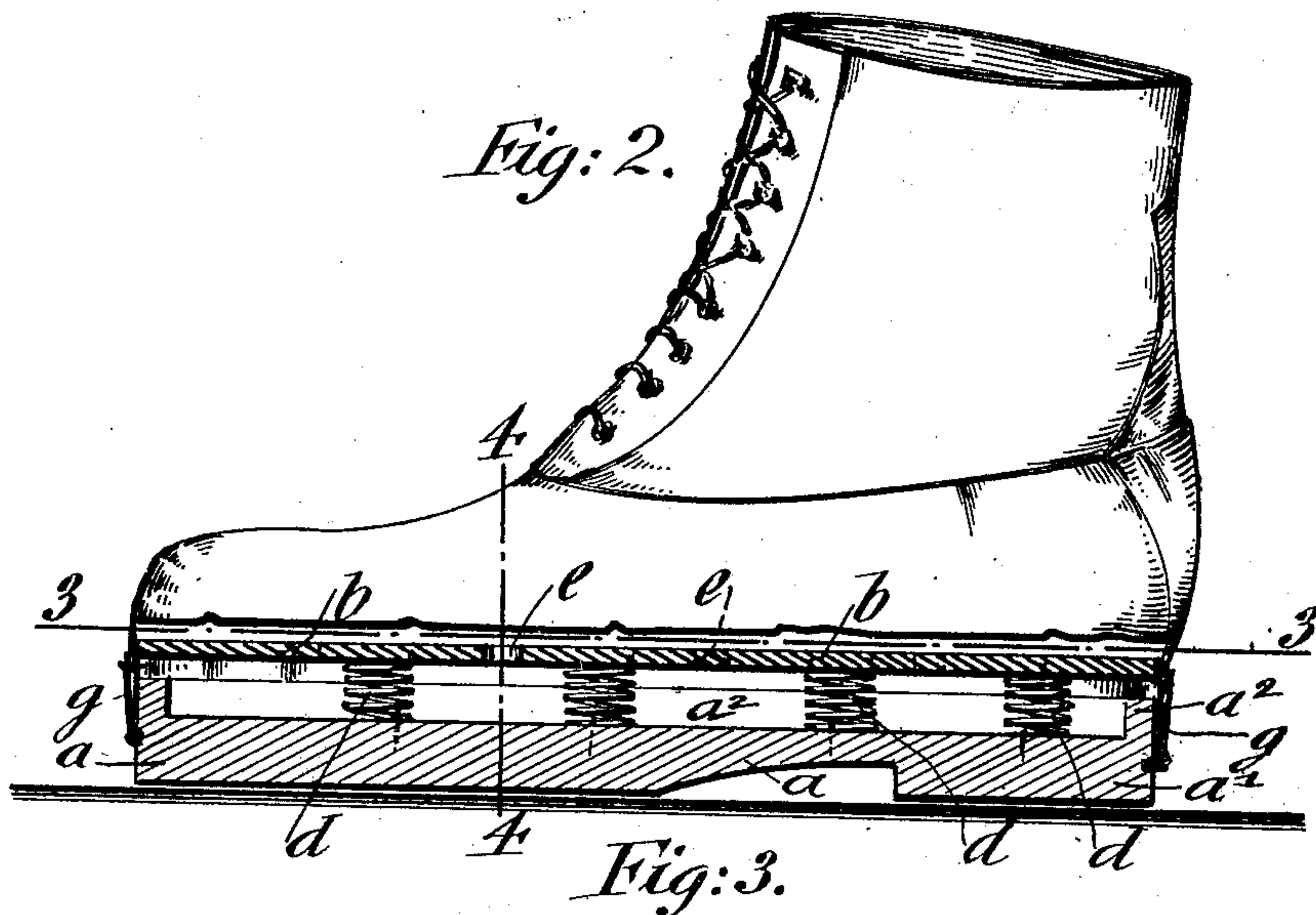


No. 819,449.

PATENTED MAY 1, 1906.

H. OTTERSTEDT.
VENTILATING SOLE.
APPLICATION FILED NOV. 29, 1905.



Witnesses
J. F. Kuhner.
Jacob Roll.

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UNITED STATES PATENT OFFICE.

HENRY OTTERSTEDT, OF NORTH BERGEN, NEW JERSEY.

VENTILATING-SOLE.

No. 819,449.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed November 29, 1905. Serial No. 289,681.

To all whom it may concern:

Be it known that I, HENRY OTTERSTEDT, a citizen of the United States, residing in North Bergen, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Ventilating-Soles, of which the following is a specification.

This invention is intended to provide for motormen, employees of breweries, and other people who are compelled by the nature of their employment to work in moist places or places exposed to cold a shoe having a ventilating-sole, by which not only moisture is prevented from getting to the feet of the person, but by which a continuous ventilation of the foot is accomplished; and for this purpose the invention consists of a ventilating-sole which is made of an outer wooden sole provided with a wooden heel and a depression or rim in its upper side, an inner sole provided with openings and supported on a number of intermediate helical springs that are attached to the outer sole and to the inner sole, and a covering of leather, rubber, or other suitable material attached by means of a fastening-wire in an exterior groove of the outer sole, said covering being doubled up and attached to the upper, so as to form the connection of the same with the ventilating-sole.

In the accompanying drawings, Figure 1 is a perspective view of a shoe with my improved ventilating-sole. Fig. 2 is a side elevation of the shoe shown with my improved sole in vertical longitudinal section, the upper being broken away for this purpose; and Figs. 3 and 4 are respectively a horizontal section on line 3 3, Fig. 2, and a vertical transverse section on line 4 4, Fig. 2.

Similar letters of reference indicate corresponding parts in the different figures of the drawings.

Referring to the drawings, *a* represents an outer sole which is made of wood of suitable thickness in such a manner that the heel *a'* is formed in one piece with the same. The outer sole is provided at its upper side with a rim *a²* and a depression *a³* within the rim. A second inner sole *b*, which is made of wood, leather, or other suitable material, is supported on a number of helical springs *d* on the outer sole, said springs being attached by their upper and lower ends to the outer sole as well as to the inner sole. A number of ventilating-openings *e* are arranged in the inner sole *b*, said openings establishing the

free communication with the space between the outer sole and the inner sole and the free movement of the air through the ventilating-openings at every depression of the inner sole. The outer sole is provided with an exterior groove *e'*, which extends all around the same and the heel and which serves for applying thereto a strip *g* of leather, rubber, or other suitable material by means of a fastening-wire that runs centrally over the strip *g* and is tightly connected, preferably at the heel, by twisting the ends of the wire together. The strip is of sufficient width so that when it is doubled up it will pass over the inner sole and permit the connection to be made with the upper when my improved sole is worked into the shoe.

When the improved shoes are used, the feet are kept perfectly dry and are continually ventilated by every movement of the foot, which is transmitted to the inner spring-cushioned sole, so that the sole of the foot is ventilated by the flow of air through the openings in the inner sole.

The improved ventilating-sole can be manufactured at a comparatively small price, so that the shoes made with the same can be purchased by all who desire to protect their feet against cold and moisture.

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

1. A ventilating-sole consisting of a wooden outer sole provided with a heel made of wood, a rim and a depression within the rim, an inner sole provided with openings, intermediate cushioning-springs between the outer and inner soles, and a connecting-strip attached to the outer sole and adapted to be attached to the upper.

2. A ventilating-sole consisting of an outer sole and heel made of wood, said outer sole being provided with a rim and a depression within said rim, an inner sole provided with ventilating-openings, cushioning-springs between the outer and inner soles, a strip of leather or other suitable material, and means for attaching said strip to the outer sole so as to permit the doubling up and attaching of the same to the upper.

3. A ventilating-sole consisting of an outer sole and heel made of one piece of wood, said outer sole being provided with a rim at its upper edge, an inner sole provided with ventilating-openings, intermediate helical cushion-

ing-springs connected at their upper and lower ends with the inner and outer soles respectively, and a strip of leather or other suitable material attached by means of a fastening-wire to the outer sole, said strip being adapted to be doubled up for connection with the upper.'

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

HENRY OTTERSTEDT

Witnesses:

PAUL GOEPEL,
H. J. SUHRBIER.