

(No Model.)

W. G. ANDERSON.  
HEEL FOR BOOTS OR SHOES.

No. 582,336.

Patented May 11, 1897.

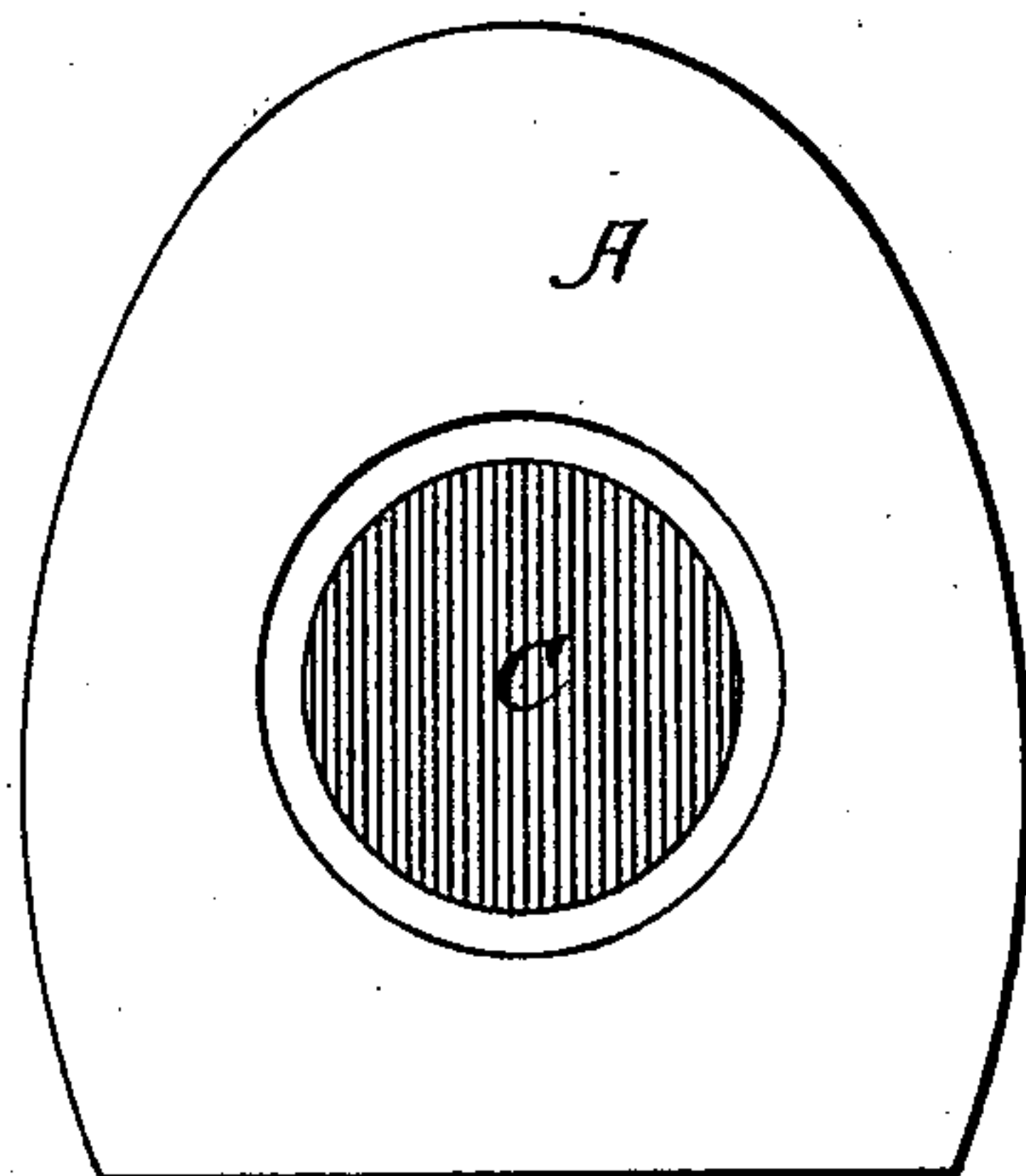


Fig. 1.

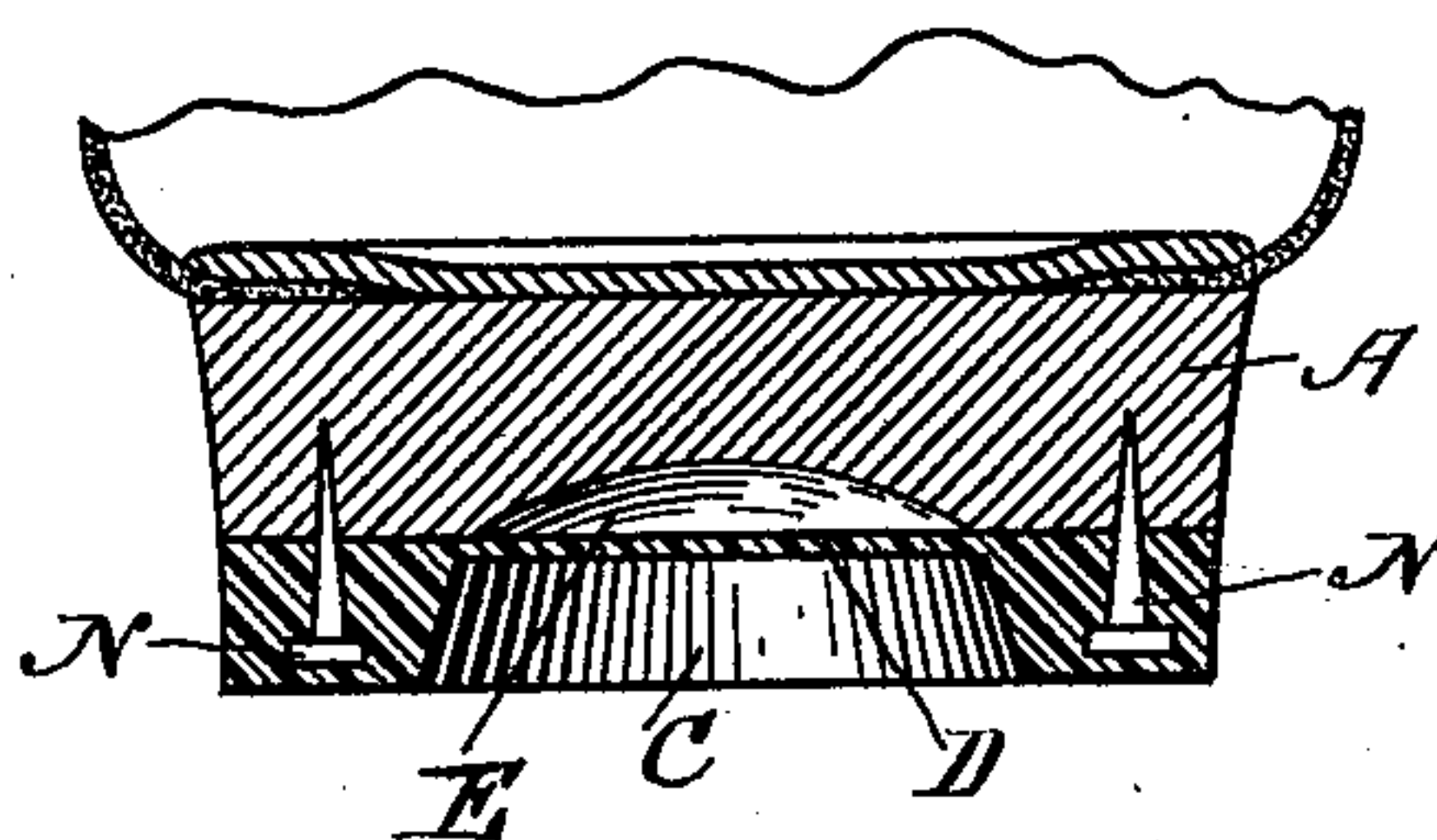


Fig. 2.

WITNESSES

Frank G. Parker  
Frank G. Hatten

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# UNITED STATES PATENT OFFICE.

WILLIAM G. ANDERSON, OF BOSTON, MASSACHUSETTS.

## HEEL FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 582,336, dated May 11, 1897.

Application filed December 19, 1896. Serial No. 616,306. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM G. ANDERSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Heels for Boots or Shoes, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to heels for boots and shoes; and it consists in embodying in a heel a device by which a partial vacuum is formed in a recess made in the tread of the heel, whereby the said heel in use will cling to a smooth surface (ice, for instance) and prevent slipping and will also automatically clear the said recess from any matter that may get into it in the act of walking.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan showing the tread of a boot or shoe heel of my construction. Fig. 2 is a section of the same, taken on line *xx* of Fig. 1.

The body part A of the heel may be made of any suitable material and of any style. That part B that forms the tread of the heel should be of some elastic material—rubber, for instance. This part has a recess C formed in it, as shown, and is provided with an elastic diaphragm D, which separates it from a cavity E, formed in the body part A of the heel.

The parts A and B may be united by nails N N, screws, cement, or by other means. The diaphragm D may be integral with the part B, or it may be a separate part of thin flexible material cemented to the other parts.

The action of my improved heel may be stated as follows: The wearer in stepping puts his weight upon the heel, compressing

the elastic part B, so as to lessen the capacity of the air-recess C, and any tendency to move will cause the space in the recess C to enlarge, thus creating a partial vacuum, which will cause the heel to resist movement—that is, not to slip. When in use, the recess C is very likely to become filled with matter taken up from the street. To prevent such matter from staying in the recess, I form a cavity E in the body part A of the heel. This cavity is separated from the recess C by the elastic diaphragm D. The function of this part of my device is to clear the recess C from any foreign matter that may collect in it. The working is as follows: A collection of dirt, &c., in the recess C will, as it accumulates, fill the whole space and finally force the diaphragm D into the cavity E and compress the contained air until the air-pressure against the diaphragm will be so great as to force the diaphragm outward (when released from the weight of the wearer in the act of raising his foot) and force out all of the foreign matter from the recess, thus restoring the heel to its normal working condition.

I claim—

In combination with a boot or shoe heel an elastic tread-piece having a recess and a diaphragm, and a cavity formed in the body part of the heel immediately above the said diaphragm substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 15th day of December, A. D. 1896.

WILLIAM G. ANDERSON.

Witnesses:

FRANK G. PARKER,  
FRANK G. HATTIE.