

(No Model.)

H. A. WEBSTER.
BUFFING PAD.

No. 505,644.

Patented Sept. 26, 1893.

FIG. 1.

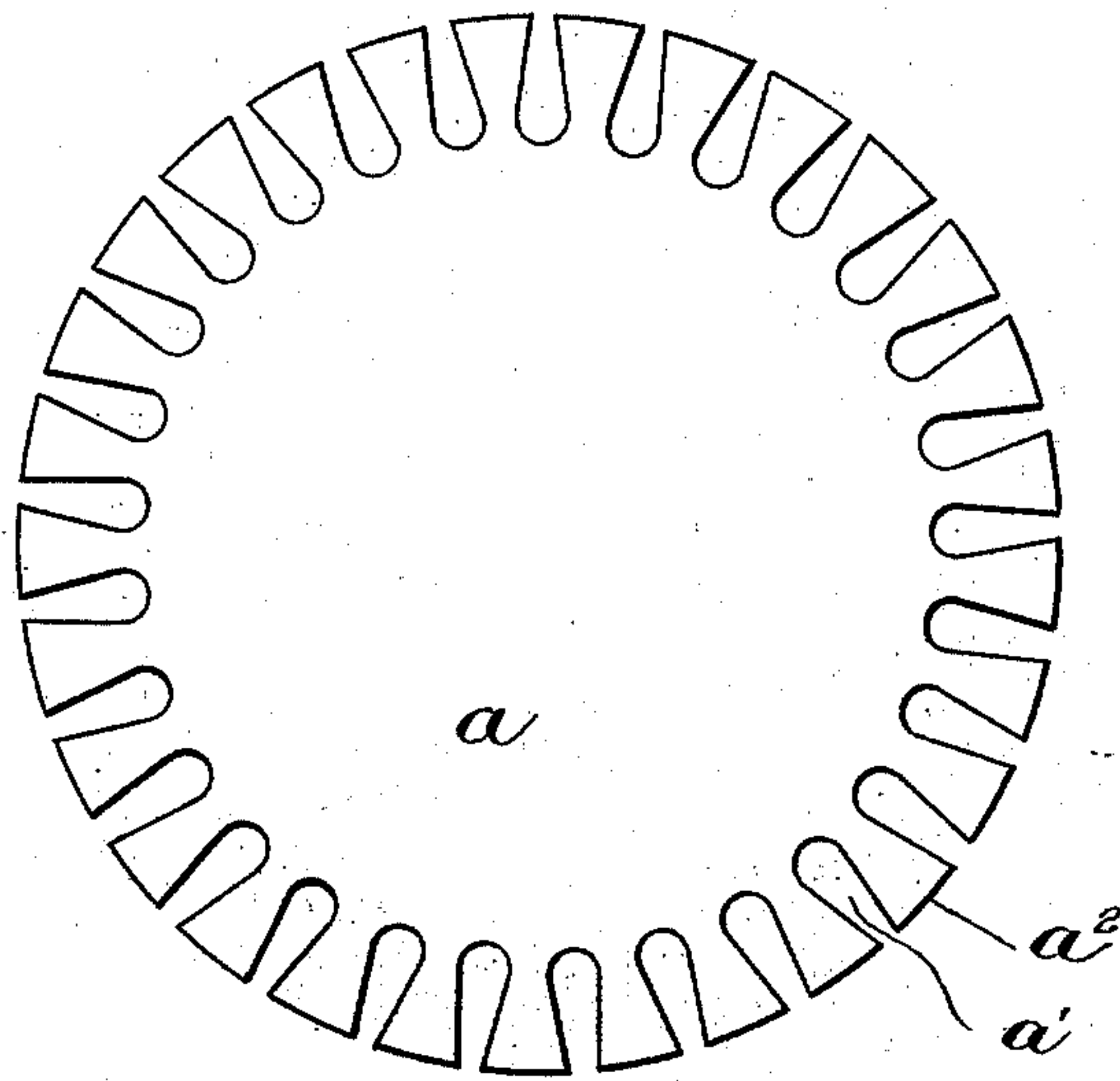


FIG. 2.

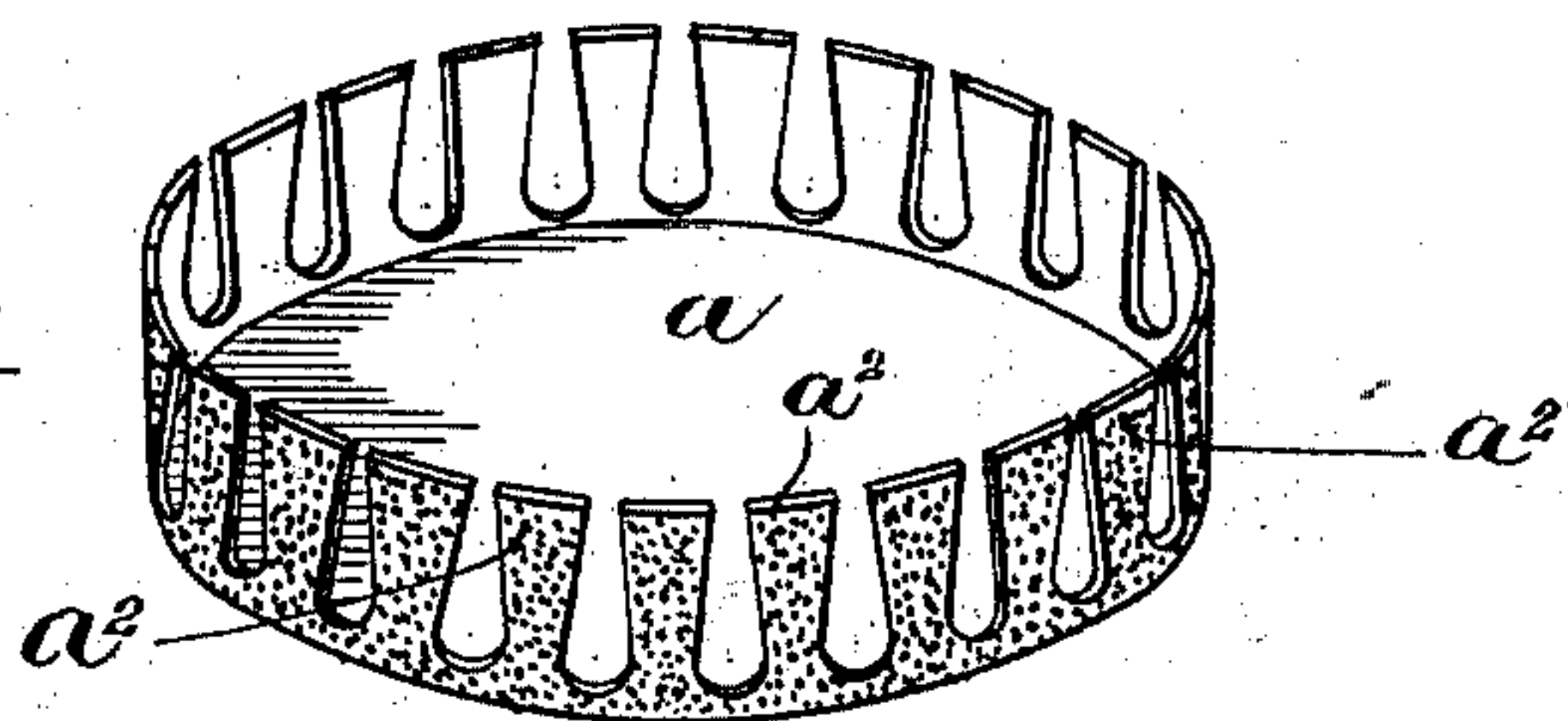


FIG. 3.

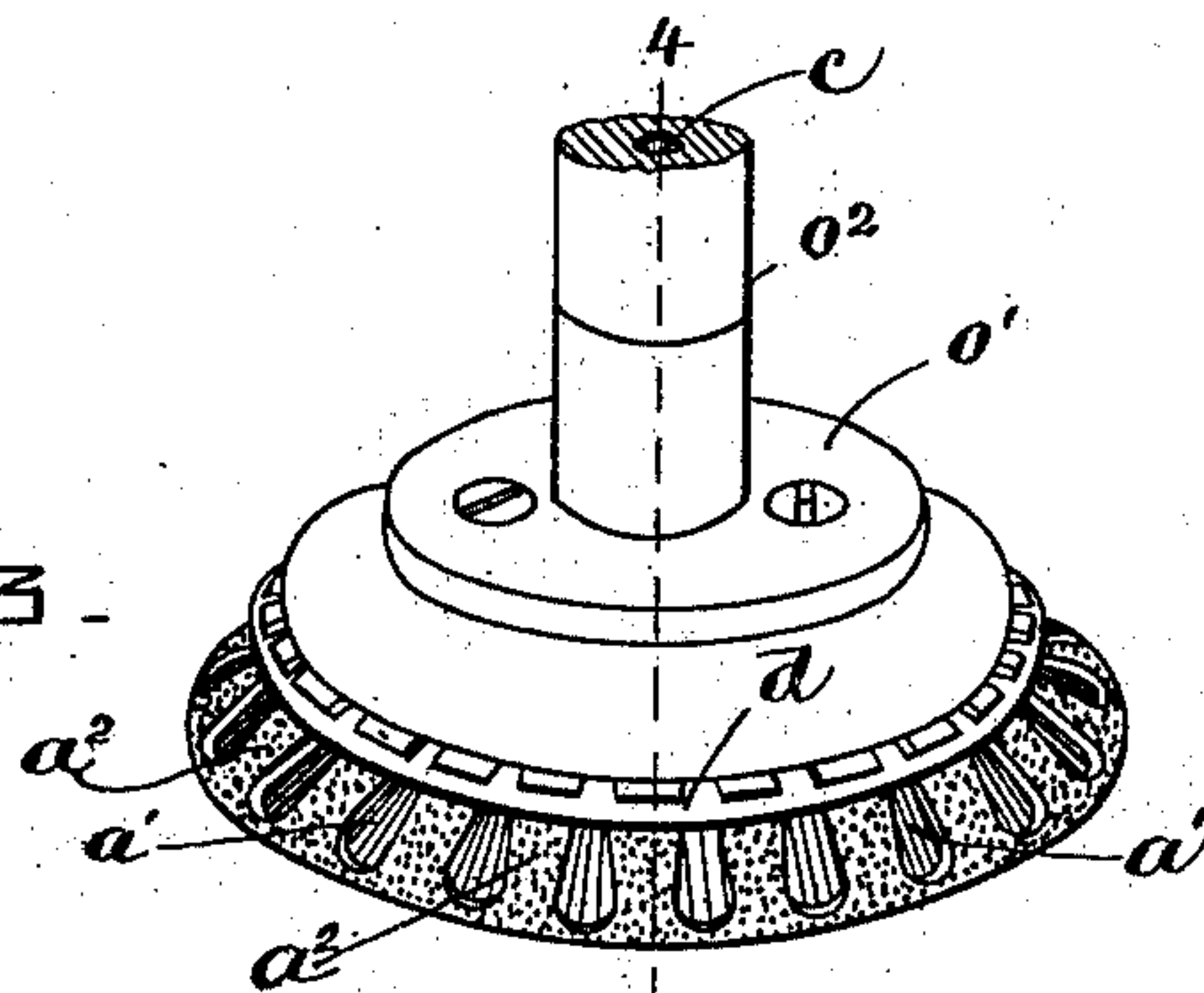


FIG. 4.

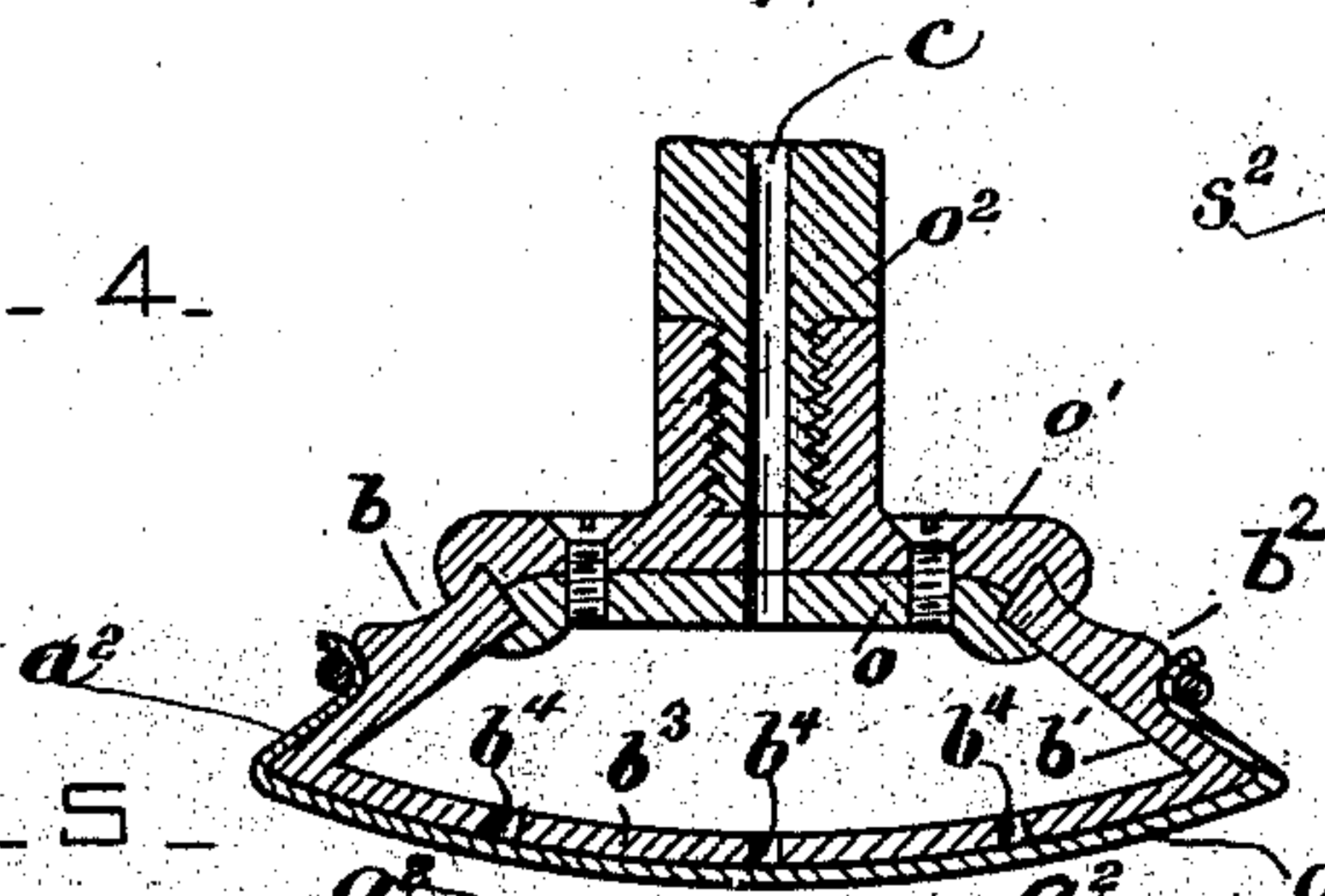


FIG. 5.

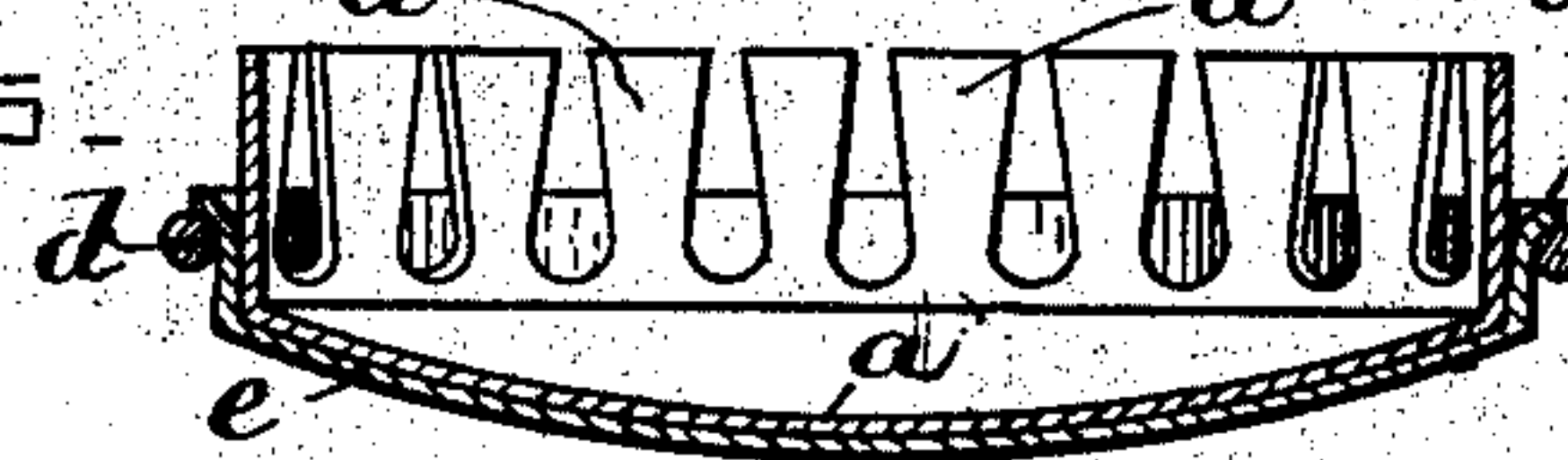
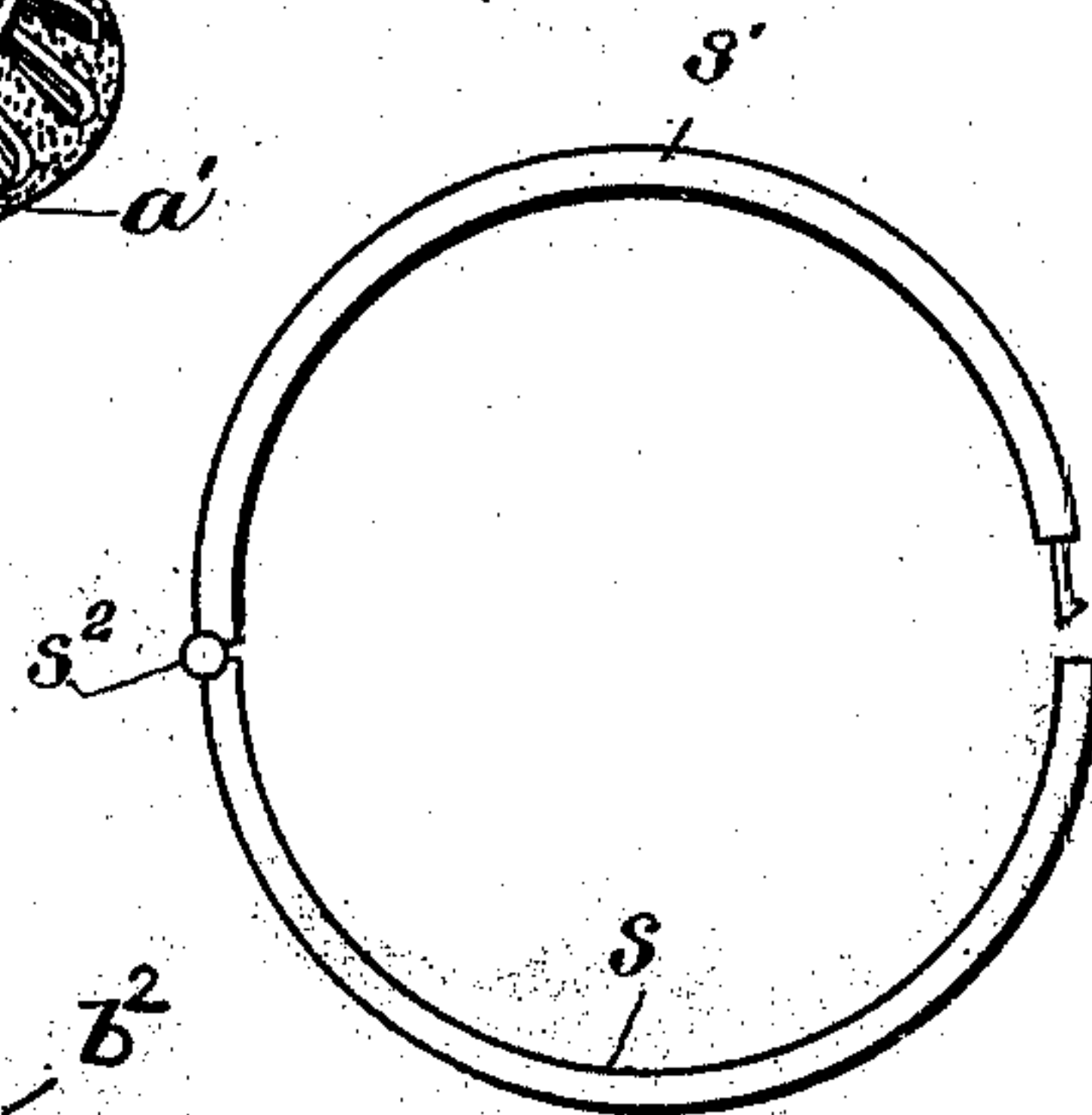


FIG. 6.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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BUFFING-PAD.

SPECIFICATION forming part of Letters Patent No. 505,644, dated September 26, 1893.

Application filed July 7, 1893. Serial No. 479,848. (No model.)

To all whom it may concern:

Be it known that I, HAROLD A. WEBSTER, of Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Buffing-Pads, of which the following is a specification.

This invention relates to buffing-pads for buffing or treating the bottoms of boot and shoe soles and other like articles, in which a disk of cloth or paper, coated on one side with emery or other abrasive material, is placed upon a yielding support, and is rotated rapidly, the axis of rotation being substantially at right angles to the plane of the abrasive surface of the pad.

The invention has for its object to provide an improved form of pad, adapted to be quickly and securely applied to the holder or carrier which supports it, and to be as readily removed when worn out.

The invention also has for its object to provide an improved form of holder or carrier, adapted to co-operate with the improved form of pad, and to these ends the invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming part of this specification: Figure 1 represents a plan view of a buffing-pad constructed in accordance with my invention, the pad being in a flat condition. Fig. 2 represents a perspective view of the pad, showing its margin turned up, preparatory to being applied to a holder or carrier. Fig. 3 represents a perspective view of a holder or carrier and a pad secured thereto, all in accordance with my invention. Fig. 4 represents a section on line 4—4 of Fig. 3. Fig. 5 represents a sectional view, showing an appliance used in placing the pad upon its holder or carrier. Fig. 6 represents a modification of the clamping device.

The same letters of reference indicate the same parts in all the figures.

In carrying out my invention, I make a pad by cutting out a flat sheet or blank a from a piece of cloth, paper or other suitable flexible material, coated on one side with suitable abrasive material, such as emery. The blank a is made in substantially circular form, and in its margin are formed numerous slots or recesses a' , which subdivide the marginal por-

tion of the pad into tongues or ears a^2 . I prefer to make the slots in the form shown in Fig. 1, each slot being preferably rounded at its inner end and gradually contracted in width from its inner to its outer end. I find that, by making the slots in this form, that is, with comparatively wide inner ends, the pad may be molded or turned upwardly on a line somewhat inside the inner ends of the slots, as shown in Fig. 2, without forming any angles or protuberances on the line of turning, and that the contraction of the slots at their outer ends gives the tongues sufficient width to enable them to be securely held by the clamping device hereinafter described. By thus molding or preparing the pad, I provide the same with a flange, which includes the tongues and is formed to surround the seat on the pad-holder hereinafter described, so that the pad can be quickly and easily applied to the holder. After the slots and tongues are formed, the marginal portion of the pad, including said tongues, is bent upwardly, by a suitable molding process, substantially at right angles with the main or operative portion of the pad, as shown in Fig. 2, thus forming the flange above mentioned, and the pad in this condition is applied to a holder or carrier b . Said holder or carrier is preferably made of elastic or yielding material, as shown in Letters Patent No. 490,419, dated January 24, 1893, and is preferably provided with an air-chamber, communicating through an air-duct c with a source of air-supply, as shown in said patent. The holder has a circular margin, above which is a seat b' , which, as here shown, is beveled or inclined, and is formed to support the tongues a^2 when said tongues are bent inwardly against said seat, as shown in Figs. 3 and 4.

The tongues a^2 of the pad may be confined upon the holder by means of an elastic band d , formed to contract upon the tongues and press them closely against the seat, as shown in Figs. 3 and 4. To aid the band d in holding the tongues in place, I prefer to provide the holder b with a shoulder or projection b^2 , which constitutes a wall formed to support the tongues against the inward pressure exerted upon them by the contraction of the band.

In practice, I prefer to apply the pad to the holder in the following manner: The tongues a^2 being turned upwardly, as shown in Fig. 2, I place the pad in a sheet-metal box or holder e , having a narrow marginal portion or rim e' , of sufficient width to support the band d , and of such diameter as to hold the band in a distended position. I then place the pad upon the holder, pressing the main or operative portion of the pad against the holder, thus causing the tongues to project above the margin of the holder. I then press the band e upwardly, off from the margin of the box, thus allowing it to contract upon the holder and find its place, as indicated in Figs 3 and 4. It will be seen that the pad is thus quickly and securely applied to the holder, and may be as readily removed by pulling off the ring d .

I do not limit myself to the employment of a chambered holder or carrier b , as the described improvements may be used upon a holder which is not provided with an air-chamber.

The holder is here shown as clamped between two metal disks or collars comprising a rigid head, which is suitably secured to a shaft o^2 in which the air duct c is formed. The holder is also shown as provided with a bottom b^3 which forms one side of the air chamber communicating with the duct c , and extends across the inner side of the operative side of the pad. Said bottom is preferably provided with one or more orifices b^4 , which permit air to pass through the bottom b^3 into contact with the pad, thus preventing the latter from being overheated by friction. The bottom b^3 may be made integral with the holder, or in a separate piece attached thereto, and both the holder and the bottom may be of any suitable flexible material, such as rubber, canvas, leather, &c. The seat b' , made integral with the bottom b^3 and of elastic or yielding material, constitutes a frictional support, which prevents slipping of the tongues of the holder, and is more effective in this respect than would be the case if the seat were of rigid material.

The tongues of the pad may be secured to the holder by means of any other suitable de-

vice or clamp, and I do not limit myself to the employment of an elastic ring or band.

If desired, a metal clamp may be employed composed of two parts $s s'$ hinged together at s^2 , like a bracelet and having suitable locking devices at their swinging ends, the whole being adapted to be applied and removed like a bracelet.

I claim—

1. As an article of manufacture, a buffing-pad, marginally slotted or recessed to form a series of tongues, and molded to form a flange which includes said tongues, said flange standing substantially at right angles with the acting face of the pad, whereby the pad is adapted to be readily applied to a holder having a seat for said tongues, as set forth.

2. As an article of manufacture, a buffing-pad, having in its margin tapered slots or recesses forming a series of tapered tongues which are widened at their outer portions, the pad being molded to form a flange which includes said tongues and stands substantially at right angles with the acting face of the pad, said flange being bent from the body of the pad along a line somewhat within the inner ends of the slots, so that the margin of the acting face of the pad is continuous or unbroken, as set forth.

3. A buffing-pad holder, having an elastic pad-supporting face, and an elastic tapering or frusto-conical seat surrounding said face and arranged at an acute angle therewith, said seat having a shoulder at its upper portion; combined with a pad marginally slotted or recessed to form a series of tongues, and molded to form a flange which includes said tongues, the flange being formed to surround said seat; and a clamp adapted to press the upper portions of said tongues against the seat and shoulder; as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 26th day of June, A. D. 1893.

HAROLD A. WEBSTER.

Witnesses:

C. F. BROWN,

A. D. HARRISON.