

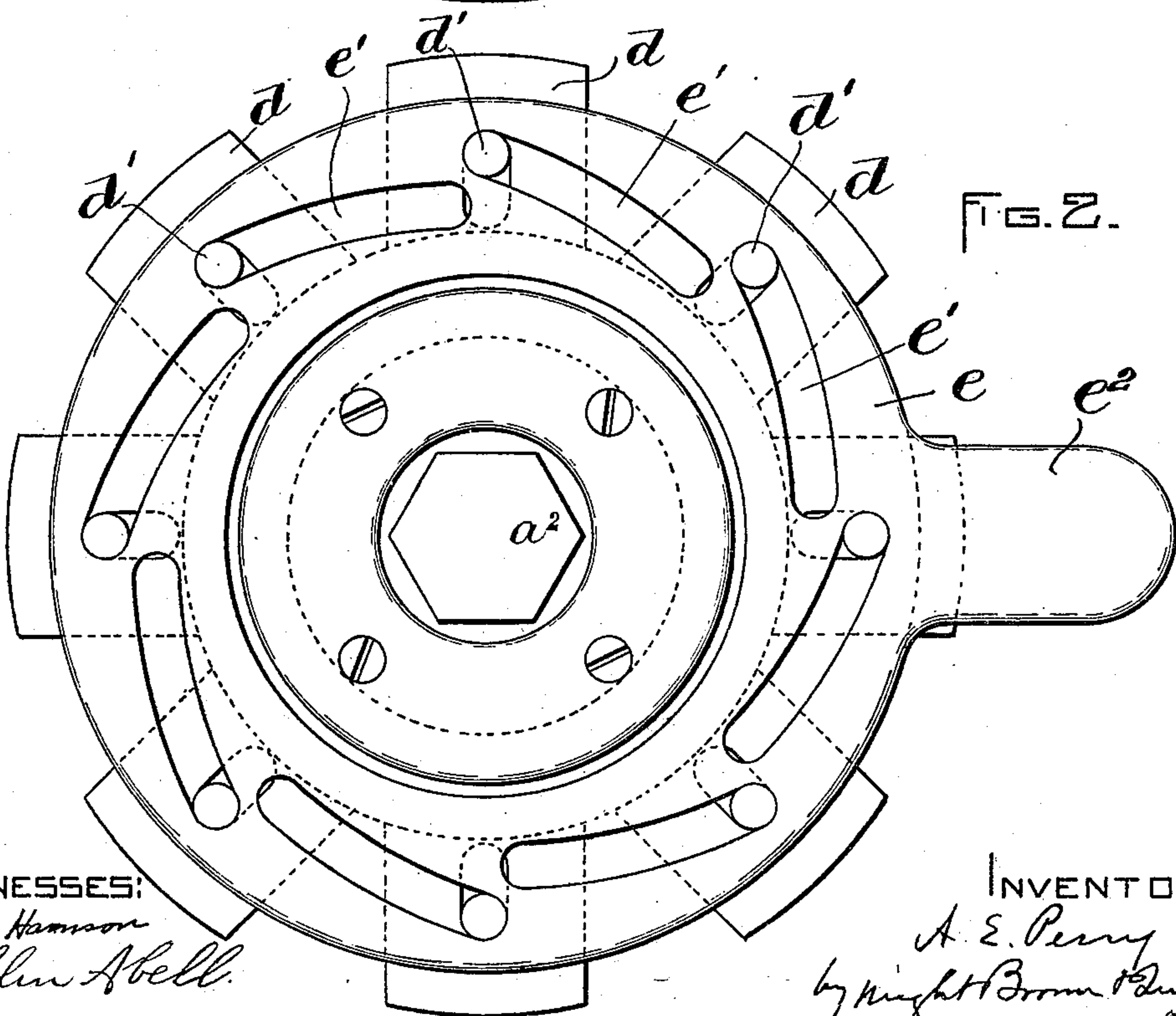
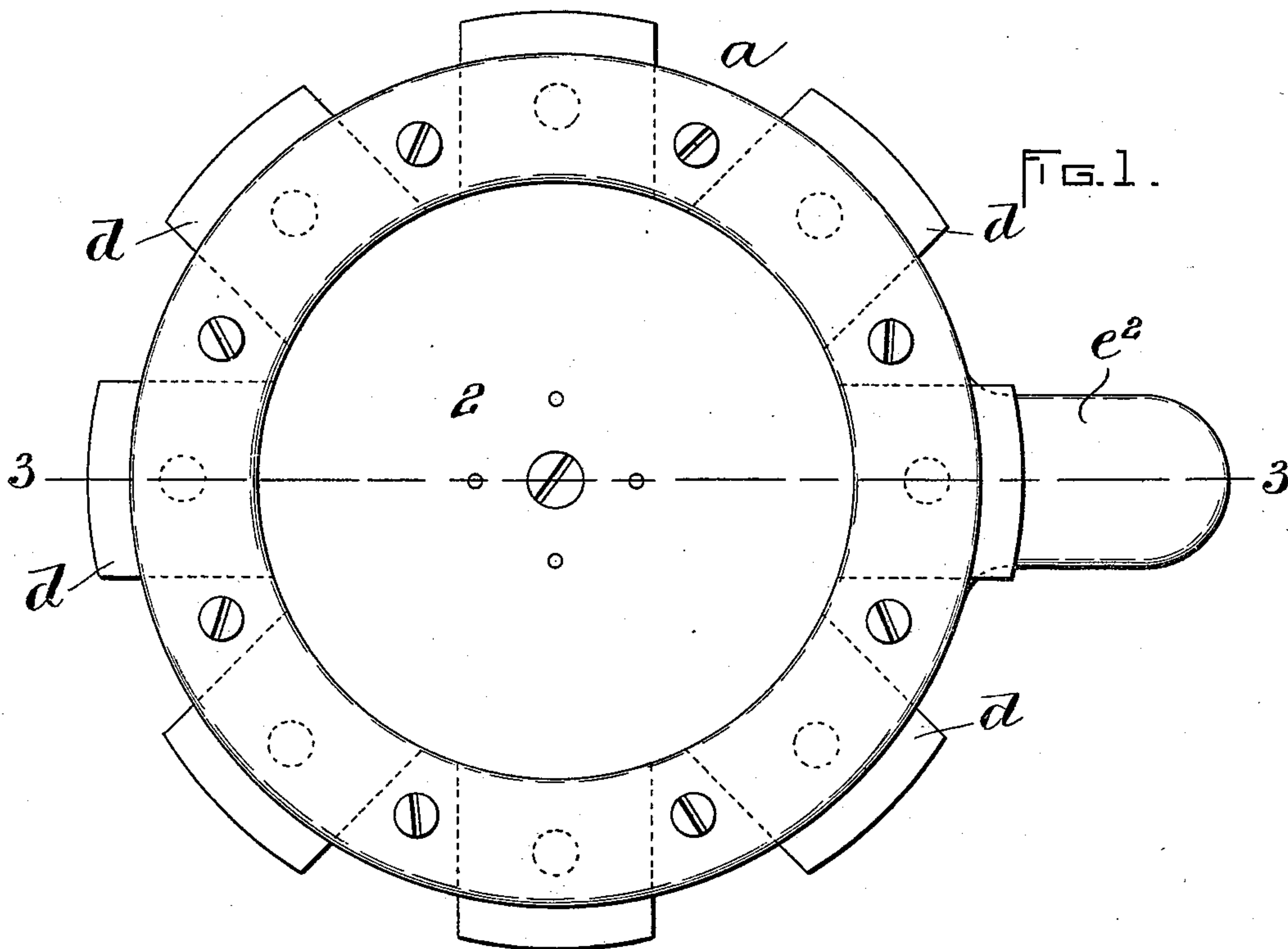
(No Model.)

2 Sheets—Sheet 1.

A. E. PERRY.
BUFFING PAD ADJUSTER.

No. 541,675.

Patented June 25, 1895.



WITNESSES:
A. D. Hanson
Rollin Abell

INVENTOR:
A. E. Perry
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Attys.

(No Model.)

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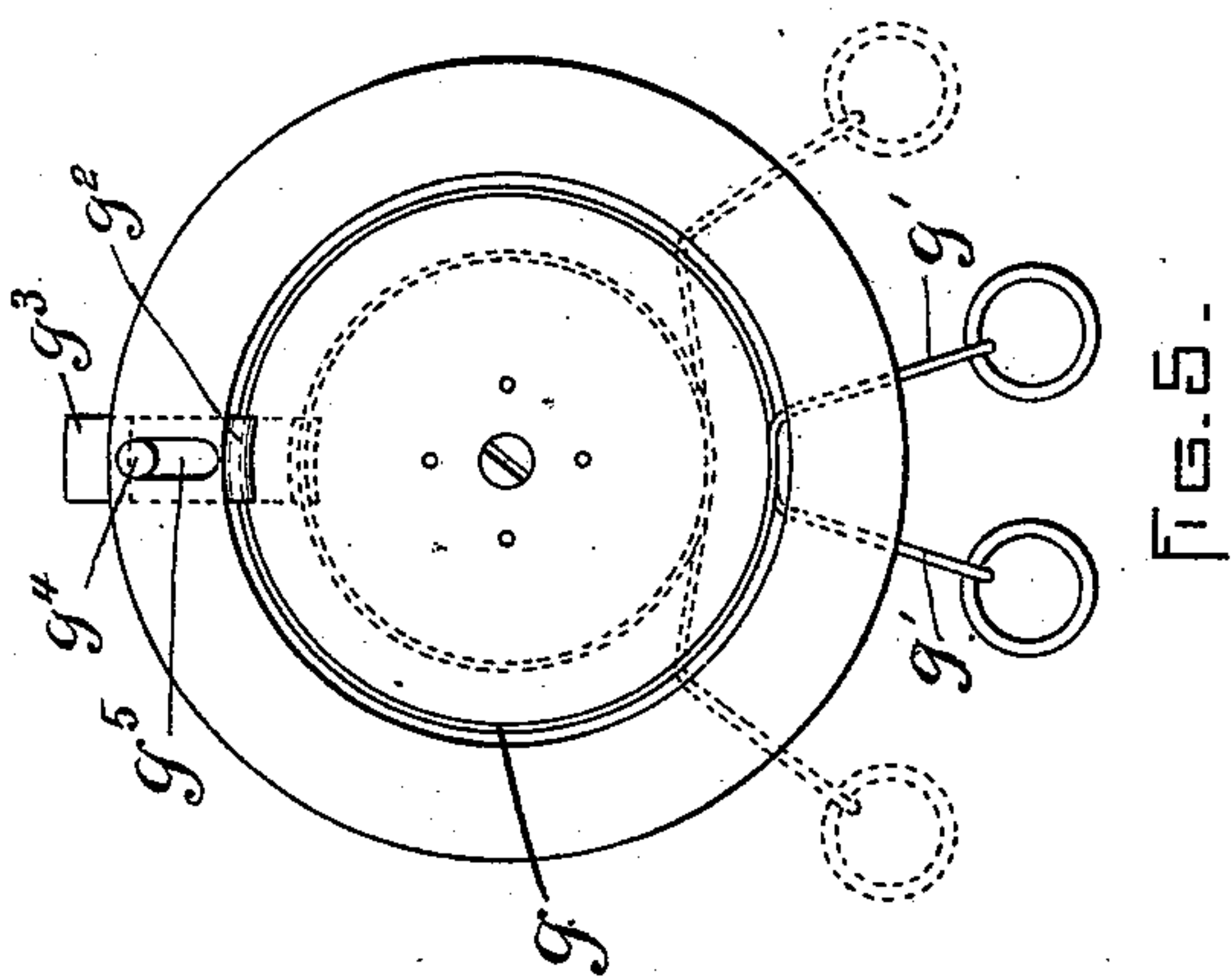
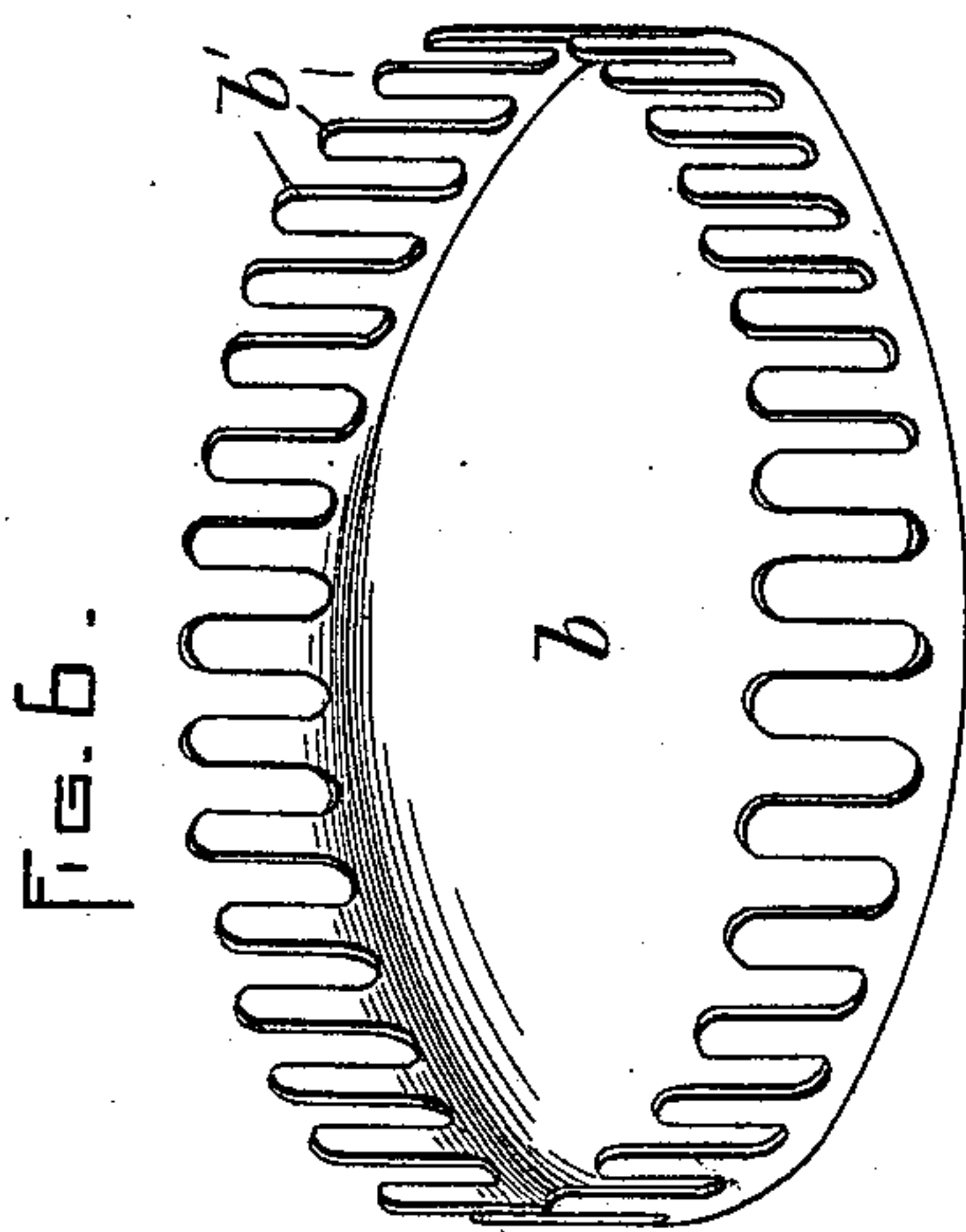
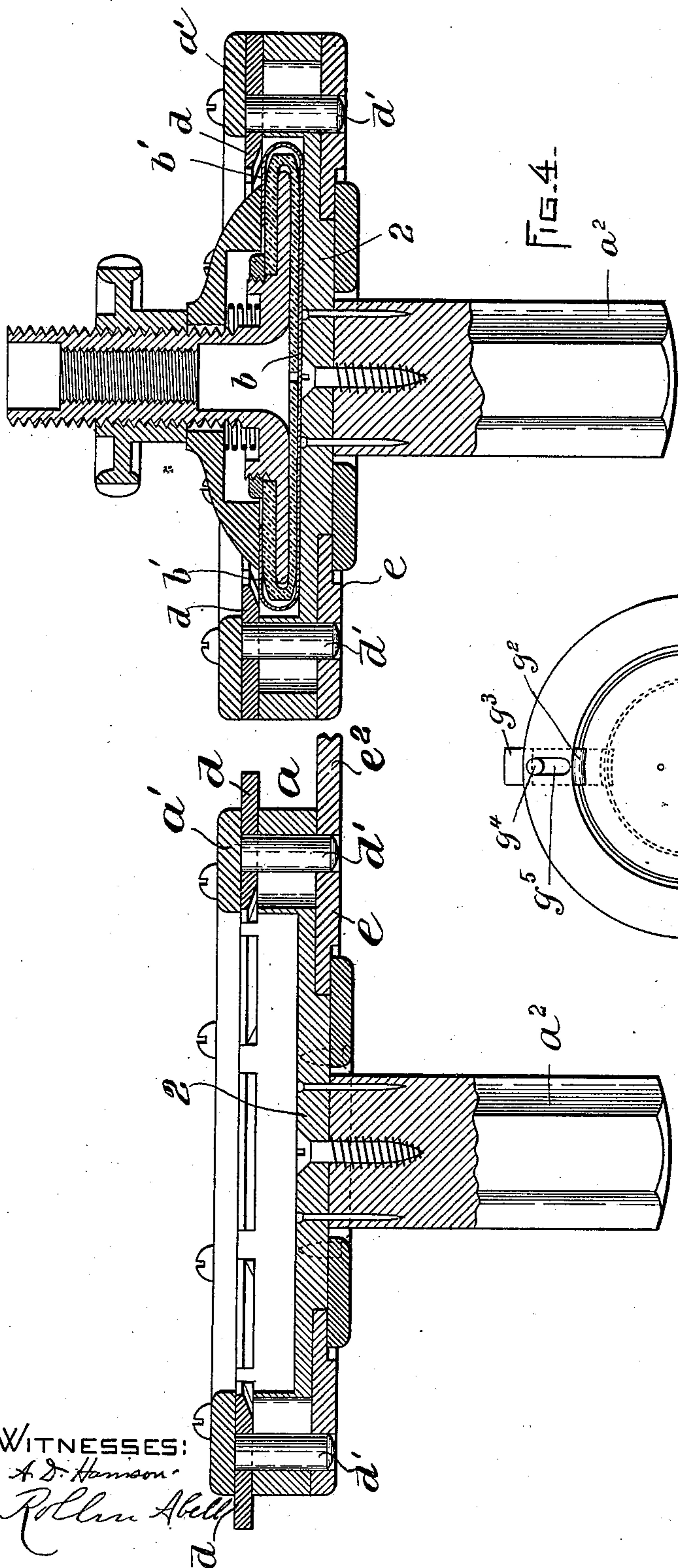


FIG. 3.

FIG. 5.

FIG. 4.

FIG. 6.

WITNESSES:

A. D. Hanson.

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UNITED STATES PATENT OFFICE.

AUSTIN E. PERRY, OF WAKEFIELD, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO SIDNEY W. WINSLOW, TRUSTEE OF THE NAUMKEAG BUFFING MACHINE ASSOCIATION.

BUFFING-PAD ADJUSTER.

SPECIFICATION forming part of Letters Patent No. 541,675, dated June 25, 1895.

Application filed October 8, 1894. Serial No. 525,196. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN E. PERRY, of Wakefield, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Buffing-Pad Adjusters, of which the following is a specification.

This invention relates to means for applying a flanged or tongued buffing pad of circular form to a circular holder.

The holder referred to has a shank affixed to a rotary spindle and a pad-supporting face arranged at right angles to the shank and spindle and formed to support a disk-shaped pad coated with abrasive material, the holder having upon its back a seat adapted to support a series of tongues formed on the marginal portion of the pad and bent over the margin of the holder and inwardly toward the shank or axis of rotation. The holder also has a presser which is adjustable and is adapted to press the inwardly-turned tongues against the seat on the holder.

The pad referred to is or may be of the construction shown in Letters Patent to Harold A. Webster, No. 505,644, dated September 26, 1893, it being composed of a disk of suitable flexible material having an abrasive coating, such as the ordinary emery cloth of commerce, having its marginal portion slotted to form a series of radial tongues adapted to be bent over the margin of the circular holder above referred to, and to be pressed down against the seat on the back of said holder. As the pad is rapidly worn out in the use to which it is put in buffing or cleaning bottoms of boot and shoe soles, it is necessary to frequently remove a worn pad and replace it with a new one; and it is the object of the invention to provide means whereby a pad may be quickly and accurately applied to the holder in position to be secured by the presser thereof.

The invention consists in a pad adjuster comprising a holder or base having a seat for the face of the pad, and a contractible tongue bender adapted to simultaneously turn the tongues of the pad from a substantially vertical position inwardly over the pad-tongue seat

and to hold them on said seat while the presser is being adjusted to clamp them to the seat.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top view of a pad adjuster embodying my invention. Fig. 2 represents a bottom view of the same. Fig. 3 represents a section on line 3 3 of Fig. 1. Fig. 4 represents a similar section showing the adjuster applied to a pad holder and adjusted to bend the tongues over upon the pad-tongue seat. Fig. 5 represents a plan view of a modification. Fig. 6 represents a perspective view of one of the pads.

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

Referring to Figs. 1, 2, 3, and 4, *a* represents a base or holder which is preferably of circular form and comprises a flat seat or surface 2 to support the face of a pad *b*, said pad being of circular form and provided at its margin with a series of tongues *b'*, as shown in said Webster patent. In manufacturing said pad, it is molded so that the tongues stand substantially at right angles with the body or face of the pad, as shown in Fig. 6, so that when the face of the pad rests upon the seat 2, the tongues stand out from said seat practically at right angles therewith. The holder *a* also comprises a tongue bender which is constructed to surround a series of tongues standing out from the seat 2, and is adapted to simultaneously bend said tongues inwardly and lay them down upon the seat of the pad holder. I prefer to make said tongue bender of a series of radially movable plates *d* which are movable in slots or guides formed in an annular flange or wall *a'* forming a part of the holder and surrounding the seat 2. Each plate *d* is provided with a downwardly projecting stud *d'*, said studs projecting through radial slots in the holder *a* and entering cam-shaped slots *e'* in a ring or plate *e* which is partially rotatable upon the holder *a* and bears against the under side thereof, said plate *e* having a handle *e²* whereby it may be partially rotated first in one direction and then in the other.

It will be seen that a movement of the plate

e in one direction will cause the cam-shaped slots e' acting on the studs d' to move the plates d radially inward; and as said plates are formed to bear upon the outersides of the pad tongues, it follows that the inward movement of the plates will bend the tongues simultaneously inward, and cause them to lie flat on the tongue seat of the pad holder. A movement of the plate e in the opposite direction will retract the plates d .

The preferred mode of operation of the device is as follows: The plates d being retracted, the pad is placed on the seat 2 with its tongues standing out therefrom, and then the operator holding the device in one hand by means of a handle a^2 , applies it to the pad holder, which is supposed to be in its position on an organized machine provided with a power-driven shaft to which the shank of the holder is affixed. The operator then with the other hand moves the plate e in the direction required to move the plates d inwardly, and thus bend the tongues over the pad seat. While the tongues are held in this position, the presser or clamp on the holder is brought down to secure the tongues to the seat, after which the plates d are retracted and the device removed, leaving the pad in place on the holder. The under sides of the plates d are preferably beveled at their inner edges, as shown in Figs. 3 and 4.

I do not limit myself to the described construction, particularly of the tongue bender. In Fig. 5 I show a modification in which the tongue bender, instead of being composed of a series of radially movable plates, is composed of a contractible wire clamp g , here shown as composed of a continuous piece of wire bent to form a loop or practically continuous ring formed to surround the series of pad tongues, the end portions of the wire being crossed and bent outwardly to form handles $g' g'$. The central portion of the wire is engaged with an ear or socket g^2 formed on a plate g^3 which has a pin g^4 entering a slot g^5 in the flange a' of the holder, the socket g^2 being thus adapted to slide toward and from the center of the holder, as far as the length of the slot g^5 will permit. In operating this modification, the pad is placed in the holder as before, the wire g embracing the series of tongues, and then the operator grasping the handles $g' g'$ draws the socket g^2 and the part of the wire engaged therewith toward the center of the holder, and by moving the handles away from each other contracts the wire and thus causes it to press the tongues inwardly and bend them over upon the tongue seat si-

multaneously, or practically so, the wire being held in this position while the tongues are being secured.

It is obvious that other modifications may be employed without departing from the spirit of my invention. I believe myself to be the first to make a pad-adjusting device comprising a seat for the face of the pad, a tongue bender surrounding the seat and raised above the same and provided with means for contracting and expanding it so that it may be caused to bend the tongues over the seat on the pad holder and then extended to permit the separation of the pad holder and pad from the adjusting device. I therefore do not limit myself to the particular devices here shown whereby the result above described is attained.

The described device may be used to fold over a continuous flange formed on the margin of a buffing-pad, or in other words a flange that is not divided into sections or tongues. Such a flange might be formed, for example, by subjecting the disk from which the pad is made to the action of dies formed to bend up the marginal portion of the disk and thus form a flange which stands up from the body of the pad. This flange can be folded over by the devices above described, and held by said devices while it is being secured by the presser.

I claim—

1. A buffing-pad adjuster comprising a base or holder and a bender on said base adapted to bend a flange or a series of tongues inwardly, as set forth.

2. A buffing-pad adjuster comprising a base or holder, a bender composed of a series of plates movable radially in a plane upon said base, and means for simultaneously moving said plates inwardly, as set forth.

3. A buffing-pad adjuster comprising a base or holder having a seat for the face of the pad and a flange surrounding said seat, a series of plates movable in guides in said flange and provided with studs, and an operating plate movable on the holder and provided with cam-shaped slots engaged with said studs, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 2d day of October, A. D. 1894.

AUSTIN E. PERRY.

Witnesses:

C. F. BROWN,
A. D. HARRISON.