

No. 734,952.

PATENTED JULY 28, 1903.

J. A. READE, JR.  
MASSAGE APPARATUS.

APPLICATION FILED FEB. 19, 1903.

NO MODEL.

3 SHEETS—SHEET 1.

Fig. 1.

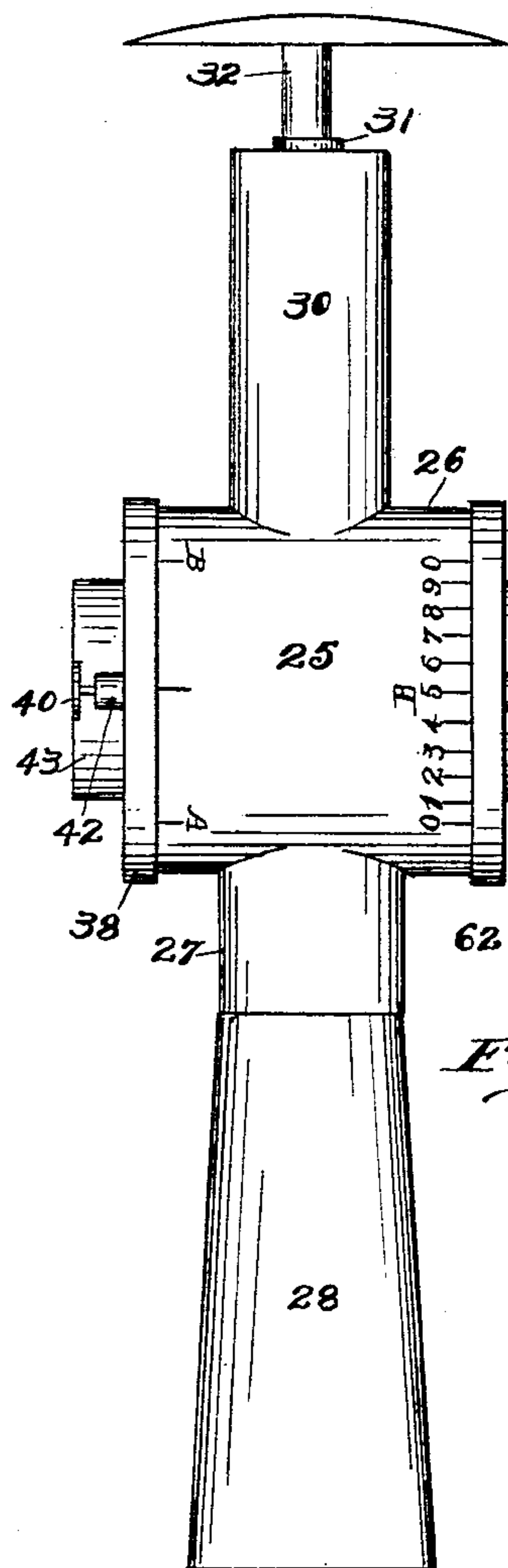


Fig. 2.

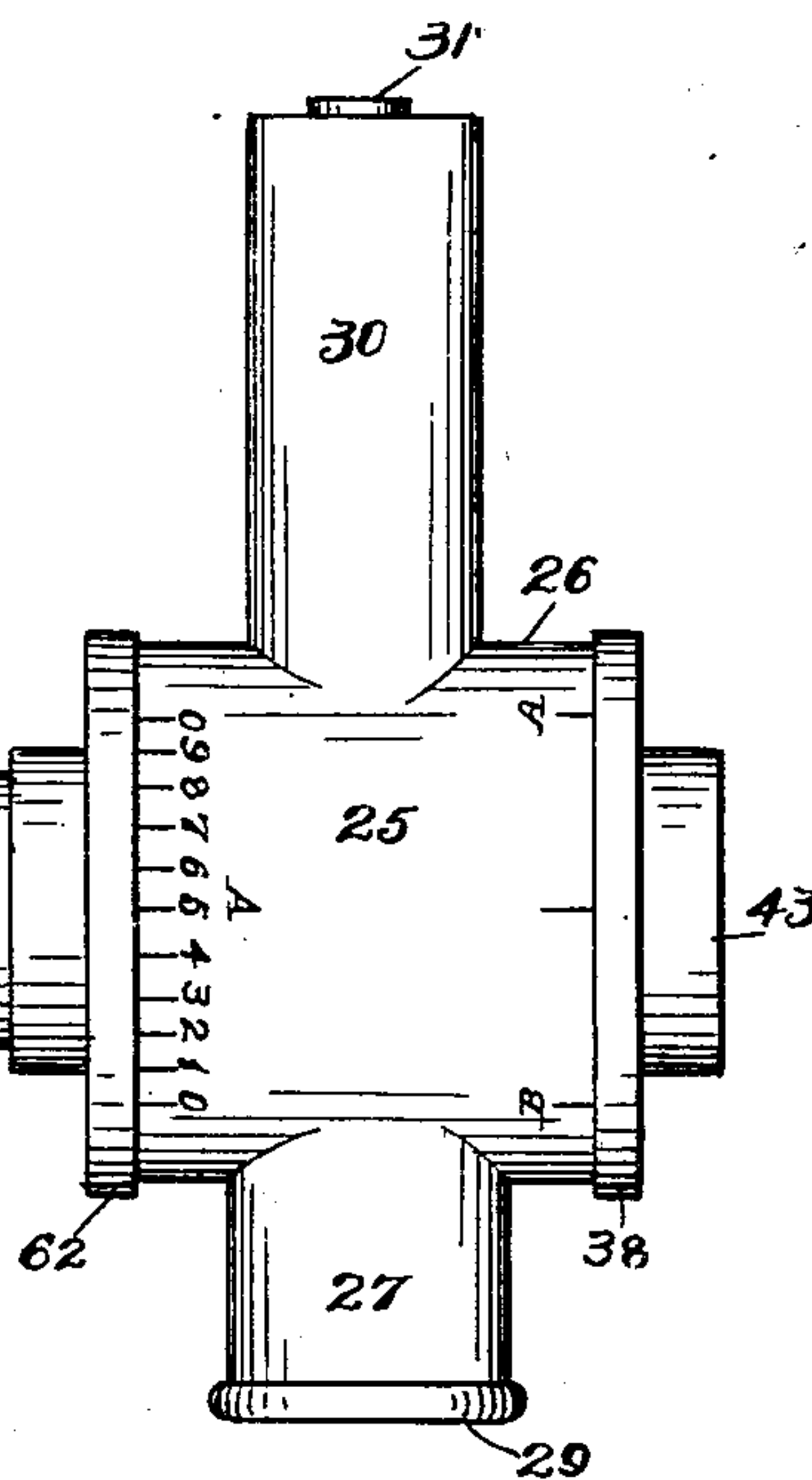


Fig. 3.

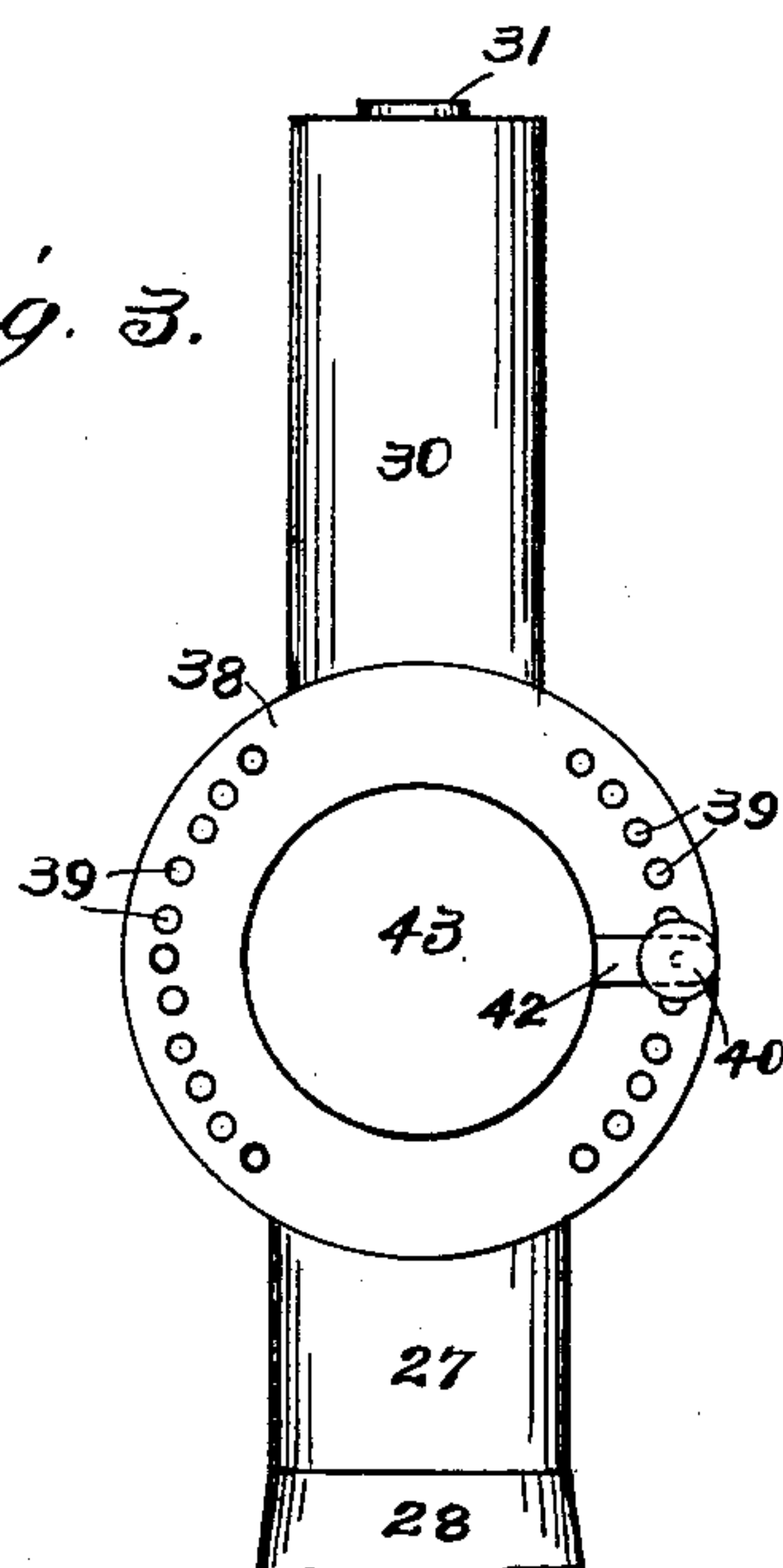
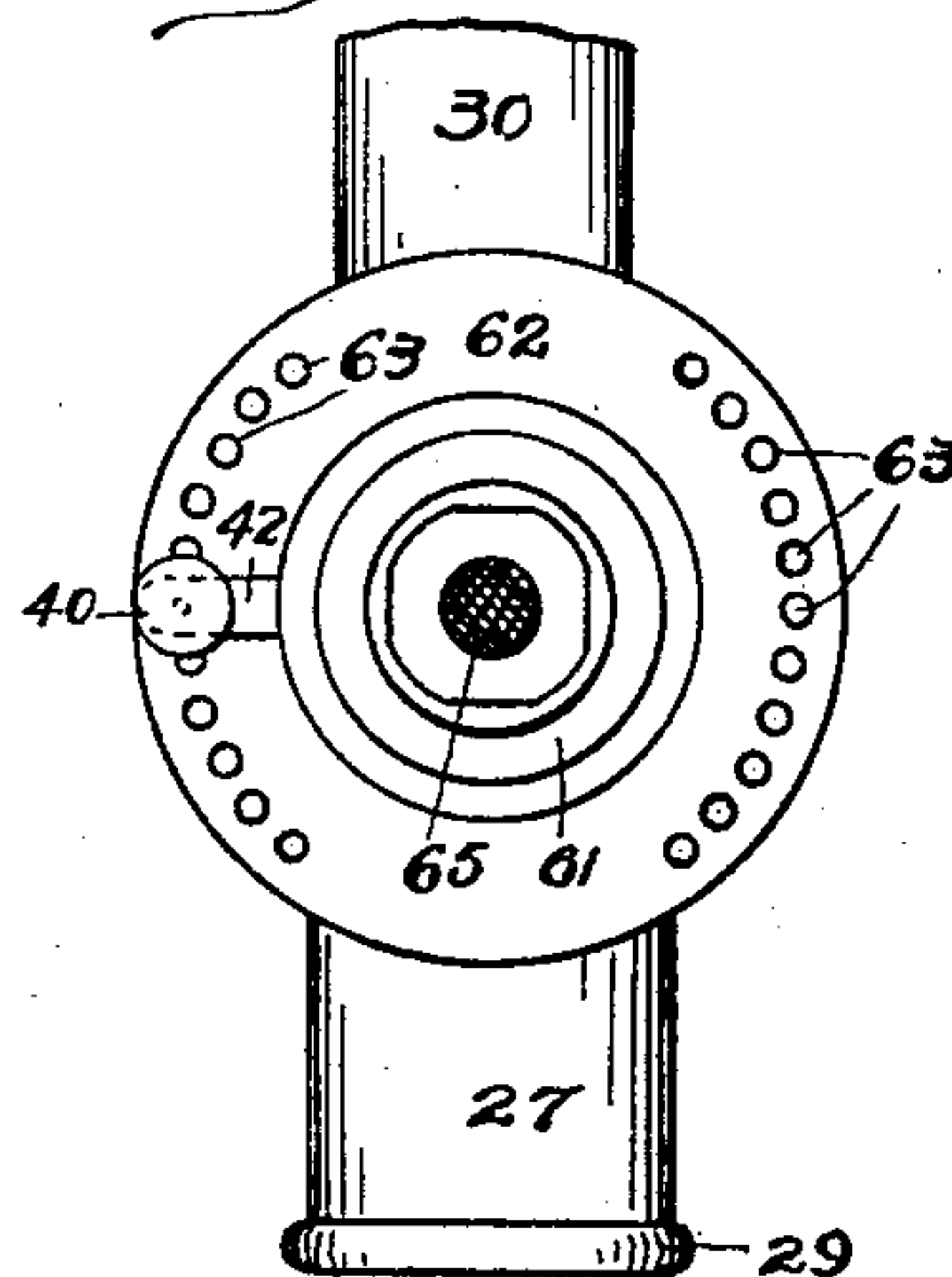


Fig. 4.



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3 SHEETS-SHEET 2.

Fig. 6.

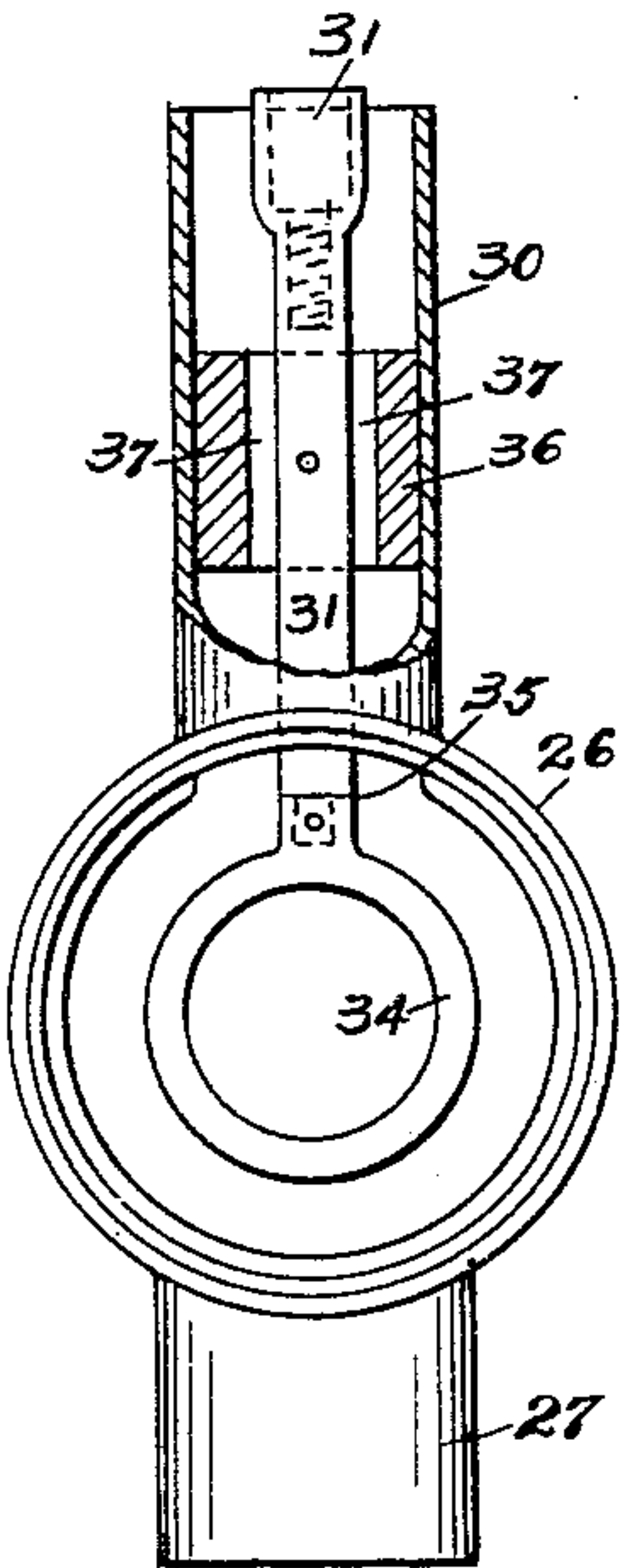


Fig. 10.

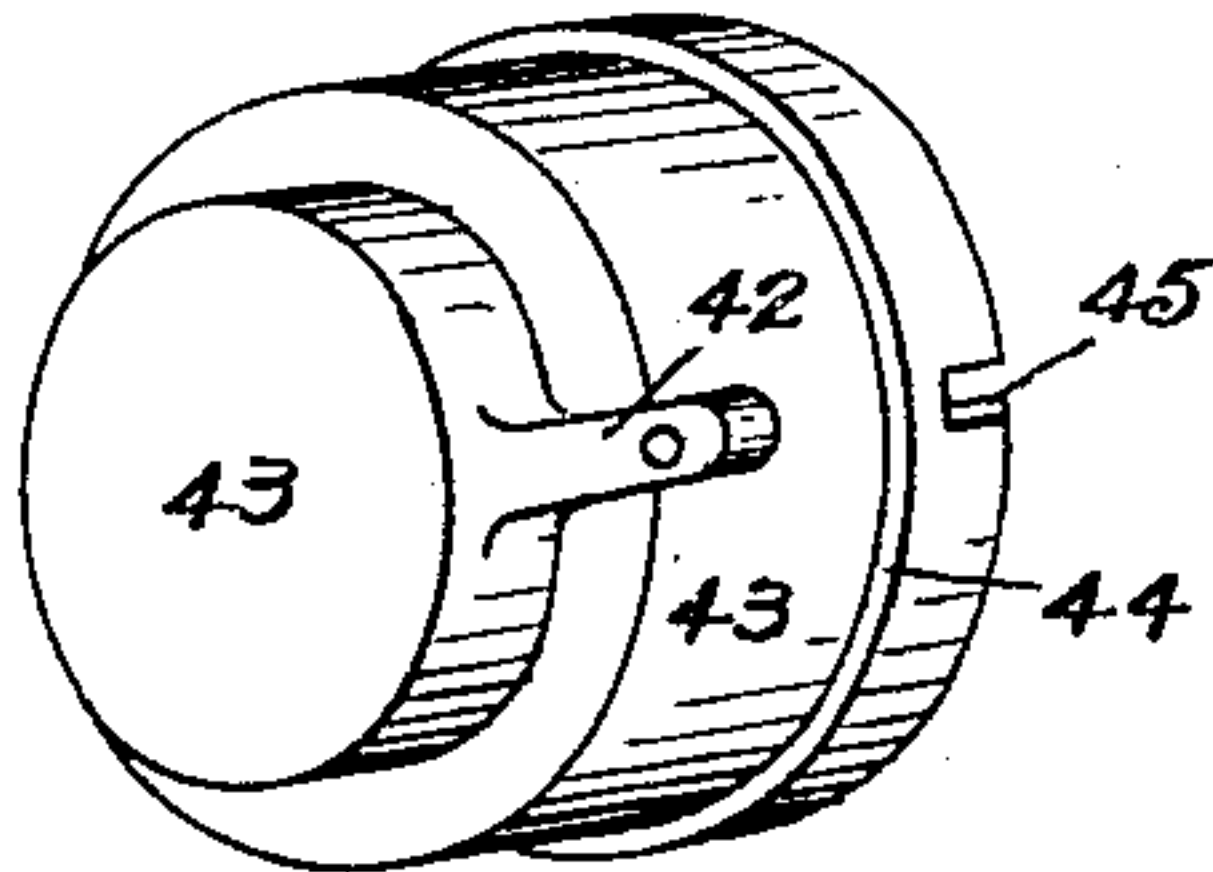


Fig. 5.

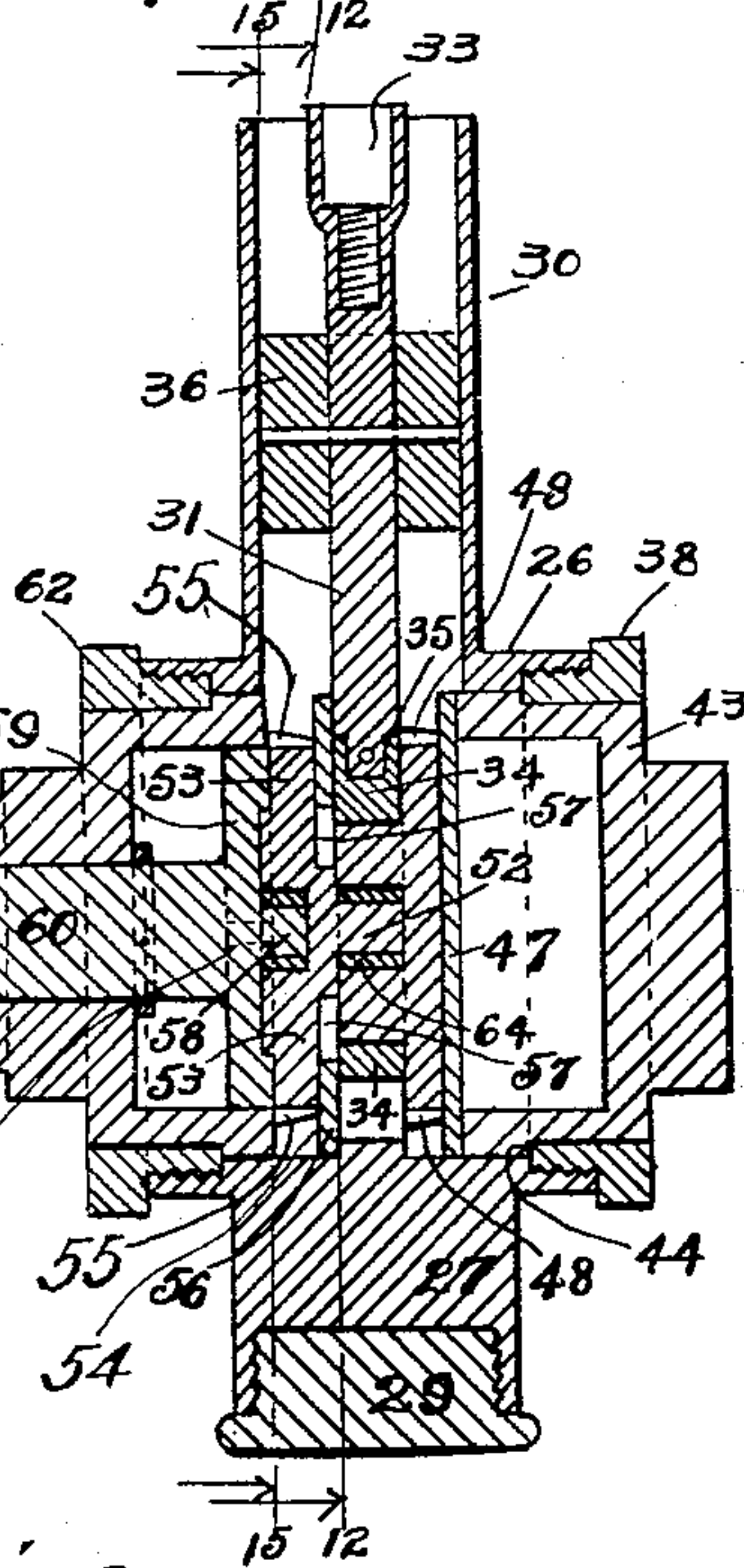


Fig. 7.

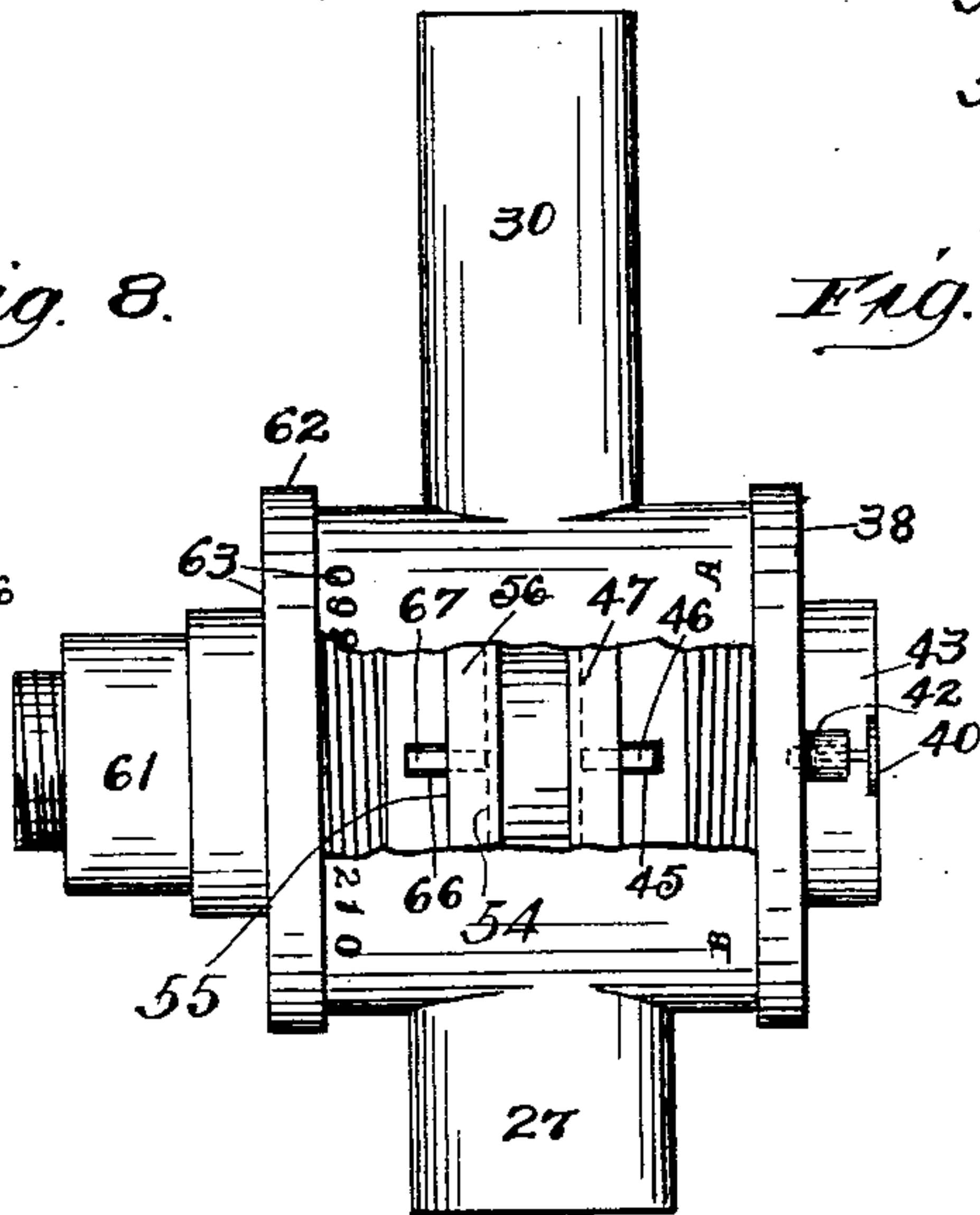


Fig. 9.

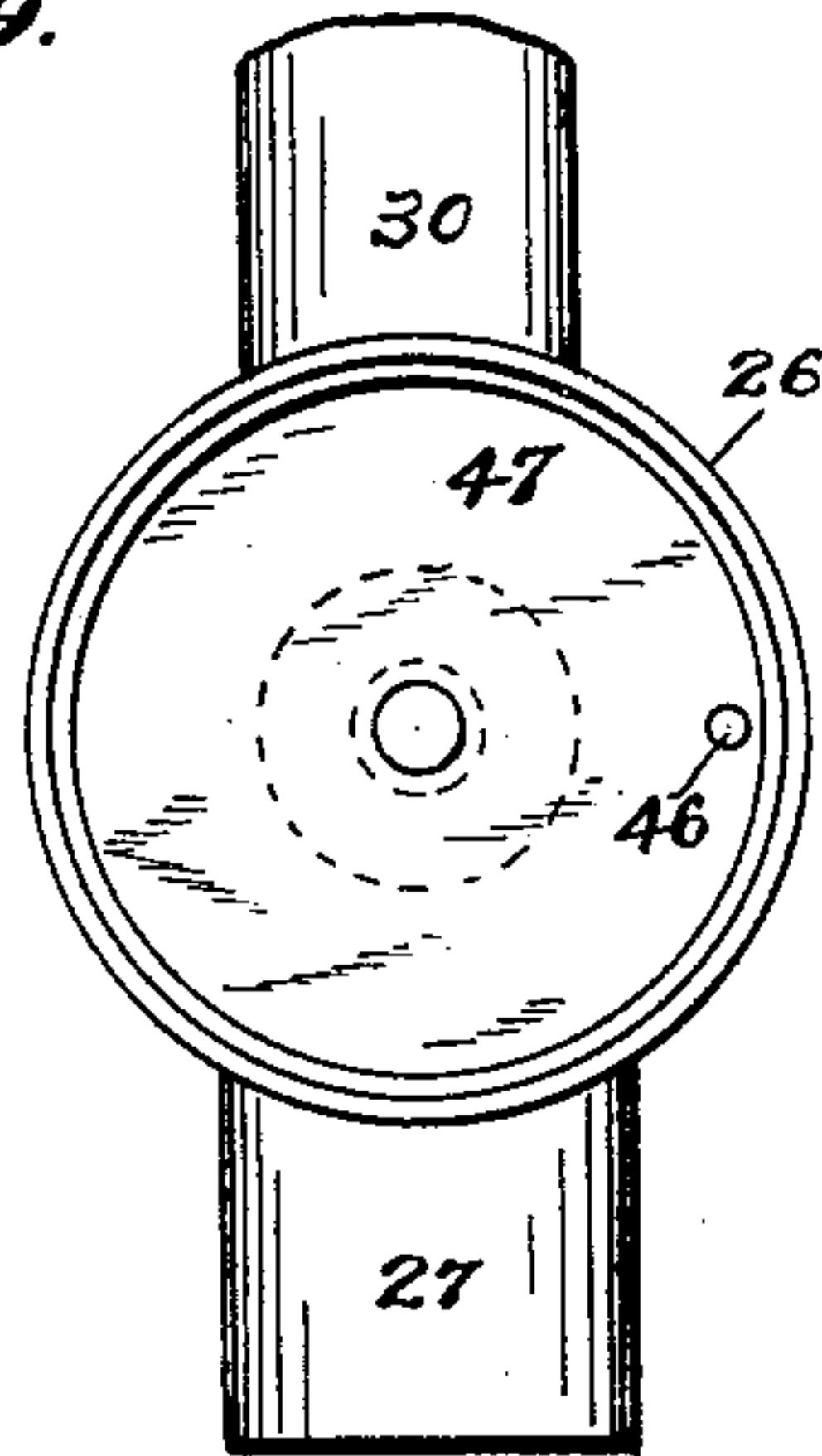


Fig. 8.

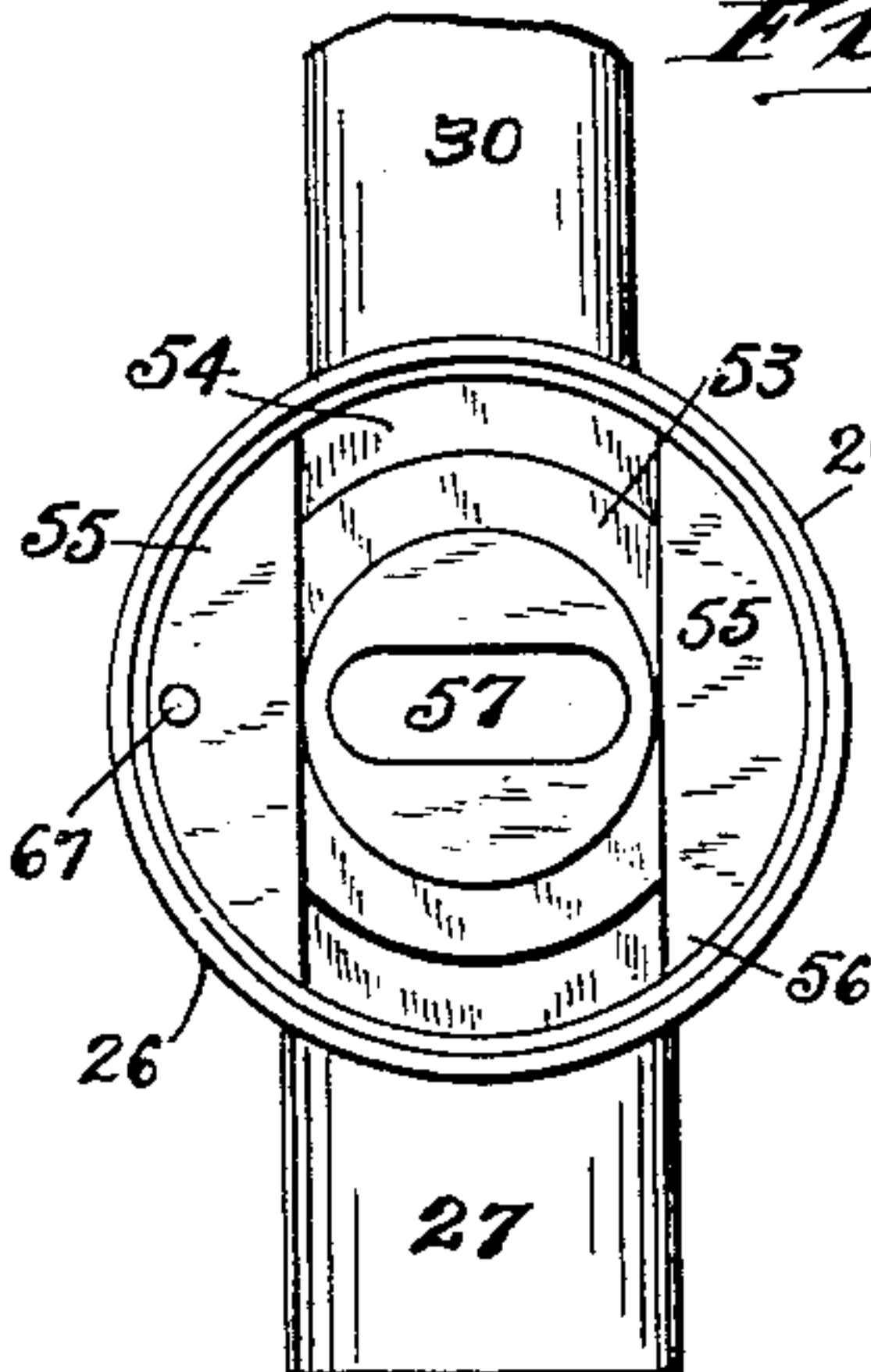
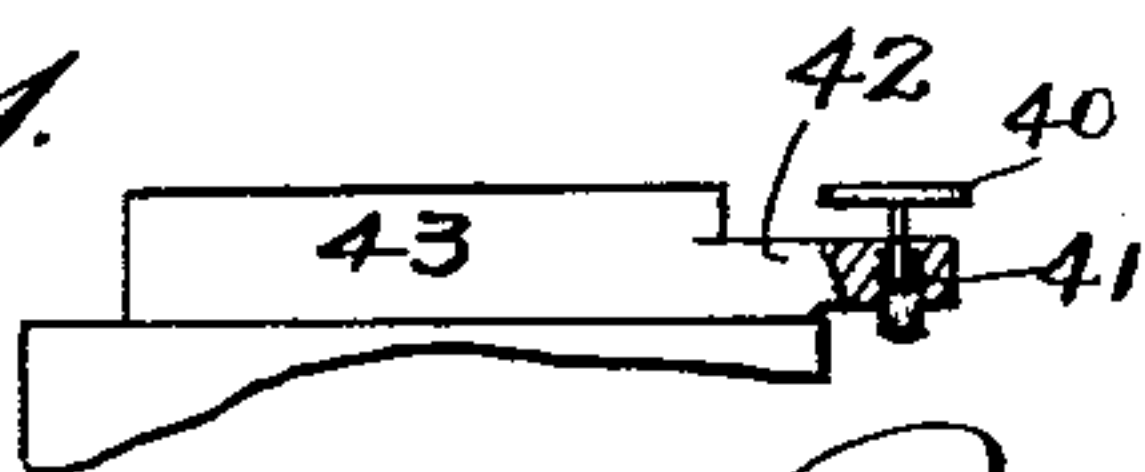


Fig. 11.



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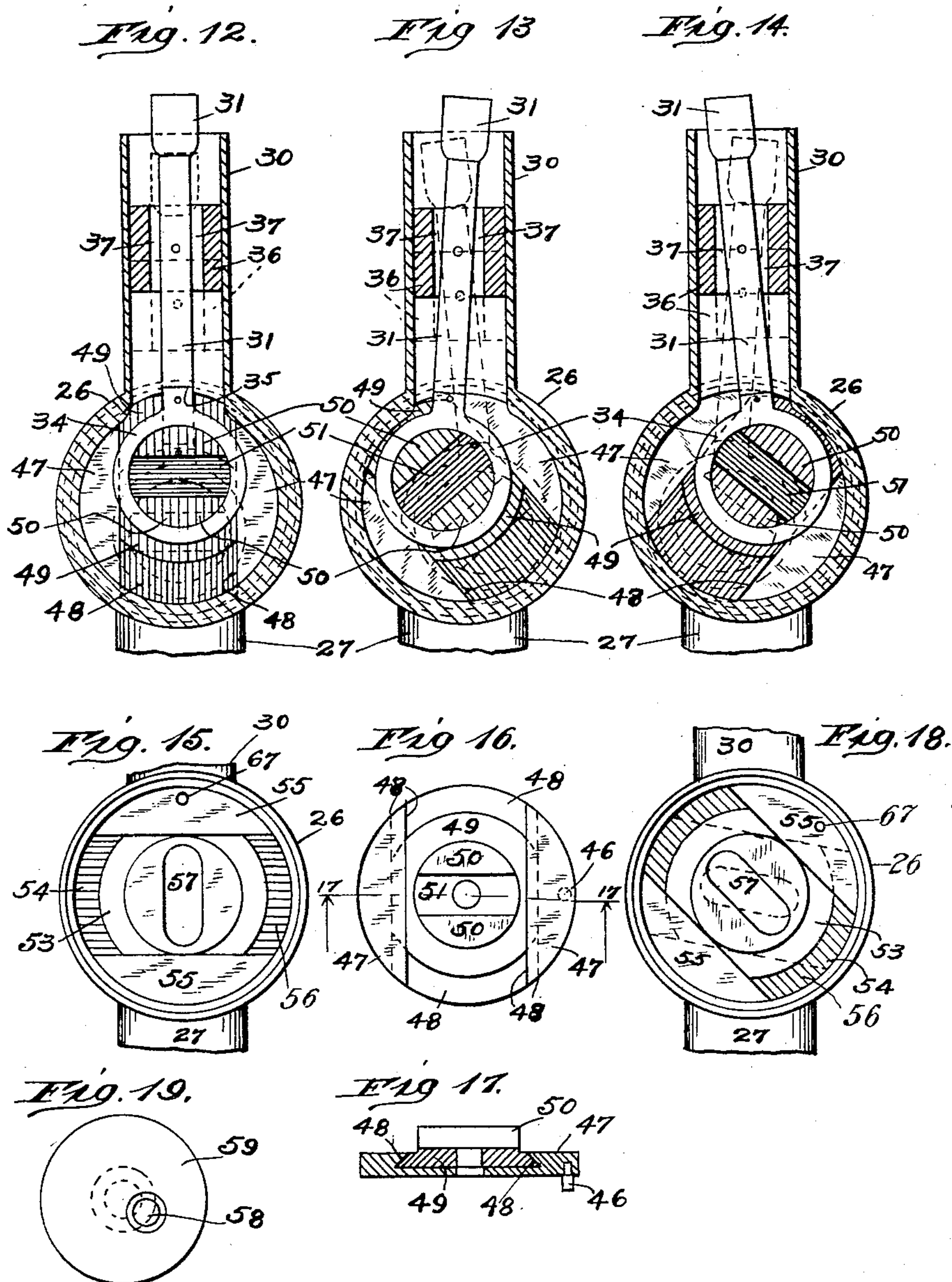
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NO MODEL.

3 SHEETS—SHEET 3.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOHN A. READE, JR., OF CHICAGO, ILLINOIS, ASSIGNOR TO HOMER J. TILLOTSON, OF CHICAGO, ILLINOIS.

## MESSAGE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 734,952, dated July 28, 1903.

Application filed February 19, 1903. Serial No. 144,067. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN A. READE, JR., a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Massage Apparatus, of which the following is a specification.

This invention relates to improvements in an apparatus to be used for massaging the human body; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention is to provide a massage apparatus which shall be portable and compact in form, simple in construction, and efficient in operation and so made that the force or rapidity, as well as the length of the stroke or movement of the striking arm or rod which carries the tapper or massage member, can be readily regulated and the direction of the movement thereof changed at will.

Another object of the invention is to so construct the apparatus as to accomplish the above-named as well as other results without the use of toothed gearing.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a face view in elevation of a massage apparatus embodying my invention, showing the flexible shaft broken off. Fig. 2 is a back view in elevation of the apparatus, showing a portion of the handle by dotted lines secured to the extension on which the flexible or driving shaft is mounted. Fig. 3 is a view in elevation of one side of the apparatus. Fig. 4 is a similar view of the opposite side. Fig. 5 is a central sectional view of Fig. 2. Fig. 6 is a side view, partly in section and partly in elevation, of the casing with the operating mechanism removed, but showing the construction of the striking arm or rod. Fig. 7 is a rear view in elevation, showing the casing broken away to illustrate

the construction of the mechanism for regulating the length and direction of the strokes or movements of the striking-arm. Fig. 8 is a view in elevation of the casing, showing a portion of the mechanism for regulating the length of the stroke of the striking-arm with the eccentric or driving disk removed. Fig. 9 is a similar view of the opposite side of the casing, showing a portion of the mechanism for changing the direction of the stroke of the striking-arm. Fig. 10 is a perspective view of one of the regulating caps or plugs. Fig. 11 is a fragmental view, partly in section, thereof, showing a locking-button therefor. Figs. 12, 13, and 14 are sectional views, partly in elevation, taken on line 12 12 of Fig. 5 looking in the direction indicated by the arrows and showing the mechanism for regulating the direction of the stroke of the striking-arm. Figs. 15 and 18 are sectional views, partly in elevation, taken on line 15 15 of Fig. 5 looking in the direction indicated by the arrows and showing the mechanism for regulating the length of the stroke of the striking-arm. Fig. 16 is a detached view of the disk and slide thereon for regulating the direction of the stroke of the striking-arm. Fig. 17 is a cross-sectional view thereof, taken on line 17 17 of Fig. 16; and Fig. 19 is an inner face view of the eccentric driving disk.

Like characters of reference refer to corresponding parts throughout the different views of the drawings.

The numeral 25 represents the casing or main frame of the apparatus, which comprises a cylindrical portion 26, open at each of its ends and provided with internal screw-threads. The cylindrical portion is also provided with an extension 27 at right angles thereto, which extension is screw-threaded in its outer end to receive a detachable handle 28 or a plug 29 when said handle is removed therefrom and attached to another portion of the casing. Diametrically opposite the extension 27 the casing is provided with a hollow projection 30 for the reception and operation of the striking arm or rod 31, which has its free end formed to engage the tapper or massage member 32, and for this purpose the said end of the striking-arm is usually provided with a socket 33, which may be screw-threaded. The arm or rod 31 is formed or provided at



its inner end with a ring 34 to receive a suitable projection on a portion of the operating mechanism therefor, as will be presently explained. This ring or band is preferably  
 5 made with a socket 35 to receive the inner end of the arm 31, as shown in Fig. 5 of the drawings. Movably located in the projection 30 is a block 36, which is provided with a longitudinal opening 37, in which the arm 31 is  
 10 located and pivotally secured to said block. Located in one end of the cylindrical portion of the casing is an externally-screw-threaded collar 38, which has on its outer surface near its periphery a series of openings 39 to re-  
 15 ceive the inner end of the stem of the locking-button 40, which is actuated by a spring 41 and is located on an arm 42 of the adjusting-plug 43 used for regulating the length of the stroke of the striking-rod. As shown in  
 20 Fig. 5, the collar 38 surrounds the plug 43 and rests at its inner end against a shoulder 44 thereon. The inner edge of the plug 43 is provided with a recess 45 to engage a pin 46 on the outer surface of the adjustable disk  
 25 47, which is provided on its inner surface with a diametrical groove 48, usually dovetailed, to form a way or track for the correspondingly-shaped slide 49, located therein, and which slide has on its inner surface two  
 30 segmental projections 50 to fit in the ring 34 of the striking-arm. The projections 50 are divided by a channel or way 51 to receive the stub-shaft 52 on the adjacent surface of the slide 53, which operates in a guideway 54,  
 35 formed by the projections 55 on the outer surface of the disk 56, which is used for regulating the length of the stroke of the striking-arm. As shown in Figs. 15 and 18, the outer face of the slide 53 is formed with a  
 40 slot 57 to receive the pin 58, which is eccentrically located on the inner surface of the driving or eccentric disk 59, which disk has on its outer surface a stem 60, which extends through an adjusting-plug 61, located in the  
 45 opposite end of the cylinder from that in which the plug 43 is located. The plug 61 is adjusted by means of a collar 62, which engages the end of the cylinder of the casing and has in its outer surface a series of open-  
 50 ings 63 to receive the stop-button 40, which is located on the plug 61 in the same manner as the one on the plug 43 and above described. The stub-shafts or pins 52 and 58 may each be provided with an antifriction-  
 55 roller 64, and the stem 60 is formed at its outer end to engage the driving-shaft 65, which is preferably flexible and may pass through the handle 28 when the same is secured to the plug 61, as is shown in Fig. 5 of  
 60 the drawings. The shaft 65 may be operated by any suitable means. The inner end of the plug 61 is provided with a recess 66 to engage a pin 67 on the outer surface of one of the projections 55 on the disk 56, so that  
 65 by turning the plug 61 the said disk may be turned, so as to change the direction of the channel 54, thereby regulating the length of

the stroke of the striking-arm. By turning the plug 43 it is apparent that the disk 47 through its engagement with said plug may  
 70 be turned so as to change the position of the guideway 48, thus changing the direction of the stroke of the striking-rod, so as to produce a great variety of movements or motions. For instance, when turned to the posi-  
 75 tion shown in Fig. 12 the rod 31 will have a direct longitudinal movement through the extension 30, when turned to the position shown in Fig. 13 the rod 30 will have an oblique vibrating movement from left to right, 80  
 while when turned to the position shown in Fig. 14 the said rod will have an oblique vibrating movement from right to left. The rod can be caused to move in other directions by suitably shifting the disks 47 and 56; but 85  
 those above described and shown in Figs. 12 to 14, inclusive, are deemed sufficient to illustrate the adjustability of the apparatus in this respect.

In order to obtain the full length of the  
 90 stroke of the striking-arm, the disk 47 should be turned so that the channel 48 thereof shall be in alinement with the extension 30, as shown in Fig. 12, and the disk 56 should  
 be turned so that its channel or guideway 54 95  
 shall be in alinement with said extension or register with the channel 48 of the first-named disk. To obtain the shortest stroke of the striking-arm, the disk 56 should be turned  
 so that its guideway will be at right angles 100  
 to the extension 30, in which the striking-arm is located.

In Fig. 1 the face or front portion of the casing is shown as being provided at one of its ends with a scale B and at its other end  
 105 with a scale marked A B, and in Fig. 2 the rear or back portion of the casing is shown as being provided at one of its ends with a scale marked A and at its other end with a scale marked A B, which scales are used to 110  
 guide the operator in adjusting the instrument. By setting the plugs 43 and 61 as shown in Fig. 1 the disks 47 and 56 will be adjusted so as to produce the greatest longitudinal movement of the striking-arm. By 115  
 turning the plug 43 so that the button 40 will engage one of the openings 39 at B in the scale A B an oblique movement, as shown in Fig. 14, will be given to the striking-arm, when by turning the said plug farther onto 120  
 A of the scale A B on the rear surface of the casing and leaving the plug 61 fixed, as in Fig. 1, an oblique movement in the opposite direction, as shown in Fig. 13, will be furnished, or by turning the plug 43 from the 125  
 position shown in Fig. 1 to A in scale A B of said figure an oblique movement will be obtained. By turning the plug 61 and leaving the other plug fixed the length of the stroke of the striking-arm may be increased or di- 130  
 minished.

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



1. In a massage apparatus, the combination with a casing having a hollow extension communicating therewith, of a striking-arm loosely secured in said projection and having its inner end extended into the casing, a mechanism located in the casing and connected to said arm to impart to the same, reciprocal movement, means to drive said mechanism and means to adjust parts of said mechanism so as to change the direction as well as to regulate the length of the strokes of the striking-arm, the means for changing the direction of the stroke being distinct from the means for regulating the length of the strokes, substantially as described.

2. In a massage apparatus, the combination with a casing having a hollow extension communicating therewith, of an apertured block movably located therein, a striking-arm loosely secured in said block and having its inner end extending into the casing, a mechanism located in the casing and connected to said arm to cause the same to move in a variety of directions, and means to regulate the length of the movement or strokes thereof, the mechanism for changing the direction of the stroke being distinct from the means for regulating the length of the strokes, and means to drive said mechanism, substantially as described.

3. In a massage apparatus, the combination with a casing comprising a cylindrical portion having a hollow projection communicating therewith, of an apertured block movably located therein, a striking-arm pivotally secured in said block and having at its inner end a ring or band and at its outer end means to engage a massage member, a plug adjustably secured in one end of the cylindrical portion of the casing, a direction-of-stroke-regulating disk located in the casing, and in engagement with said plug and having on its inner surface a guideway, a slide movable in said guideway and having projections to fit in the ring of the striking-arm, said projections being divided by a channel, a plug adjustably secured in the opposite end of the cylindrical part of the casing, a driving-disk located in the said plug and provided on its inner surface with an eccentrically-located pin and on its outer surface with a shaft or stem journaled in said plug, a driving-shaft attached to the shaft of said disk, a length-of-stroke-regulating disk located near the inner surface of the first-named disk and having on its surface adjacent thereto a pin to fit in the channel of the slide thereof, and provided on its other side with a channel or way, a slide located in said channel and provided with a slot to receive the eccentric-pin on the driving-disk, substantially as described.

4. In a massage apparatus, the combination with a casing having a hollow extension communicating therewith, of a striking-arm loosely secured therein and having its inner end projected into the casing, a mechanism in the casing and connected to said arm to

cause the same to move in a variety of directions and a mechanism to regulate the length of the movement or strokes thereof, the mechanism for changing the direction of the stroke being distinct from the mechanism for regulating the length of the strokes, and means to adjust and drive said mechanisms, substantially as described.

5. In a massage apparatus, the combination with a casing provided with a hollow projection communicating therewith, of an apertured block movably located therein, a striking-arm pivotally secured in said block and having at its inner end a ring or band, a direction-of-stroke-regulating disk located in the casing and having on its surface adjacent to said arm a guideway, a slide movable in said way and having projections to fit in the ring of the arm, said projections being divided by a channel, a length-of-stroke-regulating disk having on one of its surfaces a pin to fit in said channel and on its other surface a channel or way, a slide movable in the way of the last-named disk and provided with a slot on its outer surface, a driving-disk located in the casing and provided with an eccentrically-located pin to operate in said slot, a driving-shaft connected to the driving-disk, and means located in the ends of the casing to adjust the regulating-disks, substantially as described.

6. In a massage apparatus, the combination with a casing comprising a cylindrical portion having on its front and rear surfaces indicating-scales and provided with a hollow projection communicating therewith, of an apertured block movably located in said projection, a striking-arm pivotally secured in said block and having at its inner end a ring or band, a direction-of-stroke-regulating disk located in the casing and having on its surface adjacent to said arm a guideway, a slide movable in said way and having projections to fit in the ring of the arm, said projections being divided by a channel, a length-of-stroke-regulating disk having on one of its surfaces a pin to fit in said channel and on its other surface a channel or way, a slide movable in the way of the last-named disk and provided with a slot on its other surface, a driving-disk located in the casing and provided with an eccentrically-located pin to operate in said slot, a driving-shaft connected to the driving-disk, an adjusting-collar located in each end of the casing and provided on its outer surface with a series of openings, a plug located in each of said collars and having means to engage the regulating-disk adjacent thereto, a spring-actuated locking-button mounted on each of said plugs to engage the openings in the collars and to act as indicators in connection with the said scales, substantially as described.

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