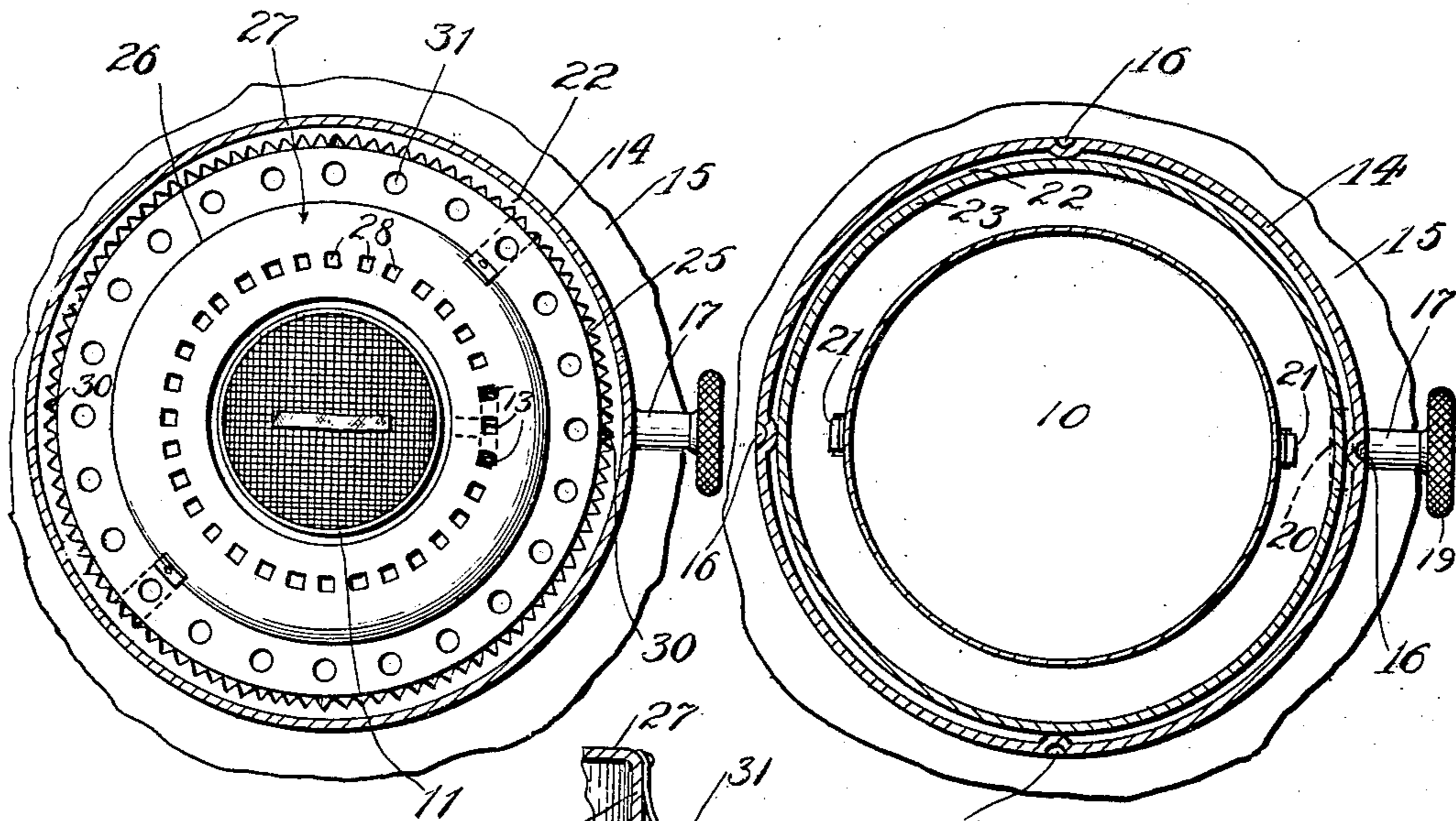
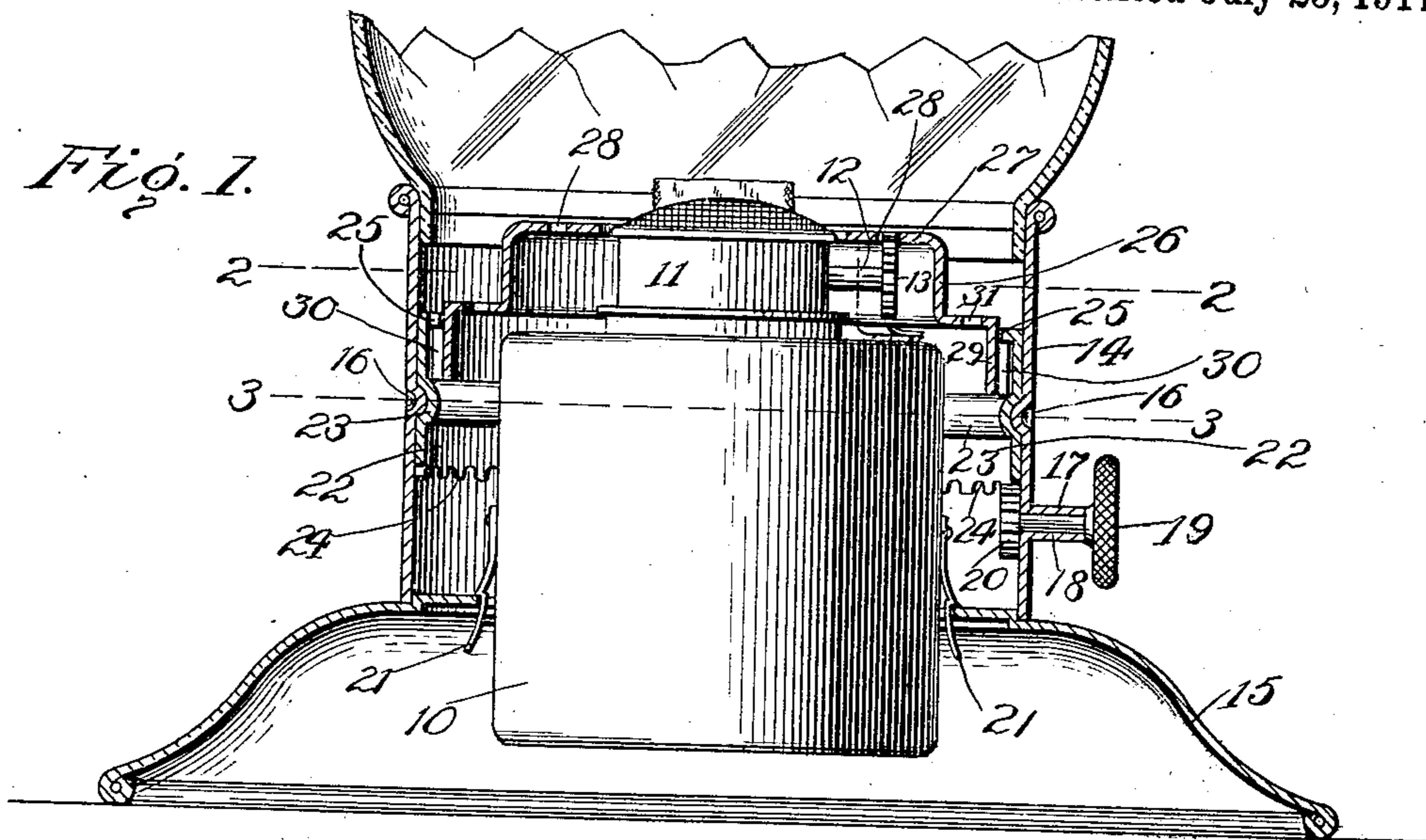


O. E. MILLER.  
LAMP WICK OPERATING DEVICE.  
APPLICATION FILED NOV. 14, 1910.

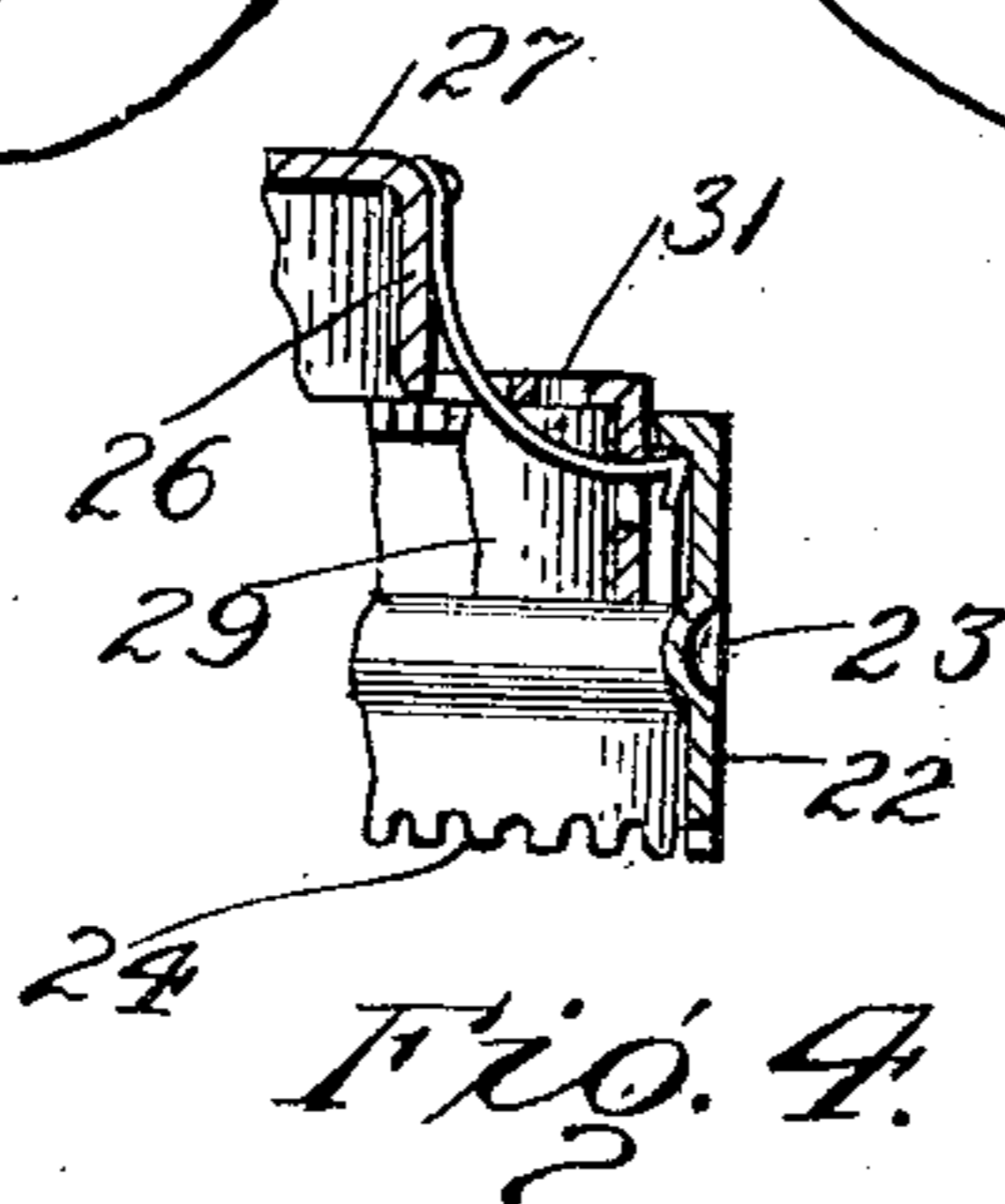
999,121.

Patented July 25, 1911.



*Fig. 2.*

*Fig. 3.*



Witnesses  
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# UNITED STATES PATENT OFFICE.

ORAM E. MILLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF FORTY-NINE ONE-HUNDREDTHS TO WILLIAM E. ROURKE, OF PHILADELPHIA, PENNSYLVANIA.

## LAMP-WICK-OPERATING DEVICE.

999,121.

Specification of Letters Patent. Patented July 25, 1911.

Application filed November 14, 1910. Serial No. 592,255.

*To all whom it may concern:*

Be it known that I, ORAM E. MILLER, citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Lamp-Wick-Operating Devices, of which the following is a specification.

This invention relates to improvements in devices for operating the wicks of lamps, more particularly to the lamps employed in lanterns.

The improved device may be applied to any of the various forms of lanterns in use, but is more particularly applicable to lanterns employed in the railway service, and has for one of its objects to provide a simply constructed device whereby the position of the wick may be readily controlled from the outside of the lamp shell or base and without removing the lamp therefrom.

Another object of the invention is to provide a device of this character which is attached wholly to the base and so arranged that the lamp may be removed from the base without disturbing the wick actuating mechanism.

Another object of the invention is to provide a device of this character whereby the wick actuating mechanism is supported equally throughout its whole circumference so that no danger of sagging or unequal movement is permitted.

With these and other objects in view the invention consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claims; and, in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a sectional elevation of the lower portion of a conventional railway lantern, with the improvement applied; Fig. 2 is a plan view of the improved device with the shell or casing in section on the line 2—2 of Fig. 1; Fig. 3 is a section on the line 3—3 of Fig. 1; Fig. 4 is a detail section on the line 4—4 of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In the drawings the reservoir portion of the lamp is represented at 10, the wick supporting tube at 11, and the tube for supporting the wick actuating wheel at 12. The

ordinary milled disk employed for actuating the wick of ordinary lamps is replaced in the improved structure by a small gear wheel or pinion 13, the object to be hereafter explained.

The base portion of the lantern comprises the usual vertical upper cylindrical portion 14 and the lower flaring base portion 15 of the usual construction. In the improved device the cylindrical portion of the base is provided at a plurality of points, preferably four, with indentations 16 and likewise provided with a tubular bearing 17 to receive a stub shaft 18, the latter having an operating thumb wheel or disk 19 upon its outer end externally of the shell and with a gear pinion 20 upon its inner end and internally of the shell. The reservoir 10 is secured in any suitable manner detachably to the base, preferably by being inserted from beneath and supported by suitable catches 21. Any means may be provided for supporting the reservoir in position, as this supporting means forms no part of the present invention. The reservoir 10 is thus removable through the open bottom of the flaring portion 15 of the base in the usual manner.

Mounted for rotation within the cylindrical portion 14 of the base is an annular band like member 22 which is provided intermediate its upper and lower edges with an annular channel 23 which engages rotatably over the indentations 16. By this means the indentations co-act with the annular channel to provide a suitable support for the band 22, while at the same time the band is free to rotate within the base. At its lower edge, the band is provided with gear teeth, indicated at 24, with which the pinion 20 on the shaft 18 is constantly engaged. By this arrangement it will be obvious that the band 22 may be rotated in either direction within the shell 14 upon its bearing members 16 by rotating the shaft 18 by the thumb wheel 19. At its upper edge the band 22 is directed inwardly and the inwardly directed portion formed into serrations or teeth 25.

Located within the vertical portion 14 of the base is an annular member comprising a substantially vertical intermediate portion 26 having an inwardly directed upward portion 27 forming an inwardly directed flange and provided within the flange with a plu-

5 rality of openings 28, the spaces between  
 which constitute gear teeth with which the  
 pinion 13 is in constant engagement. At  
 its lower end the annular member is di-  
 10 rected downwardly, as shown at 29, and pro-  
 vided with a plurality of lateral lugs 30 each  
 of which engages in one of the teeth 25 of  
 the member 22. The projections 30 extend  
 15 downwardly to a sufficient extent to rest  
 upon the inwardly directed annular portion  
 of the member 22 which forms the channel  
 23. By this means the annular member is  
 coupled to the band 22, and may be adjusted  
 to any required extent within the range of  
 20 the teeth 25. The annular member is per-  
 forated as shown at 31 to provide the neces-  
 sary air circulation for the lamp.

25 It will be noted that the band 22 is sup-  
 ported upon all sides uniformly, and may  
 be thus rotated without danger of cramping  
 or unequal movement, and the annular mem-  
 30 ber 26—27—29 being coupled at several  
 points to the rotating band is likewise uni-  
 formly supported and operates without  
 cramping or uneven movement. The band  
 22 and the annular member 26—27 are each  
 preferably struck up or spun from a single  
 piece of metal, preferably brass or like com-  
 pound.

35 The lamp portion of the improved device  
 may be of any size and of any construction,  
 the only change required being in substitut-  
 ing the gear 13 for the ordinary milled disk  
 usually employed for actuating lamp wicks.

It will be noted that the lamp including  
 the reservoir 10 and burner 11, together with  
 the wick shaft 12 and its wheel 13, are read-

40 ily detachable from the base without dis-  
 turbing the wick shaft operating mecha-  
 nism.

Having thus described my invention, what  
 is claimed as new is:

1. The combination with a lantern includ-  
 ing the base, the lamp including the oil res-  
 45 ervoir, wick tube and wick operating mech-  
 anism, of an annular band mounted for ro-  
 tation within the base, an annular member,  
 means for detachably coupling the annular  
 member to the annular band, means opera-  
 tive from the exterior of the base for rotat-  
 50 ing the band, and means for transmitting  
 the motion of the annular member to the  
 wick operating mechanism.

2. The combination with a lantern includ-  
 ing the base, the lamp including the oil res-  
 55 ervoir, wick tube and wick operating mech-  
 anism, of a gear wheel carried by the wick  
 operating mechanism, an annular band  
 mounted for rotation within the base, an  
 annular member having a segmental rack  
 60 engaging the gear wheel, means for detach-  
 ably coupling the annular member to the  
 annular band, and means operative from  
 the exterior of the base for rotating the  
 band, for transmitting the motion of the an-  
 65 nular band and member to the wick oper-  
 ating mechanism.

In testimony whereof, I affix my signature  
 in presence of two witnesses.

ORAM E. MILLER. [L. S.]

Witnesses:

H. J. GOODYEAR,  
 DAVID REID.