

No. 774,602.

PATENTED NOV. 8, 1904.

W. A. PAINTER.
LAMP BURNER.

APPLICATION FILED JAN. 11, 1904.

NO MODEL.

Fig. 1.

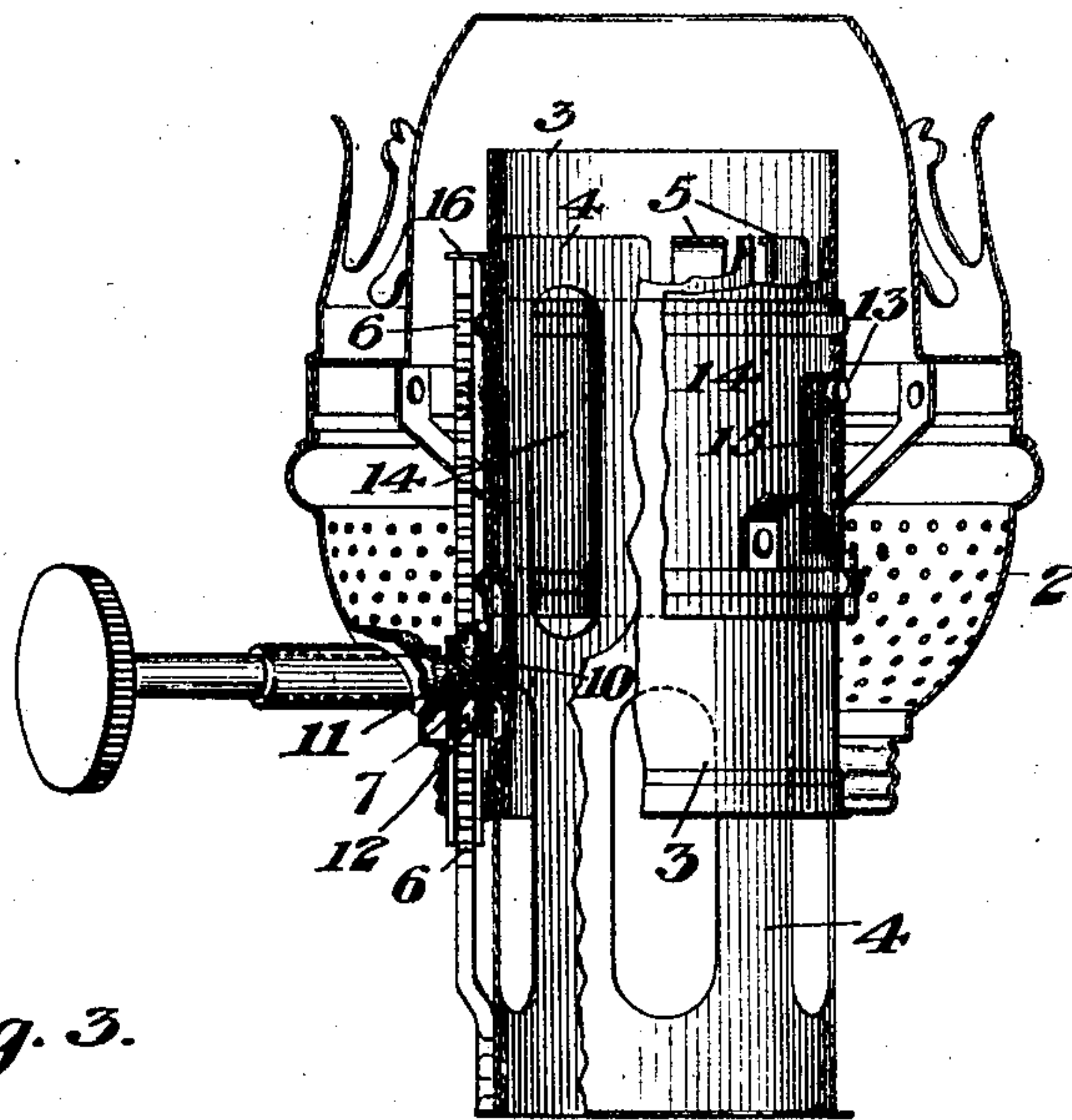


Fig. 4.

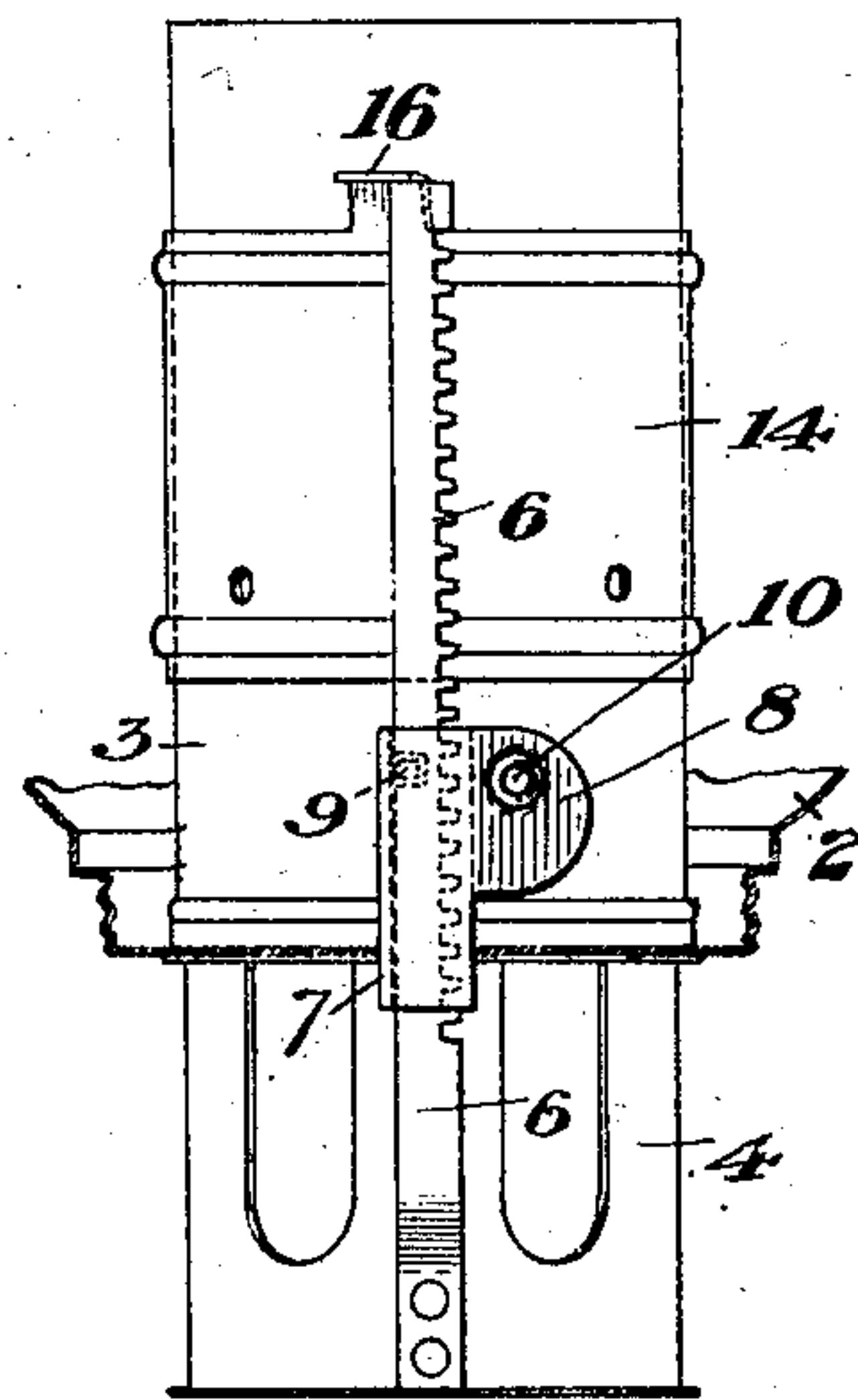


Fig. 3.

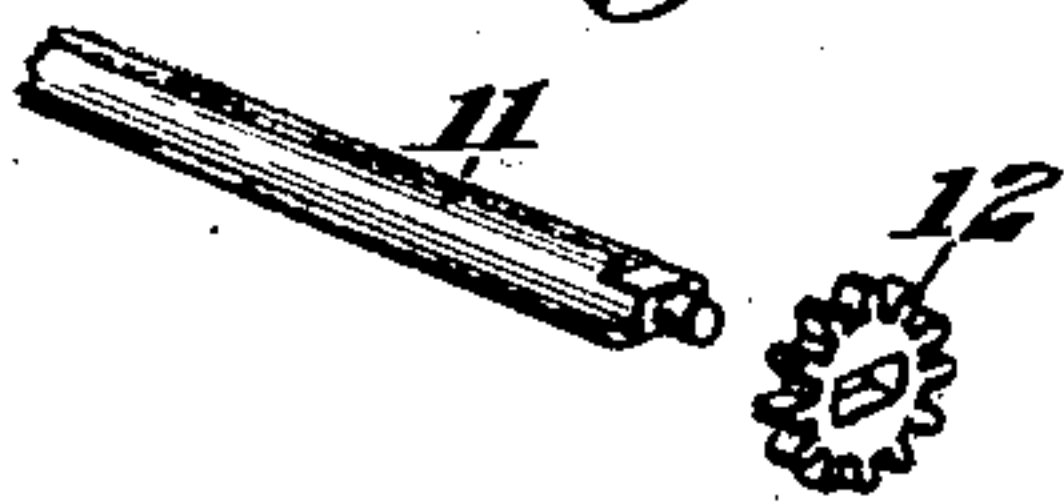
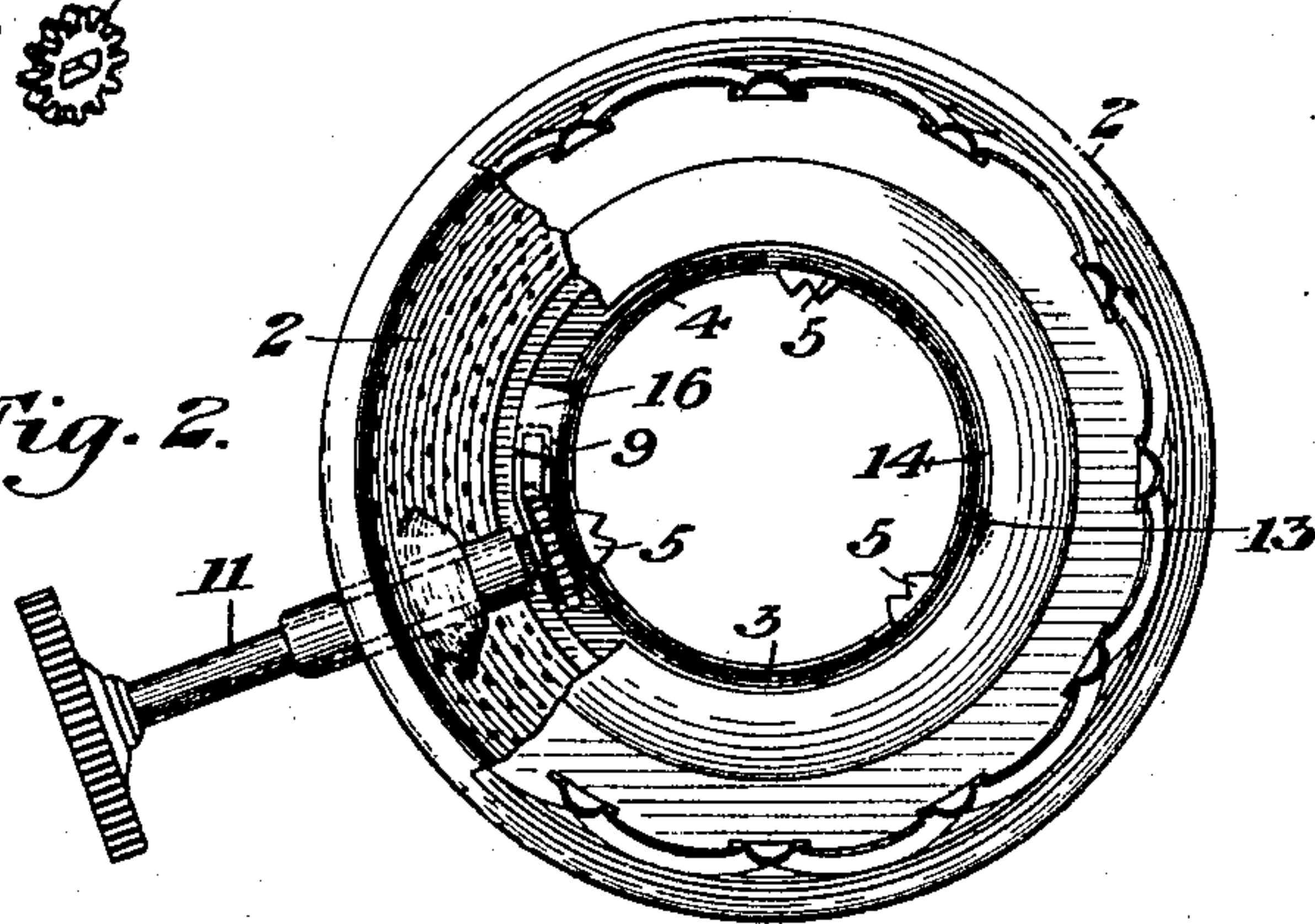


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM A. PAINTER, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR TO
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LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 774,602, dated November 8, 1904.

Application filed January 11, 1904. Serial No. 188,464. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. PAINTER, of Allegheny, in the county of Allegheny, State of Pennsylvania, have invented a new and use-
ful Lamp-Burner, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical cross-section through my improved burner. Fig. 2 is a sectional top plan view on an irregular line, and Figs. 3 and 4 are detail views hereinafter referred to.

My invention relates to that class of central-draft lamps wherein rack-and-pinion mechanism is provided for lifting the wick; and the invention is designed to provide a simple, cheap, and efficient construction of the wick-lifting apparatus and also an improved arrangement of the gallery lift-tube.

In the drawings, 2 represents the lower outer shell portion of the burner, which is preferably perforated, as shown, and is provided with a central wick-tube 3. In the wick-tube is located the wick-lifter 4, which may be of skeleton-tube form and provided with upper slotted spring-clips 5 for the wick of ordinary form.

The rack 6 is secured to the lower part of the lifter and is bent outwardly slightly and extends up through a loose guide 7, fitted into a hole in the lower part of the burner-shell. This guide, as shown in Fig. 4, consists of a bent strip of U form, having a projecting perforated lug 8. The other lug of the U may have a struck-up projection 9 to rest against the wick-tube and space the guide. The hole in the lug 8 is in line with the bearing-tube 10 for the stem 11 of the wick-shaft, which shaft extends through the hole and has a squared or angular portion, upon which slips the pinion 12, which engages the rack. Beyond the squared or angular portion the shaft is turned down to a small cylindrical form, as shown in Fig. 3, and this stub end projects through a hole in the wick-tube. The wick-tube around this hole is pressed outwardly slightly, and the end of the wick-shaft is upset, so as to form a countersunk head within

the recess. It will be noted that the shoulder on the wick-shaft at the angular portion prevents inward movement of the shaft, while the upset inner end prevents downward motion, and at the same time the wick-lifter is not interfered with, as a countersunk bearing is afforded for the inner expanded end of the shaft.

The tube or bearing for the wick-shaft is soldered in the receiving-hole and the burner-shell, and in assembling the parts the rack-guide is dropped into its hole, and the wick-shaft holds it in position while allowing it to adjust itself. It thus not only avoids soldering or securing the rack-guide firmly in place, but on account of it being loosely held it will accommodate itself and prevent binding.

The side of the wick-tube is provided with a pin or lug 13, which moves through an outwardly-pressed portion of the gallery lift-tube 14 and into the double-head bayonet-slot 15. This gallery lift-tube is provided at its upper end with an outwardly-bent lug 16, which when the parts are locked together by the bayonet-joint will register with the rack and act as a stop therefor to prevent the wick-lifter being raised too far—that is, so far that the spring-clips of the lifter would pass above the upper end of the wick-tube.

The advantages of my invention result from the simple, cheap, and efficient construction of the wick-lifting device and also from the lug-shaped fender on the lift-tube, which registers with the rack when the parts are locked together.

Many variations may be made in the form and arrangement of the burner and its parts without departing from my invention.

I claim—

1. In a lamp-burner, a burner-shell, a lifting-rack, a loose guide therefor extending through a hole in the burner-shell, and a wick-shaft extending through a hole in the guide and holding it in place; substantially as described.

2. In a lamp-burner, a wick-tube having an outwardly-struck recess in its side, and an aperture in the bottom of the recess, a wick-rai-

ing shaft extending through the aperture and having an inner head within the recess, and an outer bearing for the wick-shaft; substantially as described.

5 3. In a lamp-burner a wick-raising shaft having a larger cylindrical portion extending through its bearing and an angular portion, a pinion on said angular portion and a reduced
10 portion extending through a hole in the wick-tube and enlarged at its inner end; substantially as described.

4. A lamp-burner having a burner-shell, a fixed tubular guide in said shell, a wick-shaft extending through the guide, a rack-guide hav-
15 ing a hole through which the wick-shaft extends, and a countersunk recess in the wick-tube receiving the enlarged end of the wick-shaft; substantially as described.

5. A lamp-burner having a rack, a wick-
20 shaft, and a rack-guide loosely held in place by engagement with the wick-shaft, said guide extending through a hole in the burner-shell; substantially as described.

6. A lamp-burner having a burner-shell, a

fixed tubular guide therein, a wick-shaft ex- 25
tending through the guide and having an angular portion, a pinion slipped on said angular portion, the end of the wick-shaft extending through the wick-tube and having an enlarged
30 portion in a countersunk recess of the tube, a rack engaging the pinion and a rack-guide loosely fitted in a hole in the burner-shell and having a hole through which the cylindrical portion of the wick-shaft extends; substan-
35 tially as described.

7. A lamp-burner having a rack-lifting de-
vice, a wick-tube, a gallery lift-tube having detachable locking connection with the wick-
tube and a lateral lug on the lift-tube and ar-
40 ranged to register with, and act as a stop for, the rack when the parts are locked; substantially as described.

In testimony whereof I have hereunto set my hand.

WILLIAM A. PAINTER.

Witnesses:

GEO. B. BLEMING,

C. P. BYRNES.