

No. 720,954.

PATENTED FEB. 17, 1903.

L. R. OAKES.
LAMP BURNER.

APPLICATION FILED AUG. 8, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

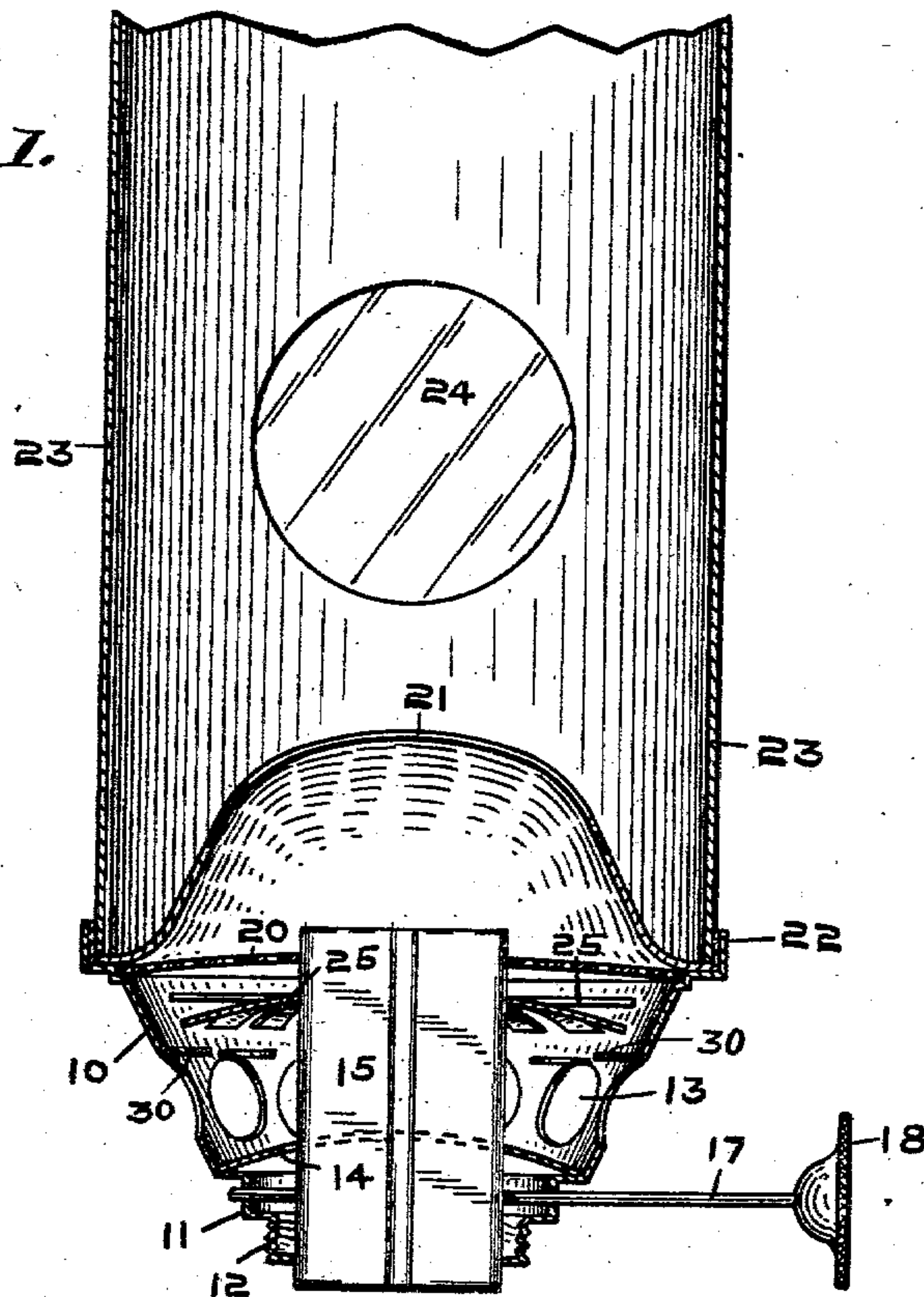
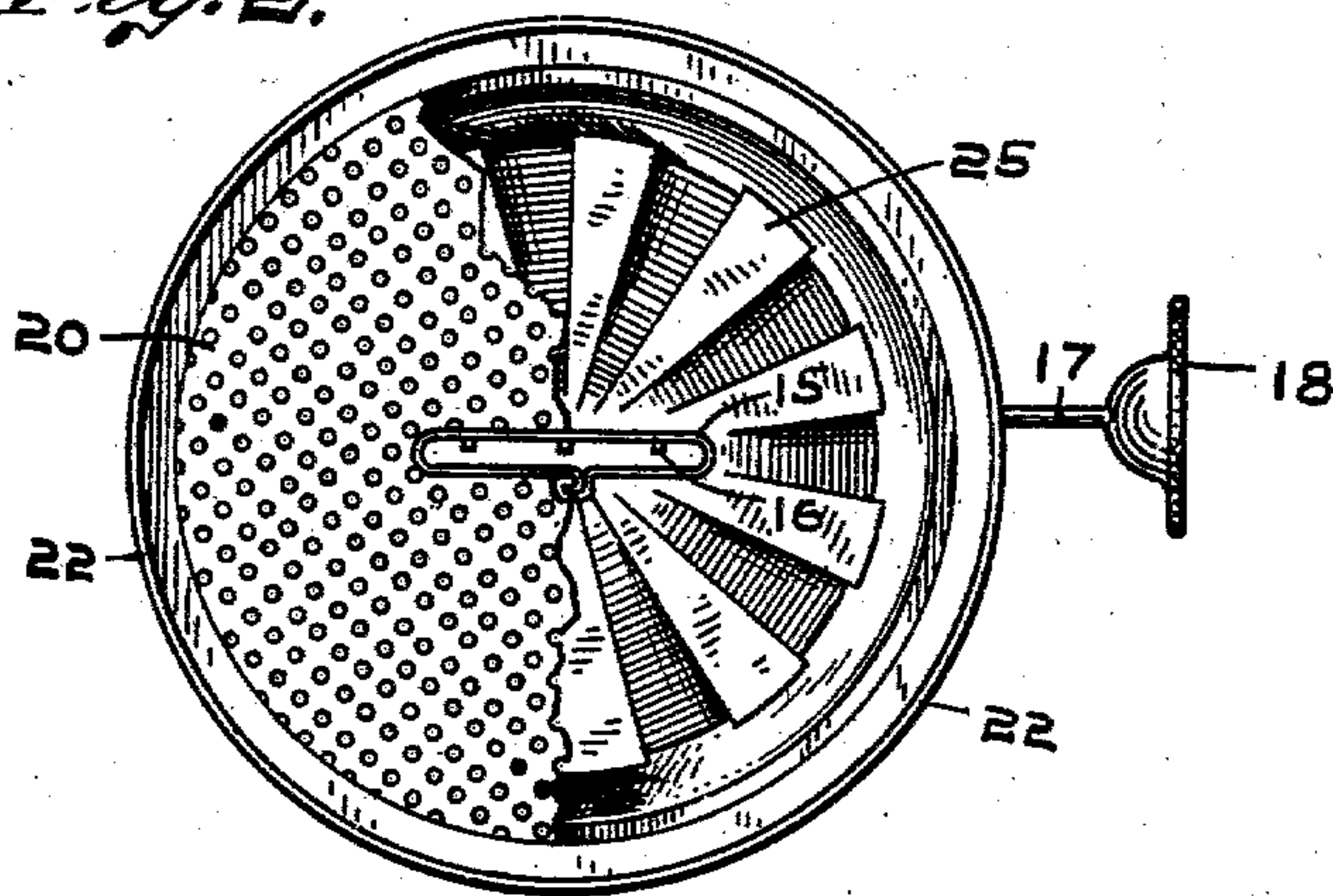


Fig. 2.



WITNESSES:

F. W. Hoerner,
Nellie Allemong.

INVENTOR.

Lucian R. Oakes
BY

V. H. Lockwood
ATTORNEY.

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2 SHEETS—SHEET 2.

Fig. 3.

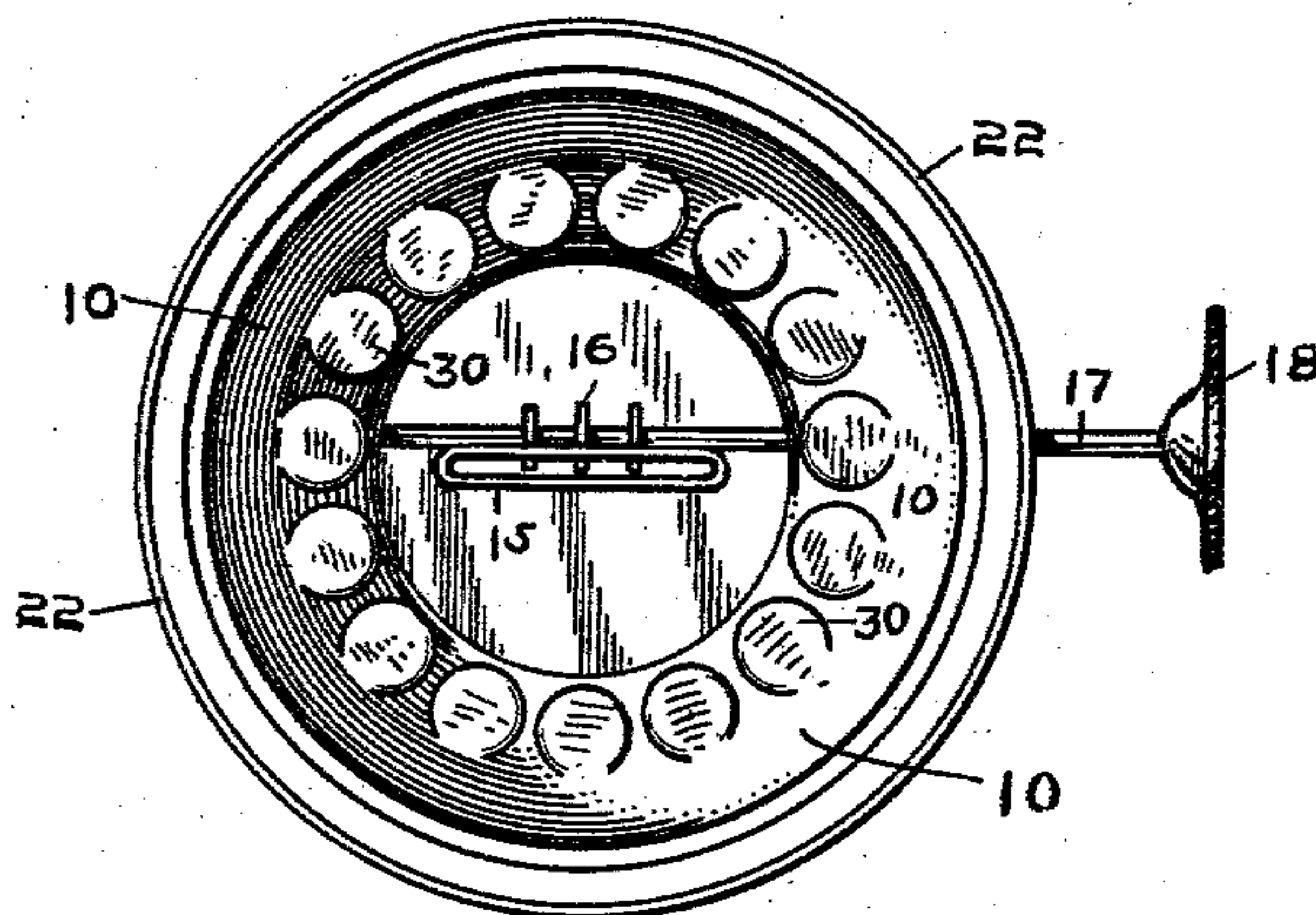
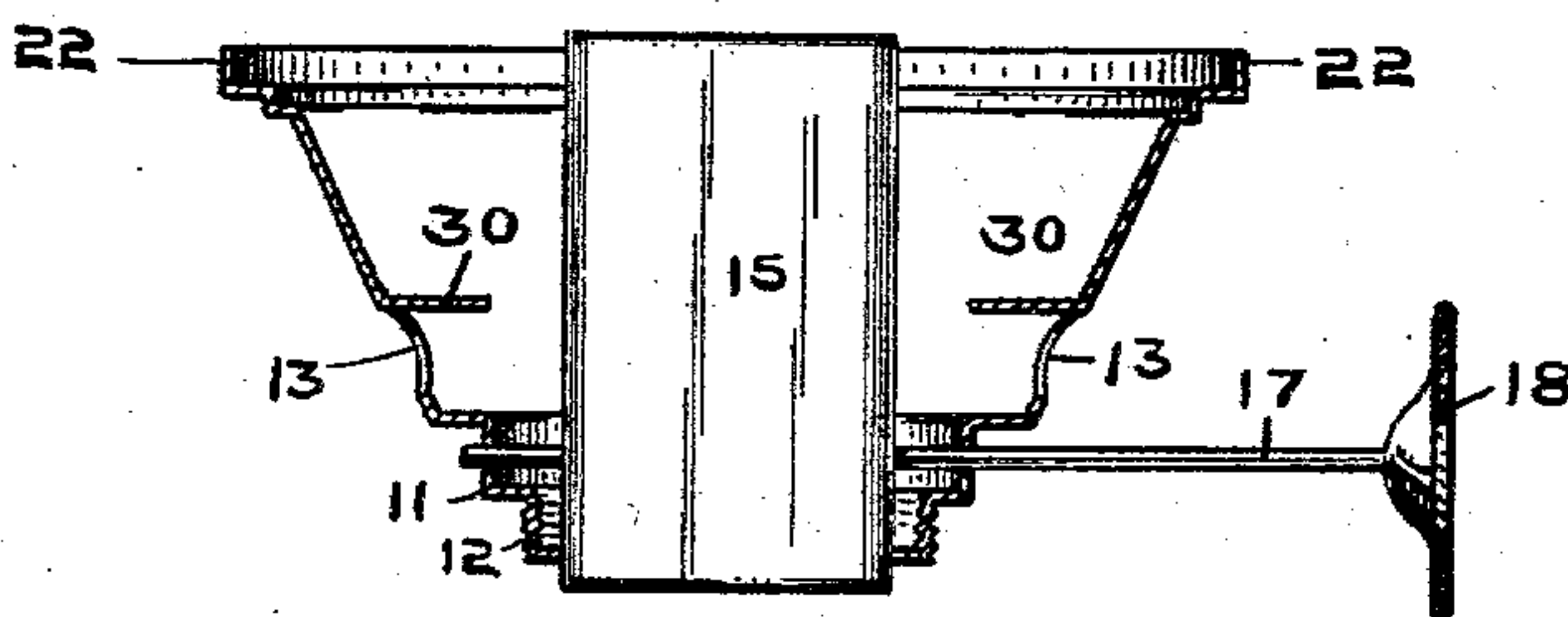


Fig. 4.



WITNESSES:

F. W. Hoerner.
Hellie Allemong

INVENTOR.

Lucian R. Oakes
BY
V. H. Lockwood
ATTORNEY.

UNITED STATES PATENT OFFICE.

LUCIAN R. OAKES, OF BLOOMINGTON, INDIANA.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 720,954, dated February 17, 1903.

Application filed August 8, 1902. Serial No. 118,888. (No model.)

To all whom it may concern:

Be it known that I, LUCIAN R. OAKES, of Bloomington, county of Monroe, and State of Indiana, have invented a certain new and useful Lamp-Burner; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

The object of my invention is to improve the construction of lamp-burners which use oil or the like in such manner that the wick-tube and lower part of the burner can be kept cool and not become heated. The means whereby this object is accomplished and my invention will be understood from the accompanying drawings and the following description and claims.

In the drawings, Figure 1 is a central vertical section of my lamp-burner with a chimney thereon, the upper end of the chimney being broken away. Fig. 2 is a plan view of the burner without the chimney and part of the screen being broken away. Fig. 3 is a plan view of the burner with the perforated plate and disk removed. Fig. 4 is a central vertical section of Fig. 3.

The particular burner herein shown is one which is used in incubators, and since a comparatively large lamp is necessary for such purpose, as well as many others, the extreme heat burns the wick so as to char it far down below the upper end of the tube. To prevent this is the purpose of my invention, and while I show one form of lamp and chimney any other form may be used.

10 is the burner-casing, having integral with it the base 11, which is threaded at 12 for screwing it into an oil-font. The burner-casing is provided with a series of apertures 13. The metal that forms the apertures is not cut entirely free from the wall of the burner-casing and forms a series of wings or tongues 30, which are thence turned inward and stand approximately on a horizontal plane line. These tongues 30 deflect the air as it enters the apertures 13, the object being to cool the wall of the burner-casing contiguous to the apertures 13. The tongues 30 also direct the air over and against the wick-tube and work in conjunction with the disk 25 not only in the distribution of the air, but in the

cooling of both the wick-tube and the burner-casing. The formation and construction of the tongues 30 are plainly shown in Figs. 3 and 4. A wick-tube 15 extends through the bottom centrally within the burner-casing. These parts are secured together rigidly. The wick is supportably adjusted by the toothed wheels 16, mounted on the shaft 17 and extending into the wick-tube, as seen in Fig. 2. 18 is a thumb-piece on the shaft 17. A perforated metal disk 20 is placed upon the burner-casing centrally and surrounds the burner-tube. A slotted dome 21 is secured also upon the burner and is provided with an upper flange 22 on its edge for carrying the chimney 23. This chimney in incubators is not made of transparent material, and consequently a mica window 24 is provided, whereby a person can see the flame.

One feature of the invention consists in the use of a cooling disk or plate 25, which surrounds the wick-tube below the screen. This cooling plate or disk is formed of a slotted plate or disk with radial tongues, the alternating ones being bent down below the level of the others. This cools the wick-tube in two ways. In the first place, the currents of air passing up through the openings 13 in the burner-casing cool the disk or plate 25, so that it in turn by reason of its contact with the wick-tube cools the latter. In the second place, by reason of the plate 25 being cut into tongues with the alternating ones bent down the upwardly-moving current envelops the wick-tube up and to the disk. From thence it is deflected outward, the current passing between and over the ends of the radial tongues. The effect of this modification of the air causes the wick-tube to keep cool enough not to burn or char the wick below the top of the wick-tube.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a lamp-burner, a burner-casing with air-inlets through its lower end to furnish a current upwardly through the casing, a wick-tube secured therein, a screen covering the upper end of the casing and surrounding the wick-tube, and a cooling-plate mounted on the wick-tube below the screen and above the air-inlets through the casing and extending out in the path of the currents of air.

2. In a lamp-burner, a burner-casing with air-inlets to furnish a current upwardly through the casing, a wick-tube secured therein, and a cooling-plate surrounding the wick-tube that is split into radial tongues, the alternating tongues being bent down below the level of the other tongues.

3. In a lamp-burner, a burner-casing with a series of air-inlets therein, tongues formed out of the refuse metal of the burner-casing in forming the air-inlets, said tongues being bent inward transversely to the casing and adapted to cool said casing by the surfaces thereof being exposed to the ingoing air.

4. In a lamp-burner, a wick-tube, a burner-

casing with a series of air-inlets therein about the wick-tube, tongues formed out of the refuse metal of the burner-casing in forming the air-inlets, said tongues being bent inward transversely to the casing and adapted to cool said wick-tube by deflecting the ingoing air against it.

In witness whereof I have hereunto affixed my signature in the presence of the witnesses herein named.

LUCIAN R. OAKES.

Witnesses:

NELLIE ALLEMONG,
F. W. WOERNER.