

(No Model.)

C. H. GRUBE.
LAMP.

No. 403,660.

Patented May 21, 1889.

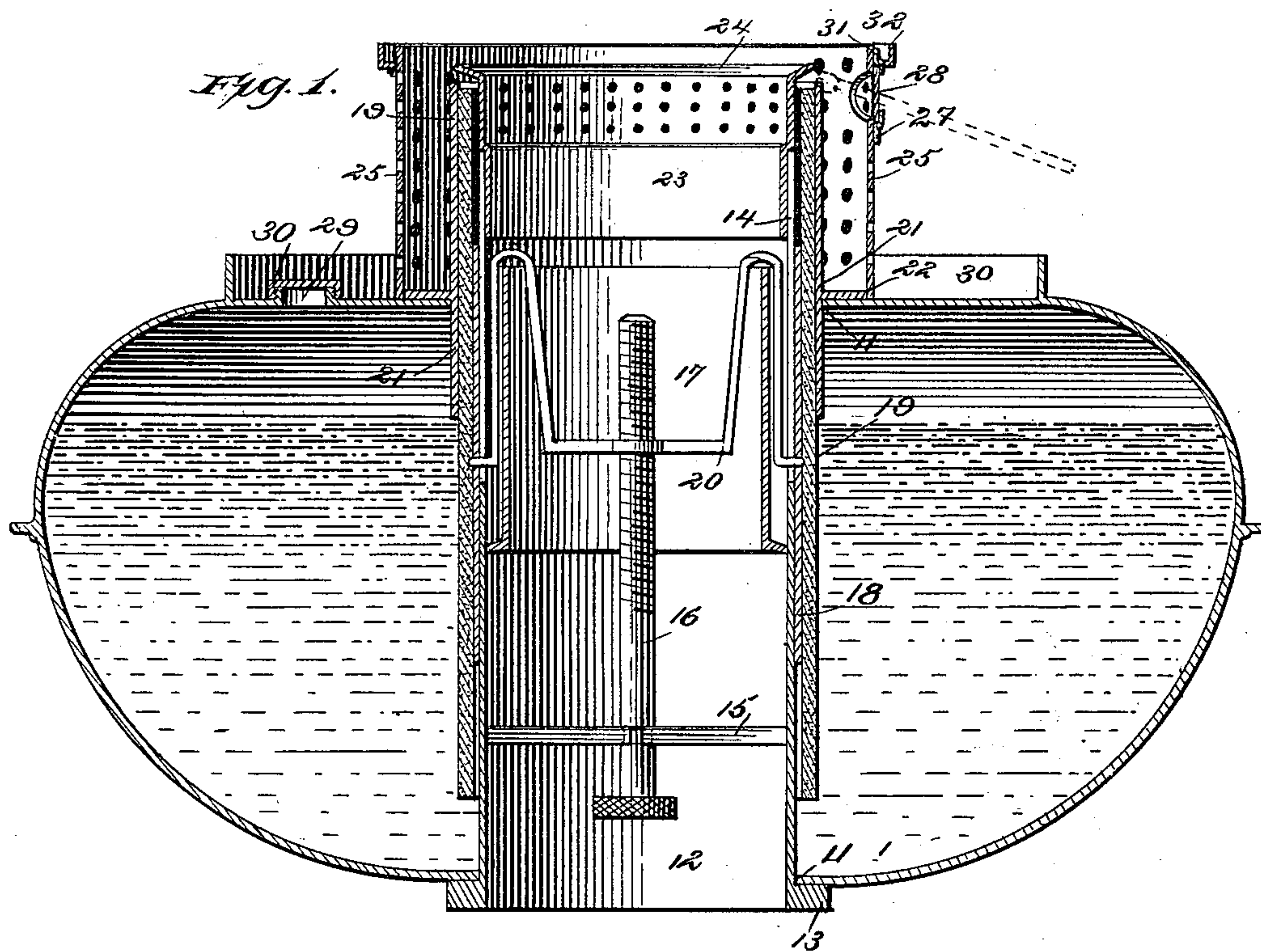


Fig. 2.

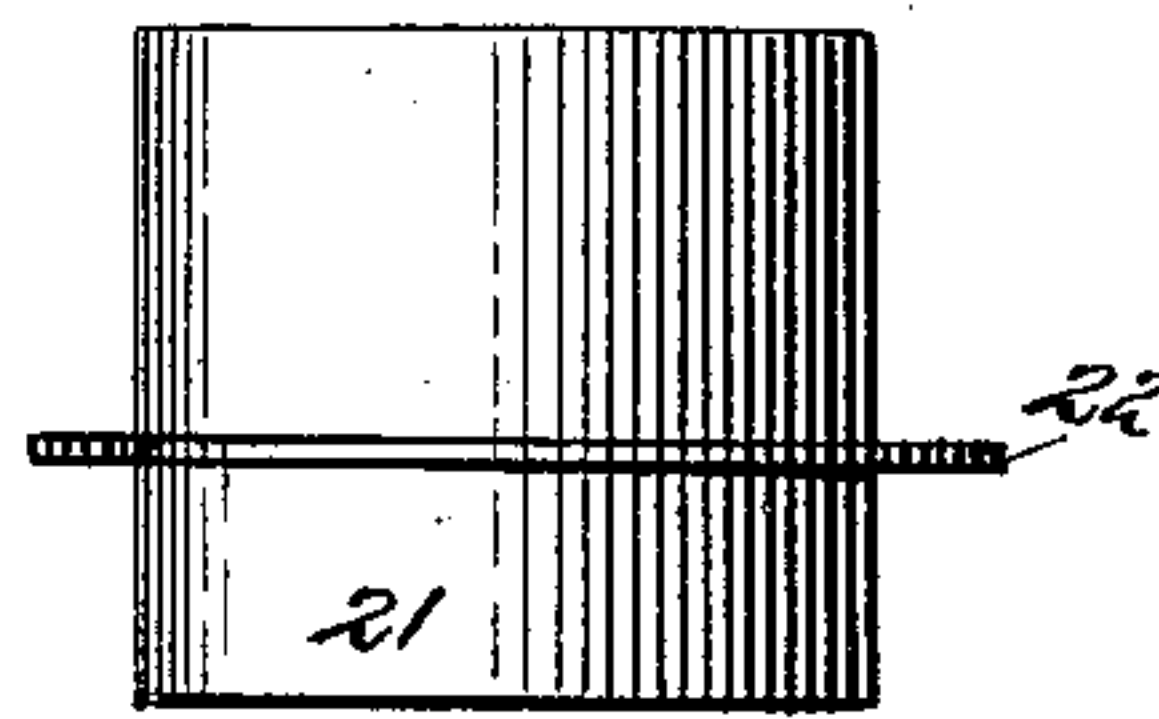
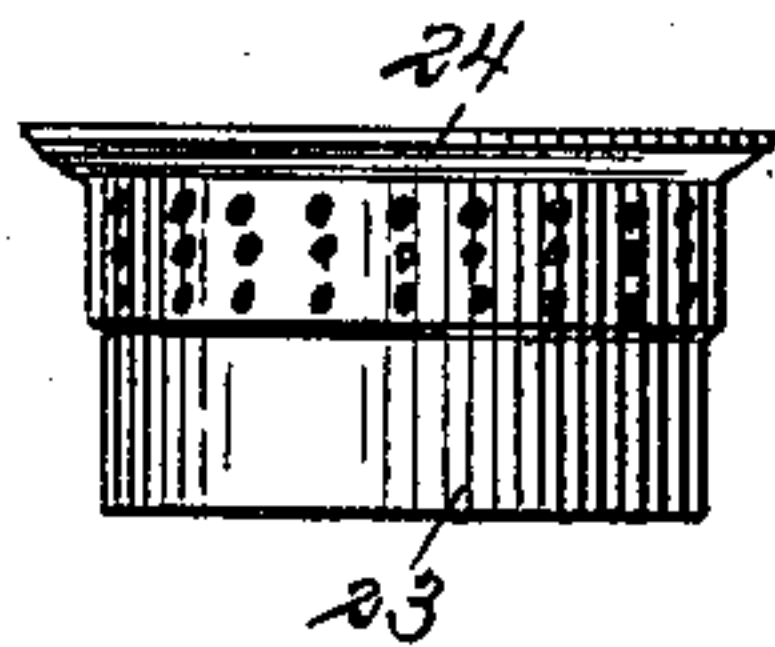
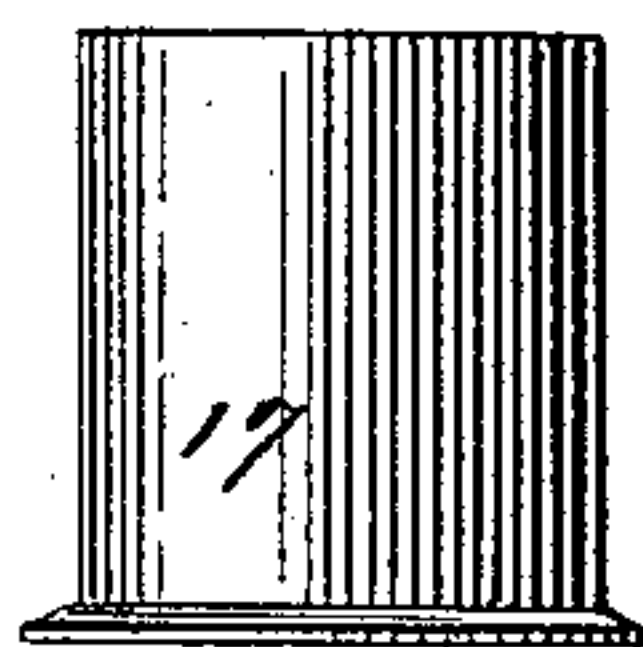
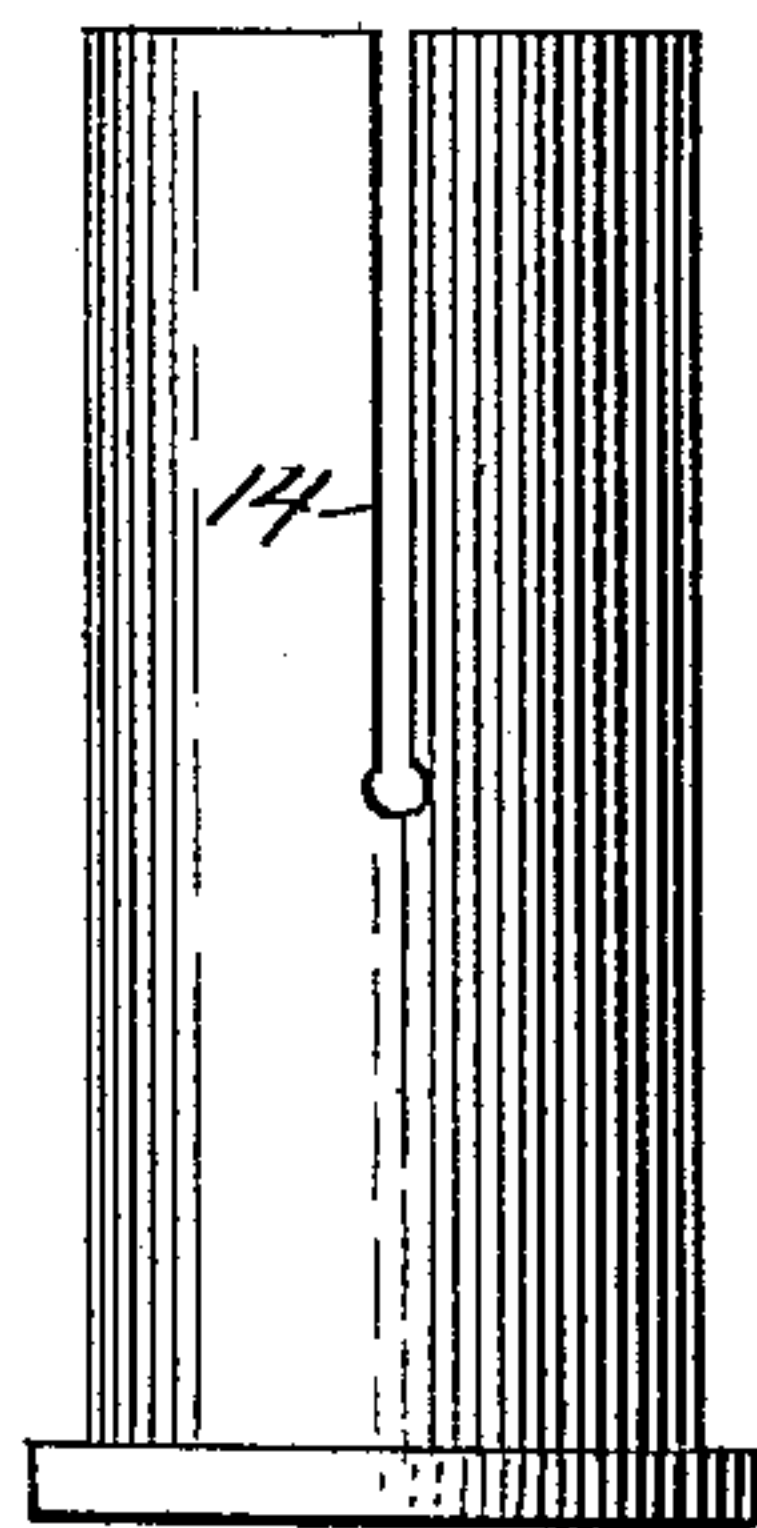
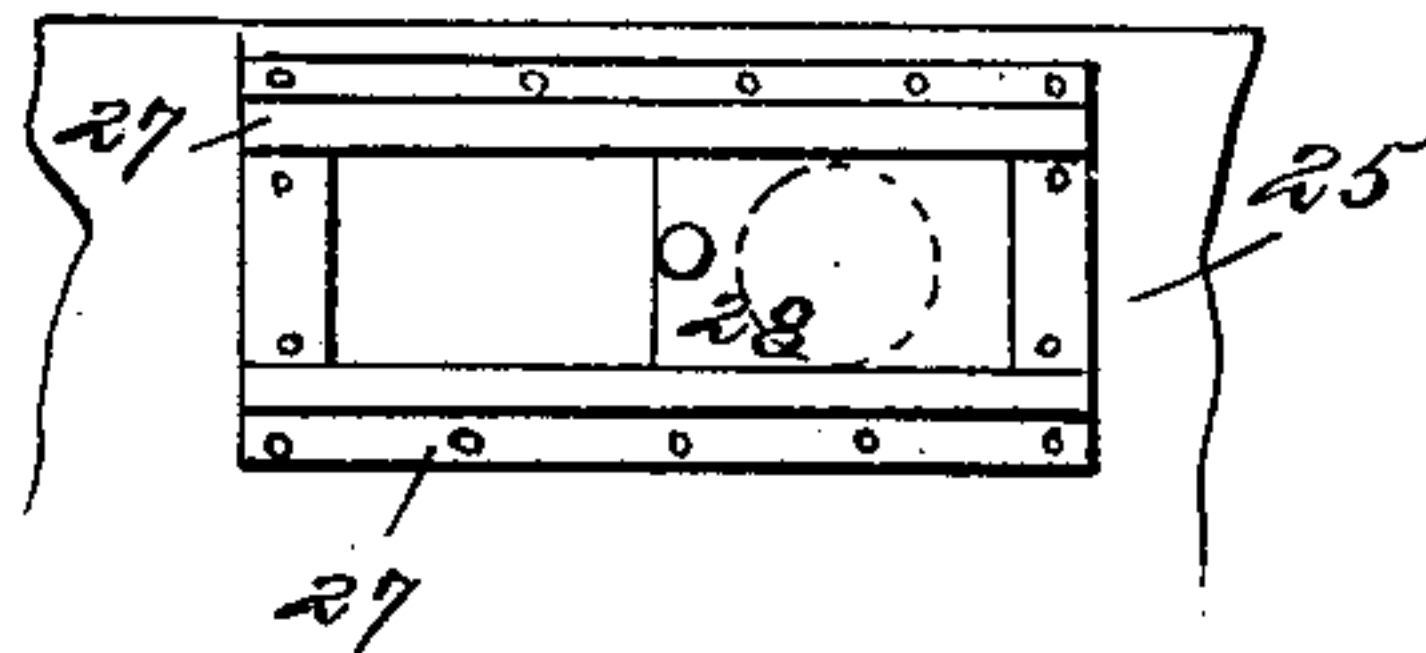


Fig. 3.



WITNESSES:

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CHARLES H. GRUBE, OF ROBINSON, ILLINOIS.

LAMP.

SPECIFICATION forming part of Letters Patent No. 403,660, dated May 21, 1889.

Application filed April 18, 1888. Serial No. 271,069. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HENRY GRUBE, of Robinson, in the county of Crawford and State of Illinois, have invented a new and useful Improvement in Lamps, of which the following is a full, clear, and exact description.

My invention relates to an improvement in lamps, and has for its object to provide a lamp wherein the force of the wick-raising mechanism will be applied to the center of resistance, and the wick manipulated with a minimum degree of friction and adjusted to a nicety; wherein, also, the oil will be prevented from flowing over the outside of the bowl when the latter is overfilled; and, further, wherein the wick may be lighted without removing the chimney.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a central vertical section of the lamp; Fig. 2 represents various details of construction; and Fig. 3 is a partial side elevation of the outer ventilating-guard, illustrating a means for the insertion of a match to the wick.

In carrying out the invention the bowl 10 is provided at top and bottom with aligning openings 11, the upper opening being preferably the larger. The tube 12 is provided with a flange, 13, at the lower end, and at its upper end, upon opposite sides, is slotted longitudinally, as shown at 14 in Figs. 1 and 2. In attaching the tube 12, which, for convenience, I designate the "main" tube, to the bowl the said tube is inserted through the openings and secured by cementing or otherwise attaching the flange 13 to the bottom of the bowl. The upper end of the main tube extends a distance above the upper surface of the bowl, and near the base of the said tube and within the same a transverse bar, 15, is secured, which bar is adapted to retain a screw, 16, in a vertical position, as illustrated in Fig. 1, the screw being provided with a head having a serrated or otherwise

roughened periphery. A second short tube, 17, having an outer annular flange integral with one end, is inserted in the main tube, the flange portion being downward and attached to the sides of the tube 12 at or about the center. The upper end of this inner tube 17 does not extend much farther than slightly above the line of the outer upper surface of the bowl. This tube 17 is designed to prevent any oil that may have been admitted into the main tube from passing out from the same at the base, as the flange spaces the main tube, and the tube 17 imparting to the same the character of a guard or cup.

The outer tube, 18, is held to slide upon the main tube, to which outer tube the wick 19 is secured in any approved or proper manner, in order that the tube and wick may work together. This outer tube, 18, is shorter than the main tube 12, whereby the wick may project above and below the same.

The arms of the spider 20 are attached to the wick-tube 18, the body of which spider is provided with a central threaded aperture adapted for the reception of the upper end of the adjusting-screw 16, as shown in Fig. 1. The contour of the spider is preferably such that the arms at their extremities will be horizontal, from whence they are extended upward vertically and over the upper end of the cup or guard-tube 17 to an attachment with the wick-tube. Thus when the adjusting-screw 16 is manipulated the wick-tube is raised or lowered and likewise the wick.

To form the outer support for the wick, above the top of the lamp, an imperforate guard-tube, 21, is provided, having at or near the center an annular flange, 22, the inner surface being perfectly smooth. In inserting this guard-tube in the lamp the lower edge is passed down in the bowl, the flange resting upon the upper surface.

To build the burner, an inner collar, 23, is provided, which collar at or about the center at the lower end is contracted to fit within the upper end of the main tube 12. The upper surface of the collar 23, resting upon the top of the main tube, is carried upward and flanged outward, as shown at 24, in Figs. 1 and 2, to form a spreader. The larger or upper portion of this collar is preferably perforated.

As an auxiliary guard for the burner and as a means of supporting the chimney, a cylindrical perforated body, 25, is made to surround the guard 21, being preferably secured to the flange of said guard, and, if necessary, also to the body of the bowl. For supporting the chimney a short tube or collar, 31, provided at its lower edge with an outwardly and upwardly extending flange, 32, is secured to the upper end of the body 25.

In order to facilitate the lighting of the lamp and to accomplish this object without removing the chimney, the outer guard, 25, below the collar 31, is provided with an aperture or opening, 26, and above and below said opening with ways 27, as best shown in Fig. 3. In the ways 27 a slide, 28, is fitted, which slide is perforated and adapted normally to cover the said opening. Thus, when it is desired to light the lamp, by carrying the slide 28 in the direction to expose the opening in the outer guard, a lighted match may be inserted through this opening to a contact with the wick, and when the match is withdrawn the slide may be restored to its former position.

The bowl 10 is provided with the usual collared and capped aperture, 29, in the upper surface, whereby it is filled, which inlet is surrounded by a barrier, 30, consisting of a strip of metal extending vertically upward from the body, entirely surrounding the burner, the purpose of which barrier is to prevent the escape of oil down the sides of the bowl should the latter be overflowed in being filled. This barrier, if found desirable, may constitute an integral portion of the bowl or may be attached thereto.

It will be observed in operation that by means of the adjusting-screw 16 the wick may be raised or lowered as desired, the same being under perfect control of the operator. This arrangement is positive in its action and not liable to become disordered, as is the case with the usual pinion and spur wheel.

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

1. The combination, with the main wick-tube 12, open at both ends and having longitudinally-extending slots 14, the oil-cup 17

within the tube 12 and connected therewith at its lower end below the slots 14, and the wick-raising tube 18, surrounding the main tube and covering its slots, of the screw 16, journaled within the main tube, whereby longitudinal movement of the screw is prevented, the vertically-movable spider 20, having a screw-threaded aperture through which the screw passes, and arms projecting upwardly over the top of the cup 17, then downwardly therein and through the slots 14, and secured to the tube 18, substantially as set forth.

2. The combination, with the bowl, the longitudinally-slotted tube 12, open at both ends and extending up through and above the said tube, the outer tube, 21, secured to the top of the bowl concentric with and extending above the upper end of tube 12, and the vertically-sliding tube 18, surrounding the tube 12 and between which and the tube 21 the wick-space is formed, of the collar 23, secured to the upper end of the tube 12 and having a flange, 24, projecting over the upper end of the wick-space, the screw journaled within the main tube and having rotary movement only, and the vertically-movable spider operated thereby and having arms extending through the slots in tube 12 and connected to the tube 18, substantially as set forth.

3. A lamp comprising a bowl, a slotted tube, 12, open at its ends and extending through the end above the top of the bowl, a concentric tube, 21, in the top of the bowl and projecting above the upper end of tube 12, the intermediate vertically-sliding wick-operating tube, 18, the perforated collar 23, contracted to fit in the upper end of tube 12, and having a flaring flange, 24, extending over the wick-space, the operating-screw journaled within the main tube and having rotary movement only, the spider operated thereby and having arms passing through the slots in tube 12 and secured to the tube 18, and the outer perforated tube, 25, on top of the bowl and having the chimney-holder 32, substantially as set forth.

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Witnesses:

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