(No Model.)

L. WOJIDKOW.

ALCOHOL LAMP.

No. 546,632. Patented Sept. 17, 1895.

Fig. 1.

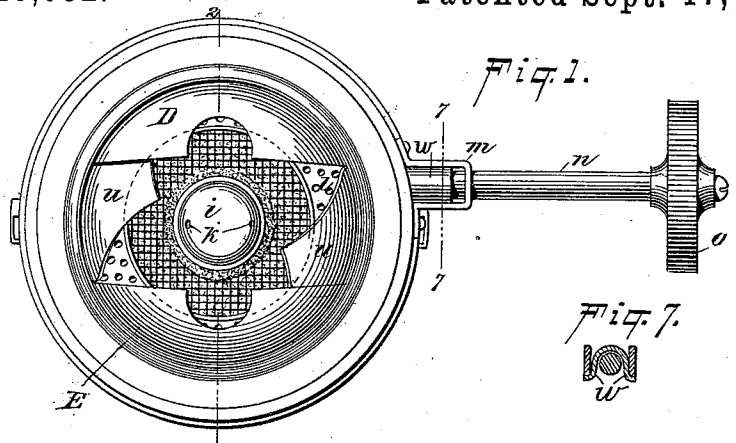


Fig. 7.

Fig. 2.

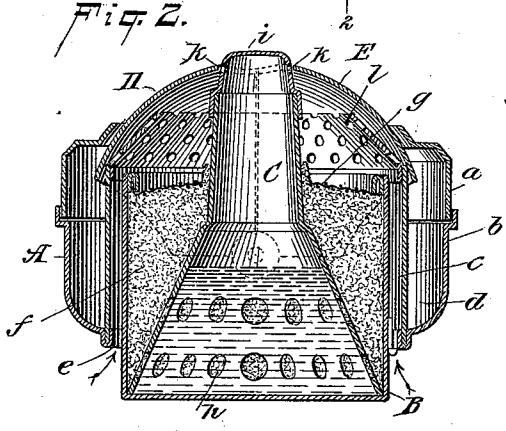


Fig. 3.

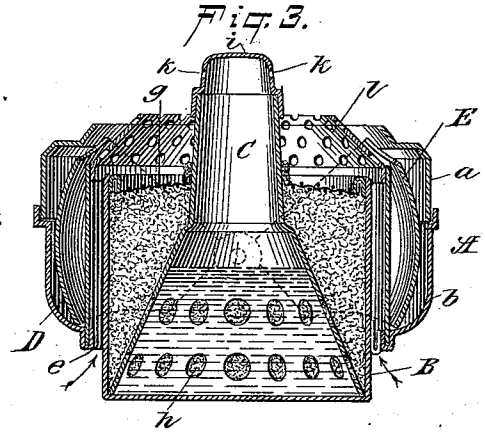


Fig. 4.

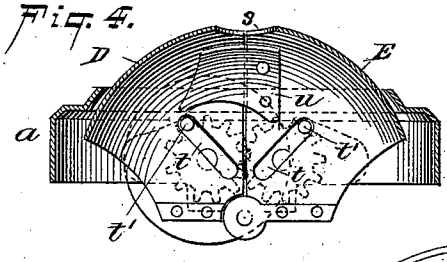


Fig. 5.

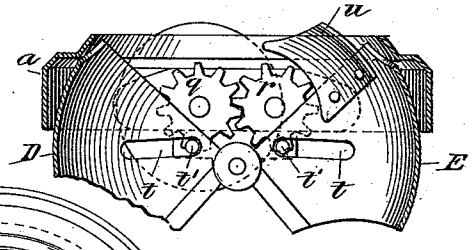
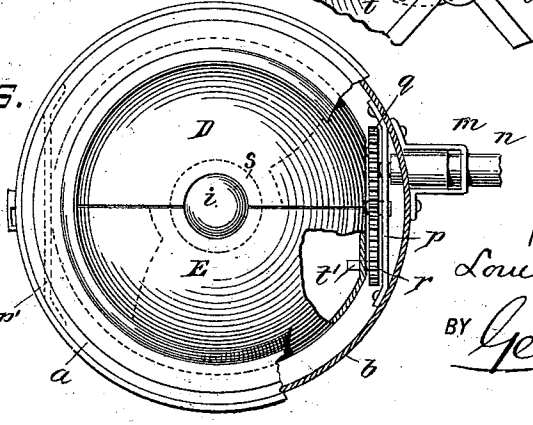


Fig. 6.



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LOUIS WOJIDKOW, OF BROOKLYN, NEW YORK.

ALCOHOL-LAMP.

SPECIFICATION forming part of Letters Patent No. 546,632, dated September 17, 1895.

Application filed November 14, 1894. Serial No. 528,713. (No model.)

To all whom it may concern:

Be it known that I, LOUIS WOJIDKOW, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Alcohol-Lamps, of which the following is a specification.

My invention relates to an improvement in alcohol-lamps, the object being to provide an article of this kind or character the flame or heat from which may be regulated at will; and with this and other ends in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan view of the lamp, the regulator being partly opened. Fig. 2 is a sectional view of the lamp with the regulator closed. Fig. 3 is a similar view with the regulator in its open adjustment. Figs. 4 and 5 are detailed views. Fig. 6 is a plan view with the regulator closed, a portion thereof being broken away to show the regulating mechanism. Fig. 7 is a detail sectional view taken on the line 7 7 of Fig. 1.

Referring to the drawings, A represents the outer shell, made up of the upper section *a*, the lower section *b*, and the inner vertical side *c*, secured at its lower end to the section *b*, a space *d* being left between said inner side *c* and the sections *a b*, as shown in Figs. 2 and 3.

B represents the body proper of the lamp, to which is secured at a short distance above the bottom thereof the plate or side *c* of the outer shell, a space *e* being left between them for conducting the air from the lower end of the lamp to and over the flame, as indicated by the arrows. Within the body B is contained the hollow cone or receptacle C, the lower portion of the latter fitting tightly in the bottom of the body and the upper end or portion extending a short distance above the top of the body and outer shell. Within the body and surrounding the lower half or portion of the cone is also contained a filling or packing of asbestos sponge or other material *f*, over which is placed the wire-gauze *g*, an opening being left in the center of the latter for the passage of the neck or upper end of the cone C, and also to allow of the protrusion of a small portion of the asbestos filling, as shown in Figs. 1 and 2, for facilitating the lighting of the lamp.

The lower portion of the cone C is adapted to contain the alcohol, the upper end of said cone forming the cap *i* being removable, whereby the cone may be filled or partially so as easily and readily as in other forms of lamps. The lower portion of the cone is provided with the openings *h*, through which the alcohol passes into the asbestos or other filling *f*, the cap *i* being also perforated, as shown at *k*, to allow of the escape of any gas which might be generated within the cone.

Into the upper portion or end of the space *e* is fitted the perforated ring or deflector *l*, which directs the air passing up through the flue *e* into and over the flame.

To the upper section *a* of the outer shell is secured a bracket *m*, into and through which passes a shaft *n*, the outer end of which has formed or secured thereon a disk or handle *o*, the opposite end of said shaft passing through the shell *a* and bracket *p*, the latter being secured to the inner side of section *a*, as shown in Fig. 6.

The extreme inner end of the shaft *m* has secured thereon the ratchet-wheel or pinion *q*, meshing or engaging with a similar pinion *r*, pivoted to the inner side of the bracket *p*. To the inner side of the section *a* and opposite the bracket *p* is secured another bracket *p'*, to which brackets *p p'* are pivoted the two sections D E of the regulator, made in the form of sectors of hollow spheres and having a portion of their adjacent edges cut away, as shown at *s*, for the purpose of fitting around the top or cap *i* of the cone C.

In the sections D E are formed the slots *t*, into and through which project studs or projections *t'*, secured to or formed on the ratchet-wheels *q r*. By forming these slots on a slant and at an angle with each other it will be seen that by turning the handle *o'*, Fig. 1, in one direction the studs *t' t'* on the ratchet-wheels *q r* are carried downwardly, forcing the sections D E of the regulator apart and carrying them downwardly into the space within the outer shell, as shown in Fig. 3. If the handle *o* is turned in the opposite direction, the sections D E will be raised and

brought toward each other, as shown in Fig. 2, thereby completely closing or covering the top of the lamp. To further regulate the flame of the lamp, I secure to these sections D E the plates *u u*, preferably made in the form shown and of such size that when the regulator is entirely opened to give the largest flame said plates will be entirely separated. By use of these plates it will be seen that in separating the sections D E the opening instead of allowing a narrow or flat frame will more nearly approach a circular opening, thereby giving a finer adjustment than is possible with the sections D E alone.

In order to prevent the regulators from dropping or separating by their own weight, I place a piece or strip of spring metal *w* over the shaft *n*, as shown in Figs. 1 and 7, and bend the ends thereof over and against the lower edges of the bracket *m* to retain it in position. This spring by bearing on or against the shaft *m* prevents the shaft from revolving and thereby holds the regulators in any desired adjustment.

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

1. An alcohol lamp constructed with a body proper, a perforated cone, or inner receptacle for receiving the alcohol, and a packing of asbestos or similar material contained within said body, and around said cone, substantially as described.

2. An alcohol lamp constructed with a body proper for containing asbestos, or other material, an outer shell surrounding and secured to said body proper, and a perforated cone or inner receptacle located within said body proper for receiving the alcohol, substantially as described.

3. An alcohol lamp constructed of a body proper, an outer plate or shell, secured to and surrounding said body, leaving an air space between them, and a perforated deflector fitting between said plate and body proper and extending above and over said body proper, for directing the air to the flame, substantially as described.

4. An alcohol lamp constructed with a body proper, containing an inner perforated cone or receptacle for receiving the alcohol, and having a removable perforated cap extending above said body, substantially as described.

5. An alcohol lamp constructed with a body proper for containing asbestos or similar material, a perforated cone or receptacle, located within and extending above said body, and a wire gauze or netting extending over said asbestos, and having its center removed for the protrusion of said cone, substantially as described.

6. An alcohol lamp constructed with a regulator consisting of the sections D, E, having secured thereto plates *u*, *u*, substantially as described.

7. An alcohol lamp, constructed with a body, located within an outer shell, a regulator, a shaft, connected with the latter, and passing through a bracket attached to said shell, and a strip of spring metal bearing on said shaft and against said bracket for holding the regulator in its different adjustments, substantially as described.

8. An alcohol lamp constructed with a body proper and containing an inner cone or receptacle, extending above said body, and a regulator adapted to be opened or closed above said body, and fitting around the upper end of said cone, substantially as described.

Signed at New York, in the county of New York and State of New York, this 2d day of November, A. D. 1894.

LOUIS WOJIDKOW.

Witnesses:
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JOHN F. FLAGG, Jr.