2 Sheets—Sheet 1.

H. C. HART.

Lamps.

No. 197,630. Patented Nov. 27, 1877.

Fig. 1.

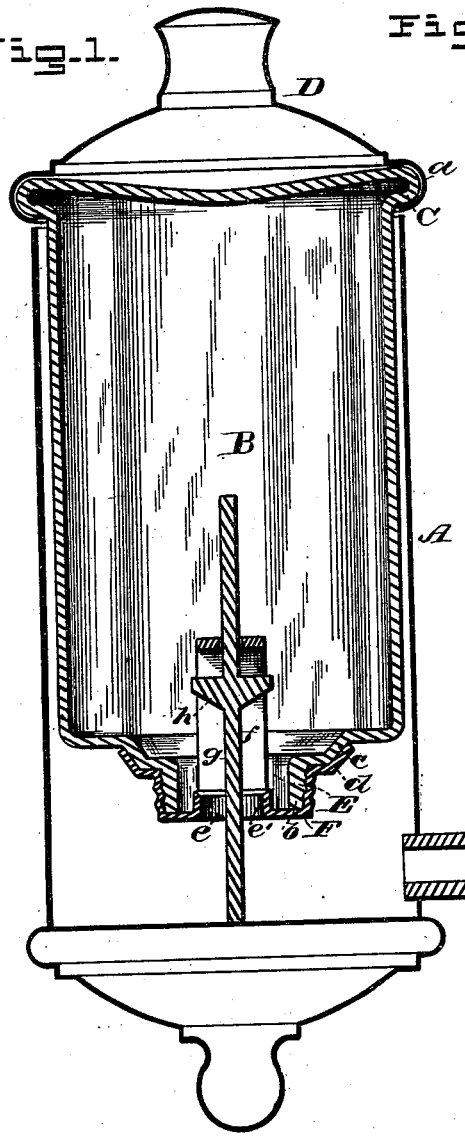
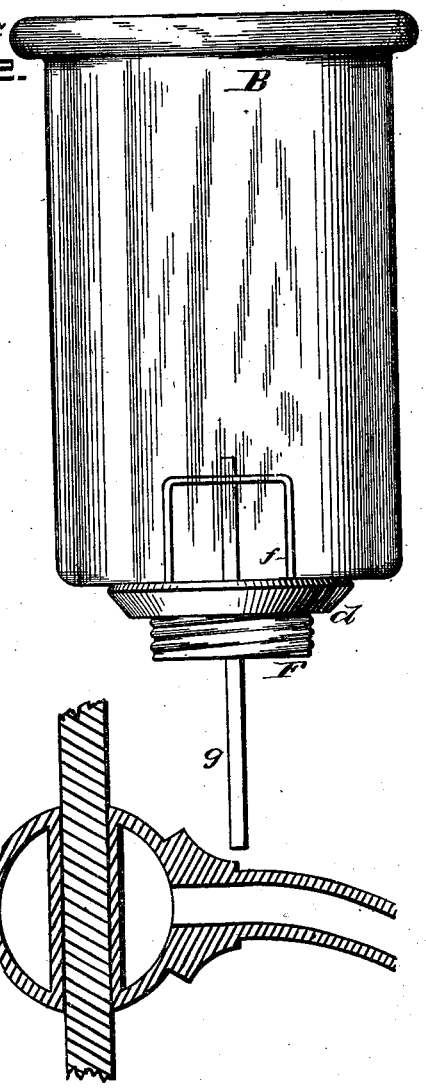


Fig. 2.



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2 Sheets—Sheet 2.

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Fig. 3.

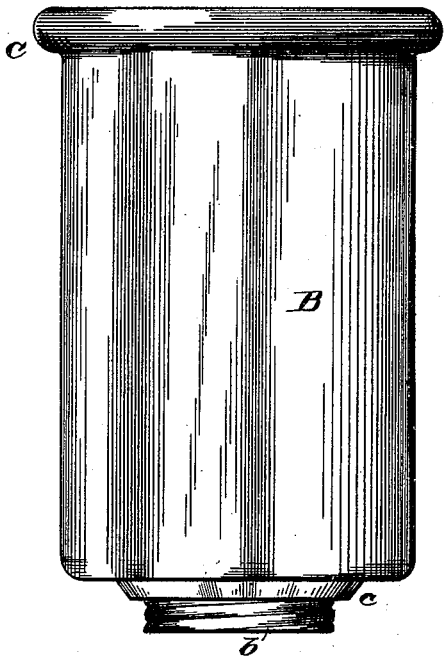


Fig. 4.

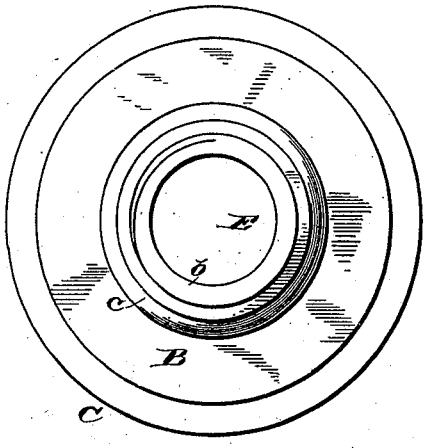


Fig. 5.

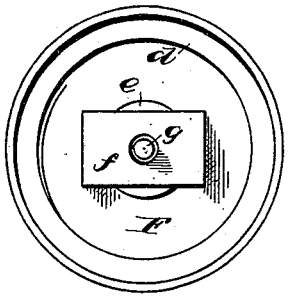
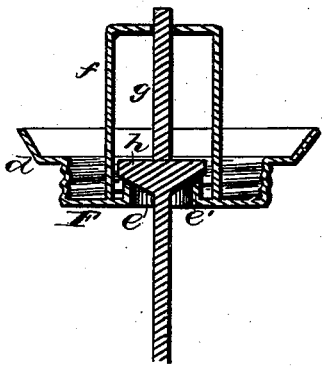


Fig. 6.



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UNITED STATES PATENT OFFICE.

HENRY C. HART, OF ADRIAN, MICHIGAN.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **197,630**, dated November 27, 1877; application filed April 28, 1877.

To all whom it may concern:

Be it known that I, HENRY C. HART, of Adrian, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Lamps; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same.

This invention is in the nature of an improved construction of the oil-reservoirs of German students' lamps.

It is well known that in these lamps as heretofore constructed the oil-reservoir has been made of metal. Now, metal reservoirs are objectionable, in that it is difficult to know, by reason of their opacity, how much oil they contain, and also to know how much to pour into them in refilling, so that they often overflow in filling, and thus become fruitful sources of damage to furniture, clothing, &c., and of annoyance and loss.

It is the object of my invention to overcome these evils; and to this end I construct the oil-reservoirs of German students' and similar lamps of a transparent material, as glass, so that the quantity and condition of the oil therein may be at all times readily ascertained.

The invention further consists in certain details of construction in adapting a transparent oil-reservoir to such lamps.

In the drawings illustrating my invention, Figure 1 is a vertical section of my oil-reservoir and its holder; Fig. 2, a side elevation of said reservoir and its cap; Fig. 3, a side elevation of the reservoir alone; Fig. 4, a plan view, looking at its mouth; Fig. 5, a plan view of the reservoir's cap; and Fig. 6 is a central section of the cap and its valve.

The letter A denotes the ordinary metallic reservoir-holder of a German student's study or similar lamp; B, the oil-reservoir, which has heretofore been made of metal, and is opaque or unprovided with means for permitting the ready inspection of its contents, but which I make of transparent material, as glass, whereby the quantity and condition of the oil contained therein may be readily seen. The outer end or base of this reservoir I construct with a bead, C. D is the holder-cover, of the same material as the holder A, so as to present a uniform external appearance in said holder. This cover D is secured to the reservoir so as to form a knob or manipulating medium thereof, by means of its flange *a*, which is turned down over the bead C of the reservoir.

This mouth E of the reservoir is provided with a neck, *b*, screw-threaded on its external surface. The mouth is also provided with an angular shoulder, *c*. F is a screw-cap, adapted to the neck of the mouth E, and having an angularly-flaring rim, *d*, fitting closely to the shoulder *c*, so as to form a joint between the cap and the reservoir.

This cap is constructed with a central opening, *e*, surrounding which and extending inwardly is a flange, *e'*. This flange *e'* forms a seat for the valve *h*. This valve *h* is secured to a stem, *g*, which is supported or guided in a bracket, *f*, rising from the cap.

The stem *g* is of such length as to extend out of the reservoir, and when its end rests upon the bottom of the holder A, as in Fig. 1, the valve *h* will be raised from its seat *e'*. The bead C, by resting on the edge of the holder, bears the weight of the reservoir, and supports it within the holder.

By making the oil-reservoir of transparent material its contents may be ascertained, so as to know whether or not it is sufficiently full when filling it, and also whether or not it requires refilling, and this without removing any of the parts of the reservoir.

The oil-reservoir may be filled through the opening *e* in the cap, or through its mouth by removing—that is, unscrewing—the cap, and the valve *h*, having been drawn to its seat *e'*, so as to close the opening *e*, the reservoir may be inverted and placed within the holder. As soon as the stem *g* touches the bottom of the holder the valve is unseated, and the oil escapes into the holder and wick-supplying tube in the manner well known.

The cover D affords a knob or medium for handling the reservoir, as will be understood.

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

1. In a German student's or similar lamp, a

metallic reservoir-holder, combined with a transparent oil-reservoir, substantially as described.

2. The combination of the bead C of the glass reservoir B and the cover D, substantially as described.

3. The screw-cap F, provided with bracket *f* and flange *d*, in combination with the screw-threaded neck *b* and shoulder *c*, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY C. HART.

Witnesses:
H. M. COLE,
JOHN W. FINCH.