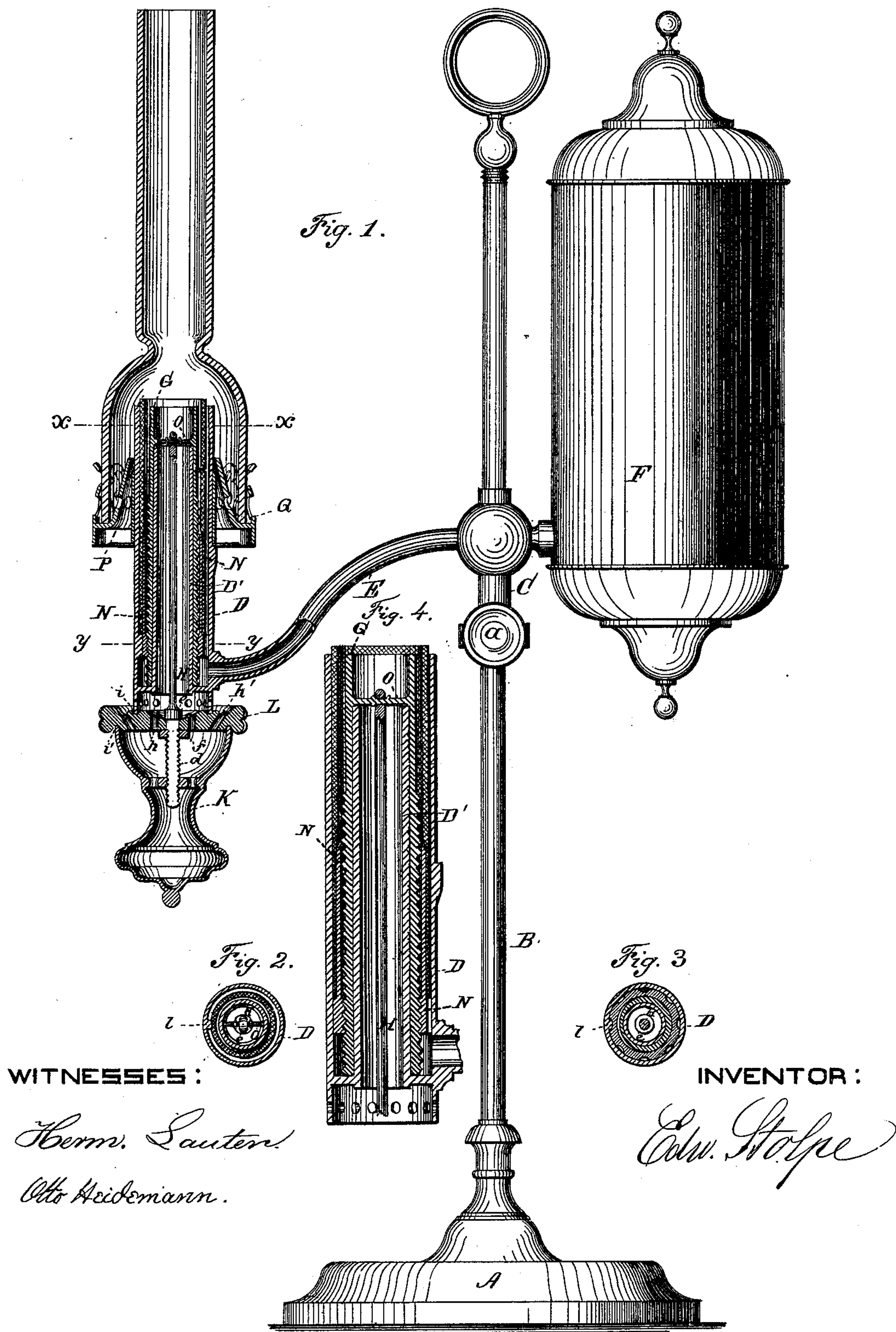


E. STOLPE.
Lamp.

No. 220,315.

Patented Oct. 7, 1879.



UNITED STATES PATENT OFFICE.

EDWARD STOLPE, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **220,315**, dated October 7, 1879; application filed January 29, 1879.

To all whom it may concern:

Be it known that I, EDWARD STOLPE, of Washington city, District of Columbia, have invented certain new and useful Improvements in Lamps; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of lamps known as "student-lamps," in which the oil-reservoir is on one side of the stand and the burner on the other side; and my invention consists in so constructing said lamp that by using the smallest possible quantity of metal, and by allowing a greater space for the passage of air, the burner is not heated to so great a degree as to cause the production of inflammable gas, as is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of a student-lamp, the burner and wick being shown in section. Fig. 2 is a horizontal section of the burner on the line *x x*, Fig. 1. Fig. 3 is a horizontal section of the same at *y y*, Fig. 1. Fig. 4 is an enlarged sectional view of the burner.

The wick-tube has a double wall, which is connected and closed near the bottom, the space between the two serving as a chamber to receive the oil and wick, and also a part of the mechanism for raising and lowering the wick. The wick-tube is, as usual, round, and the wick tubular. The lower end of the outer wall of the wick-tube extends below the inner, and is perforated.

The tube *G* is provided on the outside with a screw-thread, and passes over the inner portion, *D'*, of the wick-tube. A short tube, *N*, passes over the tube *G*, and on this the wick is drawn and fastened. Inside of tube *N*, at its lower end, is cut a female screw-thread, which works in the male screw-thread on tube *G*. The lower end of tube *N* has a projection provided with slits, in one of which the guide *l*, on the inner side of the outer wall, *D*, of the

wick-tube, slides, as shown in Fig. 3. The other slits in the projecting portion of tube *N* serve as openings for the oil to penetrate to the wick-chamber.

Near the upper end of tube *G* is a cross-bar, *O*, resting on the inner portion of the wick-tube *D D'*, as shown in Fig. 2. To this bar is attached, by a hook or other suitable device, a shaft or rod, *H*, passing vertically down through the center of the wick-tube *D D'*, and having at its lower end a shoulder, *e*, which bears against the turning disk *L*, secured in place by the nut *f*.

The drip-cup *K* is secured to the lower end of the rod *H* by means of a screw-thread, *d*, on the lower projecting part of rod *H*, which also holds it firmly up against the turning disk *L*.

The turning disk *L* is provided with drip-holes *h h'*, and has an upper circular groove, *i*, for the reception of the lower perforated end of the wick-tube *D D'*, and a lower groove, *i'*, to receive the upper rim of the drip-cup *K*.

An annular perforated disk, *P*, provided with a stationary chimney-holder, *Q*, is attached at any suitable place to the wick-tube. Through the perforations therein air is supplied to the outer side of the flame. The inside of the flame is supplied with air through the interior of the inner wall of the wick-tube *D D'* by means of the perforations in the lower end of the outer wall of the wick-tube and the drip-holes in the turning disk *L*.

In order to raise or lower the wick the disk *L* is turned to the right or left, causing the shaft *H*, attached to cross-bar *O*, to turn the tube *G*, which, by the action of its lower threaded part on the correspondingly-threaded portion of the tube *N*, raises or lowers this tube and the wick.

The passage of air to the inner and outer sides of the flame not being obstructed, as in other student-lamps heretofore made, the overheating of the metal is prevented and risk of spontaneous explosion obviated.

I claim as my invention—

1. The combination and arrangement of wick-tube *D D'* with tube *G*, provided with a cross-bar, *O*, said cross-bar being attached

some distance below the upper end of tube G, and resting on top of the inner portion of wick-tube D D', substantially as specified.

2. The combination and arrangement of a wick-tube, D D', tube G, and cross-bar O, located as described, with a shaft or rod, H, said rod having a shoulder, *e*, and screw-threaded extension *d*, substantially as specified.

3. The combination and arrangement of wick-tube D D', tube G, cross-bar O, and shaft or rod H with a turning disk, L, having drip-holes *h h'* and circular grooves *i i'*, and kept in place by a screw-nut, *f*, substantially as and for the purposes specified.

4. The combination and arrangement of wick-tube D D', tube G, cross-bar O, shaft or rod H, turning disk L, and drip-cup K, substantially as and for the purposes described.

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

EDW. STOLPE.

Witnesses:

HERM. LAUTEN,
J. C. SCHROEDER.