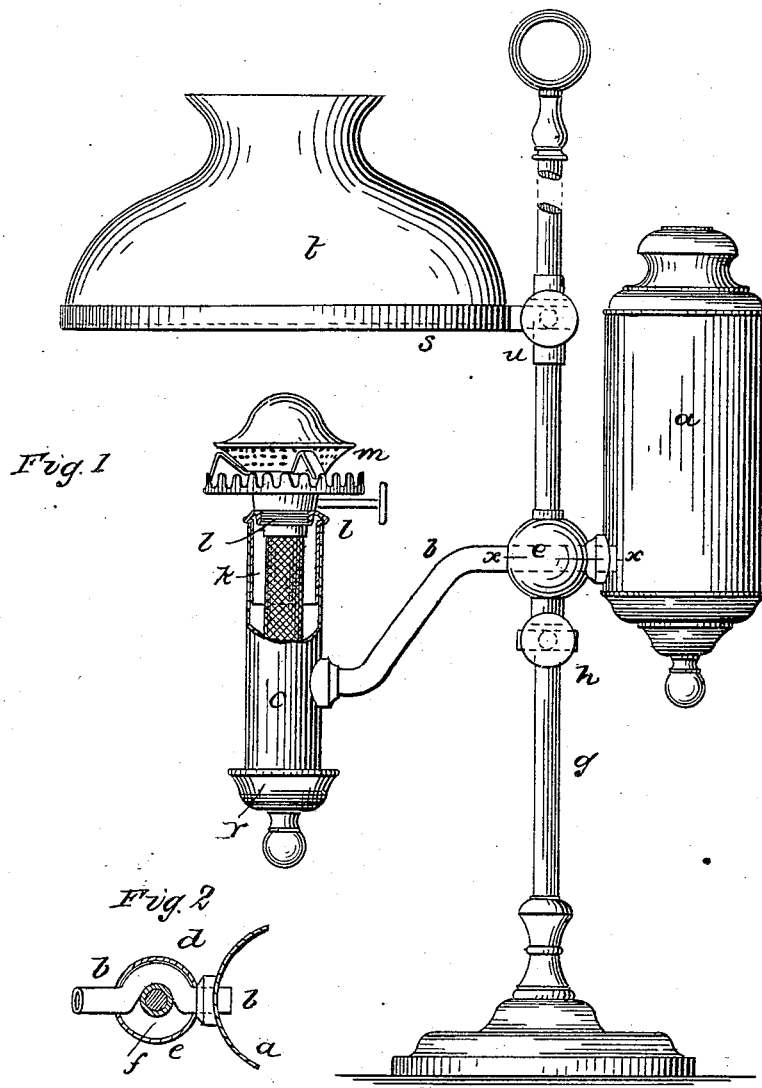


C. F. A. HINRICHS.

Lamp.

No. 110,464.

Patented Dec. 27, 1870.



Inventor

Chas. F. A. Hinrichs.

witnesses
Geo. A. Walder.
Harold Perrell.

Samuel W. Perrell
att'y

UNITED STATES PATENT OFFICE.

CHARLES F. A. HINRICHS, OF NEW YORK, N. Y.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **110,464**, dated December 27, 1870.

To all whom it may concern:

Be it known that I, CHARLES F. A. HINRICHS, of the city and State of New York, have invented and made a new and useful Improvement in Lamps; and the following is declared to be a correct description of the same.

This invention is an improvement in the lamp known as the "German Student Lamp," and is designed to obviate certain difficulties that have been experienced therein.

In constructing the tube that passes from the reservoir to the wick-tube, it has been usual to make it in two pieces, with a globe introduced at the place where the vertical standard intersects the said tube, a pipe passing through this globe of a size to slide over the standard. In this construction there are four joints or seams to be made tight by soldering or brazing, and the parts are liable to be bent or to leak. I remedy this difficulty by making the tube from the reservoir to the wick-cylinder in one piece, bent into a bow or half-circle where it passes through the ornament or ball that surrounds the tubular slide for the standard.

In the aforesaid character of lamp an Argand flame has usually been employed; but where a flat-flame burner has been used there has been difficulty in placing the collar for the screw of the burner so that the flat flame will stand in the proper position relatively to the other parts. I rectify this difficulty by attaching the screw-collar to a cylinder that is within the wick-cylinder, so that the entire burner can be turned around into the desired position.

In the drawing, Figure 1 is an elevation of the lamp, the wick-cylinder and collars being in section; and Fig. 2 is a sectional plan at the line *x x*.

The oil reservoir or fountain *a* is made substantially as shown in Letters Patent No. 37,867, reissued March 3, 1870, No. 3,900, or may be made in any of the known modes.

The tube *b* passes from the lower part of the reservoir *a* to the wick-cylinder *c*, and is bent into nearly a semicircle at *d*, where the globe or ornament *e* is applied around said bend and the tubular slide *f* for the standard *g*.

The wick-cylinder *c* is entirely closed at the bottom, so as to form an oil-holder for the lamp-burner.

This standard *g* and the clamping-screw *h* are of usual construction.

The bent tube *b*, between the reservoir *a* and tube *b*, may be used in lamps with an Argand burner; but I have shown my improved burner attachment as made with the cylinder *k* within the cylinder *c*, and receiving the collar *l* for the lamp-burner *m*. This burner *m* may be of any desired kind, there being nothing in the burner itself invented by me.

The burner *m* being screwed into the collar *l*, that and the cylinder *k* can be turned around (within *c*) until the flat flame from the burner stands in the desired direction, after which said cylinder *k* may be held in its position by a clamp-screw or by a drop of solder; or a screw-thread may be applied outside of *k* and inside of *c*, so as to raise or lower the burner, as well as to adjust the direction in which the flame stands.

The wick from the burner *m* hangs down within the cylinder *c*, so as to come in contact with the oil therein, and the oil will always be maintained at nearly the same level until exhausted.

The burner *m* may be of any of the well-known forms, and produces either a flat or a circular or an Argand flame.

The cup *r* catches any oil that may run down the outside of the wick-cylinder *c* or the tube *b*, so as to prevent any dripping from overflow or otherwise, and the shade-ring *s* and shade *t* are supported by a slide-tube, *u*, and clamp-screw to the standard *g*, so as to be capable of being raised or lowered, as required, for the convenience of the user, or as may be required for the particular character of burner that may be used with the lamp.

I claim as my invention—

1. The pipe *b*, passing from the reservoir *a* to the wick-cylinder *c*, and bent within the globe or ornament *e*, through which globe *e* the slide-tube *f* for the standard *g* also passes, as and for the purposes specified.

2. The wick-cylinder *c* and movable collar *l*, in combination with a burner from which the wick hangs, substantially as and for the purposes set forth.

Signed by me this 3d day of October, 1870.

C. F. A. HINRICHS.

Witnesses:

GEO. D. WALKER,
GEO. T. PINCKNEY.