

N. BENEDICT.

Lamp.

No. 96,664.

Patented Nov. 9, 1869.

Fig. 1

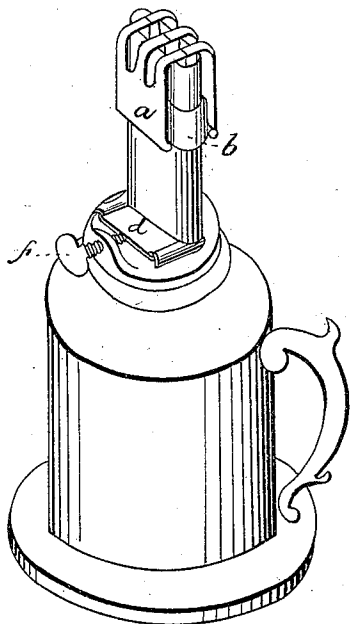


Fig. 2

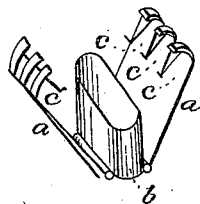


Fig. 3

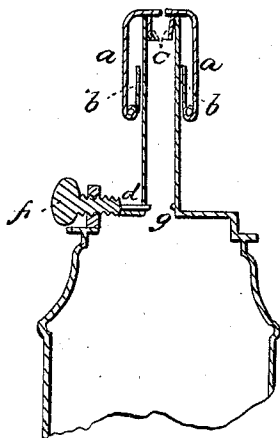
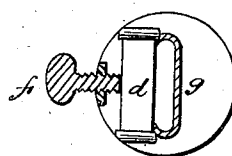


Fig. 4



Witnesses

Levellon A. Brown
Henry Amy Wood

Inventor

Newton Benedict

United States Patent Office.

NEWTON BENEDICT, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 96,664, dated November 9, 1869.

LAMP.

The Schedule referred to in these Letters Patent and making part of the same.

I, NEWTON BENEDICT, of the city of Washington, in the District of Columbia, have invented certain Improvements in Lamps, of which the following is a specification.

The object of my invention is to provide a lamp, requiring no chimney, which lamp, with a moderate consumption of kerosene or other oils, shall give a superior light, and not smoke, or allow the escape of unconsumed vapors.

The improvements herein set forth, in accomplishing this object, also incidentally lessen the chances of explosion.

Figure 1 is a perspective, showing the lamp complete, with my improvements adjusted as when in use, the wick being omitted, that the parts may be more distinctly seen.

Figure 2 is the sliding clamp *a b c*, seen at the top in figs. 1 and 3.

Figure 3 is a vertical section of the lamp, through the middle of the width of the wick-tube.

Figure 4 shows the top of the reservoir, with the wick-tube cut away in a plane with the upper surface of the gauge-plate *d*.

The ring *b* is fitted to the wick-tube, so as to slide up and down upon it.

To this ring clamp-jaws *a* are hinged, their upper slitted extremities being so bent that they may be brought to meet over the top of the wick-tube, forming a slitted cap thereon, covering the end of the wick with narrow strips of metal, and dividing the base of the flame into several small sections.

From near the ends of these strips, which are designed to close entirely over the wick, claws, marked severally with *c*, project downward, so as to clamp against the sides of the wick, and, by means of their turned tips, fasten to it.

They are set at the proper points in the clamp *a b*, to allow of their passing just inside the wick-tube, as seen at figs. 1 and 3. Holding to the wick, they raise or lower it, to correspond with the sliding up or down of ring *b*.

Thus the wick is adjusted to the requirements of the flame, by moving the ring *b*, and no incisions or holes in the sides of the tubes are required for appliances to move the wick.

The tube near *d g*, fig. 3, should be sufficiently enlarged to allow some looseness in the length of the wick, that its temporary adjustments to the flame need not disturb the part of it below *d g*.

f d is a press-gauge, for regulating the flow of oil through the wick.

g is a straight ridge inside the tube, corresponding exactly with the inner edge of the sliding plate *d*, which is moved by screw *f*, and if made to meet *g*, would entirely close the passage from the reservoir to the top of the tube.

The action, upon the wick, of plate *d*, retards the flow of oil upward, and may be made to stop it entirely. The requisite pressure for the proper flow of oil, effectually cuts off all communication, by vapors, between the reservoir and the flame.

The device indicated by the letters *a b c* so breaks up the ordinarily compact sheet or column of vapor, inside the flame, as to greatly improve its combustion and lessen the smoke, and the device *f d g*, in moderating the flow of oil to the flame, co-operates with device *a b c*, to entirely prevent smoke, at the same time that the wick and the flame are sufficiently high for a superior light.

I claim, as my invention—

1. The sliding clamp *a b c*, forming, for the wick, a slitted cap or covering, attached and operating in the manner and for the purposes hereinbefore set forth.

2. The construction, in the wick-passage, of the press-gauge *f d g*, substantially as and for the purpose hereinbefore set forth.

NEWTON BENEDICT.

Witnesses:

EVERETT J. DALLAS,
CLEMOND R. WOODIN.