J. A. PEASE.

Lamp-Burner.

No. 167,017. Patented Aug. 24, 1875.

Fig. 3.

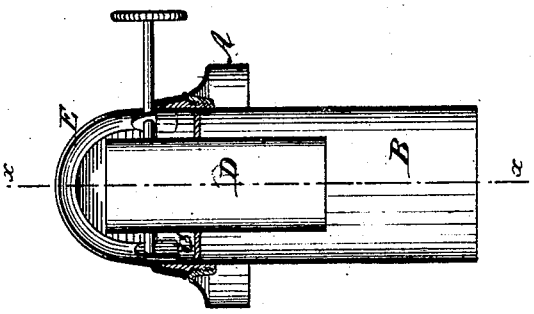


Fig. 4.

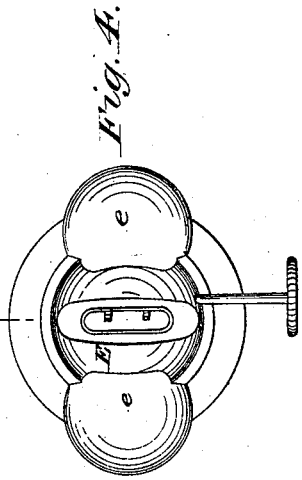


Fig. 2.

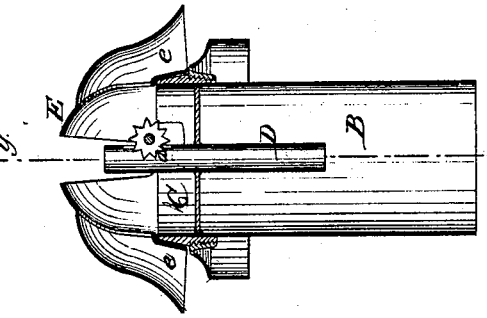
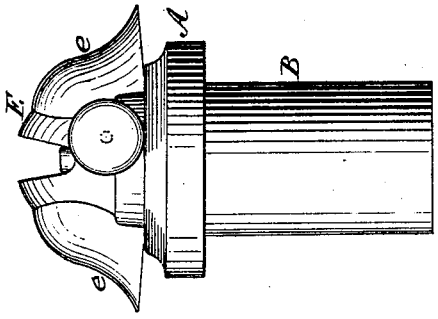


Fig. 1.



Witnesses:

Thomas C. Connolly.

J. W. Collamer.

Inventor:

Julius A. Pease

UNITED STATES PATENT OFFICE.

JULIUS A. PEASE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **167,017**, dated August 24, 1875; application filed July 28, 1875.

To all whom it may concern:

Be it known that I, JULIUS A. PEASE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Lamp-Burners; 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 pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a side view of the tube, collar, and cap; Fig. 2, a vertical side section through the line *x x* of Fig. 3, and Fig. 3 a vertical transverse section through the line *y y* of Fig. 2; and Fig. 4, a top view of the removable cap.

My invention relates to that kind of lamps which are used to burn paraffine, lard, tallow, and the cheap oils; and it consists in a movable cap for the lamp, provided with air-ducts, which direct currents of air to the flame, for the purpose of spreading the same and producing perfect combustion, and also in the combination of the said cap with a tube for conducting heat to the material in the bowl of the lamp, the said tube being partitioned near its top to form a reservoir.

In the drawing, A represents a collar, which is connected by any suitable means to the mouth of the lamp. B is a tube, which extends into the lamp's bowl or chamber, and is to conduct heat to the paraffine, lard, tallow, or like material in said chamber, for the purpose of melting the same. It has, at or near its top, screw-threads, and is fastened to the lamp by screwing into the above-mentioned collar. A partition is placed transversely in the tube B, near its top, to form a reservoir, C, for the reception of paraffine or like material, which is to supply the wick until the paraffine or heavy oil in the lamp's bowl or chamber can be melted. The wick-tube D rises through the partition in tube B, and at the point *a* has slots for the ordinary ratchet used to raise the wick, and for the passage of oil to the wick. E is the cap for the lamp, and is made with air-ducts *e*. The ducts are to direct currents of air to both sides of the flame, in order to spread the same, and effect such combustion as will check the emission of smoke, and render the use of a chimney unnecessary. The cap fits over the tube B, which projects above the mouth of the lamp, and is made removable, so that easy access may be had to the reservoir C, for the purpose of filling the same.

The lamp operates as follows: The paraffine, lard, tallow, or like material is put into the lamp's bowl or chamber, either in a melted or solid state, and the tube B screwed into the collar A. The reservoir C is partially filled with oil, usually the same as that in the lamp's chamber. The cap E is placed in position, and the wick lighted. The cap soon becomes heated, and conducts the heat to the tube B, which heats and melts the oil in reservoir C. The wick, being supplied with oil from reservoir C through slots in the tube D, continues to burn, and the heat transmitted to tube B gradually extends the length of the tube, and melts the paraffine or like substance in the lamp's chamber, which is thus put in fit condition to supply the wick just as soon as all the oil in reservoir C has been used.

This present invention is an improvement on the patent granted me October 28, 1873, numbered 144,130.

I am aware that in kerosene-lamps the wick-tube has been made with air-ducts on both sides of it; but such is not my invention.

Having described my invention, what I claim is—

1. In combination with the removable cap E, provided with flame-orifice, the air-ducts *e*, attached to the sides thereof, and adapted to conduct air to the sides of the flame, substantially as set forth.

2. The detachable cap E, provided with air-ducts *e*, in combination with the tube B, reservoir C, and wick-tube D, substantially as and for the purpose set forth.

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

JULIUS A. PEASE.

Witnesses:

THOMAS C. CONNOLLY,

I. W. COLLAMER.