S. S. NEWTON.

Lamp.

No. 167,113. Patented Aug. 24, 1875.

Fig. 1

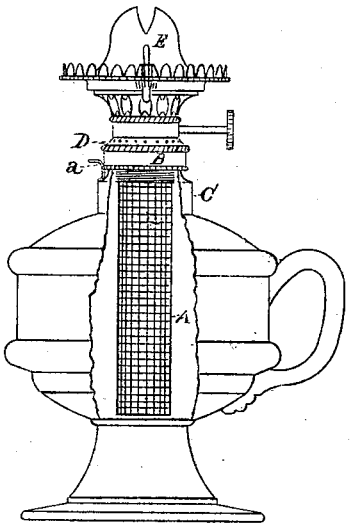


Fig. 2

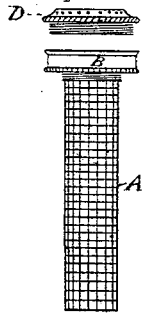


Fig. 3

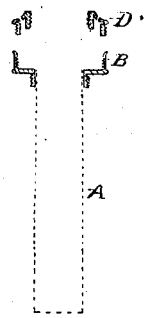
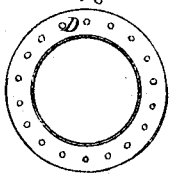


Fig. 4



Witnesses

H. C. Merrick

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UNITED STATES PATENT OFFICE.

STEPHEN S. NEWTON, OF BINGHAMTON, NEW YORK.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **167,113**, dated August 24, 1875; application filed March 12, 1875.

To all whom it may concern:

Be it known that I, STEPHEN S. NEWTON, of Binghamton, Broome county, New York, have invented certain Improvements in Lamps, of which the following is a specification:

My invention consists in the combination of a removable wire-gauze chamber, attached to a supplementary collar, and a non-conducting collar and burner; the object of the invention being to prevent the lamp from exploding, and to readily remove the wire-gauze chamber for cleaning; also, to obviate the heating of the parts connected with the burner, and the smoking and blurring of the chimney. The invention comprises a new arrangement of parts, which will hereafter be fully described.

Figure 1 in the accompanying drawing is a lamp embodying my invention, with a section of the shell removed, showing the wire-gauze chamber and its connections. Fig. 2 is a view of the chamber and supplementary collar, and non-conducting collar removed. Fig. 3 is a vertical transverse section of the gauze chamber and collar and non-conducting collar. Fig. 4 is a plan view of the non-conducting collar.

A is the wire-gauze chamber, which is attached to a supplementary collar, B, which screws into the stationary collar C, and has a female screw on the opposite side for the reception of the non-conducting burner-collar D, which also has a screw for the reception of the burner. This collar is made of vulcanized rubber, or other suitable material, and has perforations through the top, as shown by Fig. 4, which allows the surplus gas to escape, and admits air to enter the chamber formed by the combined collars, which increases the brilliancy of the flame, and prevents the blurring and smoking of the chimney. The supplementary gauze-chamber collar B is not to be removed, except for the purpose of cleaning; and for preventing it from unscrewing, when the burner is removed for filling the lamp, a stop-spring, *a*, is attached to the stationary collar C. E is the burner, which is constructed in the ordinary manner, and has a wire-gauze attached over the mouth of the gas-tube, which gives additional security by preventing the possibility of the flame entering the chamber in the neck of the burner. The parts of my invention are so constructed that they may be readily attached to the ordinary lamp, and the chamber formed by the combined collars obviates the liability of the fluid to leak out from the top of the lamp when agitated.

I do not claim, broadly, the gauze safety attachment, as I am aware that similar devices have been used before; but there are some advantages gained by my construction and combination of parts over any other of which I have knowledge. For instance, it has been found objectionable to attach gauze to the collar of the lamp on account of the difficulty in cleaning the lamp, and it is not desirable that it (the gauze) should be attached directly to the wick-socket, for two reasons: first, a person cannot get at the bottom of the wick-tube, nor at the lower end of the wick; and, secondly, when the gauze is so attached to the wick-socket, it conducts too much heat to the oil, both of which defects are overcome by my construction, particularly when I make collar D of a non-conducting material. It will also be observed that when the non-conducting collar D is employed it is necessary to use the supplemental washer B, as the gauze, being of metal, cannot be properly secured to the rubber of which collar D is made.

I claim as my invention—

1. The herein-described safety attachment for lamps, consisting of collar C, the metal collar B, the gauze A, attached to the collar B, and the non-conducting collar D, substantially as set forth.

2. In a lamp, the combination of the collar C, the supplemental collar B, and the friction-stop *a*, substantially as set forth.

STEPHEN S. NEWTON.

Witnesses:

P. P. ROGERS,

JOHN P. WORTHING.