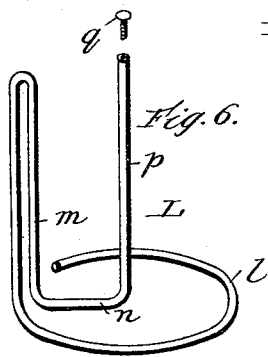
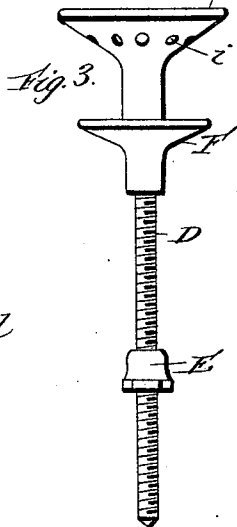
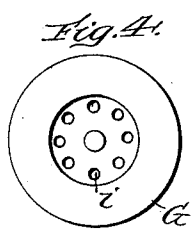
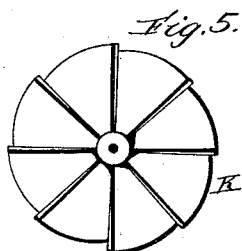
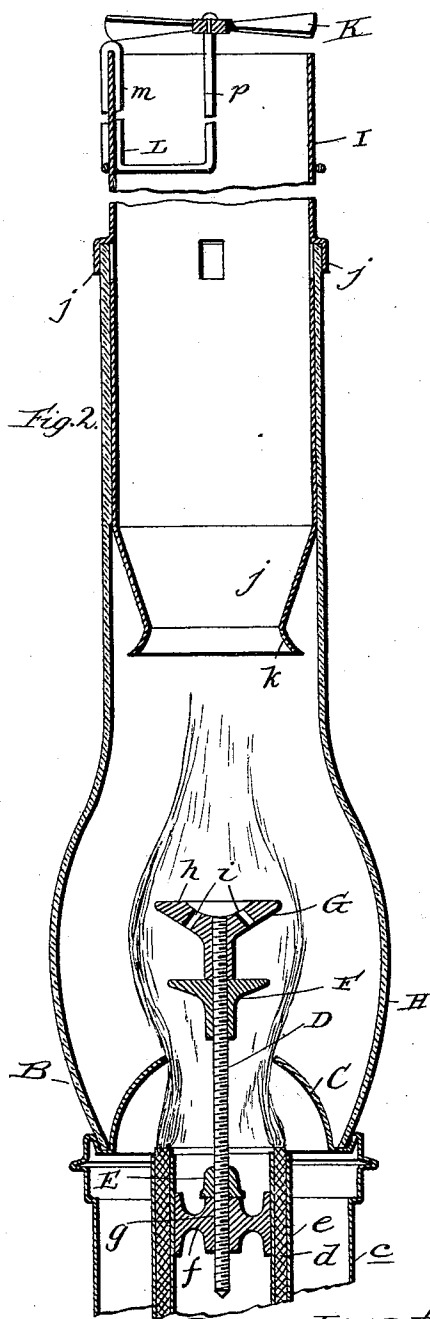
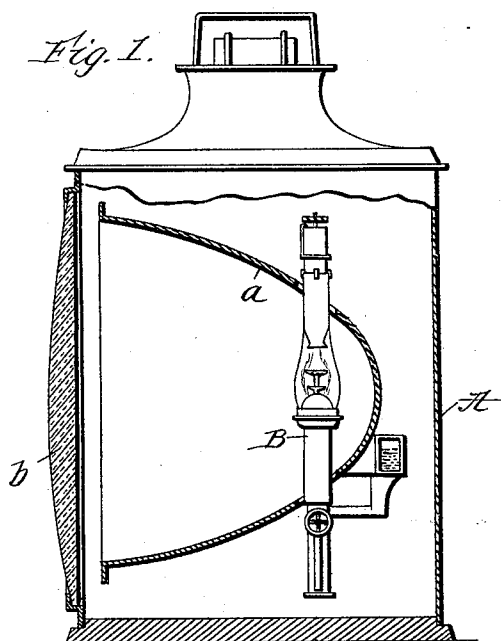


(No Model)

W. W. PITTS.
LAMP.

No. 583,080.

Patented May 25, 1897.



Witnesses:
E. A. James.
H. A. James.

Inventor
William W. Pitts
By *James Shuey*
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM WIRT PITTS, OF HILLSBOROUGH, TEXAS.

LAMP.

SPECIFICATION forming part of Letters Patent No. 583,080, dated May 25, 1897.

Application filed October 19, 1896. Serial No. 609,314. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WIRT PITTS, a citizen of the United States, residing at Hillsborough, in the county of Hill and State of Texas, have invented certain new and useful Improvements in Lamps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to lamps, and more particularly to those which are designed for use in headlights; and its novelty and many advantages will be fully understood from the following description and claims when taken in conjunction with the annexed drawings, in which—

Figure 1 is a sectional view of a headlight such as used on locomotives with my improved lamp in position therein. Fig. 2 is a vertical diametrical section of the lamp with the lower portion broken away. Fig. 3 is an elevation of the threaded stem which carries the flame-spreading buttons with said buttons in position thereon. Fig. 4 is a plan view of the upper button. Fig. 5 is a plan view of the wheel for ventilating the lamp-chimney and preventing air-currents from passing down into the same, and Fig. 6 is a perspective view of the bracket which supports said wheel.

In the said drawings similar letters designate corresponding parts in all of the several views, referring to which—

A indicates a headlight-casing which may be equipped with a reflector *a* and lens *b* and may otherwise be of the ordinary or any other suitable construction, and B indicates my improved lamp, which in the present embodiment of the invention is shown as extending through the rear portion of the reflector, although it may be arranged in any other suitable manner. The body *c* of the lamp may be constructed in the manner common to the lamps employed in headlights and may be provided with the usual means (not illustrated) for adjusting the wick *d*, and may also be suitably connected or provided with an oil-receptacle. (Also not illustrated.)

The wick *d* is of tubular form and is arranged in a wick-tube of annular form in cross-section, as illustrated. This wick-tube

e is fixed with respect to the body *c* in any suitable manner and is provided within its interior wall with the spider *f*, which is fixed to said wall and is provided with a central vertically-disposed aperture *g* for a purpose presently to be described.

C indicates a dome-shaped hood which forms part of the body *c* and rests at about the proportional distance illustrated above the wick-tube *e*, and D indicates the threaded stem, which extends loosely through the aperture *g* of the spider *f* and is adjustably supported therein by the nut E, which bears upon the upper side of the spider, as shown. Said stem D is provided with the ordinary button F, which is interiorly threaded to receive it, and is also provided above said button F with my improved button G, which is also interiorly threaded to receive it, as shown. The button G may be of any shape suitable to the purpose of my invention, but I prefer to provide it with the enlarged and dished portion *h* at its upper end, as shown. Said button G is also provided with the apertures *i*, which are formed in the portion *h*, as shown, and are designed for the upward passage of air. This upward passage of air through the button G serves the highly important function of preventing the current of air which passes in at the bottom of the lamp from eddying above the button G and thereby cause the formation of smoke.

The construction described permits of the buttons F G being readily adjusted on the stem D, and also permits of said stem, with the buttons upon it, being adjusted, according to the shape and size of flame desired, by the nut E.

As will be readily observed by reference to Fig. 2, the circular body of flame when the lamp is lighted entirely surrounds the buttons F G. In consequence of this the buttons will be highly heated and will materially assist in the consumption of the lampblack and other particles of combustion, thus reducing the liability of the chimney being smoked to a minimum.

H indicates the lamp-chimney, which is arranged upon the body *c*, around the hood C, as better shown in Fig. 2, and I indicates a tube of sheet-brass, copper, Russia iron, or other suitable metal, which is arranged in the

upper portion of the chimney I and extends about the proportional distance illustrated above and below the upper end thereof. This tube I is supported in the chimney II by the lugs J, which are preferably struck from it and bear upon the upper end of the chimney, as shown, and it is designed and adapted to increase the draft, a strong draft being desirable because of the large flame formed by the buttons F G and because it produces a brighter light which will highly heat the button G, for the purpose before described. Such tube I, however, is not absolutely essential, as the buttons F G, when properly adjusted, will afford a strong bright light and will at the same time effectually prevent smoking of the chimney.

I have found from experience that when the tube I is provided with the contracted lower portion *j* and the flared end *k* the flame is prevented from contacting with the chimney and is assisted in entering the tube I. For this reason I prefer to form said tube in the manner shown.

K indicates a horizontally-disposed wind-wheel which is arranged at the upper end of the tube I, as better shown in Fig. 2. This wheel I is rotated by the current of hot air passing upwardly through the tube I, and it serves to ventilate the chimney, so as to promote combustion of the wick, and at the same time effectually prevents currents of air from passing downwardly in the chimney and causing the flame to smoke. Said wheel K may be mounted in any suitable manner; but I prefer to mount it upon one end of the bracket L, (see Fig. 6,) which has the circular portion *l*, which surrounds the tube I, the loop *m*, which receives the wall of the tube, the inwardly-extending portion *n*, and the central stem or portion *p*, which has a socket at its upper end to receive the wheel-securing screw *q*.

As before stated, the tube I is not absolutely essential, and when it is omitted and it is desired to employ the wheel K it is obvious that the bracket L may be readily placed on the chimney II in the same manner that it is placed

upon the tube I. The tube I and the wheel K are, however, desirable, as they contribute materially in increasing the efficiency of the lamp, and this without rendering the lamp much more expensive than those at present in use.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a lamp, the combination of an annular wick-tube, buttons supported above the center of the wick-tube; one of said buttons having one or more draft-apertures, a chimney of glass or similar material surrounding said buttons, a metallic tube arranged in the upper portion of the glass chimney and extending above the same and having the inwardly-tapered lower portion provided with the flared end, and a wind-wheel arranged in the upper end of said metallic tube and supported by a bracket mounted on said tube, substantially as specified.

2. In a lamp, the combination of an annular wick-tube, buttons supported above the center of the wick-tube; one of said buttons having one or more draft-apertures, a chimney of glass or similar material, surrounding said buttons, and a metallic tube arranged in the upper portion of the glass chimney and extending above the same, and having the inwardly-tapered lower portion provided with the flared end, substantially as specified.

3. In a lamp, the combination of a burner, a chimney, the bracket having the circular portion surrounding the chimney, the loop receiving the upper end of the chimney-wall, the inwardly-extending portion and the upwardly-extending central stem, and the wind-wheel mounted and adapted to turn on said stem, at the upper end of the chimney, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM WIRT PITTS.

Witnesses:

J. R. DUDDING,

C. M. SMITHDEDE.