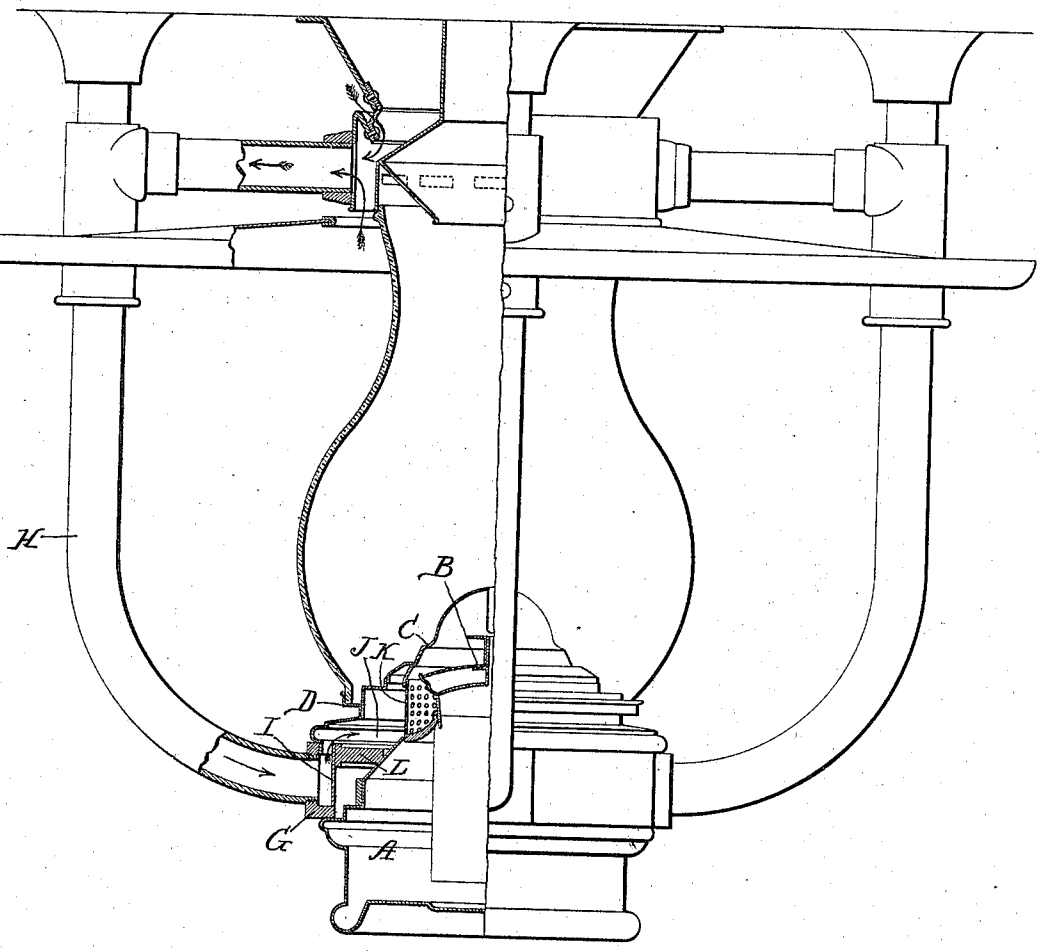
(No Model.)

W. S. HAMM.

TUBULAR LAMP.

No. 577,746. Patented Feb. 23, 1897.



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UNITED STATES PATENT OFFICE.

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TUBULAR LAMP.

SPECIFICATION forming part of Letters Patent No. 577,746, dated February 23, 1897.

Application filed April 15, 1893. Serial No. 470,453. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. HAMM, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tubular Lamps, of which the following is a specification, reference being had to the accompanying drawing.

This invention relates to tubular lamps, and more particularly to that class of lamps used upon street-cars for inside and outside uses, that is, upon open and closed cars.

A serious difficulty encountered in this class of lamps as heretofore constructed is the ease with which the flame is blown out by sudden gusts of air, whether upon an open or closed car, the difficulty generally arising from the loosening of readily-detachable connections, such as that between the fount and its support, which permits a counter-current to be set up, deflecting the usual air-supply from its proper course to the burner, which latter, of course, in the absence of the proper supply of oxygen, cannot sustain combustion.

A primary object of this invention is to avoid these objections by providing the lamp with a suitable deflector or shield so arranged with reference to the air-ducts and the burner as to prevent the flame being extinguished in case of loose joints occurring between the fount and its support.

This invention may be applied to various forms of lamps, the one illustrated in the drawing being simply shown as a type of the class to which my invention may be best applied.

The above-defined object of my invention, as also such other objects as may appear from the ensuing description, are attained by the devices illustrated in the accompanying drawing, in which is shown a view, partly in side elevation and partly in transverse vertical section, of a lamp embodying my invention in its preferred form.

Referring by letter to the accompanying drawing, A designates the fount of a lamp, B the burner, C the burner-cap, and D the globe-holder of the same, all of which parts may be of the usual or ordinary construction or of any special construction desired.

Secured to the globe-holder is a coupling-ring G for making a detachable connection between the fount and its support, of which the ring forms a part, and to which ring leads any desired number of air-ducts H, preferably bringing a mixture of partially-cold and partially-heated air from near the top of the lamp down to the chamber between the coupling-ring and the globe-holder and the fount, so as to support combustion at the burner.

The details of construction at the upper part of the lamp form no part of this invention and therefore need not be described in detail, as any construction thereof, whether providing cold or partially-heated air, or both, to the air-ducts would be within the spirit of my invention.

The coupling-ring G is provided with a vertically-arranged deflector or shield I, which is either cast integral with said ring or otherwise rigidly secured thereto, projecting up from the base of the ring across and above the air-ducts H and at a suitable distance from the discharge or delivery ends of the ducts to afford a reasonably free passage for the air from the ducts into the chamber J between the fount and the globe-holder, from whence such air passes through the usual strainer K to the burner.

The essential purpose of the deflector I is to prevent the air from the air-ducts being drawn downward and out through a crack, which may occur between the fount A and the coupling-ring should the former fall slightly away from the latter, as it very frequently does in actual use, and practice has demonstrated that without such a shield as the deflector I, before referred to, a sudden gust of wind passing the lamp creates a counter current or suction around the crack between the fount and the coupling-ring which will draw the air from the air-ducts downward and out through the crack, and the burner being thus deprived of its supply of air the flame will be instantly extinguished.

As shown in the drawing, I employ a filling and following ring L, resting upon the fount and of sufficient diameter to fill the space between the fount and the upright deflector I. This ring has sufficient weight to automatically follow the fount down when the latter falls away from the coupling-ring, and as the fol-

fowing-ring just fills the space between the fount and the deflector, which latter is preferably circular, it will effectively close any opening or crack which might be occasioned by the settling of the fount away from the coupling-ring, so filling the space in all positions of the fount that the presence of the crack or opening is rendered harmless thereby. In the employment of the following or filling ring, however, the deflector should be vertical or upright, so that the filling-ring may fall in a straight line without binding and without producing any opening between the ring and the deflector, and as a result thereof an apparently loose fit may be made between the fount and the coupling-ring.

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

1. A lamp, comprising a fount, a burner, a coupling-ring for supporting the lamp fount or body, air-supply ducts separate from the fount and connected at one end to said coupling-ring, a vertical deflector integral with said coupling-ring and independent of the fount and interposed between the air-ducts and the burner, and a filling follower-ring movably interposed between the deflector and fount, said vertical deflector serving to direct the air upward as it emerges from the said air-ducts, substantially as described.

2. A lamp, comprising a fount, a plurality of air-supply ducts, a burner supported separately from and interposed between the delivery ends of the said ducts, an air-chamber between the ends of the ducts and the burner, a vertical deflector interposed between the burner and the delivery ends of the ducts and entirely surrounding the said fount, a filling follower-ring interposed between the fount and said vertical deflector, and a coupling-ring carrying and supporting said deflector, integral therewith, and serving to connect the air-ducts at their discharge ends and to support the fount, substantially as shown and described.

3. A lamp comprising a fount, a burner, a coupling-ring, and air-ducts, a deflector interposed between the air-ducts and the burner and directly opposing the entrance of air from the ducts, and a filling follower-ring movably interposed between the deflector and the fount, substantially as set forth.

4. A lamp comprising a plurality of air-supply ducts, a burner interposed between the delivery ends of said ducts, a coupling-ring carrying a deflector which extends vertically between the burner and the delivery ends of the ducts, and a filling follower-ring movably interposed between the deflector and the fount of the burner, substantially as set forth.

5. In a lamp the combination of the fount A, the coupling-ring G, the deflector I, the filling-ring L, and the air-ducts H, substantially as and for the purpose described.

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