

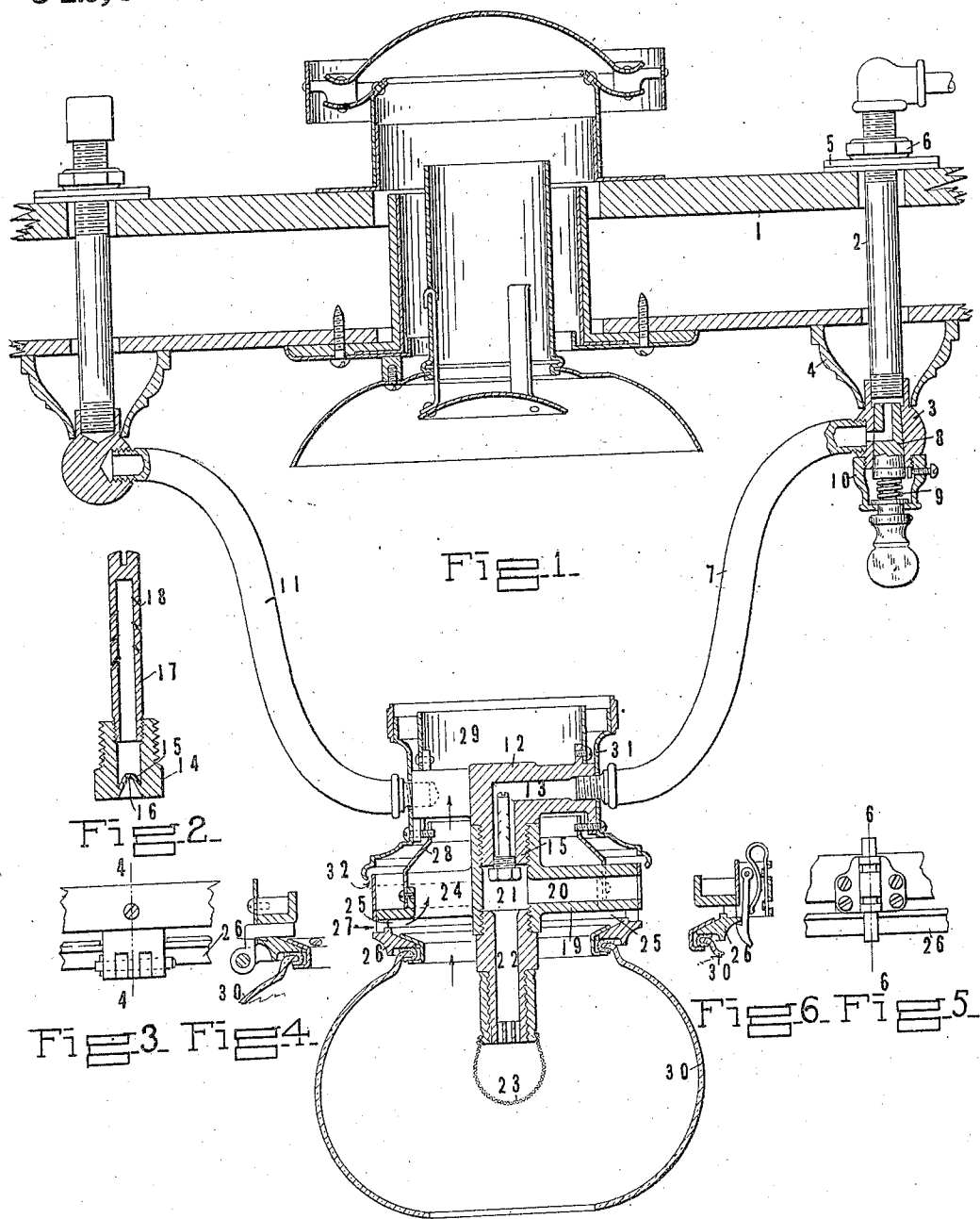
E. E. ALLBEE.

LAMP.

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942,608.



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# UNITED STATES PATENT OFFICE.

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## LAMP.

942,608.

Specification of Letters Patent.

Patented Dec. 7, 1909.

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*To all whom it may concern:*

Be it known that I, ELMER E. ALBEE, a citizen of the United States, residing at Arlington, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Lamps, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to gas-lighting apparatus, but more specifically it concerns an apparatus primarily adapted for use in connection with railway cars and in which incandescent mantles are employed as a source of illumination.

The invention has in view among other objects, the provisions of a simple and comparatively inexpensive apparatus of the above mentioned nature, which will possess great durability and efficiency in service.

The invention accordingly consists in the features of construction, combinations of elements and arrangements of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawing like characters denote corresponding parts throughout the several views of the drawing.

Figure 1 is a general sectional elevation showing a railway car roof equipped with one embodiment of this invention. Fig. 2 is a detail of the dust separator forming a feature of the body portion of the burner shown in Fig. 1. Fig. 3 is a side view showing the manner in which the globe carrying ring is hinged to the overlying portion of the lamp. Fig. 4 is a section taken through line 4-4 of Fig. 3. Fig. 5 is a side view of a latch located opposite the aforesaid hinge retaining the globe and its associated parts in its normal position, but permitting the same to be swung open at will for purposes of cleansing. Fig. 6 is a section taken along line 6-6 of Fig. 5.

Continuing now by way of a more detailed description of the herein-described embodiment of this invention, with such occasional reference to the drawing as may facilitate an understanding of the same, 1 denotes a car roof of conventional construction through which passes a pipe 2 which may be in communication with a source of

gas through the external conduit 3. Preferably, this pipe 2 is used on the one hand to convey gas, and on the other hand as a means of support and attachment for the underhanging apparatus; and to that end the lower portion of pipe 2 may be provided with an enlargement 3 which serves as a shoulder for the ornamental collar 4. On the exterior, there may also be a collar 5 and a screw nut 6, so that by turning the latter the above mentioned parts may be brought into rigid relation to the car roof.

A hollow bracket arm 7 conveys gas from the pipe 2 through a suitable valve or cock 8, which preferably will be seated in the enlargement 3, and will be provided with a seating spring 9 held in place by means of a guide 10.

The above mentioned parts may have oppositely located counter parts, as shown on the left of Fig. 1, though in the latter case such parts need not serve as gas conduits, since the former will suffice for that purpose. The bracket arms 7 and 11 converge toward a body portion 12 to which they are firmly attached. Hollow bracket arm 7 is in communication, however, with a gas channel 13, which at its center end turns downwardly at right angles, forming a chamber for containing the dust separator.

A simple and convenient mounting for the dust separator is shown by Figs. 1 and 2, in which 14 is a gas nipple having a shank in screw threaded engagement with the downwardly projecting portion 15 of a body portion. The nipple 14 provides an inwardly dished wall 15 having an orifice 16 for projecting a jet of gas past the air inlet and into the mixing chamber, to be hereinafter described. Fitted to the inner or upper end of the nipple 14 is the dust separator 17 which consists of a tube having a series of inclined slots 18 for the admission of gas into the interior, which is in communication with the delivery orifice of the nipple.

A casting 19 is secured to the above mentioned body portion 12 as shown in Fig. 1, and such casting provides one or more air inlets 20, which lead from the exterior of the lamp (so that their outer ends lie out of the path of the escaping products of combustion) and terminate in the mixing chamber 21 where the indrawn fresh air is commingled with the jet of gas. The resultant mixture is then forced downwardly into the

delivery tube 22, and thence is discharged so as to burn and maintain the depending mantle 23 in a suitable state of incandescence. The casting 19 is also provided with discharge vents at 24 for allowing the products of combustion to escape upwardly through the lamp toward the ventilator in the roof of the car. To promote circulation of air in the apparatus, this invention provides a space 25 between the bezel 26 and the overlying portions of the apparatus. This permits wash air to enter as shown by arrow 27, and mix with the products of combustion rising from the mantle. A chimney-like member 28 may be positioned as shown in Fig. 1 to the adjoining portions of the apparatus, and so also a similar member 29 may be arranged in the upper portion to serve as a chimney and discharge the products of combustion upwardly toward the ventilator.

30 indicates an open globe which is carried by bezel 26, and 31 indicates the ornamental exterior members which may be of any desired shape and configuration and which may be concentrically spaced a slight distance from the chimney portions. This concentric spacing between the ornamental exterior and the chimney enables cooling air to be admitted at some point such as that indicated by arrow 32 so as to rise upwardly between the chimney and the ornamental casing 31. This action serves to moderate the temperature of the ornamental casing, thus preventing it from overheating and becoming tarnished and giving off objectionable odors. So to speak, this portion of the lamp constitutes a double chimney having a central ventilation for the products of combustion, and an intermediate ventilation for maintaining within definite and somewhat restricted temperatures the external ornamental casing.

From the foregoing it will be perceived that I have produced a very simple illuminating apparatus composed of but few easily fitted-together inexpensive parts which are of such nature as permits of being easily manufactured. The apparatus constructed as above will furthermore be found to be very durable and efficient in practice.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

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

1. A device of the nature disclosed comprising in combination, a central portion

having a gas channel leading from one or more of its vertical sides and communicating with an injector, a burner tube depending from said central portion adapted to receive a combustible mixture from said injector, a gas mantle mounted on the lower end of said burner tube, said central portion having vents for receiving and discharging the rising products of combustion, and air inlets adapted to commingle fresh air with said rising products of combustion.

2. A device of the nature disclosed comprising in combination, a body portion having a gas inlet at one side thereof and leading to a downwardly directed delivery nipple carried by said body portion, a casting secured to said body portion and providing an air inlet leading transversely toward said nipple, a burner tube depending from said casting adjacent the inner ends of said nipple and air inlet, and a mantle mounted on the lower end of said burner tube.

3. A device of the nature disclosed comprising, in combination, a chimney provided near its lower end with a space for the admission of fresh air, a central portion arranged in said chimney adapted to receive gas at its upper end, a gas conduit leading laterally through said chimney into the upper end of said central portion said central portion being provided with an air passage leading through said chimney to an intermediate portion thereof, an injector arranged at said intermediate portion, a burner tube depending from said central portion adjacent said injector for receiving the combustible mixture from said injector and a mantle mounted on the lower end of said burner tube.

4. A device of the nature disclosed comprising in combination, a body portion having a gas channel leading from one side toward the center and downwardly from said center, a delivery nipple adjustably mounted in the lower end of the downwardly leading gas channel, a perforate tube serving as a dust separator carried by said nipple and projecting into said gas channel, a chimney carried by said body portion, a casting secured to said body portion providing a transverse air inlet leading from the exterior of said chimney and terminating adjacent the said delivery nipple, a burner tube depending from adjacent the junction of said air inlet and delivery nipple, a mantle mounted on the lower end of said burner tube whereby products of combustion may be discharged upwardly into said chimney, and means for admitting wash air into said chimney.

5. A device of the nature disclosed comprising, in combination, a car roof, a ventilator passing therethrough, a plurality of supporting members arranged equidistant from said ventilator one of said supporting

members serving as a conduit, a body portion underlying said ventilator, a plurality of bracket arms converging downwardly from said supporting members toward said body portion, one of said bracket arms serving as a gas conduit, an injector nipple secured to said body portion and adapted to project a stream of gas downwardly, a second member secured to said body portion and having air passages leading horizontally to said injector nozzle, a burner tube depending downwardly from adjacent said injector nozzle adapted to receive the mixed gases therefrom, and a mantle mounted on the end of said burner tube.

6. A device of the nature disclosed comprising, in combination, an upper body portion providing a laterally extending inlet passageway for the admission of illuminating gas, a tubular supporting member connected to said passage way, a downwardly extending injector nipple connected to said body portion and adapted to project a stream of gas downwardly, a second member secured to said body portion and providing horizontally extending passageways for leading air to the orifice of said injector nozzle, a burner tube secured to and depending downwardly from said second member, and a mantle mounted at the lower end of said burner tube.

7. A device of the nature disclosed comprising, in combination, an upper body por-

tion providing a center piece, a plurality of arms radiating outwardly therefrom one of said arms being perforate to form a gas channel, an injector nipple projecting downwardly from said center piece, a second member secured to said center piece and having air channels leading to said injector nipple, a burner tube leading downwardly from said second member, and a mantle mounted on the lower end of said burner tube.

8. A device of the nature disclosed comprising, in combination, an upper body portion providing a center piece, a plurality of arms radiating outwardly therefrom one of said arms being perforate to form a gas channel, an injector nipple projecting downwardly from said center piece, a second member secured to said center piece and having air channels leading to said injector nipple, a burner tube leading downwardly from said second member, a mantle mounted on the lower end of said burner tube, and a chimney circumscribing the aforesaid parts, thereby enabling products of combustion to uprise from said mantle and escape through the vents between the arms of said body portion.

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

ELMER E. ALBEE.

Witnesses:

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W. H. MEINCKE.