

(No Model.)

L. F. BETTS.

2 Sheets—Sheet 1.

CAR LAMP.

No. 257,842.

Patented May 16, 1882.

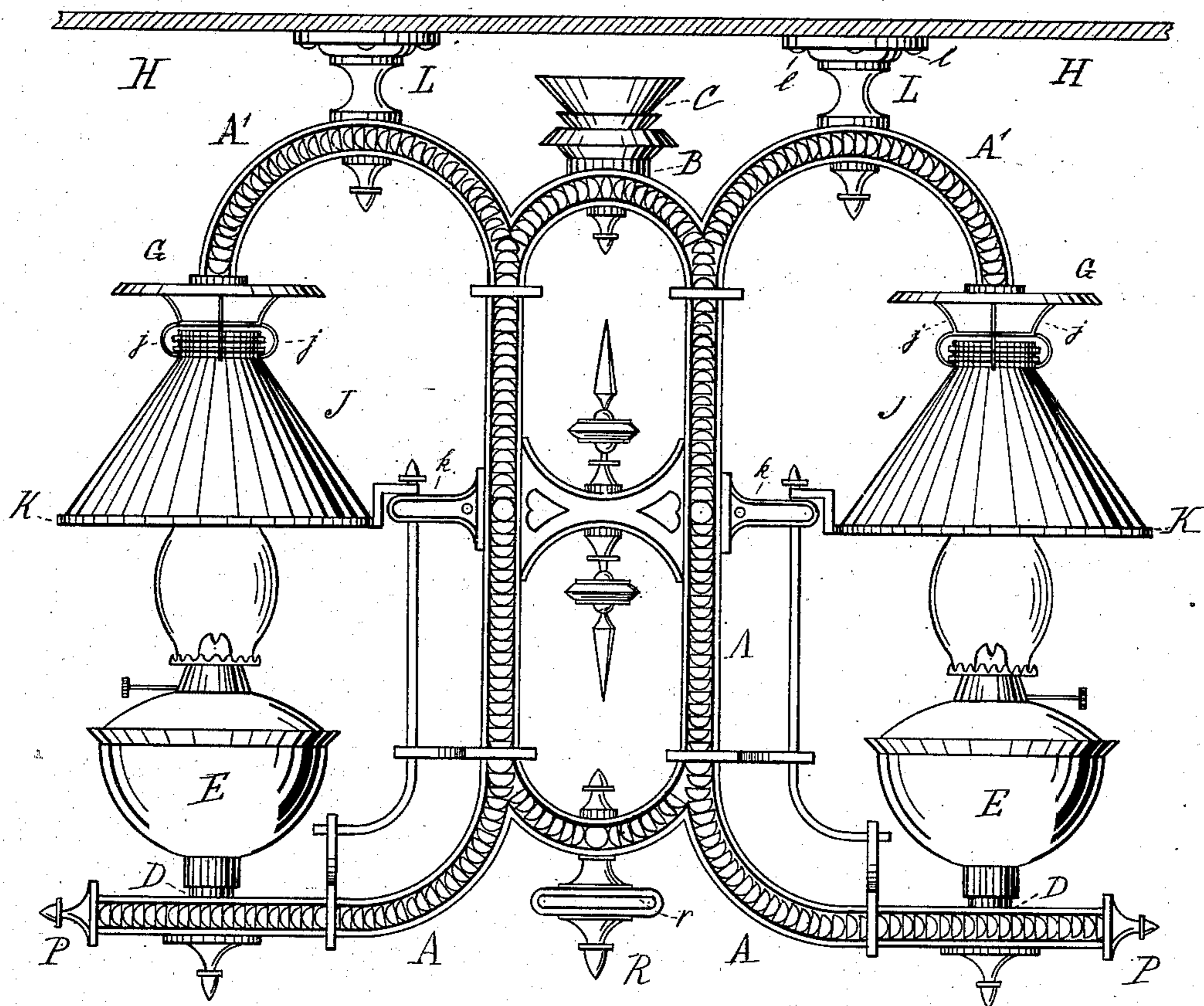


Fig. 1

Witness =

*Wm. A. Lane*  
*J. H. Crawford*

Inventor =

*Louis F. Betts*  
*By A. M. Pierce*  
*Atty.*

(No Model.)

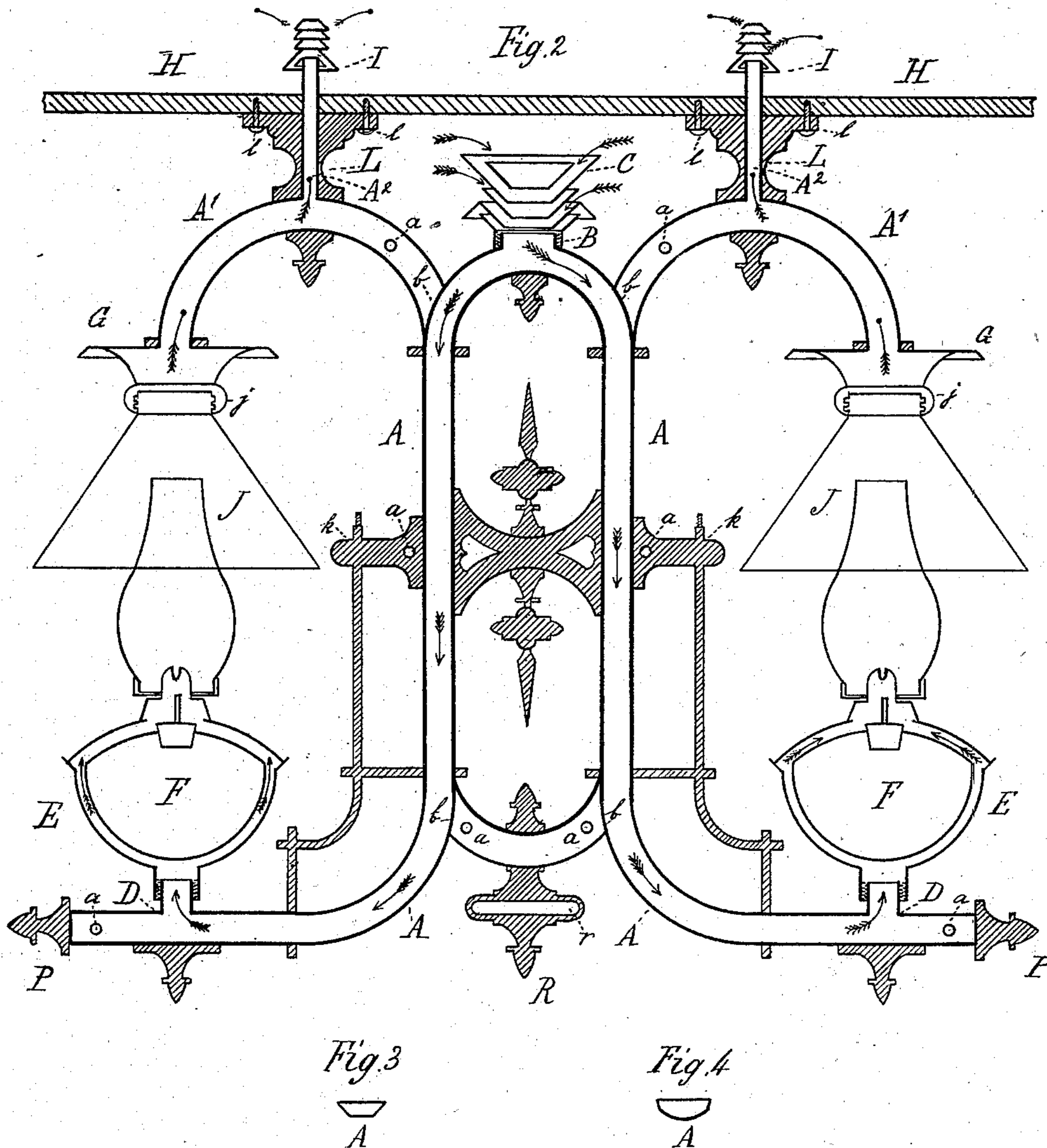
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2 Sheets—Sheet 2.

CAR LAMP.

No. 257,842.

Patented May 16, 1882.



Witness =  
*J. A. Lane*  
*A. H. Gausford*

Inventor =  
*Lewis F. Betts*  
By *A. M. Pierce*  
Atty.

# UNITED STATES PATENT OFFICE.

LEWIS F. BETTS, OF MORTON, PENNSYLVANIA, ASSIGNOR OF ONE-HALF  
TO ROBERT E. DIETZ, OF NEW YORK, N. Y.

## CAR-LAMP.

SPECIFICATION forming part of Letters Patent No. 257,842, dated May 16, 1882.

Application filed March 20, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS F. BETTS, of Morton, county of Delaware, and State of Pennsylvania, have invented certain new and useful Improvements in Car-Lamps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates especially to lamps or chandeliers employed for illuminating railway carriages or cars of all descriptions, and has for its object the production of a device which shall be cheap and simple to construct, effective in operation, and present a neat and tasteful appearance when placed in position for use. To accomplish this my invention consists essentially in applying the well-known "tubular" principle to a car lamp or chandelier, the main portion of the device being composed of two parts, cast or otherwise formed of the requisite shape, the two parts, when secured together, forming the fresh-air conduits for feeding the burner and conveying the products of combustion therefrom; and my invention involves certain novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a view in elevation of my improved car lamp or chandelier, and Fig. 2 is a vertical axial sectional view thereof. Figs. 3 and 4 represent cross-sections of the tubes of the lamp.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

A are the tubes of the device, formed of cast metal in two parts, and in such a manner as to be easily secured together by means of screws or bolts *a*. An opening, B, is provided at the top of the central tube, upon which is affixed an air-injecting device, C. Within the central tube, at *b*, are located partitions, in order to provide a substantially closed conduit for the fresh air from the injector to the lamps.

D are projecting collars formed upon tube A, said collars being screw-threaded or otherwise arranged to engage with jackets E, sur-

rounding the lamp-pot F, supported therein by means of suitable arms.

At the upper extremity of tubes A, cast therewith and extending over the top of each lamp, is located a tube, A', curving over and terminating above the chimney in a smoke-bell, G. At the highest part of tube A' a tube, A<sup>2</sup>, leads therefrom through the top H of the car, terminating in an ejecting device, I.

J are suitable shades or reflectors, supported and held in place by means of springs *j* and rings K, upheld by arm *k*, extending from tube A.

L are the supports for the structure, cast with the tubes, and adapted and arranged to be secured to the top of the car by means of screws or bolts *l*.

The lower extremities of tubes A, after passing the lamp, are shown as terminating in an acorn, P; but if additional support for the structure is required the tube may be carried to the side of the car or roof thereof and be secured thereto. Provision is made for the support of a bell-cord at perforation *r* in ornament R in the center of the chandelier.

When constructed and arranged in accordance with the foregoing description my improved car lamp or chandelier will be found to admirably answer the uses and purposes for which it is intended. A constant current of fresh air will be supplied to the burners through the injecting device C and tubes A, while the products of combustion will be conveyed from the lamps through the top of the car into the open atmosphere, as plainly shown, the current or course of the fresh air being indicated by the sharp-headed arrows and the course of the products of combustion by the blunt or round headed arrows.

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

1. A tubular car lamp or chandelier wherein the tubes forming the conduits for the fresh air and for the products of combustion are constructed of two cast-metal sections secured together by bolts or screws, substantially as shown and described.

2. In a tubular car lamp or chandelier of the character herein specified, the combination,

with the tubes A, cast in two parts and secured together by screws or bolts, of the injecting device C, adapted and arranged to direct a current of fresh air to the burners, substantially as shown and described.

3. In a tubular car lamp or chandelier of the character herein specified, the combination, with tubes A, constructed substantially as set forth, of air-injector C, smoke-bell G, tubes A', and ejecting devices I, substantially as shown and described.

4. A tubular car lamp or chandelier having tubes A and A', cast in two parts, said parts being secured together by bolts a, air-injecting device C, projections D, supporting shells E, inclosing lamp-pot F, and tubes A<sup>2</sup>, sur-

mounted by ejectors I, the whole combined and arranged to operate substantially as shown and described.

5. In a tubular car-lamp of the character herein specified, the combination, with tubes A', of smoke-bell G, springs j, holding shade J, and tubes A<sup>2</sup>, terminating in ejecting devices I, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

LEWIS F. BETTS.

Witnesses:

F. W. HANAFORD,  
A. M. PIERCE.