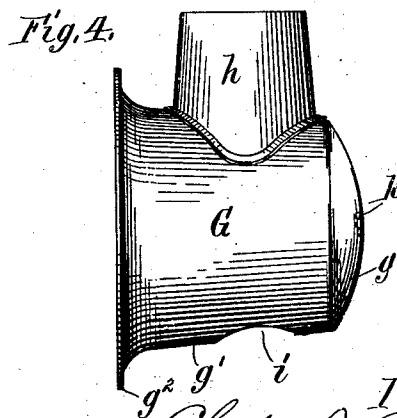
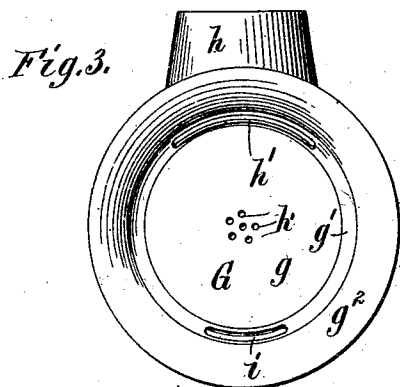
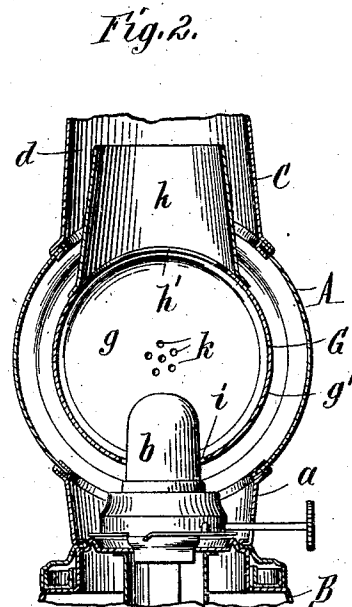
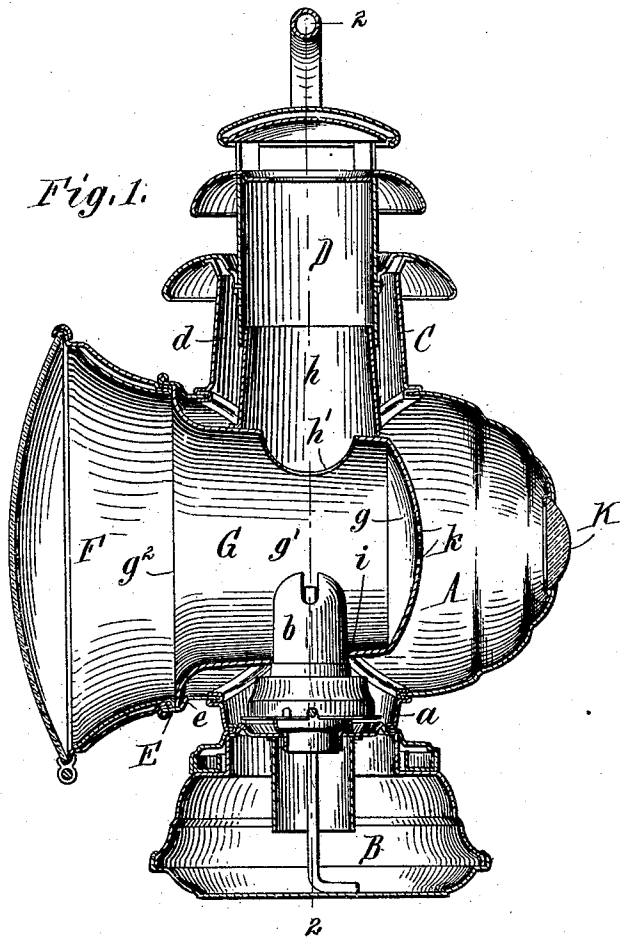


No. 841,845.

PATENTED JAN. 22, 1907.

C. L. BETTS.
VEHICLE LAMP.

APPLICATION FILED NOV. 20, 1905.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES L. BETTS, OF NEW YORK, N. Y., ASSIGNOR TO R. E. DIETZ
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VEHICLE-LAMP.

No. 841,845.

Specification of Letters Patent.

Patented Jan. 22, 1907.

Application filed November 20, 1905. Serial No. 288,205.

To all whom it may concern:

Be it known that I, CHARLES L. BETTS, a citizen of the United States, residing at New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Vehicle-Lamps, of which the following is a specification.

This invention relates mainly to that class of oil-burning lamps used on vehicles—for instance, automobiles—and which are provided with a reflector which is separated from the lamp casing or body by an air-passage which receives the air in the top and delivers the air to the burner below the reflector.

The object of this invention is to provide the lamp with a reflector which is very efficient in throwing the light forward in a compact beam, which improves the combustion, is simple and durable in construction, and which can be readily inserted into the lamp-body or be removed therefrom.

In the accompanying drawings, Figure 1 is a sectional elevation of a vehicle-lamp provided with my improvements. Fig. 2 is a fragmentary cross-section at right angles to Fig. 1 in line 2 2, Fig. 1. Fig. 3 is a detached front elevation of the reflector. Fig. 4 is a side elevation thereof.

Like letters of reference refer to like parts in the several figures.

A represents the lamp-body provided at its bottom with the usual collar or hoop *a* for the reception of the oil-pot B, carrying the burner *b*. The lamp-body is provided with a top comprising an external air-inlet sleeve or cylinder C, which is secured at its lower end to the lamp-body around an opening formed therein in the usual way, and an internal chimney D, which is arranged with its lower portion within the air-inlet sleeve C and secured thereto so as to be separated therefrom by the usual air-inlet passage *d*, through which the air passes down into the body of the lamp.

The lamp-body is open at the front and provided at its open front end with an outwardly-extending rim E, having an internal annular shoulder *e*.

F represents the annular front glass frame, which is movably connected with the lamp-body by the usual hinge and catch or other suitable means and which enters with its rear portion the front rim E of the lamp-body.

G represents the reflector, which is removably arranged in the lamp-body, and comprises a rear portion *g*, having a shallow curvature of parabolic or other suitable form and an approximately cylindrical body *g'*, preferably flaring forwardly, as shown, and having at its front end an external flange *g''*, which is constructed to seat itself against the internal shoulder *e* of the front rim E of the body. The flange is held against this shoulder by the front glass frame F, which when closed against the lamp-body bears with its rear portion against the flange of the reflector. The latter is further provided with a chimney *h*, which is secured to the body *g'* of the reflector around the opening *h'*, formed in the upper portion of the body *g'* for the escape of the products of combustion. This chimney extends into the lower portion of the fixed chimney D of the lamp-top. The body *g'* of the reflector is provided in its lower portion with the usual opening *i*, through which the burner projects upwardly into the reflector.

Upon removing the oil-pot, which is attached to the lamp-body by any of the usual releasable fastenings, and opening the front glass frame F the reflector can be removed through the open front of the lamp-body, and upon inserting the reflector and closing the front frame the reflector is securely held in position.

The reflecting-surfaces, which comprise the comparatively flat parabolic rear reflector *g* and the approximately cylindrical or forwardly-flaring body *g'*, form a powerful reflector which is very efficient in throwing the light forwardly in the form of a compact beam. This construction of the reflector also provides a comparatively large combustion-chamber, which increases the brilliancy of the flame and reduces the liability of the reflector becoming obscured by smoke or soot or becoming overheated.

The flanged body and the rear portion of the reflector are preferably formed in one piece by drawing or stamping these parts from a flat blank of suitable sheet metal.

The rear part *g* of the reflector is preferably provided with openings *k* for illuminating the jewel or lens K in the back of the lamp-body.

I claim as my invention—

1. In a lamp, the combination of a lamp-body having a shoulder around its open

front, a front glass frame which is movable toward and from said shoulder, an air-inlet sleeve secured upon said body and provided with an internal chimney, and a reflector 5 which is removably arranged in said lamp-body and provided with an external front flange which is held against said shoulder by said front frame and with a chimney which connects with said chimney in said air-inlet 10 sleeve, substantially as set forth.

2. In a lamp, the combination of a body open at the front, a top comprising an external air-inlet sleeve and an internal chimney secured to said sleeve and separated there- 15 from by an air-passage which delivers the air to said lamp-body, and a reflector removably secured at its front edge to said lamp-

body, said reflector comprising a rear portion which has a shallow curvature, an approximately cylindrical body provided in front of 20 said rear portion with a lower opening for the burner and an upper opening for the escape of the products of combustion, and a chimney secured to the body of the reflector around said upper opening and making con- 25 nection with said chimney of the lamp-top, substantially as set forth.

Witness my hand this 10th day of November, 1905.

CHARLES L. BETTS.

Witnesses:

OSCAR WARNER,
A. E. LUERSSEN.