

(No Model.)

H. E. KEELER & W. S. HAMM.
LAMP.

No. 534,888.

Patented Feb. 26, 1895.

Fig. 1.

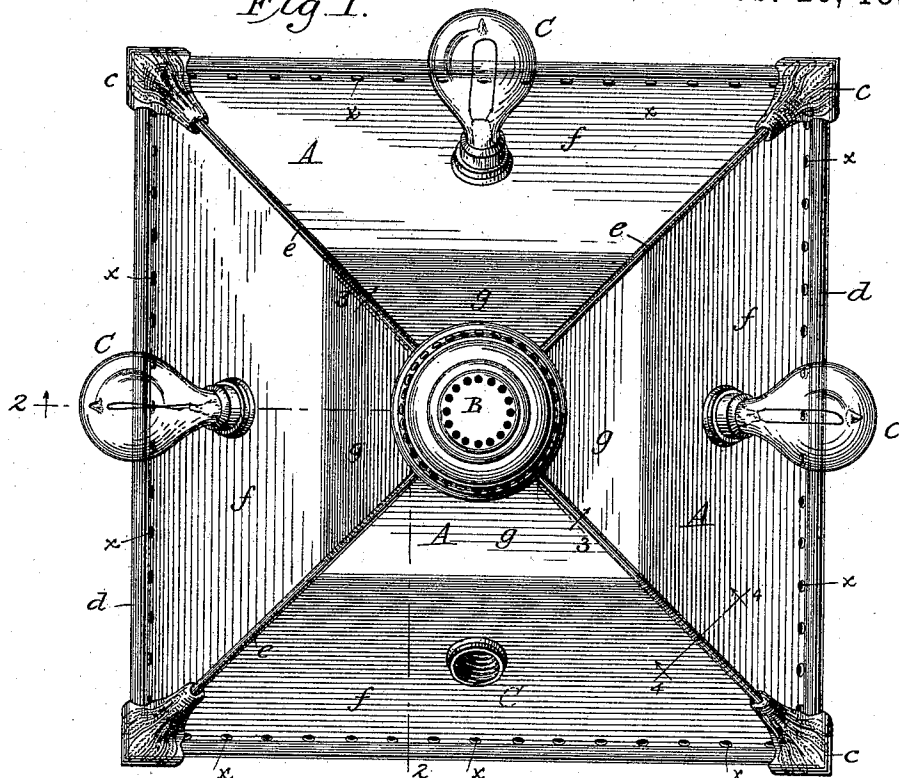


Fig. 2
ON 2-2

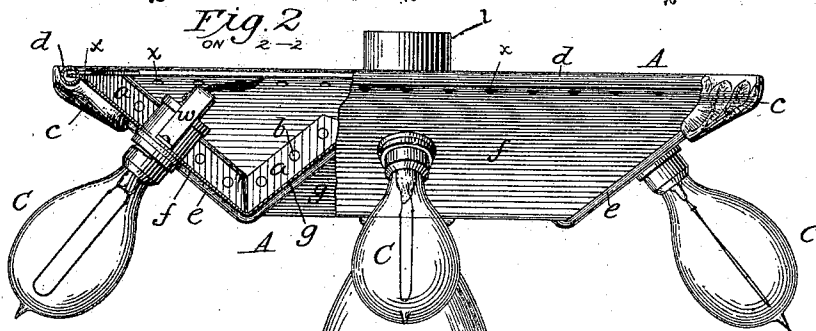
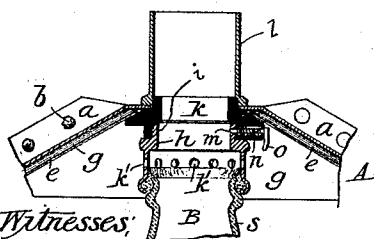


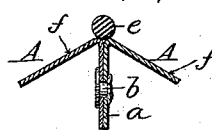
Fig. 3
ON 3-3



Witnesses:

Sidney P. Hedgesworth
Chas. H. Place.

Fig. 4.
ON 4-4



Inventors:
Herbert E. Keeler,
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by *Wm. T. Hamer*

UNITED STATES PATENT OFFICE.

HERBERT E. KEELER, OF NEW YORK, N. Y., AND WILLIAM S. HAMM, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE ADAMS & WESTLAKE COMPANY, OF ILLINOIS.

LAMP.

SPECIFICATION forming part of Letters Patent No. 534,888, dated February 26, 1895.

Application filed September 27, 1894. Serial No. 524,272. (No model.)

To all whom it may concern:

Be it known that we, HERBERT E. KEELER, of the city, county, and State of New York, and WILLIAM S. HAMM, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lamps, of which the following is a full, clear, and exact specification.

This invention relates to a combination electric and oil or candle lamp, especially adapted for street car and steam railway car use, although it is obvious it may be adapted to other uses.

In the accompanying drawings, Figure 1 is an under side view or inverted plan showing our invention. Fig. 2 is an elevation partly in section. Fig. 3 is a longitudinal vertical section of a portion of the invention on the line 3—3 Fig. 1. Fig. 4 is a transverse vertical section on the line 4—4 Fig. 1.

Similar letters of reference indicate similar parts in the respective figures.

Heretofore in certain combination lamps of this general character much of the illuminating effect of the electric lights has been obstructed by arms or pendants which support the oil or candle lamp, while in others where the electric light bulbs have been placed outside the arms or pendants, they have been too far away from the surface of the reflector to allow the light to be efficiently reflected thereby. The object of the present invention is to overcome such objections in the older styles of combination lamps by certain novel constructions, combinations and arrangements, as hereinafter specified.

It is to be understood that in this invention, as in similar combination lamps, the oil or candle lamp is intended for use only in the event of the failure of the electric current, or other accident to the electric lights.

A represents a preferred form of reflector made of four sections united, by means of flanges *a* and rivets *b*, substantially in the manner shown in Figs. 3 and 4, so as to form a square having ornamental corner pieces *c*, edge beads *d* and radial beads *e*. The reflector A is here shown as having four exterior reflecting surfaces *f*, and four interior reflecting surfaces *g*, the latter forming a py-

ramidal depression, in the center of which the oil or candle lamp B is attached in any approved manner. The central lamp may be of any preferred construction. As here shown, it is of the candle lamp description, and is secured to the reflector as shown more particularly in Fig. 3. The upper metallic ring *h* of the lamp is threaded at *i* and fitted within the threaded socket *k* attached in any suitable way to the reflector and to the chimney tube *l* over which the ordinary wind guard or ventilator (not shown) is placed. The threaded socket *k* is provided with a hole *m*, into which the point of a spring bolt *n*, operated through the medium of a finger piece *o* fits, so that when the lamp B is screwed to its proper position it is held by the spring bolt. The ring *h* is perforated as at *k'*, to aid in the supply of oxygen to the flame.

C, C, C, C are four electric lamps, preferably of the well known General Electric Company type, to which lamps necessary connections forming no part of our invention, are made. Each of the lamps C passes through one of the exterior parts *f* of the reflector, and is attached thereto by means of yokes or supports *w*, so that the longitudinal center line of each lamp stands at a right angle to an exterior reflecting surfaces *f*. It will be seen that the light from the electric lamps is in no wise obstructed by intervening arms or objects as in some lamps of this character heretofore employed, that the full reflecting capacity of the surface *f* outside of which the lamps are attached is utilized, and that no shadows will be thrown. The same is true of the effect of attaching the central oil or candle lamp B to the reflector itself without the use of arms or pendants. The central lamp B is brought in closer proximity to the reflecting surfaces *g* than is the case with other combination lamps of this general character employing pendants or arms in the support of the lamp.

The reflector is either attached directly to the deck of the car, ceiling, &c., or to braces or other intervening supports.

The glass globe *s* of the central lamp is cemented to the rings *h* and *t*, as shown in Figs. 2 and 3; while the lower portion *v* of the lamp

is removable from the ring *t* by means of a threaded union therewith.

While the reflector is here shown square, and consisting of four similar connected parts, it may be of octagonal, triangular or other shape, and with concave, convex or flat reflecting surfaces. The reflector is preferably made of sheet steel having enameled outer faces, but it may be constructed of sections of mirror or porcelain or it may be painted or electroplated. The reflector is furnished with a series of holes *x* in order that a body of heated air may not be confined within it, which might tend to crack the enameling, or otherwise injure the reflecting surfaces.

Having described our invention, we claim—

1. In a lamp of the character described, a reflector having inner and outer reflecting surfaces as described, an oil or candle lamp placed centrally of the reflector, and surrounding electric lamps attached to the exterior portions of the reflector, the said lamps being supported entirely by the reflector without the intervention of arms, pendants or other supports, substantially as set forth.

2. In a lamp of the character described, a reflector having a central annular socket, and a lamp adapted to be removably attached

thereto, combined with surrounding electric lamps detachably fitted to the reflector, substantially as set forth.

3. In a lamp of the character described, a reflector composed of the inner and outer reflecting surfaces, and having a central annular socket and a lamp detachably secured thereto, and a chimney tube concentric with the annular socket and attached thereto, and electric lamps detachably secured to the reflector around the central lamp, substantially as set forth.

In testimony whereof I, the said HERBERT E. KEELER, have hereto set my hand and seal, at New York, this 24th day of September, A. D. 1894.

HERBERT E. KEELER. [L. S.]

Witnesses:

A. L. WATSON,

L. C. FOSTER.

In testimony whereof I, the said WILLIAM S. HAMM, have hereto set my hand and seal, at Chicago, this 22d day of September, A. D. 1894.

WILLIAM S. HAMM. [L. S.]

Witnesses:

GEORGE L. WALTERS,

JAMES W. PATERSON.