

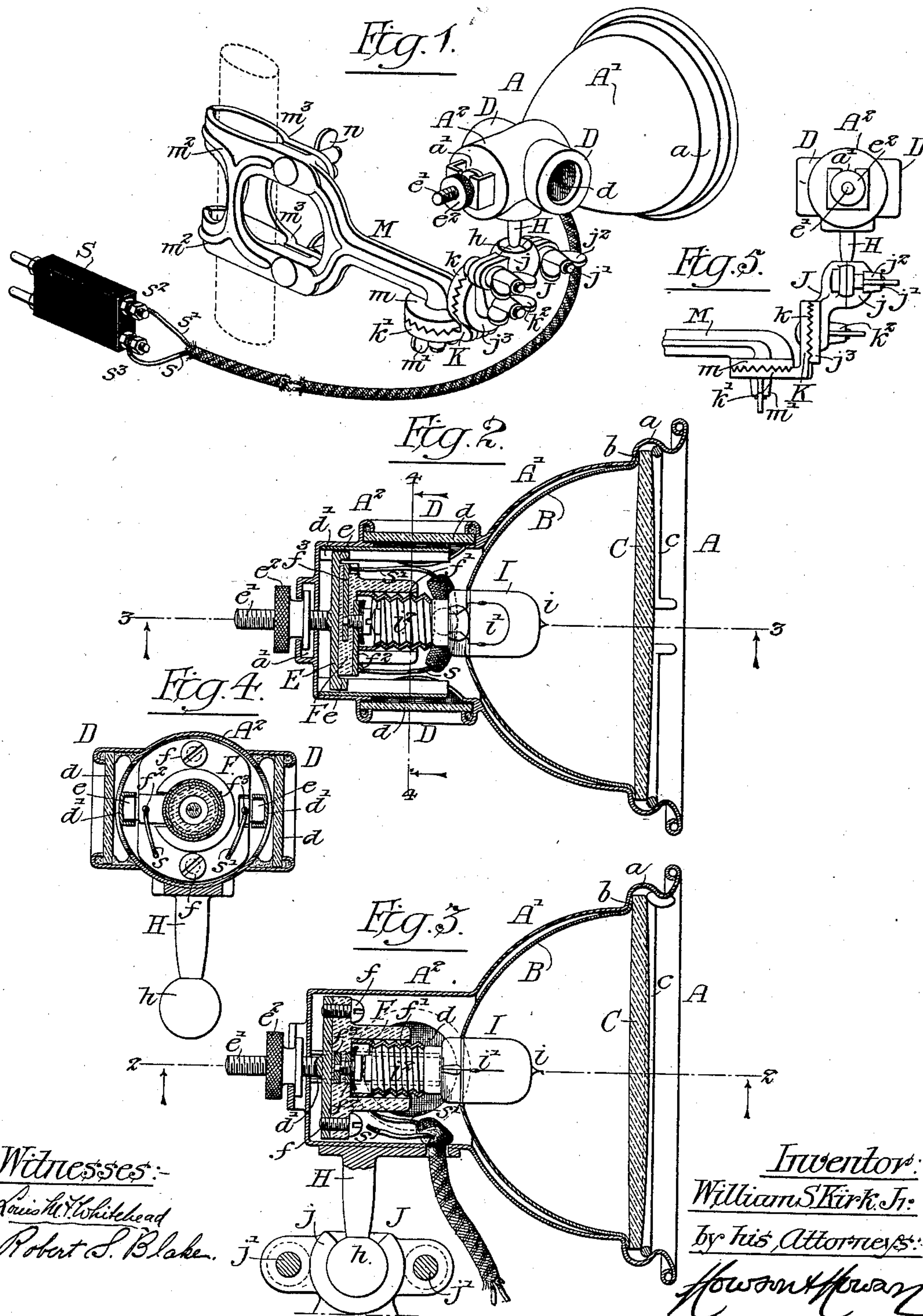
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Patented Apr. 2, 1901.

W. S. KIRK, JR.
VEHICLE LAMP.

(Application filed Nov. 21, 1899.)

(No Model.)



Witnesses:-

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UNITED STATES PATENT OFFICE.

WILLIAM S. KIRK, JR., OF PHILADELPHIA, PENNSYLVANIA.

VEHICLE-LAMP.

SPECIFICATION forming part of Letters Patent No. 671,383, dated April 2, 1901.

Application filed November 21, 1899. Serial No. 737,771. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. KIRK, Jr., a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Vehicle-Lamps, of which the following is a specification.

My invention relates to certain improvements in detachable electric lamps especially adapted for use on carriages and other vehicles.
10

The main object of my invention is to so construct the lamp and its support that it can be readily applied and adjusted and can be freely turned when necessary; and a further object
15 of the invention is to provide means whereby the lamp-socket can be adjusted in the casing, so that the lamp will bear the proper relation to the reflector.

In the accompanying drawings, Figure 1 is
20 a perspective view of my improved carriage-lamp. Fig. 2 is a sectional plan view on the line 2 2, Fig. 3. Fig. 3 is a sectional view on the line 3 3, Fig. 2. Fig. 4 is a transverse sectional view on the line 4 4, Fig. 2. Fig. 5 is
25 a side view of a portion of the bracket.

A is a casing of the lamp, consisting of a bell-shaped portion A' and a rear extension A². Within the bell-shaped portion A' of the lamp is a detachable reflector B, the inner
30 side of this reflector being highly polished. The reflector has a lip b, which rests against the flanged portion a of the casing.

C is the glass, which may be either plain or in the form of a lens, which is confined in
35 place by a spring-ring c. By drawing the ends of the spring-ring together the glass can be removed and, if necessary, the reflector can also be removed. This glass may be carried by a frame hinged to the casing, if de-
40 sired.

In the rear extension A² are two side lights D D on each side, and in these side lights are glass disks d, preferably of colored glass. While I prefer to use these side lights, it will
45 be understood that in some instances the sides may be solid.

Within the rear extension are guideways d' in the form of channeled bars, and adapted to these guideways are lugs e e, projecting
50 from a base-plate E, to which the socket F of the electric lamp is attached by screws f f.

Projecting from the rear of the socket of the

base-plate E is a screw-threaded shank e'. This shank extends through the rear of the casing, and on this shank is a nut e², having a
55 flange confined in the pocket a' in the casing, so that on turning this nut the plate E can be moved toward and from the reflector.

I is the electric incandescent lamp having a bulb preferably of the form shown in Figs. 2
60 and 3, and the incandescent element i' is also of the form shown in Fig. 2, the terminals being spread wide apart, so as to form an arched loop. By making the element in this form I am enabled to light up the entire width of
65 the road. The screw-threaded stem i² of the lamp is adapted to the screw-threaded portion f' of the socket F. The screw-threaded portion is connected to one terminal f², and the projection at the center of the lamp is
70 connected to another terminal f³. When the lamp is screwed into place in the socket, it comes in contact with the end of the screw, and the circuit is completed.

By mounting the lamp on an adjustable
75 base-plate E it can be moved longitudinally through the opening in the reflector, so that by adjusting the lamp the proper focus can be obtained. The bulb of the lamp snugly fits in the opening of the reflector, as shown.
80

Depending from the under side of the extension A² of the lamp is a stem H, having a ball h at its lower end. This ball is adapted to a socket j, forming part of the frame J. The socket is made in two parts and is clamped
85 to the ball by clamp-screws j' and thumb-nuts j². By this arrangement the lamp is held with sufficient rigidity to carry in the one position; but if it is necessary to throw the light onto a sign-board at the side of the
90 road the driver simply grasps the lamp-casing, turning it in its socket, so as to elevate the lamp to illuminate the sign-board, or if it is desired to reflect the light back of the carriage all that is necessary is to turn the
95 lamp-body in its socket. When turned to its normal position, it will remain there. The frame J has a disk portion j³ with a serrated face. The teeth of this face mesh with teeth k on the right-angled plate K, having a disk k'
100 with serrated teeth, which mesh with teeth on a disk m of the supporting-frame M. Thumb-nuts k² on the bolt confine the disks j³ and k together, and a thumb-nut m' on the stud pro-

jecting from the frame M confines the disk k' to the disk m . By loosening these thumb-nuts the frame J or plate K can be adjusted to any position desired. The frame M in the present instance has a fixed clamp extension m^2 , and secured to this extension is the adjustable clamp-plate m^3 , confined to the frame M by bolts and thumb-nuts n . The clamp portion of the frame and the clamp-plate are shaped to fit the spindles or uprights of the carriage or wagon and can be shaped in any form desired. In some instances the clamps may be dispensed with and the frame permanently secured to the carriage. The terminals $f^2 f^3$ are connected to the wires $s s'$, which are in turn connected to posts $s^2 s^3$, attached to the block S, of non-conducting material, and these posts are adapted to sockets permanently secured to the carriage or to a battery on the carriage. By detaching the block S and loosening the clamps the entire lamp can be removed.

Thus by the above description it will be seen that a very convenient lamp-support can be made for use on carriages and other vehicles and which can be readily adjusted and fixed in any desired position, and the lamp-body may be turned to any position desired without loosening the clamps. The electric lamp can be adjusted in relation to the reflector, so that the proper focus can be obtained.

It will be noticed in referring to Figs. 2 and 3 that the incandescent lamp does not extend entirely through the reflector; but the base portion of the lamp is preferably back of the reflector, so that the side lights will be illuminated. These side lights will be illuminated more or less, according to the position of the incandescent lamp.

When it is desired to remove the lamp-socket and lamp from the casing, the glass plate and reflector may be detached from the casing and the lamp removed, after which by turning the nut e^2 the plate F can be moved forward sufficiently to allow it to be withdrawn from the casing.

In some instances the reflector instead of being an independent piece, as shown in the drawings, may form part of the casing.

I claim as my invention—

1. The combination in a vehicle-lamp, of a lamp-body, a concave reflector having an

aperture on the line of its longitudinal axis, an electric lamp in said aperture with its longitudinal axis coinciding with the axis of the reflector, and means for adjusting said lamp along the axis of the reflector, substantially as described.

2. The combination in a lamp-body having a bell-shaped portion and a rear extension, a reflector in the bell-shaped portion having a central opening, guideways in the rear extension, a base-plate adapted to said guideways, means for adjusting said plate, and a lamp-socket carried by the plate and a lamp mounted in the socket and projecting through the central opening in the reflector, substantially as described.

3. In a carriage-lamp, the combination of a lamp-casing, a reflector having an aperture therein, an electric lamp projecting through said aperture, a lamp-socket for the lamp, and a plate to which said socket is attached, said plate being adjustable in a line parallel to the longitudinal axis of the reflector, substantially as described.

4. The combination of a casing having a bell-shaped portion and a rear extension, guides in the rear extension, a base-plate having lugs adapted to the guides, a screw-threaded shank extending rearwardly from the plate and through the casing, a nut on the screw-threaded shank confined to the casing, with an electric incandescent lamp mounted on the adjustable plate, and a reflector in the bell-shaped portion having a central opening through which the lamp extends, substantially as described.

5. The combination in a vehicle-lamp, of a lamp-body, a concave reflector having an aperture on the line of its longitudinal axis, an electric lamp in said aperture with its longitudinal axis coinciding with the axis of the reflector, and means operated from outside the lamp-body for adjusting said lamp along the axis of the reflector, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM S. KIRK, JR.

Witnesses:

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JOS. H. KLEIN.