

R. M. NEWBOLD.
ELECTRIC LAMP.
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954,878.

Patented Apr. 12, 1910.

Fig. 1.

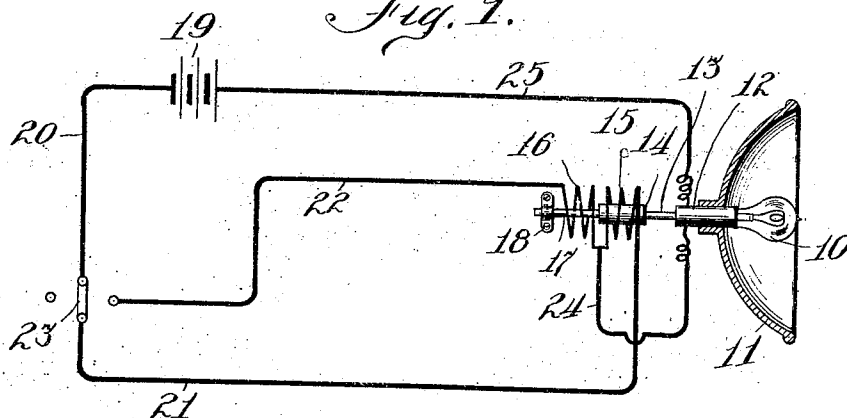
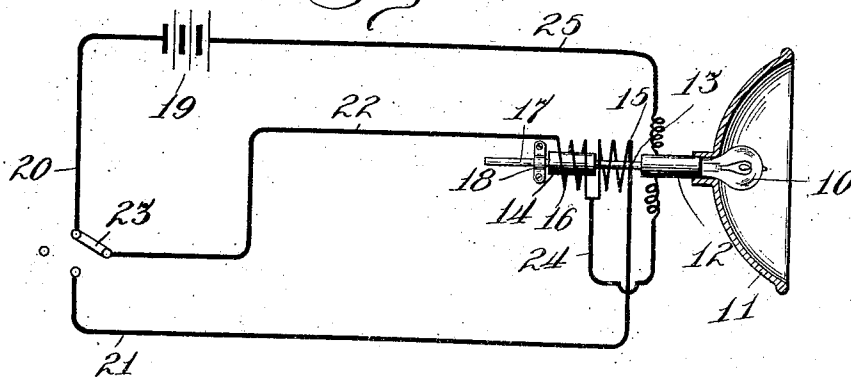


Fig. 2.



Witnesses:
Milton Lenoir
E. M. Klatcher

Inventor
Roger M. Newbold,
By Wilson Lenoir
Attorneys:

UNITED STATES PATENT OFFICE.

ROGER M. NEWBOLD, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE ADAMS & WESTLAKE COMPANY, A CORPORATION OF ILLINOIS.

ELECTRIC LAMP.

954,878.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROGER M. NEWBOLD, a citizen of the United States, and resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Electric Lamps, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to electric lamps especially adapted for use on vehicles; its object being to provide means for throwing the lamp into and out of focus with reference to the reflector with which it is mounted; and it consists of a device such as hereinafter described and illustrated in the accompanying drawings, in which—

Figures 1 and 2 are diagrammatic views of the device showing the lamp in its two positions.

In order to comply with local laws in many sections of the country, it is necessary, under some circumstances, to dim the headlights of vehicles, such as automobiles, and where an electric lamp is used as a headlight the most feasible method of complying with this requirement is to change the position of the lamp with reference to the reflector used in connection with it. The present invention provides means for accomplishing this change at a distance remote from the lamp, as from the seat of a vehicle.

The lamp is represented at 10 and as being mounted in connection with a reflector 11. The lamp is fixed to a carrier 12 projecting through the center of the reflector and sliding upon its axis in order that the lamp may be projected forward or retired to change its relation to the focus of the lens. The carrier 12 is attached by means of a shank 13 to the core 14 of a solenoid comprising two windings 15, 16, arranged tandem. The aperture through the reflector serves as a guide for the carrier 12, and preferably a stem 17 projects from the remote end of the core 14 through a loop 18 secured to any suitable part of the vehicle, and serving as an additional guide. Both of the coils of the solenoid are in circuit with a source of

electrical energy, as the battery 19, one of the main leads 20 from the battery being subdivided into branches 21, 22, leading, respectively, to the coils 15, 16. A two-point switch 23 connects the main line 20 with the branches 21 and 22 in alternation. The two coils 15, 16, unite in a line 24 which leads to the socket of the lamp. The return line from the lamp to the battery is designated 25.

When the switch 23 is thrown to connect the branch 21 with the main line 20, the current is carried through the coil 15, and the core 14 is drawn forwardly and projects the lamp to the true focal point of the reflector 11, as shown in Fig. 1. When the switch is shifted to connect the branch 22 with the main line 20, as shown in Fig. 2, the current is carried through the coil 16 and the core 14 is thereby drawn backwardly, carrying the lamp away from the focal point of the reflector and consequently reducing the illumination.

I claim as my invention—

1. In combination, a reflector, a lamp mounted in connection with the reflector, and electromagnetic means for adjusting one of said elements with reference to the other.

2. In combination, a reflector, a lamp adjustably mounted in connection with the reflector, and electromagnetic means for shifting the lamp to and from the focal point of the reflector.

3. In combination, a reflector, a lamp adjustably mounted on the axis of the reflector, a solenoid having two coils in tandem relation, operative connection between the lamp and the solenoid core, and means for energizing the solenoid coils in alternation.

4. In combination, a reflector, a lamp shiftable on the axis of the reflector, an electric circuit for serving the lamp, a solenoid having two coils in tandem relation and in independent branches of the circuit, and a switch controlling such branches.

ROGER M. NEWBOLD.

Witnesses:

WM. S. HAMM,
P. G. EMERY.