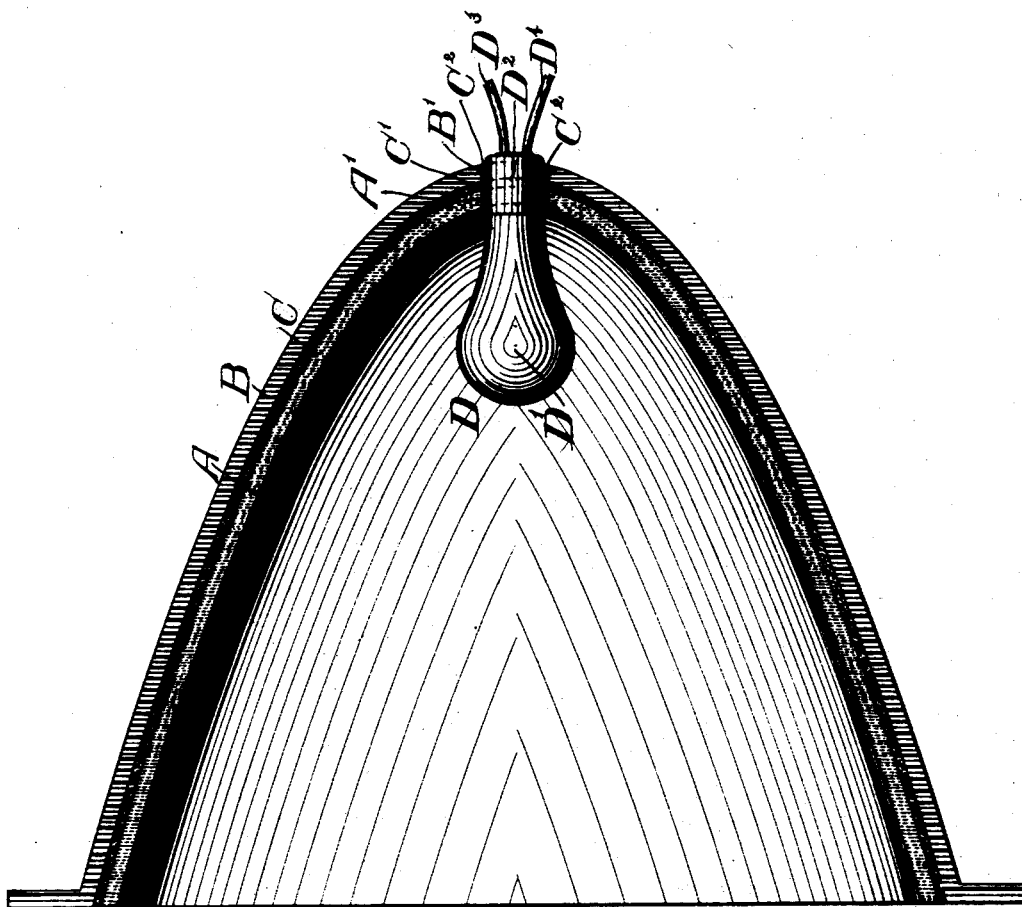


(No Model.)

M. O. AINSLIE.
HEADLIGHT REFLECTOR.

No. 525,571.

Patented Sept. 4, 1894.



Attest:

Henry Appleton
T. Smith

Inventor:

Mark O. Ainslie,
per Wm. Hubbell Fisher,
Attorney.

UNITED STATES PATENT OFFICE.

MARK O. AINSLIE, OF CINCINNATI, OHIO.

HEADLIGHT-REFLECTOR.

SPECIFICATION forming part of Letters Patent No. 525,571, dated September 4, 1894.

Application filed December 18, 1891. Serial No. 415,449. (No model.)

To all whom it may concern:

Be it known that I, MARK O. AINSLIE, a citizen of the United States of America, and a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Reflectors for Locomotive-Headlights, of which the following is a specification.

10 The nature of my invention and the advantages derived therefrom will be apparent from the following description and claim.

In the accompanying drawing, forming a part of this specification, and to which reference is hereby made,—the figure represents a vertical, central longitudinal section of those portions of a locomotive head light which embody my invention.

A represents a glass reflector of parabolic form. The rear exterior surface of the glass reflector is coated with a coat of quicksilver, thereby greatly increasing its capacity for reflecting the rays of light from the light employed in connection with the reflector.

25 In practice, the interior of a metallic casing B is covered with a layer of fresh soft cement, and the silvered glass reflector is introduced within the casing, and brought into contact with the latter. As this cement sets or dries, the glass reflector is securely connected to the casing. I thus obtain a very powerful and strong reflector. I combine with this an electric light. The preferred description of such light, and the preferred mode of its application are as follows:—In the rear end of the glass reflector, I form an orifice A', by the use of a sand blast. An orifice B', of similar diameter, is present in the metallic casing. A similar orifice C' extends 30 through the cement as well as through the silvered glass and the casing. In this orifice, I fix the socket D² of an incandescent lamp D, whose bulb D' is located inside of the

space inclosed by the glass reflector, and near the apex thereof. The socket D² and consequently the lamp are preferably secured in position by means of a layer of cement C², surrounding the socket D² with the said orifices, and filling the space between the latter and the socket. The glass bulb D' extends forward preferably on the axial line of the reflector. The wire D³ for the conduct of electricity to the lamp, and the wire D⁴ for the conveyance of the electricity away from the lamp, issue from the lamp D' preferably at its rear end, in the well known manner, and are respectively connected to the opposite poles of the source of electrical energy. This source of electrical energy is preferably a storage battery, but may be a dynamo, or other desired description of apparatus for generating electricity.

In practice, I obtain a light throwing apparatus of remarkable brightness and of extraordinary powers of reflection and projection, one exceedingly simple of construction and efficient in operation.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

The concave glass reflector and a metallic casing, and a medium of cement uniting the reflector to the casing, the reflector having orifice A', and the casing having orifice B', and the layer of cement perforated at C', and an incandescent electric lamp whose socket extends through and is located in said orifices, and a layer C² of cement lining said orifices, and surrounding the said socket, and uniting the latter to the reflector and casing, substantially as and for the purposes specified.

MARK O. AINSLIE.

Attest:

WM. E. JONES,
K. SMITH.