No. 647,688. Patented Apr. 17, 1900.

C. L. WAKEFIELD.

HEADLIGHT.

(Application filed July 18, 1899.)

(No Model.)

Fig. 1.

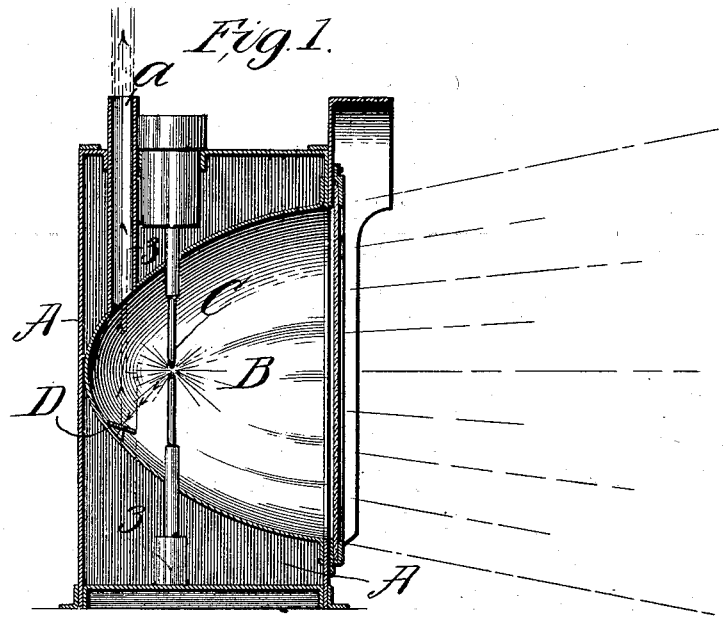


Fig. 3.

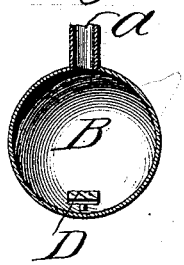


Fig. 2.

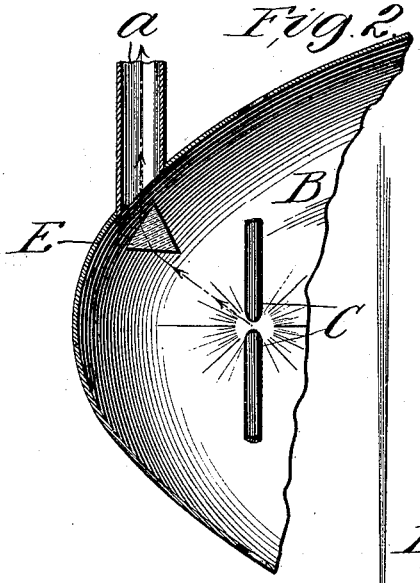
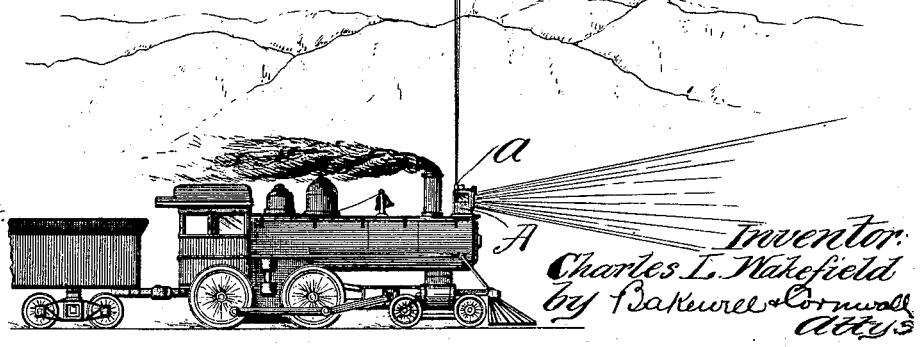


Fig. 4.



Attest:
Wm. H. Coombs.
A. D. Gray.

Inventor:
Charles L. Wakefield
by Bakewell & Cornwall
Attys

UNITED STATES PATENT OFFICE.

CHARLES L. WAKEFIELD, OF DALLAS, TEXAS, ASSIGNOR OF ONE-HALF TO PHILIP DE C. BALL, OF ST. LOUIS, MISSOURI.

HEADLIGHT.

SPECIFICATION forming part of Letters Patent No. 647,688, dated April 17, 1900.

Application filed July 18, 1899. Serial No. 724,236. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. WAKEFIELD, a citizen of the United States, residing at Dallas, county of Dallas, State of Texas, have invented a certain new and useful Improvement in Headlights for Locomotives, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical sectional view of my improved headlight. Fig. 2 is a detail sectional view of a reflector for headlights, illustrating a slightly-modified construction wherein a refracting substance is utilized in lieu of a reflector as the auxiliary means for projecting the beam of light. Fig. 3 is a vertical sectional view taken on the line 3 3 of Fig. 1; and Fig. 4 is a side elevational view of a locomotive, illustrating my improved headlight in position thereon.

This invention relates to a new and useful improvement in headlights, particularly those used on locomotives, the object being to provide the casing or housing of such headlight with one or more openings, through which is projected a shaft or beam of light, preferably in a vertical direction, to give notice of the presence of a train to which the locomotive may be attached and also indicate the direction in which said train may be traveling.

With this object in view the invention consists in providing the casing or housing of a headlight with one or more openings and arranging a prism or reflector at such an angle with relation to the source of light that a shaft or beam of light will be projected through said opening or openings.

In the drawings, A indicates the housing or casing of the headlight, B the main or usual reflector, and C the source of light, all of which parts are well known.

D indicates a reflector so arranged with relation to the source of light that it will reflect a shaft or beam of light through an opening *a* in the casing, preferably in a vertical direction. This reflector or prism may obviously be placed on any side of the source of light but I have preferred to illustrate it behind the same. It is also obvious that two or more reflectors or prisms may be employed, if desired.

In Fig. 2 I have shown a prism E in lieu of the reflector D.

I am aware that minor changes in the arrangement, construction, and combination of several parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a headlight, the combination with the casing having an opening therein, of a parabolic reflector provided with an opening registering with said opening in the casing, a source of light, and an auxiliary projecting means located within said parabolic reflector back of the source of light and arranged at an angle relative to the source of light so that an auxiliary beam of light is thereby directed into and through the registering openings in the parabolic reflector and casing, substantially as described.

2. In a headlight, the combination with the casing formed with an opening in its upper face, of a parabolic reflector formed with an opening in its upper face and in vertical alinement with the aforesaid opening in the upper face of the casing, a source of light and an auxiliary projecting means, said auxiliary projecting means being located within the parabolic reflector back of the source of light and arranged therein at such an angle that an auxiliary beam of light will be directed through the alining openings in said parabolic reflector and the said casing; substantially as described.

3. In a headlight, the combination with the casing, of a parabolic reflector, a source of light, a tube arranged at the rear end of the said reflector, back of the source of light and extending through the top of the casing in a vertical line, and an auxiliary projecting means arranged back of the source of light in line with said tube and at such angle as to project a ray of light therethrough, substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 12th day of July, 1899.

CHARLES L. WAKEFIELD.

Witnesses:

A. P. WOZENCROFT,

T. H. BOLICK.