

J. R. GREEN.
HEADLIGHT SHADE.
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998,501.

Patented July 18, 1911.

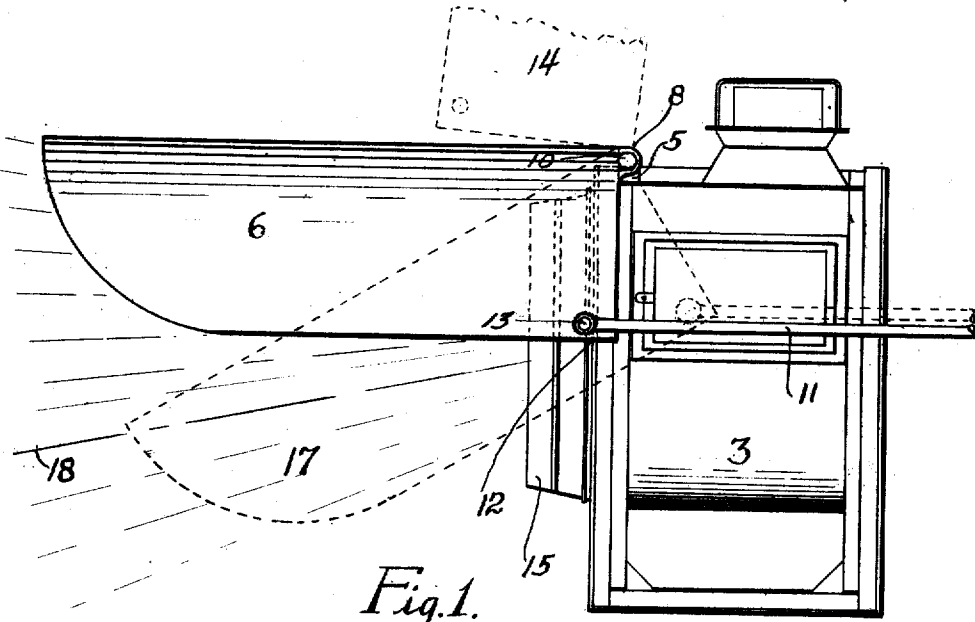


Fig. 1.

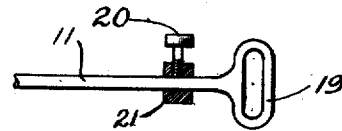
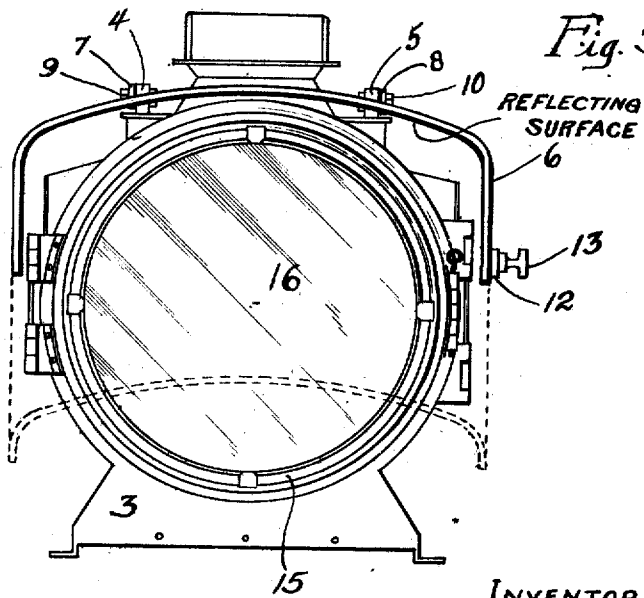


Fig. 3.

Fig. 2.



WITNESSES:
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HEADLIGHT-SHADE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN R. GREEN, a citizen of the United States, residing at Dalhart, Dallam county, and State of Texas, have invented certain new and useful Improvements in Headlight-Shades, of which the following is a specification.

This invention relates to shades intended for use on the headlights of locomotives, electric cars, automobiles, and other vehicles, and has for its object to provide a simple and effective means for permitting the engineer or driver to cut off the main ray of light or such portion thereof as may be desirable at will.

At the present time powerful headlights are largely used on such vehicles as those mentioned and their use is very desirable, especially on locomotives intended for high speed service, where it is desirable to strongly illuminate the track and surrounding objects for as great a distance as possible in advance. However, owing to the very feature for which such headlights are desirable, viz., the intensity of the beam of light which they throw, they possess the disadvantage that they so blind a person looking toward them that it is very difficult to estimate the distance to them, whether they are advancing or receding, and if advancing, the speed of advance. Because of these facts many serious railroad accidents have occurred, and a strong prejudice has arisen against their use in certain classes of service. It is therefore desirable to provide means for enabling an engineer or fireman to shade his headlight as he approaches another locomotive so that the engineer or fireman of the approaching locomotive will not be blinded, in the above described manner.

It is the object of this invention to provide a shade which may be pulled down or deflected by the engineer or fireman so as to control the beam from his headlight in such a way that the approaching engineer or fireman will not be blinded, but also in such a way that the track for a proper distance in front of the locomotive will be well illuminated. Such a shade must be mechanically strong enough to withstand the wind and other forces coming upon it when

traveling at high speed, and it must also be completely under the control of the operator in the cab without the necessity of his unduly exposing himself.

In the drawing Figure 1 shows a side elevation of a headlight having my shade attached to it, showing a rod connected to the shade and adapted to be connected with a suitable handle or other device in the cab, showing also by dotted lines the position which the shade may be made to assume for cutting off the main beam of light, and also showing by dotted lines the manner in which the shade may be turned up out of the way after the rod has been disconnected therefrom to enable the operator to open the front doors of the headlight for cleaning or other purposes. Fig. 2 is a front elevation of a headlight having my shade attached to it and showing by dotted lines the lowered position of the shade; and Fig. 3 is a detail showing one method of securing the controlling rod or other device in any desired position in the cab.

A headlight 3, which may be of any suitable construction, is preferably provided with a pair of lugs 4 and 5, near its upper portion, and preferably as far forward on the body portion of the headlight as possible. These lugs should be some distance apart so that they may support a shade 6 firmly against twisting forces. The shade 6, which may be of any suitable form and size, may be provided with a pair of ears 7 and 8, adapted to be fastened to the lugs 4 and 5, as by means of bolts 9 and 10. The shade should be of a width which will permit its rear portion to extend past the body part of the lamp when the shade is deflected downward into the dotted line position. Any desired connecting means, such as a stiff rod 11, provided with an enlarged end portion 12, may be used for controlling the shade from the cab. This connecting means must be so stiff that it will hold the shade firmly in any desired position, notwithstanding wind and other forces coming upon the shade. The enlarged end portion 12 of the rod is preferably provided with a hole for receiving a thumb screw or bolt 13 so that when desired the rod can be easily disconnected from the shade when the latter

is to be thrown up into a position 14 for permitting the doors and lenses 15 and 16 to be opened.

The shade should be of such a design that when thrown down into a position 17 the upper portion 18 of the beam of light will not strike the eyes of the engineer or fireman in the cab of the approaching locomotive, and yet so that the track will be well illuminated for some distance in front of the locomotive on which the headlight shade is being controlled.

The rod 11 may be provided with a gripping portion 19 for permitting it to be easily manipulated, and any suitable means, such as a thumb-screw 20 may be provided to lock the rod in any desired position with respect to the frame work 21 of the locomotive.

It is seen that the shade of my invention may be so designed and constructed that it may completely cut off that portion of the beam of light which would otherwise interfere with the vision of an approaching engineer or fireman, but so that it will not cut off that portion of the beam of light necessary to illuminate the track immediately in front of the locomotive carrying the shaded headlight. In general the under portion of the shade should be of reflective material so as to throw the light down on the track to aid in illuminating the same.

Although I have shown and described a shade which in normal position extends only half-way down by the side of the lenses, still I do not limit myself to such a shade, inasmuch as it is evident that in some locations it may be desirable to have a deeper shade, while in other locations it may not be necessary that the shade should extend half-way down.

Although I have shown and described a rod for connection to a point on the shade for controlling the same from the cab, still I do not limit myself to the use of a rod, as it is evident that any suitable connector may be used. Neither do I limit myself to the use of a thumb-screw for connecting the rod to the shade, as it is evident that the nature of this connector will depend upon whether it is necessary to easily disconnect the rod from the shade, and other circumstances. Neither do I limit myself to the use of lugs formed on the body portion of the headlight and ears formed on the shade and adapted to cooperate with the lugs for supporting the shade; as the manner of connecting the shade to the body portion of the headlight will depend upon the size of the shade, its shape, the shape of the headlight and other circumstances.

It is evident that any suitable means may be provided in the cab for controlling the position of the shade, and this may be in the

form of a thumb-screw as shown and described, or in the form of a rack or any other suitable device.

Although I have shown and described a shade adapted to be controlled from a distance by means of a rod or otherwise, still I contemplate also the use of a shade provided with a thumb-screw or other locking device, so that it may be firmly secured in any position without the possibility of being controlled from a distance, as it is evident that this would be the simplest form in which my shade and attaching means could be made.

I claim:—

1. In combination with the forward portion and lens of a headlight, a swinging shade therefor in the form of an apron substantially straight in its longitudinal direction and provided with downwardly hanging side walls of substantial depth, the shade being pivoted to the upper portion of the headlight body rearwardly of the lens, and being of such a width that the downwardly hanging side walls extend outwardly beyond the sides of the body of the headlight to permit the shade to be swung downward an amount to partially cut off the main beam of light, and the side walls embracing the body portion to prevent the escape of light sidewise past the shade, whereby that portion of the beam of light which is directed horizontally down the track is cut off and that portion thereof which illuminates the track immediately in advance of the locomotive is not cut off, substantially as described.

2. In combination with the forward portion and lens of a headlight, a swinging shade therefor in the form of an apron substantially straight in its longitudinal direction, provided with downwardly hanging side walls of substantial depth, and of a relatively reflective character on its lower inner face, the shade being pivoted to the upper portion of the headlight body rearwardly of the lens, and being of such a width that the downwardly hanging side walls extend outwardly past the sides of the headlight to permit the shade to be swung downward an amount to partially cut off the main beam of light, and the side walls embracing the body portion to prevent the escape of light sidewise past the shade, whereby that portion of the beam of light which is directed horizontally down the track is cut off and is deflected downwardly to illuminate the track immediately in advance of the locomotive, substantially as described.

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Witnesses:

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