

S. JONES.
HEADLIGHT SCREEN.
APPLICATION FILED FEB. 14, 1910.

979,508.

Patented Dec. 27, 1910.

Fig. 1.

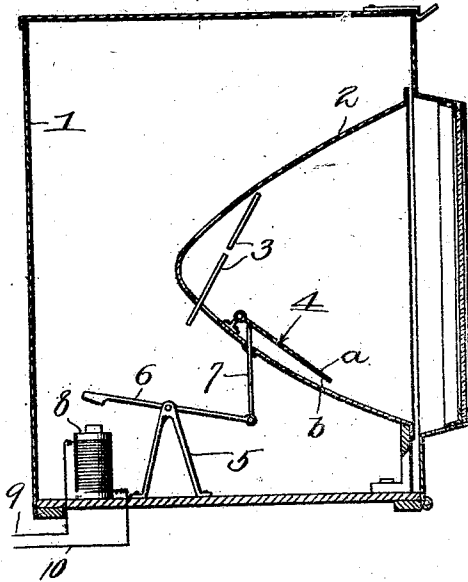


Fig. 2.

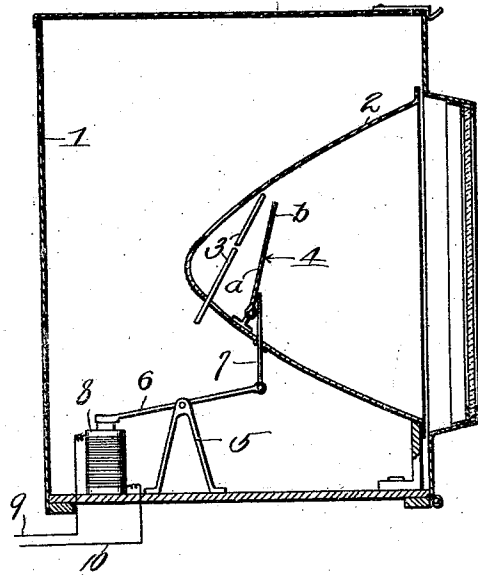


Fig. 3.

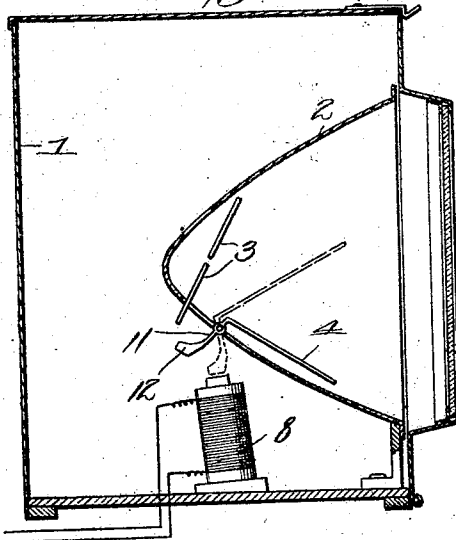
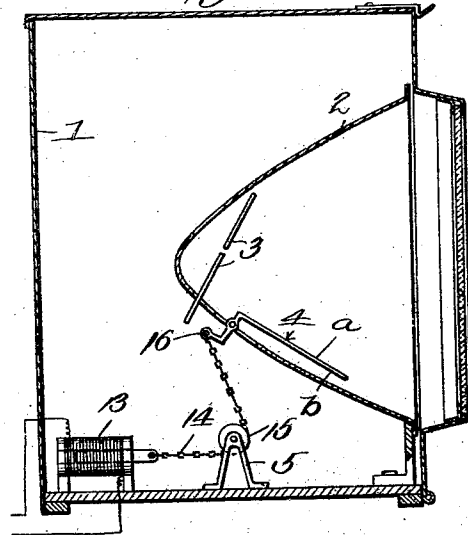


Fig. 4.



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UNITED STATES PATENT OFFICE.

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HEADLIGHT-SCREEN.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAMUEL JONES, a citizen of the United States, residing at Fremont, in the county of Sandusky and State of Ohio, have invented a new and useful Improvement in Headlight-Screens, of which the following is a specification.

This invention relates to a screen for electric headlights, and is especially designed for use with headlights carried by interurban cars. These lights are of great power and brilliancy and there are many places where the local regulations either forbid their use or require that they be screened.

The object of this invention is to provide means for throwing a screen either into operative or inoperative position without actually handling the screen itself, or without requiring the employment of rollers, gearing, etc., and a further object of the invention is to so arrange the screen that when not in use for the purpose of screening the light it will act as a part of the reflector.

With these objects in view, my invention consists in the novel features of construction hereinafter fully described, pointed out in the claims and shown in the accompanying drawings, in which:

Figure 1 is a vertical section, parts being shown in side elevation and the screen being shown in inoperative position. Fig. 2 is a similar view showing the screen elevated in front of the arc. Figs. 3 and 4 are similar views illustrating modifications in the manner of operating the screen.

In these drawings 1 represents the headlight casing which contains a suitable reflector 2 within which are arranged the carbons 3 and to said reflector and in the lower portion thereof is pivotally mounted a screen 4 having opposing surfaces *a* and *b*, and the surface *a* of the screen is either polished or is coated with quicksilver, thereby providing a reflecting surface and when said screen is in the position shown in Figs. 1, 3 and 4, it will form a part of the light reflecting surface. In order to operate the said screen and to lift it into the position shown in Fig. 2 in order to cover the arc, I preferably provide a bracket 5 upon which is pivotally

mounted an armature lever 6 to one end of which is pivotally connected an operating rod 7 which works upwardly through the reflector 2 and bears upon the surface *b* of the screen. An electro-magnet 8 is placed beneath the armature end of the lever 6 and is provided with suitable electric conductors 9 and 10, leading from any suitable source of power. Upon the closing of the circuit through said conductors 9 and 10 the magnet 8 will be energized and will draw down the armature, thus lifting the rod 7 which in turn will elevate the screen 4 into the position shown in Fig. 2.

In Fig. 3 I have shown the screen operated by direct pull of the magnet, the said screen having connected thereto an angled arm 11 carrying an armature 12 which is attracted by the magnet.

In Fig. 4 I have illustrated a further modification of the means for operating the screen, which consists in substituting for the electromagnet 8 a solenoid 13, the core of which is connected to a chain 14 which runs under a pulley 15 and which is connected at its upper end to an angled arm 16 carried by the screen 4.

In all of these various forms the energizing of the electro-magnet lifts the screen into a position to shield the arc.

In order to illustrate the invention, I have shown various ways of operating the screen by electro-magnets, but I do not desire to limit myself to such specific means as it might be advisable to substitute other means. In the case of electrically propelled cars this would be the logical manner of operating the screen, but if the cars were driven by compressed air, or by gasoline and equipped with compressed air brakes, the operating means could readily consist of a compressed air cylinder in place of the electro-magnet coil.

What I claim as new is:

1. The combination with a headlight, of a screen having a reflecting surface, and hinged below the light and normally swinging forwardly and downwardly and reflecting portions of the light rays forwardly, and means for elevating said screen.

2. The combination with a reflector, of a plate hinged in the lower portion of said reflector, said plate being in advance of a light also arranged within the reflector, the
5 said plate normally lying in a downwardly and forwardly inclined position and in said position forming a portion of the reflecting

surface, and means operable from a car for lifting said screen:

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Witnesses:

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