

R. STRAUBEL.
REFLECTOR SEARCH LIGHT.
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1,052,764.

Patented Feb. 11, 1913.

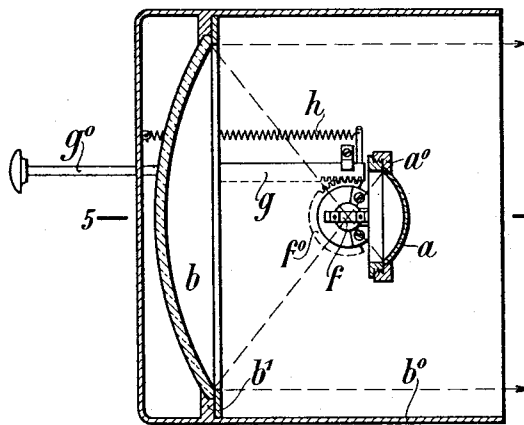


Fig. 1

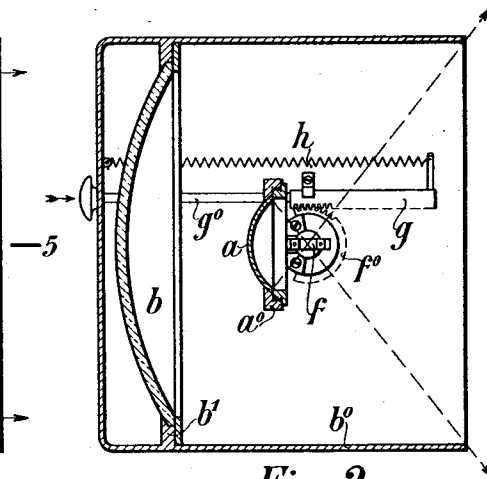


Fig. 2

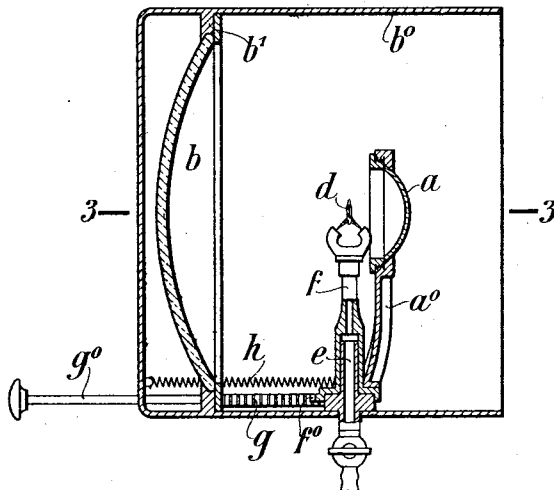


Fig. 3

Witnesses:
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UNITED STATES PATENT OFFICE.

RUDOLF STRAUBEL, OF JENA, GERMANY, ASSIGNOR TO THE FIRM OF CARL ZEISS, OF JENA, GERMANY.

REFLECTOR SEARCH-LIGHT.

1,052,764.

Specification of Letters Patent.

Patented Feb. 11, 1913.

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To all whom it may concern:

Be it known that I, RUDOLF STRAUBEL, a citizen of the German Empire, residing at Jena, Germany, have invented a new and useful Reflector Search-Light, of which the following is a specification.

The invention relates to reflector search-lights, the source of light of which emits light also in the opposite direction to the reflector.

It relates to those, in which a small screen reflector can be interposed between the source of light and the main reflector in order to interrupt the production by this main reflector of the beam of light and to reinforce the direct cone of rays. But the invention also relates to those search-lights of the type defined in the first sentence, which are furnished on the side of the source of light opposite to the main reflector with a small auxiliary reflector, so as to reinforce the beam by the light emitted on this side, but in which this auxiliary reflector may be made inoperative by being moved either partially or totally out of the cone of rays, which it reflects when in its principal position, such movement permitting a widely opened cone of rays temporarily to be sent out immediately from the source of light.

According to the invention both forms of search-light are united to form a single one in the following way. While only that form fitted with the screen reflector is made use of, means are provided for rotating this screen reflector by 180° about the source of light, so as to be able to bring the screen reflector from its screening position into an auxiliary position similar to the operative position of the auxiliary reflector of the other form.

In the annexed drawing: Figure 1 is a horizontal axial section through a constructional example of the search-light according to the invention, with the screen reflector in the auxiliary position. Fig. 2 is a similar view, with the screen reflector in the screening position. Fig. 3 is a vertical axial section corresponding to Fig. 1.

The screen reflector a is mounted in the standard a^0 . The main reflector b is inserted

in the drum b^0 . The source of light is an acetylene flame d . The screen reflector a can perform a rotation of 180° about this source of light. After the first half of this rotation the screen reflector has been removed from its screening position, after the second half it has reached its auxiliary position. In the example shown the screen reflector has in both positions, the screening and the auxiliary one, the same distance from the source of light. The gas supply pipe e is located transversely to the axis of the search-light and serves as the axis of rotation. In order to prevent during the rotation of the screen reflector (more especially in the intermediate position it may take up after a rotation of 90°, in which position it is inoperative) the distance between the source of light and the reflector surface becoming any less than in the screening and in the auxiliary position and so endangering the reflector, the burner f as the carrier of the source of light is rigidly connected with the standard a^0 of the screen reflector and is therefore also rotatable about the gas pipe e . The bottom flange, which is common to both the burner and the standard of the screen reflector, is fitted with a toothed sector f^0 . A rack g engages with this sector and is actuated by means of an extension rod g^0 , which projects through the mounting b^1 of the main reflector b and the back of the drum b^0 to the outside. A spring h keeps the rack in contact with the reflector mounting b^1 and so brings about the auxiliary position of the screen reflector (Figs. 1 and 3), while, as long as the rod g^0 is pressed in till its head touches the back of the drum (Fig. 2), the screen reflector retains its screening position.

I claim:

1. In a reflector search-light a main reflector, a source of light emitting light also in the opposite direction to the said main reflector, a carrier of this source of light mounted transversely to the axis of the search-light, a screen reflector between the main reflector and the source of light and means for rotating this screen reflector by 180° about the source of light.

2. In a reflector search-light a main reflector

tor, a source of light emitting light also in the opposite direction to the said main reflector, a carrier of this source of light mounted transversely to the axis of the
5 search light, a screen reflector between the main reflector and the source of light and means for simultaneously rotating both the carrier and the screen reflector by 180° about

an axis passing through the carrier and the source of light at right angles to the axis 10 of the search-light.

RUDOLF STRAUBEL.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."