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BEAM CONTROL FOR SPOTLIGHT

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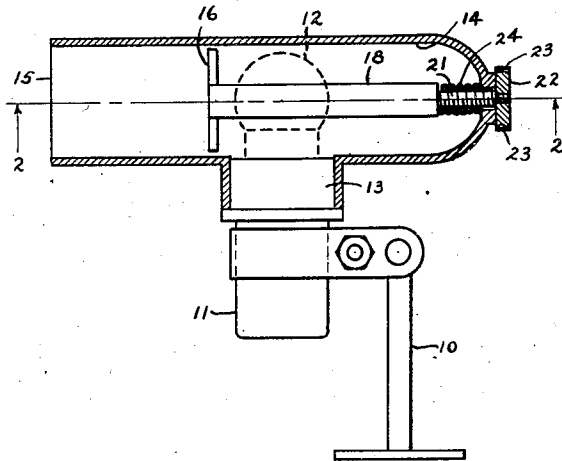


Fig. 1

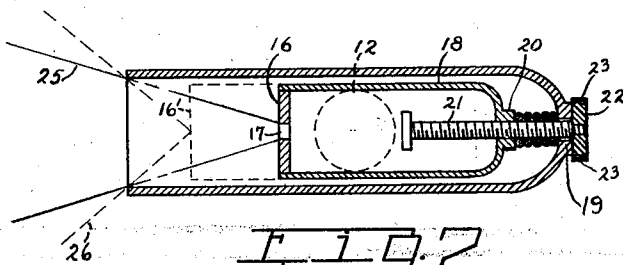


Fig. 2

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BEAM CONTROL FOR SPOTLIGHT

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4 Claims. (Cl. 240—45)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

This invention relates to a beam control for spot light and has for an object to provide a means for controlling the spread of the beam light of a spot light as particularly desirable in use on aircraft, as well as on other vehicles.

A further object of this invention is to provide a simple and inexpensive, yet sturdy construction for adjusting the beam spread of a spot light. A still further project of this invention is to provide a manually controllable means for adjusting the beam spread of a spot light which may be controlled by one hand of the operator while he maintains his control of the vehicle or airplane with his other hand.

With the foregoing and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter described and illustrated in the drawing, in which:

Fig. 1 is a partly sectional and partly elevational view of the adjustable beam spot light of this invention; and

Fig. 2 is a longitudinal section view of Fig. 1.

There is shown at 10 a conventional adjustable base on which is secured a socket 11 supporting the spot light lamp 12 in the socket base 13, the lamp 12 being located within the spot light reflecting housing 14 which is open at one end 15 for the beam light to emerge therefrom. Within this reflecting housing 14 there is supported a shutter 16 provided with a beam light hole 17, this shutter 16 being located between the lamp 12 and the open end 15 of the spot light reflecting housing 14.

This shutter 16 is supported on a pair of oppositely disposed ribs 18 which are joined together to a nut 20 through which extends a threaded shaft 21. This shaft 21 is journaled through the rear 19 of the reflecting housing 14 and has secured thereon a knob 22 which may be knurled as at 23 for easy manipulation. A coil spring 24 about the threaded shaft 21 extends between the nut 20 and the rear 19 of the housing reflector 14 and serves to press the nut 20 against the threads of the threaded shaft 21 and provide sufficient friction to hold the shaft 21 against accidental movement, yet permit easy manual rotation thereof.

In operation, the knurled knob 22 may be rotated to move and retain the shutter 16 anywhere between the full line position shown at 16 where it permits a maximum amount of light concentrated as at 25 of the light beam to the position at 16' where it permits a minimum amount of light in a wide spread, as at 26.

Other modifications and changes in the proportions and arrangements of the parts may be made by those skilled in the art without departing from the nature of the invention, within the scope of what is hereinafter claimed.

The invention described herein may be manufactured and/or used by or for the Government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

It is claimed:

1. A spot light beam adjustment means comprising a spot light reflecting housing, a spot light lamp within said housing, an apertured shutter between the spot light lamp and an open end of the spot light housing, and means for adjustably securing said apertured shutter within a longitudinal range of movement between said spot light lamp and said open end of said spot light housing, said adjustable securing means comprising a pair of ribs to which said shutter is secured, a nut in which said ribs terminate, a threaded shaft extending through said nut and journaled through a closed end of said spot light housing, and knob means secured to said threaded shaft external of said housing for manipulating the same.

2. A spot light beam adjustment means comprising a spot light reflecting housing, a spot light lamp within said housing, an apertured shutter between the spot light lamp and an open end of the spot light housing, and means for adjustably securing said apertured shutter within a longitudinal range of movement between said spot light beam and said open end of said spot light housing, said adjustable securing means comprising a pair of ribs to which said shutter is secured, a nut in which said ribs terminate, a threaded shaft extending through said nut and journaled through a closed end of said spot light housing, knob means secured to said threaded shaft extending to said housing for manipulating the same, and a coil spring by said shaft between said nut and said closed housing and to frictionally hold said shutter in adjusted position.

3. An adjustable beam spot light comprising a cylindrically shaped spot light reflecting housing having one open end, and one closed end, a spot light lamp within said housing, an apertured shutter and means for adjustably securing said apertured shutter within a longitudinal range of movement between said spot light lamp and said housing open end, said means comprising a threaded shaft journaled through said closed housing end, a knob externally of said housing

for manipulating said threaded shaft, a nut threaded on said shaft and a pair of shutter supporting ribs extending from said nut to said apertured shutter.

4. An adjustable beam spot light comprising a cylindrically shaped spot light reflecting housing having one open end and one closed end, a spot light lamp within said housing, an apertured shutter and means for adjustably securing said apertured shutter within a longitudinal range of movement between said spot light lamp and said housing open end, said means comprising a

threaded shaft journaled through said closed housing end, a knob externally of said housing for manipulating said threaded shaft, a nut threaded on said shaft and a pair of shutter supporting ribs extending from said nut to said apertured shutter, and means for frictionally holding said shutter in adjusted position comprising a coil spring about said shaft between said nut and said closed housing end.

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