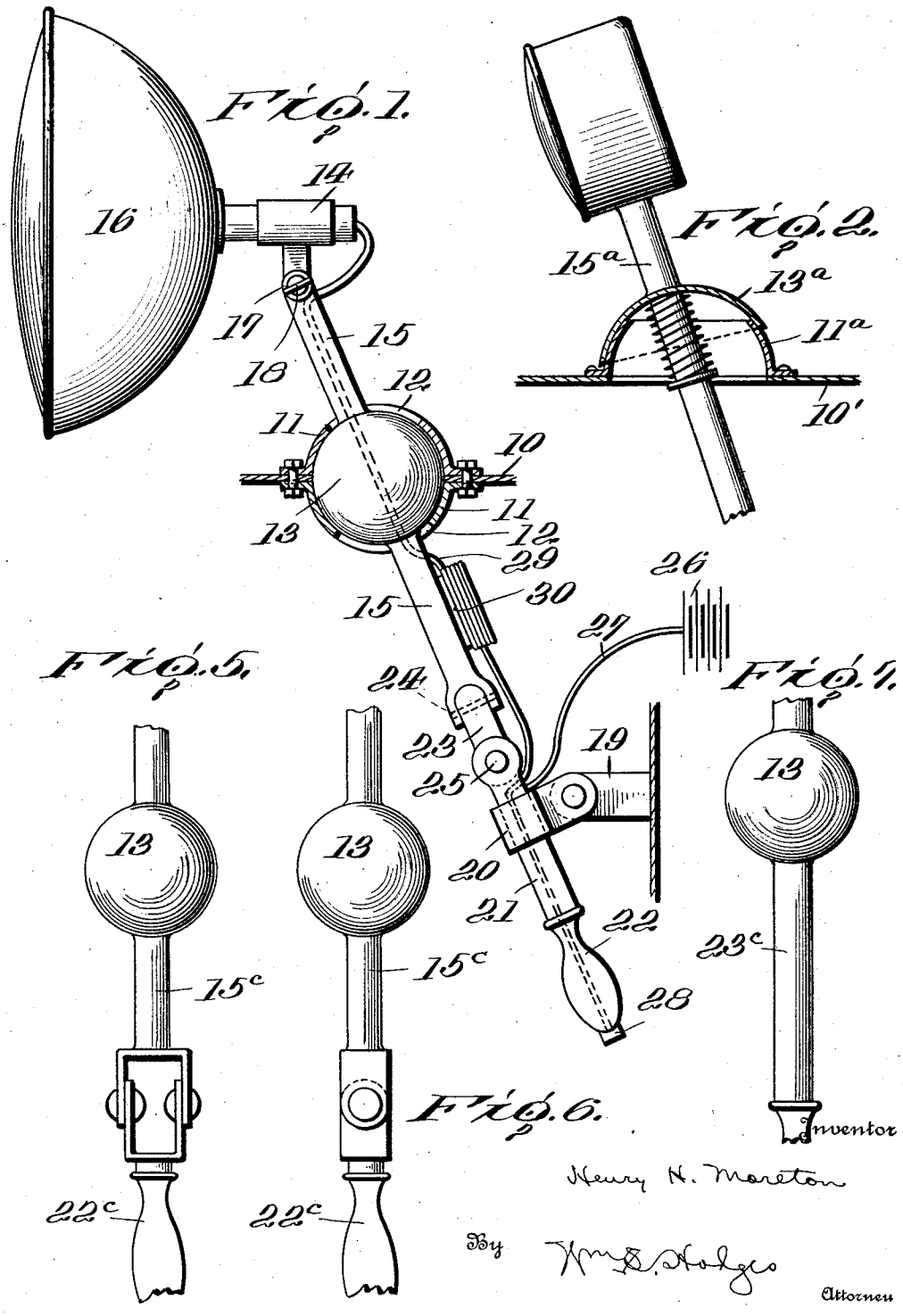
Dec. 2, 1930. H. H. MORETON 1,783,516

SPOTLIGHT ATTACHMENT

Filed Jan. 10, 1928 2 Sheets-Sheet 1



Inventor

Henry H. Moreton

By Wm. D. Hodges

Attorneu

Dec. 2, 1930. H. H. MORETON 1,783,516

SPOTLIGHT ATTACHMENT

Filed Jan. 10, 1928 2 Sheets-Sheet 2

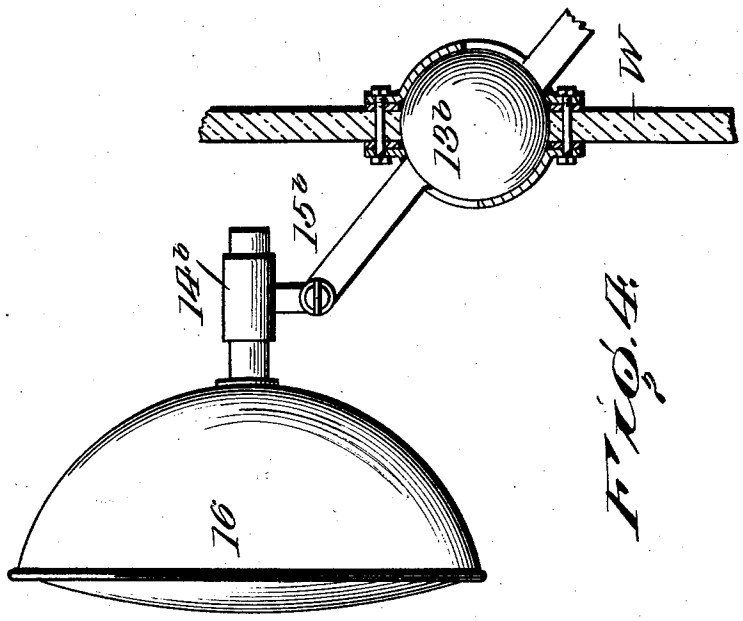


FIG. 4.

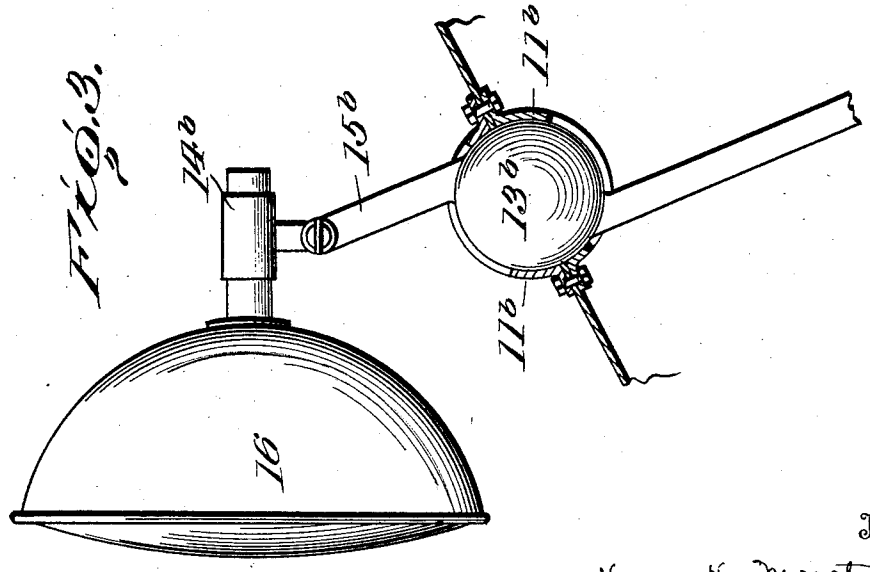


FIG. 3.

Inventor

Henry H. Moreton

By Henry H. Hodges

Attorney

Patented Dec. 2, 1930 1,783,516

UNITED STATES PATENT OFFICE

HENRY H. MORETON, OF STONY POINT, NEW YORK

SPOTLIGHT ATTACHMENT

Application filed January 10, 1928. Serial No. 245,696.

This invention is a device of the type commonly used on motor vehicles for illuminating roadways, sign posts, house numbers, and the like.

One of the objects of the invention is to provide simple means for so supporting a spotlight, that the direction of the projection of its beam with respect to the vehicle, may be readily changed, so that said beam may be projected upon different portions of a roadway, or upon sign posts, or other objects positioned on either side, at the will of the operator. A further object is to provide a spotlight carrier so supported that it is capable of pivotal and axially rotatable movements, so that the angle of inclination of said support may be readily varied to obtain a wide range of variation in the direction in which the beam may be projected. A further object is to provide means for maintaining the spotlight lamp in any adjusted angular or rotative position. A further object is to provide a spotlight lamp of the character mentioned, provided with an extension conductor cable, so that the lamp may be removed and carried to positions which are substantial distances from its normal location.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings:—

Figure 1 is a side elevation partly in section, illustrating a spotlight with the invention applied thereto. Figures 2, 3, and 4 are similar views illustrating slight modifications of the method of mounting the spotlight lamp. Figures 5, 6 and 7 are detail views illustrating various modifications of the operating handle.

Referring to Figure 1 of the drawings, 10 designates the cowl of an automobile, the same having an opening therein in which is mounted complemental socket members 11, provided with slots 12.

Mounted in the socket members and free to move therein is an approximately spherical member 13, having a carrier rod 14 projecting therefrom in one direction and an actuator member 15 projecting in an opposite direction. The members 11 and 13 provide a universal joint mounting for the rods 14 and 15, the slots 13, however, cooperating with said rods to limit pivotal movement upon a horizontal axis but permitting axial rotation of the rods. The lamp 16 is removably mounted in a bracket 17 in any desired manner, and said bracket is held in any desired angular relation with the carrier 14 by means of a wing nut 18.

Secured to a fixed support located beneath the cowl 10 is a bracket 19, to which is pivotally supported a guide sleeve 20, in which is slidably mounted an extension 21 of the handle 22. The lower end of the operating rod 15 is connected with the contiguous end of the extension 21, by a short shaft section 23, pivoted at 24 to the operating rod 15 and at 25 to the extension 21, the axes of the two pivots 24 and 25 being arranged at right angles to each other, so as to provide an approximate universal joint connection between the rod 15 and the handle 22.

The lamp 13 receives its illuminating current from the usual battery indicated at 26, a cable 27 extending from the battery to a switch 28 in the handle 22. An extension cable 29 connects the lamp 16 and the switch 28, preferably passing through the enlargement 16 and the bore of the carrier rod 14 which is made hollow for this purpose. Mounted on the lower portion of the operating rod 15 is a reel 30 around which the excess portion of the cable 29 is wound, when the lamp is in its normal position on carrier rod 14.

In practice, the angle of the lamp with respect to the carrier rod 14 is adjusted, as may be desired, and the adjustment maintained by means of the nut 18. When it is desired to utilize the lamp for other than straight ahead illumination, the direction in which the beam is projected may be readily changed by manipulating the handle 22. For instance, an upward push upon the handle 22 operating through the guide 20 and the universal joint shaft 23, will cause the upper end of the carrier rod 14 to rock downwardly, and of course, a pull in the opposite direction will reverse the adjustment

of the said rod. After the desired angle of the carrier rod 14 is obtained, it will be readily seen that by rotating the rod 15 through the medium of the handle 22, the axial movement of the rod 15 will cause the lamp to swing laterally at an angle, to describe an arc which will project the beam into different angular positions, which will vary with the extent of the angular and rotative adjustments of the rod 14. For example, assuming that it is desired to read a sign post, or a house number situated to one side of the motor vehicle, the angular position of the rod 14 may be changed so that when the said rod is rotated, the lamp will be projected at the required angle to direct it upon the object which it is desired to illuminate. When the lamp is so adjusted, it will remain in this adjusted position by reason of the friction of the parts and the angular relation of the rod 14, the handle 22 and sleeve 20. A rotation of the rod 14 in the reverse direction will bring the lamp back to its forwardly projecting position, the angle of projection being controlled by the position of said rod. Should it be necessary to inspect a portion of the vehicle outside of its normal range of illumination, the lamp 16 may be removed from its bracket 17 and the cable 17 unwound from the reel 30, thereby providing an extension lamp which may be conveniently moved to any portion of the vehicle which it is desired to illuminate.

In Figure 2 is illustrated a slight modification of the means for providing the pivotal and axial movement of the carrier rod. Referring to said figure, 13*a* designates a semi-spherical support member secured to the carrier rod 15*a*, and closely fitting over a flange 11*a* of similar contour, secured to the cowl 10′.

In Figure 3 is illustrated another slight modification which is designed particularly for use on motor vehicles having inclined cowls. In this figure, the members 11*b*, 11*b*, are secured to the cowl and support a spherical member 13*b*, which is provided with a carrier rod 14*b* and an operating rod 15*b*, offset with respect to each other. In Figure 4 the device is illustrated as extending through a windshield W in lieu of the cowl, but otherwise is substantially the same as the device illustrated in Figure 1.

In lieu of providing the guide sleeve 20 and the universal shaft 23, the handle 22*c* may be pivotally connected directly to the lower portion of the operating rod 15*c*, as illustrated in Figures 5 and 6, or if desired the handle may be rigidly secured to the carrier rod as indicated at 23*c*, Figure 7.

The advantages of the invention will be readily apparent to those skilled in the art to which it belongs. It will be particularly noted that by means of the spherical carrier member and the means for supporting it, a universal joint support is obtained which will permit axial as well as angular adjustments of the support rod. The angular adjustments may be permitted in all directions if desired as illustrated in Figure 2, or they may be limited by means of slots, as illustrated in Figure 1. An important advantage is that by reason of the friction of the parts, and the angular relation of the handle and the operating rod, the device will remain in any desired adjustment until again manipulated by the operator. It will also be noted that a very simple form of extension means is provided in association with the other features of the lamp support.

Having thus explained the nature of the invention and described an operative manner of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the forms of its use, what is claimed is:—

1. A spotlight attachment comprising a movable joint member, a lamp supporting rod projecting therefrom in one direction and an operating member projecting from said universal joint member in an approximately opposite direction, a normally fixed support having a seat complemental to said movable joint member and cooperating therewith to provide a universal joint member so that said lamp supporting rod and said operating member are capable of simultaneous and corresponding angular and rotative adjustments, a handle and a joint member pivotally connected with said handle and said operating member respectively on axes at right angles to each other, so that angular movements may be imparted to said operating rod by rectilinear movements imparted to the handle and relative rotation of the handle and said operating rod is prevented.

2. A spotlight attachment comprising a universal joint member, a lamp supporting rod projecting therefrom in one direction and an operating member projecting from said universal joint member in an approximately opposite direction, means supporting the universal joint member so that said lamp supporting rod and said operating member are capable of simultaneous and corresponding angular and rotative adjustments, a handle and a joint member pivotally connected with said handle and said operating member respectively on axes at right angles to each other, and a pivotally supported guide in which said handle is slidably mounted, so that angular movements may be imparted to the carrier rod by longitudinal movements with respect to said guide imparted to the handle.

3. A spotlight attachment comprising a universal joint member, a lamp supporting rod projecting therefrom in one direction, an operating member projecting from said uni-

versal joint member in an approximately opposite direction, means supporting said universal joint member so that said lamp supporting rod and said operating member are capable of corresponding and simultaneous angular and rotative adjustments, a handle connected with said operating member by a transversely disposed pivot so that the angular relation of said operating member and said handle may be changed but said handle and operating member will be non-rotatable with respect to each other upon a longitudinal axis, and a pivotally mounted guide sleeve in which said handle is slidably mounted.

4. A spotlight attachment comprising a universal joint member, a lamp supporting rod projecting therefrom in one direction, an operating member projecting from said universal joint member in an approximately opposite direction, means supporting the universal joint member so that said lamp supporting rod and said operating member are capable of angular and rotative adjustments, a lamp removably secured to the free end of said lamp supporting rod, an extension conductor cable for the lamp so that said lamp when disconnected from the rod may be moved a substantial distance therefrom, said operating member having external means to accommodate excess portions of said cable, an operating handle movably connected with said rod but non-rotatable with respect thereto on a longitudinal axis, and a switch in said handle controlling the flow of current through said cable.

In testimony whereof I have hereunto set my hand.

HENRY H. MORETON.