

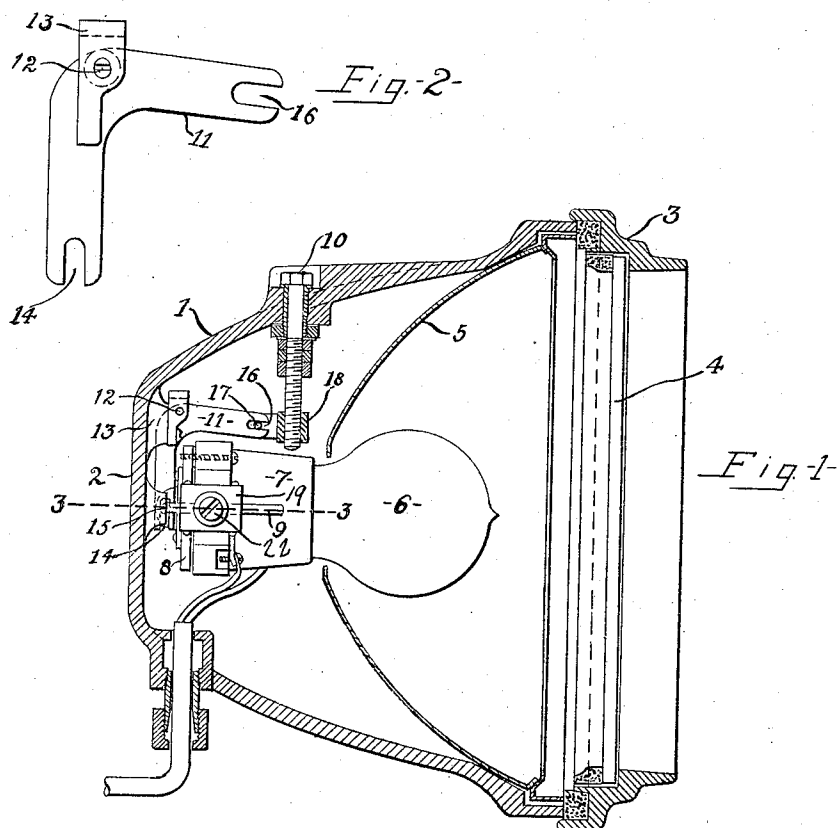
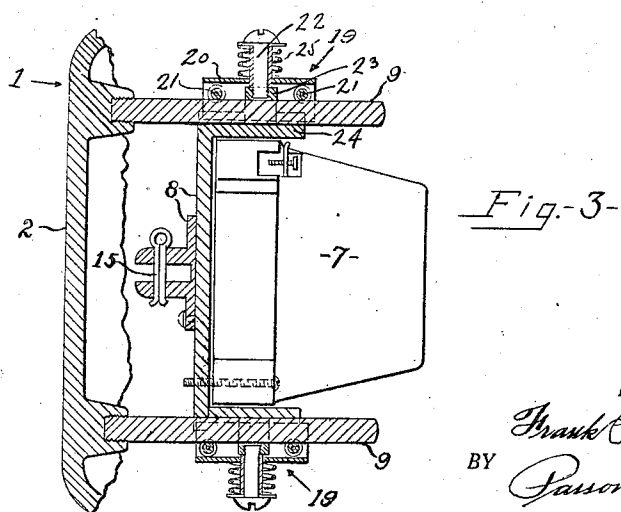
Feb. 12 , 1924.

F. BUCHANAN

1,483,070

· HEADLIGHT

Filed Aug. 27, 1919



INVENTOR.

Frank Buchanan.

BY

Parsons & Bodell

ATTORNEYS.

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1,483,070

UNITED STATES PATENT OFFICE.

FRANK BUCHANAN, OF SYRACUSE, NEW YORK.

HEADLIGHT.

Application filed August 27, 1919. Serial No. 320,082.

To all whom it may concern:

Be it known that I, FRANK BUCHANAN, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Headlight, of which the following is a specification.

This invention has for its object a particularly simple and efficient means for adjusting the lamps of electric headlights and the like, axially of the focal axis of the reflector or lens of the lamp. The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is a side elevation, partly in section of a headlight embodying my invention.

Figure 2 is a detail view of the means for transmitting the movement of the operating member to the lamp socket support.

Figure 3 is a fragmentary sectional view taken on the plane of line 3—3, Fig. 1.

This headlight comprises, generally, a casing in which is mounted a reflector, a lamp carried in a socket which is mounted upon a support adjustable along the focal axis of the reflector along guides supported by the casing, and means for adjusting the support including an operating member carried by one of the side walls of the casing as distinguished from the rear wall.

1 designates the casing, it being here shown as bell shape having a flat rear wall 2 integral with the annular wall. 3 is a door hinged in any suitable manner to the front end of the casing and carrying a suitable lens 4. 5 is a parabolic reflector mounted within the casing.

6 is the lamp extending into the reflector through the rear side thereof and arranged with its light producing or incandescent element in the focal axis.

7 is the lamp socket in which the lamp 6 is supported, the lamp socket being mounted upon a suitable support 8 movable along a pair of guide rods or posts 9 projecting from the rear wall 2, these rods 9 being spaced apart from the focal axis of the reflector on diametrically opposite sides thereof.

10 is the operating member which extends

through a side wall, that is, the annular wall of the casing and is exposed on the outer side of said wall so as to be easily accessible to adjust the lamp along the focal axis of the reflector and position the incandescent element as near as possible to the focal point of the reflector or other light deflecting means.

The operating member is here shown as a screw extending through the circumferential wall of the casing and held from endwise and lateral movements relatively thereto and coaxing at its inner end with power transmitting means connected to the lamp socket support 8.

As here shown, this power transmitting means comprises an angle or bell crank lever 11 pivoted at 12 at its angle to a bracket 13 mounted on the rear wall 2 of the casing, one arm of the lever coaxing with the support and the other arm being connected to the screw. As here illustrated, the former arm is formed with a slot 14 to receive a transverse pin or rod 15 at the rear end of the support about midway between the guide rods 9, and the latter arm is formed with a slot 16 for receiving a pin 17 on the block 18 into which the operating screw threads.

During the movement of the operating screw the block 18 must move rectilinearly upwardly or downwardly as the only movement of the screw 10 is a rotary one and the motion thereof is transferred through the bell crank lever 11 to the lamp socket support 8 to shift the lamp inwardly or outwardly.

The support is provided with suitable bearings 19 on the guide rods.

Each bearing 19, which per se forms no part of this invention, comprises generally, a spring pressed carrier 20 carrying rollers 21 engaging the rod 9 in front and in the rear of a stem 22 on which the carrier 20 is slidable toward and from the rod. This stem is here shown as a screw threading into a collar 23 loosely encircling the rod 9 and rising from a base plate 24 provided on the support 8 for the lamp socket 7. The spring 25 encircles the stem or screw between the head thereof and the upper face of the carrier.

This lamp adjustment is particularly advantageous in that the lamp can be readily adjusted relatively to the focal of the reflector at any time without removal of the headlight.

What I claim is:

1. A headlight comprising a casing, a concave reflector in the casing, a guide carried by the rear wall of the casing in the rear of the reflector, a lamp socket support mounted on the guide and movable thereon axially of the reflector, means for shifting the support along the guide comprising an angle lever carried by the casing and having one arm thereof connected to the support substantially centrally thereof in the axial line of the lamp socket, and an operating member connected to the other arm of the lever and arranged at an angle to the axis of the support and extending through a peripheral wall of the casing, substantially as and for the purpose specified.

2. A headlight comprising a casing, a lamp socket support mounted in the casing

and adjustable axially, a guide for the lamp socket support including a pair of parallel rods, and means for moving the lamp socket support along the rods comprising an operating member carried by the casing and having a head exposed on the outside thereof, said member being arranged at an angle to the direction of movement of the support, and an angle lever pivoted at its angle to the casing, one arm of the lever coacting with the support midway between the rods and the other arm having means coacting with the operating member, substantially as and for the purpose described.

In testimony whereof, I have hereunto signed my name, at Syracuse, in the county of Onondaga, and State of New York, this 17th day of July, 1919.

FRANK BUCHANAN.