Aug. 14, 1928. 1,680,836.

E. C. ALBRIGHT

LAMP FOCUSING DEVICE

Filed June 11, 1927

FIG. 1

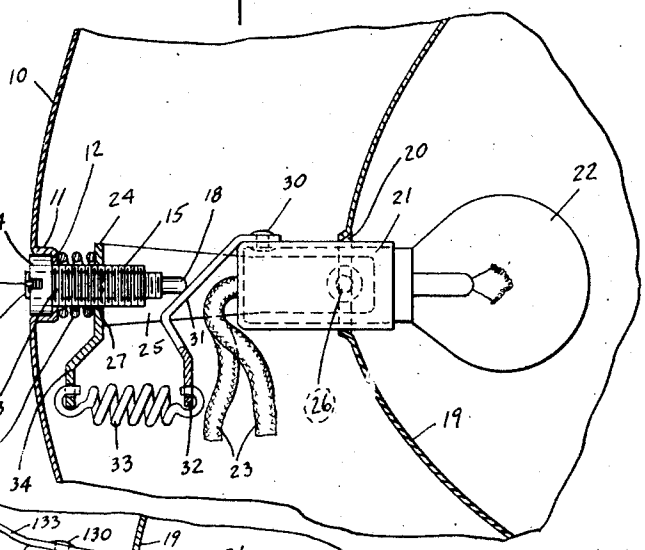


FIG. 3

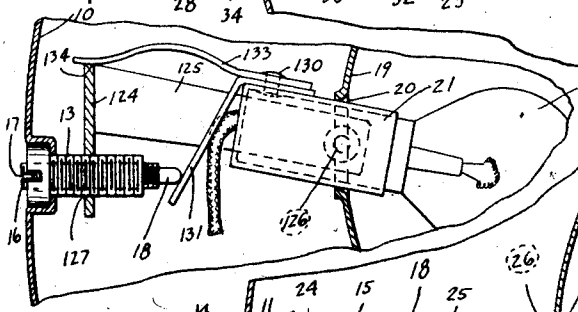


FIG. 2

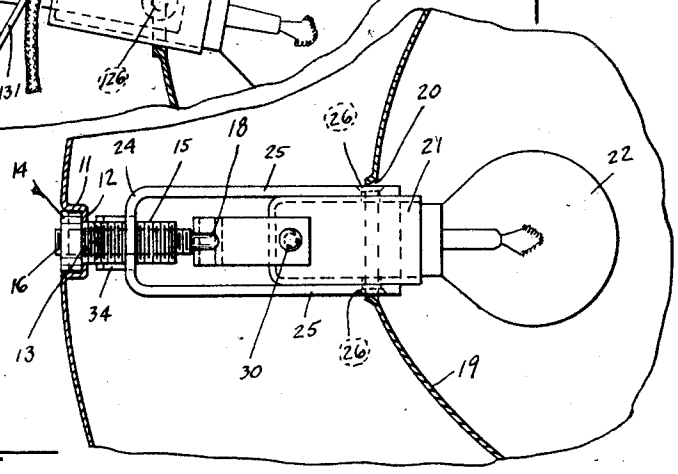
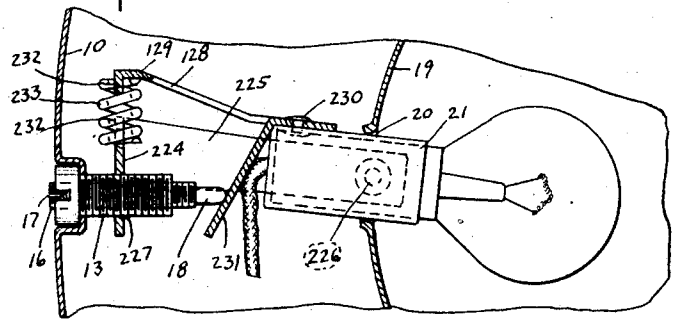


FIG. 4



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UNITED STATES PATENT OFFICE.

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LAMP-FOCUSING DEVICE.

Application filed June 11, 1927. Serial No. 198,228.

This invention relates to a focusing device for lamp bulbs.

The chief object of this invention is to provide an adjustable focusing device for lamp bulbs of head-lamps which has a portion exposed for manual manipulation.

The chief feature of the invention consists in the tiltable support of a light-bulb receiving socket upon a slidable support and an adjustable mechanism for maintaining the bulb in the adjusted position, said mechanism having a portion exteriorly exposed for adjustment.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims.

In the drawings Fig. 1 is a central sectional view thru a head-lamp, parts thereof being omitted and parts of the invention being shown in elevation. Fig. 2 is a top plan view of the lamp-bulb and adjustable support. Fig. 3 is a central sectional view of parts in elevation of a modified form of tiltable and slidable support for a light bulb. Fig. 4 is a view similar to Fig. 3 and of a still further modified form of the invention.

In the drawings 10 indicates a conventional form of casing having a recess 11, the base 12 of which is centrally apertured to slidably receive a tubular bolt 13 having the tool receiving head 14 exteriorly positioned in the recess and a threaded bolt portion 15 within the casing. The interior of the tubular bolt is threaded to receive a threaded focusing member 16 having a tool-engageable portion or head 17 positioned without the casing and a cam-engaging portion 18 within the casing, both extending oppositely beyond the tubular bolt.

The reflector 19 is provided with a central aperture 20 and movably mounted therein is a socket 21 adapted to receive a lamp bulb 22, the same having a conventional energy supply 23. A U-shaped bracket having the mid-portion 24 and the parallel arms 25 pivotally supports as at 26 the socket 21. The mid-portion 24 is provided with the threaded opening 27 which threadedly receives the threaded bolt 13. Interposed between the casing and the mid-portion 24 of the socket support is a coil spring 28 which normally tends to maintain the head 14 seated in the recess 11 and thus maintains the bulb-receiving socket in the projected position. Thus the light bulb can be moved axially by rotating the tubular bolt.

The socket 21 supports at 30 a cam strip 31 which extends between the two arms 25 and terminates in a slotted end 32 which mounts a tension spring 33, the same being connected to a similarly slotted extension 34 of the mid-portion 24. The cam portion 31 is engaged by the end 18 of the adjustable focusing member and such engagement is maintained by the spring 33. Turning the threaded member 16 causes tilting movement of the socket 21 upon the pivots 26, thus raising or lowering the filament of the light bulb into the desired position.

In Fig. 3 like parts are similarly numbered. Thus, the casing 10 supports the axial adjusting screw 13 and the tilting adjusting screw 16 having the end 18 for engaging a spring cam portion 131 secured by rivet 130 to the socket 21 positionable in the aperture 20 of reflector 19. Rivet 130 also secures a spring 133 which bears upon a portion 134 for normally maintaining cam portion 131 in engagement with the end 18 of the adjusting screw. The socket 21 is pivotally mounted at 126 in the arms 125 of the U-shaped strap having the intermediate connection portion 124 apertured at 127 to receive the adjusting screw 13. The operation of the device is the same as in Fig. 1.

In Fig. 4 like parts are similarly numbered. Thus, the casing 10 supports the axial adjusting screw 13 and the tilting adjustable screw 16 terminating in the end 18 engaging a cam strip 231 secured at 230 to the socket 21 mounted in aperture 20 of reflector 19. The socket at 226 is pivotally supported in the arms 225 of the U-shaped support which includes the connecting portion 224 having an aperture 227 threaded to receive the adjusting nut 13. A plate 129 is slotted at 128 to form the depressed tongue or cam 231. The mid-portion 224 and adjacent end of plate 129 include projecting portions extending towards each other, both being indicated by the numeral

232 and between and upon which is mounted coil spring 233. The function of the several parts is substantially the same as that heretofore described for the embodiments shown in Figs. 1 and 3.

The invention claimed is:

1. In a focusing lamp including an apertured reflector, an apertured casing in spaced relation therewith, and a lamp bulb socket mounted in the reflector aperture for universal movement thereon, and extending toward the casing, the combination of a U-shaped strap having its midportion positioned between the socket and the casing and its arms extending towards the socket and hingedly connected therewith, a cam forming strap having one end rigid with the socket and extending rearwardly between the arms of the U-shaped strap, resilient means interposed between the straps and normally constraining the socket and cam toward one position, a tubular threaded device positionable in the casing aperture and having threaded connection at its inner portion with the U-shaped strap midportion and an outer, casing exposed, tool engageable portion, and a second coaxially mounted threaded member receivable by and having threaded connection with the tubular device and having an inner end projecting beyond the same towards and into engagement with said cam and an outer, casing exposed, tool engageable end.

2. A device as defined by claim 1 characterized by the resilient means including a strap portion for anchorage and a resilient portion having one end operatively associated with the strap mid-portion.

3. A device as defined by claim 1, characterized by the resilient means including a strap portion for anchorage and a resilient portion having one end operatively associated with the U-shaped strap mid-portion, said resilient strap supporting portion and said cam strap consisting of a single strap including divergingly directed integral portions.

In witness whereof, I have hereunto affixed my signature.

EDWARD C. ALBRIGHT.