O. M. OTTE.

SPOT LIGHT MOUNTING.

APPLICATION FILED SEPT. 20, 1918.

1,300,863.

Patented Apr. 15, 1919.

Fig. 1.

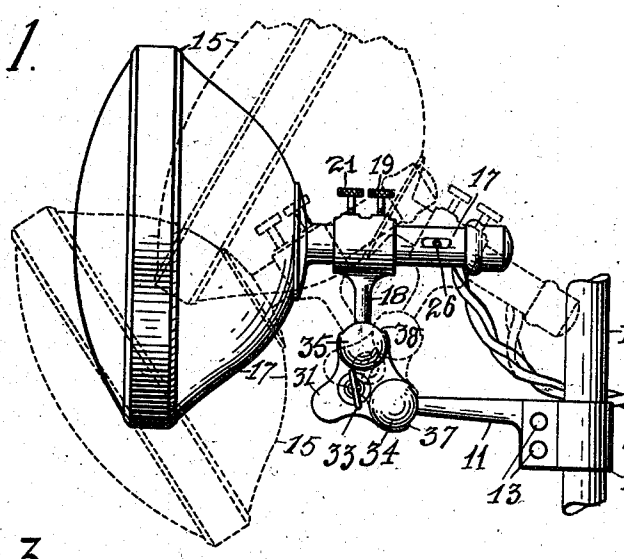


Fig. 2.

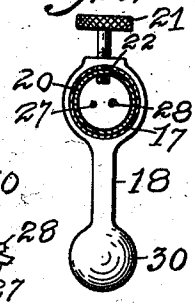


Fig. 3.

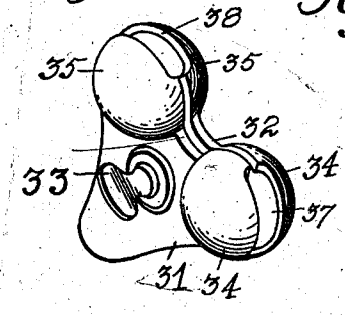


Fig. 4.

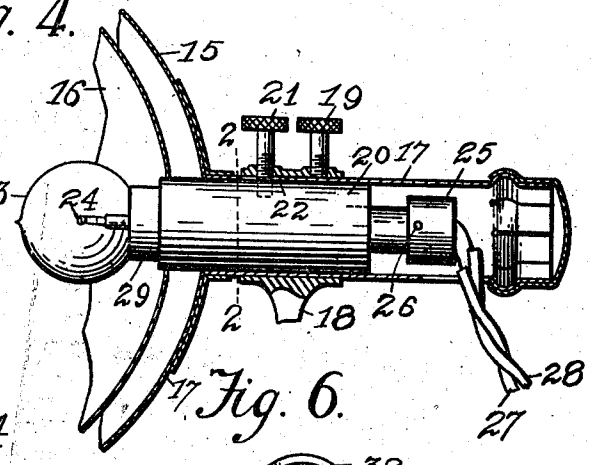


Fig. 5.

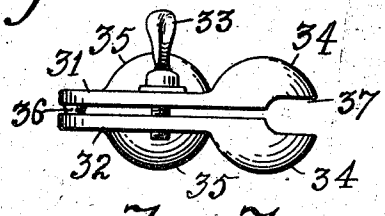


Fig. 6.

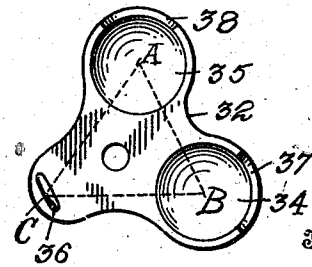
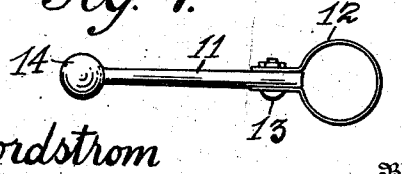


Fig. 7.



Witness

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SPOT-LIGHT MOUNTING.

1,300,863. Specification of Letters Patent. Patented Apr. 15, 1919.

Application filed September 20, 1918. Serial No. 254,898.

To all whom it may concern:

Be it known that I, OTHO M. OTTE, a citizen of the United States, residing at the city of Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Spot-Light Mountings, of which the following, taken in connection with the accompanying drawings, is a specification.

The invention relates to spot-light mountings for automobiles and other vehicles; and the invention consists in providing a spot-light mounting which is adaptable by means of ball and socket joints to a three-point adjustment, that is, a ball and socket joint between the outer end of the bracket arm and the socket clamping plates, and between the lower end of the lamp supporting standard and said socket clamping plates, so as to adjust the position of said standard and the lamp supported thereon in any direction by simply releasing the clamping hold of the two socket clamping plates from the ball ended bracket or standard or both bracket and standard, a fulcrum being provided on said ball socket plates to provide a definite third point of contacting leverage between said plates; and the invention consists in the novel features and combinations hereinafter set forth and claimed.

In the drawings, Figure 1 is an elevation of the spot-light mounting attached to a standard, as for example the supporting standard for a windshield on an automobile, showing different adjustments of the lamp in dotted outline. Fig. 2 is a sectional view at line 2—2 in Fig. 4, showing the construction and arrangement of the lamp supporting standard with the ball-shaped lower end. Fig. 3 is a perspective view of the socket clamp for the standard and bracket ball ends, to connect the same in such a manner as to permit different adjustments. Fig. 4 is a lengthwise sectional view of a portion of the reflector and the casing therefor and the supporting tubular extension showing the lamp supporting tube adjustably mounted therein. Fig. 5 is an edgewise elevation of the socket clamp; and Fig. 6 is an elevation of the inner side of one of the clamping plates showing the triangular clamping tension on the ball shaped extremities of the standard and bracket. Fig. 7 is a top plan elevation of the supporting bracket removed from the standard.

Like characters of reference refer to corresponding parts in the several views.

The numeral 10 designates a supporting standard, as for example a windshield or other upright around which the bracket 11 may be attached by means of the metal strap 12 and screw bolts 13 to thereby hold the bracket 11 in the horizontal position with its ball shaped end 14 extending at right angles to the standard 10.

The lamp 15 is provided with a reflector 16 which is supported within the lamp casing 17. The casing 17 of the lamp 15 is supported by a rearwardly extending tubular portion around which the upper end of the standard 18 slidably fits so that said tube 17 may be slipped within the opening in said upper end of the standard 18 and held firmly in position by the set screw 19.

A second tube 20 is slidably mounted within the tube 17 and a second set screw 21 is provided in the upper portion of the standard 18 to hold the tube 20, a slot 22 being provided in the tube 17 so that either one of said set screws 19 or 21 may be released sufficiently to slidably adjust either the entire lamp 15 in the standard 18, or the electric lamp 23 with its light 24 within the tube 17 and reflector 16 so that any desired adjustment of said light 24 to or from the focus of the reflector 16 may be quickly and easily attained. The tube 17 has a slotted rear end to provide spring fingers and a removable spring adjusted cap to open and close the same for approach to the switch 25 and wire connections 27 and 28, said wire connections entering through a slotted opening in the tube 17 which permits of the forward movement of the tube 20.

The inner tube 20 is preferably provided with an electric switch 25 having the compressible contact pins 26 extending out on opposite sides. The connecting wires 27 and 28 are attached to the rear end thereof and connected through the tube 20 to the lamp socket 29, thus the lamp 23 can be adjusted as hereinbefore stated by simply releasing the set screw 21.

In order to adjustably connect the bracket 11 with its ball-shaped end 14 with the standard 18, a ball-shaped lower end 30 is provided on said standard 18 and a pair of plates 31 and 32 are connected by means of a thumb screw 33. Said plates 31 and 32 have the sockets 34 for the ball 14 and 35 for

the ball 30 to clampingly hold the same. A third point or teat-shaped fulcrum 36 is provided on plate 31 so as to provide the three points of contact A, B and C when the set screw 33 tightens the plates 31 and 32 onto said balls 14 and 30. The slotted openings 37 and 38 are provided for the stems of the brackets 11 and standard 18 to move back and forth therein in order to obtain the required vertical adjustment.

It is apparent that with this construction the balls 14 and 30 may be so turned in the sockets 34 and 35 as to turn the lamp 15 into almost any desired position, and that the fulcrum point 36 gives a three point compression upon said balls 14 and 30 so that the lamp is firmly secured in any of the desired positions. Also that the electric light 24 may be adjusted to the reflector 16 in any desired position.

I claim as new:—

1. A lamp mounting comprising a bracket arm and means for attaching to a support thereon, a ball-shaped outer end on said bracket arm, a standard having a ball-shaped lower end, means for attaching a lamp on the upper end of said standard, clamping plates spaced throughout their main portions and shaped in oppositely placed spaced sockets to receive said ball-shaped ends therein, a fulcrum point on one of said plates contacting the opposite plate to give a strong and even clamping leverage on said ball-shaped ends, and means for drawing said plates toward one another to thereby clamp said ball-shaped ends.

2. A lamp mounting comprising a bracket arm having a ball-shaped outer end, a standard having a ball-shaped lower end, a lamp supported on said standard, spaced triangular plates having oppositely placed sockets on two of the corners thereof to receive said ball-shaped ends therebetween, a projection on the third corner of said triangular plates to form a fulcrum point for a clamping hold for said plates on said ball-shaped ends, and a screw central of said triangular plates to draw said plates toward one another and hold said standard in an adjusted position as to said bracket.

3. A lamp mounting comprising a bracket arm and a support therefor, a ball-shaped outer end on said bracket arm, a standard and means thereon to support a lamp, a ball-shaped lower end on said standard, spaced clamping plates having a triangular three point bearing two of said points being on said ball-shaped ends and the third point upon one another to form a fulcrum, and a screw connecting said clamping plates between said ball-shaped ends and said fulcrum to give said plates a strong leverage on said ball-shaped ends.

4. A lamp mounting comprising a bracket arm and a support therefor, a ball-shaped outer end on said bracket arm, a standard and means thereon to support a lamp, a ball-shaped lower end on said standard, triangular shaped clamping plates having sockets in opposite corners to receive said ball-shaped ends therein, said sockets having slotted openings to adjust the relation of said standard and arm to one another and said clamping plates, a teat-shaped projection on the third corner of one of said plates having a seat in the third corner of the opposite plate to form a fulcrum point for said sockets and ball-shaped ends, and a manually adjusted screw to clamp said plates upon said ball-shaped ends and one another.

5. A lamp mounting comprising a lamp having a tubular rear extension with a second tube slidably mounted therein to support the electric light, a standard engaging around said tubular rear extension to support said lamp, two set screws in said standard to adjustably hold both said tubular extension and the tube therewithin, one tube to each set screw, a ball-shaped lower end on said standard, a bracket arm having a ball-shaped outer end, plates having sockets to clampingly engage said ball-shaped ends to adjustably connect the same, a fulcrum point on said plates to give a three-point bearing therefor, and a manually operable screw inserted through said plates between said fulcrum point and said ball-shaped ends to adjustably clamp said plates thereon.

In testimony whereof I have affixed my signature in the presence of two witnesses.

OTHO M. OTTE.

Witnesses:
H. A. SANDBERG,
I. E. NORDSTROM.