C. E. ANDERSON.

LAMP BRACKET.

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1,216,764.

Patented Feb. 20, 1917.

Fig. 1.

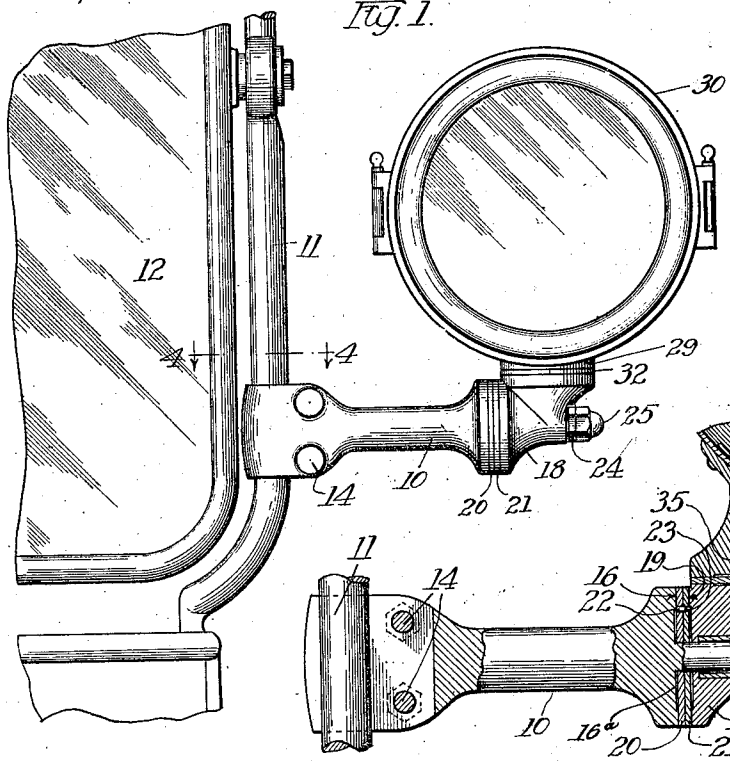


Fig. 3.

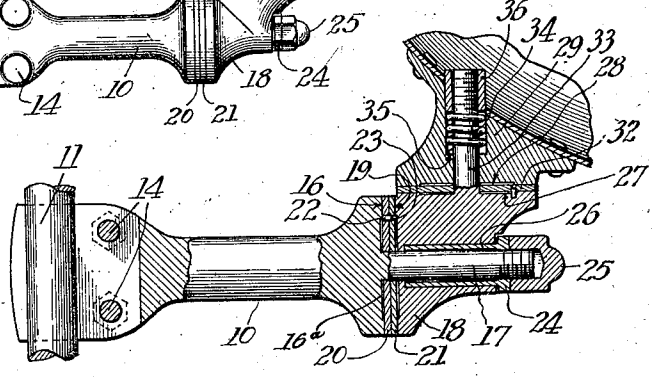


Fig. 2.

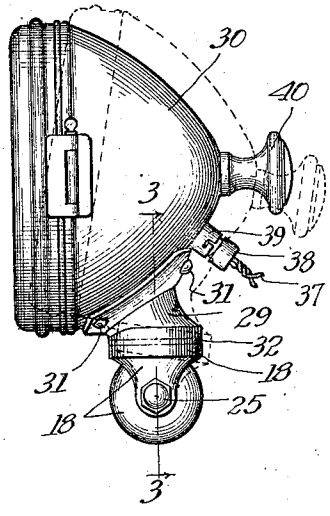


Fig. 4.

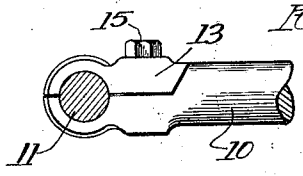
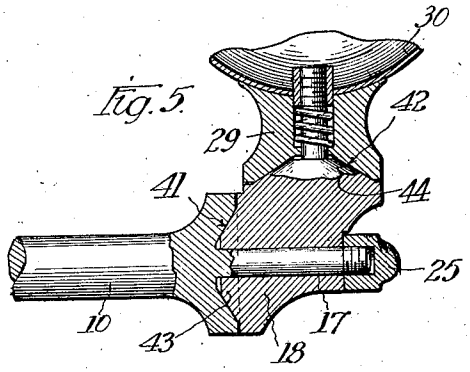


Fig. 5.



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UNITED STATES PATENT OFFICE.

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LAMP-BRACKET.

1,216,764. Specification of Letters Patent. Patented Feb. 20, 1917.

Application filed February 23, 1915. Serial No. 10,036.

To all whom it may concern:

Be it known that I, CARL E. ANDERSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Lamp-Brackets, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to lamp brackets and particularly to brackets for lamps used on vehicles.

It is one of the objects of my invention to provide a lamp bracket by means of which the light may be thrown in any direction desired, and such that this may be accomplished by simple and easy manipulation.

It is a further object of my invention to provide a lamp bracket of the sort described that is readily and removably secured to its support, that is simple in its construction and economical to manufacture.

Additional objects and advantages of the invention will be apparent from the following description taken in connection with the appended claims.

I have described in the following specification and illustrated in the accompanying drawing a lamp bracket constructed in accordance with my invention, it being understood that changes may be made in the form, arrangement and construction of the parts without departing from the spirit of the invention or exceeding the scope of the appended claims, the form of the invention herein disclosed being merely a preferred embodiment thereof.

In the drawing:

Figure 1 is a view in front elevation of the lamp bracket, carrying a lamp, secured to the wind shield of a vehicle;

Fig. 2 is a detail view showing in side elevation the lamp and a portion of the bracket, the dotted lines showing the lamp moved to another position;

Fig. 3 is a cross sectional view, the section being taken on the line 3—3 of Fig. 2, looking in the direction of the arrows;

Fig. 4 is a detail view, from above, showing the support engaging end of the bracket arm; and

Fig. 5 is a view similar to Fig. 3 showing a modified form of bracket joint.

Referring to the drawing, 10 represents the arm of a lamp bracket which may be removably secured, as hereinafter described to a part of a vehicle, as for example, to the side bar 11 of a wind shield 12. The arm 10 is cut away, as shown in Fig. 4, leaving near the end a semicircular recess adapted to embrace the side bar 11. Fitting into the cut away portion of the arm is a clamping plate 13 also having a semicircular recess to embrace the side bar 11. The clamping plate is secured to the bracket arm by bolts 14 on the latter which pass through the plate and are engaged at their outer ends by nuts 15.

At its outer end, the arm 10 is formed with a circular face 16 which is flat except for a very shallow depressed portion 16ª around the center, extending about two thirds of the way to the circumference, and formed by slightly counterboring the face. From the center of this face 16 projects a pin or bolt 17 which passes through a casting 18 having a circular face 19 countersunk like face 16 and positioned directly opposite the latter. Clamped between these corresponding faces are a pair of washer like fiber disks 20, 21, disk 20 being held in place against the face 16 by a small pin 22 on the face which engages a suitable recess in the disk, a similar pin 23 on face 19 serving to hold disk 21 in place against that face.

In order to clamp these disks into close frictional contact, on the bolt 17 is a nut 24 which engages, when screwed down, the casting 18 and this nut 24 is in turn engaged by an acorn nut 25 in the end of bolt 17. It will be seen that by tightening or loosening this acorn nut, the clamping tension on the two disks 20, 21 may be increased or decreased as desired. Owing to the very slight clearance between the disks and their corresponding faces around the center thereof, the greater part of the clamping tension is directed to an area adjacent the circumference of the parts. As a result, the friction between the disks is sufficient to hold the parts in position with a clamping force that is less than would be required if the faces 16 and 19 were not formed in this manner.

The casting 18 is rotatable with respect to the arm 10 and is journaled on a sleeve 26, formed integral with the nut 24 and em-

bracing bolt 17. This casting has roughly the form of two juxtaposed right cones and as the face 19 forms the base of one cone, so the base of the other cone, at right angles thereto, is the circular face 27 formed like faces 16 and 19, and which, as will be apparent, is in a horizontal plane. Corresponding to this face is a similar face 28 similarly countersunk on a casting 29 which is riveted to the lamp casing 30 as at 31 and thus directly supports the lamp. Clamped between these opposing faces is another washer-like fiber disk 32 which is held in place against the lower face 27 by the pin-recess construction before described.

The lamp supporting casting 29 is rotatable about a pin or bolt 33 which projects upward from the center of the face 27 and passes through the disk and casting. The latter member is cut away along a portion of the length of bolt 33 to provide space for a coiled spring 34 which bears against a shoulder 35 on the casting 29, and at its other end, against a sleeve or nut 36 which is screwed onto the end of bolt 33. Due to this construction the lamp supporting casting 29 is held down in frictional contact with disk 32 but it can be rotated about the pivotal pin 33 by a force sufficient to overcome the friction of contact. It will be seen that the contact tension may be increased or decreased by tightening or loosening the nut or sleeve 36. In this instance also the clamping tension is directed largely to an area adjacent the circumference of the parts, and as a result a lesser clamping force is necessary than would otherwise be required.

Current is supplied to the lamp by suitable feed wires 37 attached to a plug 38 which makes a bayonet joint connection with a sleeve 39, having suitable contacts, on the back of the lamp casing 30. For manipulating the lamp a knob or handle 40 is secured to the lamp casing. By means of this handle the lamp may be turned, on the pivotal pin 33, either to the right or left, the contact friction of disks 20, 21 holding casting 18 stationary the while. On the other hand if turning force is applied in the opposite direction this friction is overcome and the lamp may be turned up or down, the lamp supporting casting 29 and the intermediate casting 18 being held together as a unit, in such case, by the contact friction between the disk 32 and face 28.

Although manual operation of the lamp by means of the knob or handle 40 is sufficient to overcome the contact friction, this friction is ordinarily sufficient to hold the parts in any position to which they may be moved and if the friction is too great or too slight the contact tensions may be adjusted as before described.

Thus it will be seen that the lamp may be moved to the right or left or up or down through a complete circle in either case if desired; that the movement in either direction is independent of the movement in the other direction; and that movement may be made in either direction irrespective of the position of the lamp as regards movement in the other direction. Consequently, by proper manipulation the lamp may be moved to throw the light on substantially any point desired.

A modified form of bracket joint is shown in Fig. 5. In this form the arm 10 has at its outer end, instead of a substantially flat face, a dished surface 41, a similar dished surface 42 being formed in the lamp supporting casting 29. The respectively corresponding surfaces 43, 44 of the intermediate casting 18 are frusto-cone shaped to fit into the dished surfaces of the other members. In this form the fiber disks are dispensed with and the corresponding engaging surfaces are ground together to fit in close frictional contact.

The contact tension between the arm and intermediate casting is adjusted by means of an acorn nut 25 on a bolt 17 on which the casting is journaled and the connections between the intermediate casting and the lamp supporting casting are identical with the similar parts in the form of device above described.

A lamp on a bracket constructed in accordance with my invention is capable of filling many wants of the motorist owing to its varied uses, its ease of manipulation and its simplicity. As before stated it may be turned to throw the light on any point desired and so is capable of illuminating areas not reached by the ordinary lamp. It is effective in lighting the roadway when turning corners; it is very useful in road finding as it can be used to throw a light on sign posts and direction signs; it can be turned to illuminate the engine; or it can be turned to furnish reading light when it is necessary to refer to road books, maps and the like.

The uses enumerated are mentioned merely as examples and many others will be apparent.

Although I have shown and described the bracket as being secured to the side bar of a wind shield, it is to be understood that my invention is not limited to such an arrangement as the bracket may be secured to any part of the vehicle or in fact to any suitable support.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is;—

1. The combination with a lamp, of a supporting bracket therefor, a pin extending outwardly from said bracket, a sleeve embracing said pin and having a nut on the

outer end thereof, an intermediate member having a bearing on said sleeve and engaged by said nut, a thumb nut on the end of said pin to engage said nut, a pin associated with said intermediate member on which a lamp supporting member is pivoted, said intermediate member having frictional connection with said bracket and said lamp supporting member.

2. The combination with a lamp, of a supporting bracket therefor having a circular end face and a pin extending outwardly from the center thereof, said face having a slightly depressed portion about said pin, an intermediate member journaled on said pin and having a circular face with a slightly depressed portion about the center thereof, friction disks secured against said depressed faces to be in mutual contact, a pin associated with said intermediate member, and a lamp supporting member pivoted on said pin and having a frictional connection with said intermediate member.

3. The combination with a lamp having a casing, of a fitting secured to said lamp casing having a bearing opening therein, the axis of which lies in an axial plane of the casing, a member having a pin extending therefrom through said opening and forming a journal for said fitting, said member having an abutment with which said fitting frictionally engages, said member having a bearing opening therethrough the axis of which is substantially perpendicular to the axis of the pin, a second member having a pin extending through the opening in said first member forming a journal for said second member, said second member being provided with an abutment with which said first member frictionally engages, and being provided with means for securing it to a support.

4. The combination with a lamp having a casing, of a fitting secured to said lamp casing having a bearing opening therein, the axis of which lies in an axial plane of the casing, a member having a pin extending therefrom through said opening and forming a journal for said fitting, said member having an abutment with which said fitting frictionally engages, a spring surrounding said pin and bearing on said fitting to force it against said abutment, said member having a bearing opening therethrough the axis of which is substantially perpendicular to the axis of the pin, a second member having a pin extending through the opening in said first member forming a journal for said second member, said second member being provided with an abutment with which said first member frictionally engages and being provided with means for securing it to a support.

5. The combination with a lamp having a casing, of a fitting secured to said lamp casing having a bearing opening therein, the axis of which lies in an axial plane of the casing, a member having a pin extending therefrom through said opening and forming a journal for said fitting, said member having an abutment with which said fitting frictionally engages, a spring surrounding said pin and bearing on said fitting to force it against said abutment, said member having a bearing opening therethrough the axis of which is substantially perpendicular to the axis of the pin, a second member having a pin extending through the opening in said first member forming a journal for said second member, said second member being provided with an abutment with which said first member frictionally engages and being provided with means for securing it to a support, and means for holding said spring on said pin accessible from within said casing.

6. The combination with a lamp having a casing, of a fitting secured to said lamp casing having a bearing opening therein, a member having a pin extending therefrom through said opening and forming a journal for said fitting, said member being provided with an abutment with which said fitting frictionally engages, a spring surrounding said pin and bearing on said fitting to force it against said abutment and means for holding said spring on said pin accessible from within said casing.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

CARL E. ANDERSON.

Witnesses:
E. R. KING,
KILBOURNE HUMASON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."