R. R. ROOT.

HANDY LAMP.

APPLICATION FILED MAY 4, 1914.

1,268,154. Patented June 4, 1918.

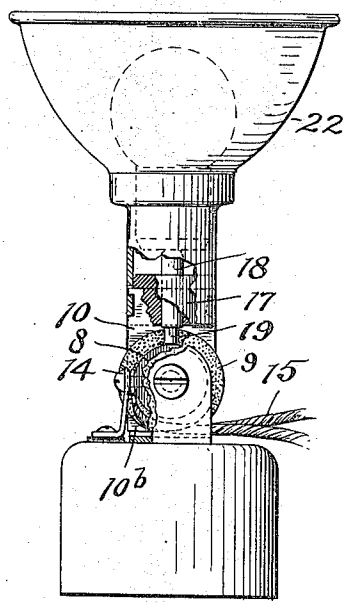


Fig. 1.

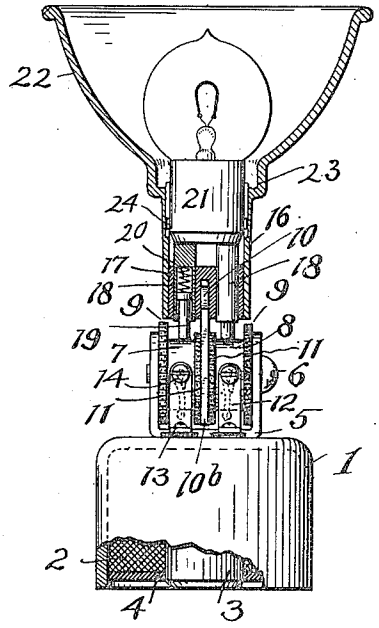


Fig. 2.

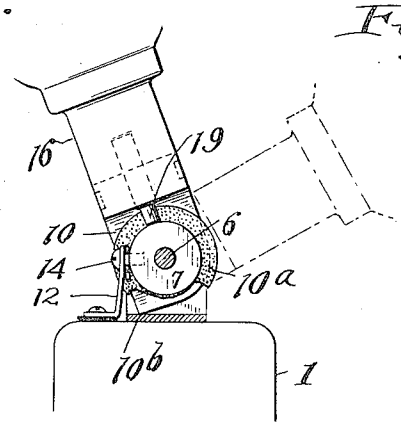


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

RALPH R. ROOT, OF CLEVELAND, OHIO.

HANDY LAMP.

1,268,154. Specification of Letters Patent. Patented June 4, 1918.

Application filed May 4, 1914. Serial No. 836,045.

To all whom it may concern:

Be it known that I, RALPH R. ROOT, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Handy Lamps, of which the following is a full, clear, and exact description.

This invention relates to what may be termed a handy lamp. That is to say, it is so constructed that it may be affixed in any position upon a metal surface and supported due to magnetic attraction.

The object of the invention is to provide such a lamp as before designated, which will be of strong construction and so constructed as to permit the turning of the light in any direction. The object of the invention is furthermore to provide a lamp made up largely of stampings which will insure a low cost of production.

Generally speaking, the invention comprises the elements and combinations thereof set forth in the accompanying claims.

Reference should be had to the accompanying drawings forming a part of this specification, in which Figure 1 represents a side elevation with parts in section of the device. Fig. 2 is a front elevation with parts in section of the device; and Fig. 3 is a side elevation with certain portions removed, showing the adjustment of the lamp carrying portion.

The lamp comprising this invention is adapted to be energized by a current from the battery which is usually carried on automobiles, a portion of the lamp forming an electro-magnet so that the portion thus forming an electro-magnet may be caused to adhere to any part of a metal structure against which it may be placed. Because of this fact, it will be apparent that there will be a large number of places about an automobile, where this lamp may be placed, and it will usually be possible to find some position in which it may be advantageously placed to give the maximum lighting effect on the part being examined.

However, inasmuch as the lamp carrying portion is adjustable upon the base which forms the electro-magnet part, the lamp has a greater range of usefulness, and the lamp, when once placed upon an iron or steel part of the machine, does not necessarily have to be removed, for it may be so twisted and the lamp carrying portion so manipulated as to accomplish the desired result.

In the drawing at 1 there is a cup shaped member, within which are windings 2, surrounding a central core 3,—these elements forming an electro-magnet. The windings 2 are protected by means of a cover 4 which is tightly fitted within the cup 1, this cover surrounding the electro-magnet 3. When the windings 2 are energized by a direct current and the base is placed against an iron or steel support, the electro-magnetic circuit will be completed, and the cup 1 and core 3 will be tightly held against the steel or iron object in a manner which is well known.

Upon the top of the side portion of the cup is a U-shaped strap 5. This strap is secured to the cover 1, and between the upwardly extending portions of the strap there extends a transverse shaft 6, which at its ends is secured in the strap 5. The shaft 6 may be made of insulating material or other means taken to accomplish the result, the object sought being to insulate the contact members 7 and 8 from each other and from the base member 1. Upon this shaft are two arcuate contact members 7 and 8, which are insulated from the strap by means of insulating washers 9. They are also insulated from a centrally extending plate 10 by means of insulated washers 11.

Arms 12 and 13 are secured upon but insulated from the cup 1. These arms are provided with screws as represented at 14 which extend into the annular contact portions 7 and 8. Conductors generally represented at 15 may be secured to the screws 14 in contact with the annular contact plates 7 and 8, respectively, as forming positive and negative terminals for the battery connection. The arms 12 and 13 are connected with terminals of the electro-magnet in base 1, so that the current which is supplied through the conductors 15 will be divided through the arms 12 and 13, a part of the current finding a path through the coil tube and the other part of the current finding a path through the electric lamp, which connections will be presently described.

The plate 10 which is mounted upon the shaft 6 is free to rotate upon this shaft. This plate extends into a socket 16, and is secured therein in any desired manner. Within the socket is an insulated bushing

17, into which extend spring contact members, which comprise sleeves 18 within which are plungers 19 that are pressed outwardly by springs 20. The plungers 19 will bear against the annular contacts 7 and 8, while the upper portions of the casings 18 will press against the terminals formed in a lamp base 21. The terminals in the lamp base 21 are suitably connected with the filament of the lamp, such that the current may pass through the filament and produce the glow.

The socket may be provided with a reflector 22 of any desired shape.

The lamp base 21 is secured in the socket 16 by means of a bayonet joint. That is to say, there are vertical slots 23, in which extend projections 24, and the slots near their lower portion are provided with right angular extensions, which is the usual bayonet slot extension. When these projections 24 are turned so as to enter the right angular portions of the slots 23, the lamp is held against falling out.

In pushing the lamp into the position shown in Fig. 2, the casings 18 of the spring contact members are pushed downwardly against the action of the springs 20. The reaction of the springs tend to hold the lamp base securely in its position in the slots 23, and the reaction of the spring also tends to push the plungers 19 into good contact with the contact segments 7 and 8.

The plate 10, as will be apparent from an inspection of Fig. 3, is rounded off, as indicated at 10^a, but is provided with a sharp corner, as indicated at 10^b, and this corner will strike against the strap 11 before the socket 16 shall have been moved back far enough to form a short circuit between the screws 14 carried by the arms 13 and 12. Turning the socket in the other direction has no tendency to short circuit. Therefore the socket may be turned to occupy substantially a right angle position.

When the lamp base 20 and the lamp carried thereby are removed from the socket 16, the spring pressed contacts may be dropped out of the bushing 17 when the device is turned upside down. It therefore is possible to renew these spring contact members with ease, in the event that the spring becomes broken or too weak to efficiently function.

Obviously, the details herein described may be changed without departing from the spirit of the invention, and I desire the phraseology used in this specification to be limited only by the statements of the claims.

Having thus described my invention, what I claim is:

1. A handy lamp comprising a base member, a lamp socket member, means for pivotally mounting the socket member upon the base, arcuate contact pieces having peripheral contact portions carried by one of said members, means for insulating the said arcuate contact pieces from the member which carries them and from the pivotal mounting of the lamp socket, the radius of curvature of said contact pieces being concentric with the pivotal axis of the socket member, and contact pieces carried by the other of said members which slidably engage with the peripheral contact portions of the arcuate contact pieces, whereby the lamp socket may be moved.

2. A handy lamp comprising a base, a lamp socket, means for pivotally mounting the socket upon the base, arcuate contact pieces having peripheral contact portions mounted upon said base, means for insulating the said arcuate contact pieces from each other from the base and from the pivotal mounting of the lamp socket, the axis of said arcuate contact devices coinciding with the axis of the pivotal connection of the socket, contact pieces carried by the lamp socket and bearing upon the peripheral contact portions of the arcuate contact pieces.

3. A handy lamp comprising a base, a lamp socket, a plate secured in said socket, a pair of arcuate contact pieces, insulating material separating the plate and the said contact pieces, the said plate being pivotally mounted upon the base, contact pieces carried by the lamp socket and bearing upon the arcuate contact pieces.

4. A handy lamp comprising a base, a bracket carried by the base, arcuate contact members mounted upon said bracket, a plate pivotally mounted upon the bracket, and insulated from the contact members, a lamp socket carried by the said plate, and contact members carried by the lamp socket and engaging with the aforesaid arcuate contact members.

5. A handy lamp comprising a base, a pair of arcuate contact members supported from the said base and insulated therefrom, a plate pivotally mounted upon the said base, the axis of the plate coinciding with the axes of the arcuate contact members, a lamp socket having an insulated head therein, the said plate being secured in the said insulated head, openings through the insulated head, contact pieces extending through said openings and bearing upon the arcuate pieces, said contact pieces being adapted to engage a lamp carried by the socket.

6. A handy lamp comprising a base member, a lamp socket member provided with an insulated head, a plate secured in said head, said plate being pivotally mounted upon the base, arcuate contact members insulated from each other and from the said plate, the axes of the said arcuate contact members coinciding with the pivotal axis of the plate, spring pressed contact members extending through the head of the lamp socket, said contact pieces engaging with the

arcuate contact members and also being adapted to engage with a lamp carried by the socket member.

7. A handy lamp comprising a base, a bracket associated with the base, arcuate contact members mounted upon the bracket, a plate pivotally mounted upon the bracket, the pivotal axis of the plate coinciding with the axes of the arcuate contact members, said plate extending between said contact members and insulated therefrom, a lamp socket mounted upon the said base, an insulated head in the lamp socket with which the said plate engages, openings in said head, spring pressed telescoping contact pieces extending through the opening in said head and bearing upon the arcuate contact pieces, said spring pressed contact pieces engaging with the arcuate contact pieces and also being adapted to engage with the lamp carried by the socket.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

RALPH R. ROOT.

Witnesses:
A. J. HUDSON,
L. I. PORTER.