May 1, 1951 R. M. CORL 2,550,783

MEANS FOR PROTECTING ARC LAMP REFLECTORS

Filed Oct. 14, 1949

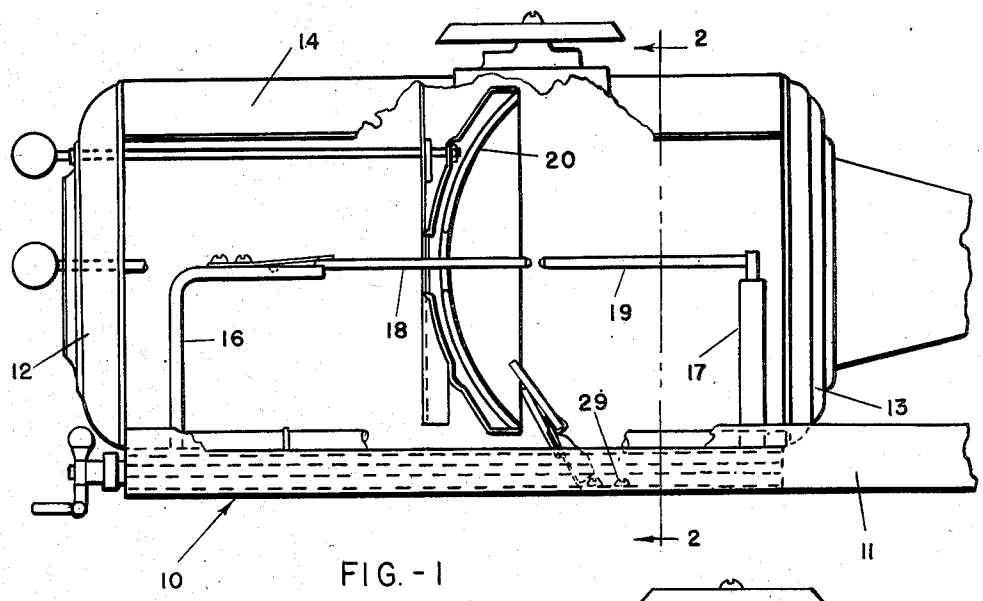


FIG. - 1

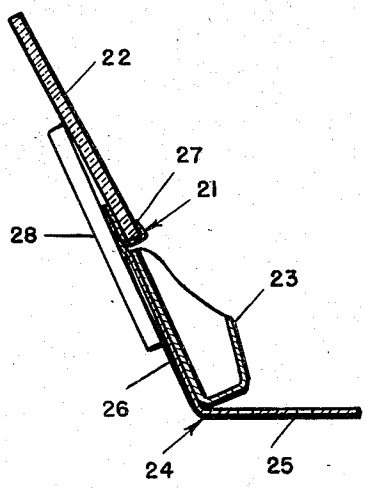


FIG - 3

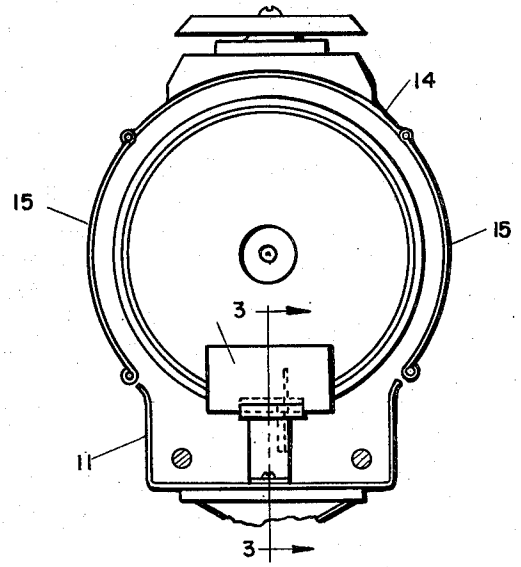


FIG - 2

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Patented May 1, 1951 2,550,783

UNITED STATES PATENT OFFICE

2,550,783

MEANS FOR PROTECTING ARC LAMP REFLECTORS

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Application October 14, 1949, Serial No. 121,382

6 Claims. (Cl. 313—243)

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My invention relates to arc lamps, and particularly to arc lamps comprising a reflector receiving and projecting the light from the arc, and in which the reflector is in position to be engaged by material dropping from one or both of the arc electrodes, and the principal object of my invention is to provide satisfactory means to intercept such material and thereby prevent the same from injuring the reflector.

In the drawing accompanying this specification and forming a part of this application I have shown, for purposes of illustration, what I now consider to be the best mode of carrying my invention into practice, and in this drawing:

Figure 1 is a side view of a lamp with parts of the casing broken away, showing the illustrative embodiment of my invention;

Figure 2 is a section on the line 2—2 of Figure 1; and

Figure 3 is an enlarged section through the guard means, on the line 3—3 of Figure 2.

For purposes of illustration I have indicated in the drawing a lamp 10 comprising a channel-shape base member 11, a rear end plate 12 and partition 13 supported by the base member 11, a top plate 14 supported of the end plate 12 and partition 13, and sides 15 hinged to the respective margins of the top plate 14.

Supported from the base member 11 are electrode carriers 16 and 17 carrying the arc electrodes 18 and 19 and one or both reciprocable to provide for consumption of one or both of the electrodes in the operation of the lamp.

Also comprised by the lamp 10 is a reflector 20 constructed and arranged to receive and project the light from the arc, and located in position to be engaged by material dropping from the consumable electrode or electrodes and thereby damaged and injured.

To prevent this result I provide means herein shown as a support 21, a plate 22 carried by the support 21 in position to intercept material dropping from either or both of the electrodes 18 and 19, and optionally a receiver 23 constructed and arranged to receive the material intercepted by the plate 22.

In the present embodiment the support 21 comprises a sheet-metal member 24 including a foot section 25 and an integral angularly-upstanding section 26, a sheet-metal channel 27 welded or otherwise suitably secured to the upper portion of the upstanding section 26 of the member 24 and resiliently receiving the lower portion of the intercepting plate 22, and a sheet-metal finger 28 welded or otherwise suitably secured

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to the rear of the upstanding section 26 of the member 24 and serving to additionally support and accurately position the plate 22.

With the foregoing the receiver 23 is suitably mounted to the lower portion of the upstanding section 26 of the member 24, for example, by means of hooks on the receiver 23 engaging in slots in the section 26, and the entire assembly is conveniently mounted by means of machine screws 29 traversing the foot section 25 of the member 24 and received in cooperating screw threaded apertures in the bottom section of the base member 11.

To avoid undue interference with the reception and projection of the light the plate 22 desirably is formed of glass, and is readily removable to facilitate replacement whenever the surface shall become sufficiently marred to create substantial interference, and to the same purpose the finger 28 is made as thin as is consistent with the necessary strength.

As will be apparent to those skilled in the art, various changes and modifications may be made, without departing from my invention or sacrificing any or all of the advantages thereof, and accordingly my invention is not limited to the particular embodiment herein shown, and I claim as my invention:

1. An arc lamp comprising a consumable electrode, a reflector receiving the light from the arc, said reflector being in a position to be engaged by material dropping from said electrode, and guard means constructed and arranged to intercept such material and thereby protect said reflector from injury by such material.

2. An arc lamp comprising a consumable electrode, a reflector receiving the light from the arc, said reflector being in a position to be engaged by material dropping from said electrode, a replaceable member adapted to intercept such material and thereby protect said reflector from injury by such material, and means removably supporting said member in position.

3. An arc lamp comprising a consumable electrode, a reflector receiving the light from the arc, said reflector being in a position to be engaged by material dropping form said electrode, and guard means comprising a transparent member constructed and arranged to intercept such material and thereby protect said reflector from injury by such material.

4. An arc lamp comprising a consumable electrode, a reflector receiving the light from the arc, said reflector being in a position to be engaged by material dropping from said electrode,

a replaceable transparent member adapted to intercept such material and thereby protect said reflector from injury by such material, and means removably supporting said member in position.

5. An arc lamp comprising a consumable electrode, a reflector receiving the light from the arc, said reflector being in a position to be engaged by material dropping from said electrode, guard means constructed and arranged to intercept such material and thereby protect said reflector from injury by such material, and receiving means constructed and positioned to receive such material from said guard means and to removably retain the same.

6. An arc lamp comprising a consumable electrode, a reflector receiving the light from the arc, said reflector being in a position to be engaged by material dropping from said electrode, a replaceable member adapted to intercept such material and thereby protect said reflector from injury by such material, means removably supporting said member in position, and receiving means constructed and positioned to receive such material from said member and to removably retain the same.

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REFERENCES CITED

The following references are of record in the file of this patent:

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