March 29, 1949. F. L. EASTMAN 2,465,519

REFLECTOR APPARATUS

Filed July 6, 1946

Fig. 1

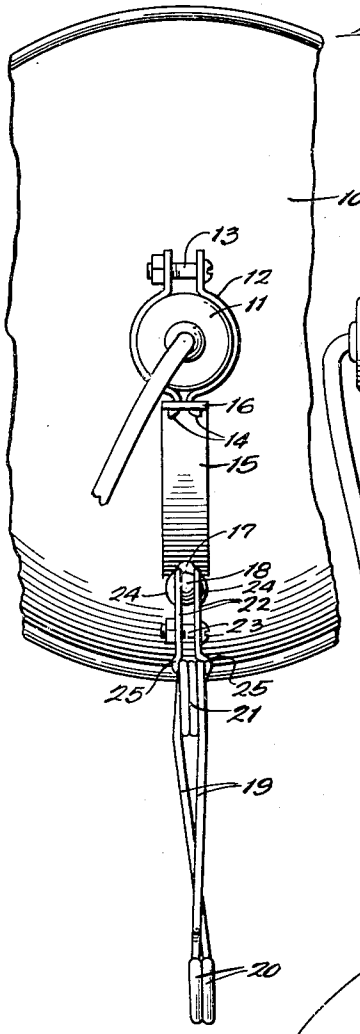


Fig. 2

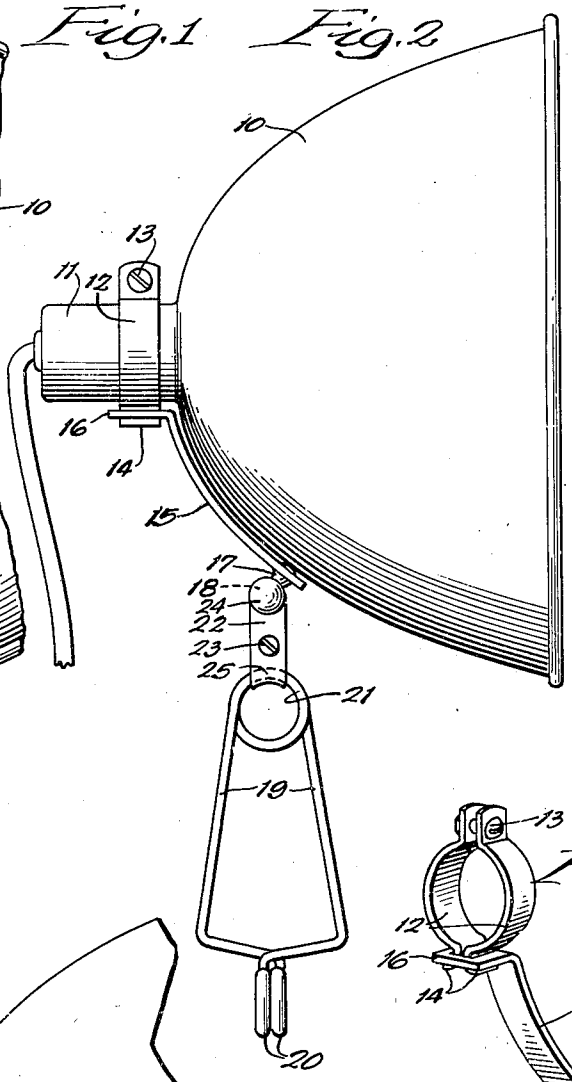


Fig. 3

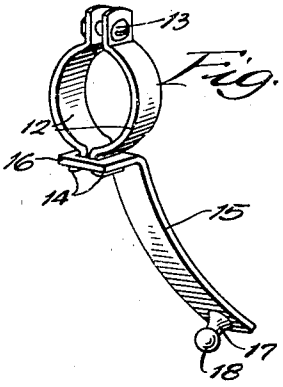
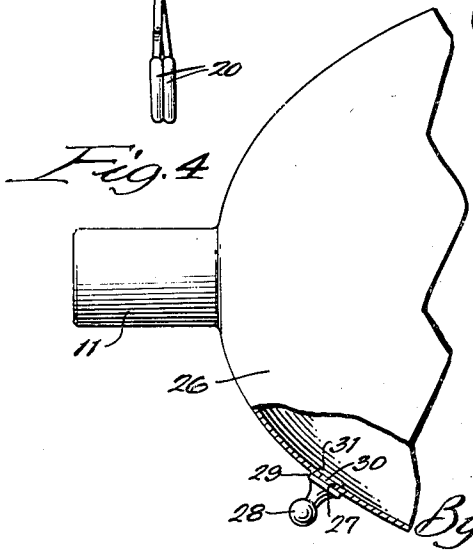


Fig. 4



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REFLECTOR APPARATUS

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3 Claims. (Cl. 240—52.1)

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This invention relates to reflector apparatus.

An object of the invention is to provide means for supporting a reflector by means which will provide an effective balance for the same whereby it will tend to retain its normal position and may be adjusted quickly to other desired positions. A further object is to provide a reflector structure in which the reflector is supported by means of a universal joint located at the center of gravity of the reflector unit with the lamp and cord attached. Yet another object is to provide new and effective means for mounting a reflector upon a support structure and with means for adjusting the position of the reflector with respect thereto. Other specific objects and advantages will appear as the specification proceeds.

The invention is illustrated, in preferred embodiments, by the accompanying drawing, in which—

Figure 1 is a broken rear view in elevation of reflector structure embodying my invention; Fig. 2, a side view in elevation; Fig. 3, a perspective view of the bracket support structure employed; and, Fig. 4, a broken and partly sectional view showing a modified form of structure embodying my invention.

In the illustration given, 10 designates a reflector which may be of any suitable type or construction. The reflector 10 is provided with a rearwardly extending socket sleeve. Extending about the sleeve 11 and at its forward end is shown a pair of clamping members 12 secured together at their top by the bolt 13 and at their bottoms having outwardly turned flanges 14.

A bracket member 15 has a horizontal flange 16 provided with a slot through which the lower legs of the members 12 extend and the platform 16 rests upon the horizontal flanges 14 of the members 12. With this structure, the bracket 15 is supported rigidly and without angular movement under strain so as to provide a sturdy support for the reflector 10. The bracket 15 extends downwardly and forwardly and is provided at its end with a leg 17 provided with a ball 18.

Any suitable means for securing the reflector in position may be employed. In the illustration given, I provide a spring member 19 equipped at its lower ends with clamping legs 20 adapted to engage any supporting surface. The upper end of the spring member 19 is provided with a coil 21.

Between the ball 18 and the support 19, I provide the clamping members 22 which are secured together by the adjustable bolts 23. The members 22 are each provided with a socket portion 24 adapted to receive the ball 18 and with a

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clamping jaw 25 adapted to engage the coil 21 of the support member 19.

I prefer to employ a support bracket 15 of such length that the ball 18 is maintained at the center of gravity of the reflector unit with the lamp and cord attached thereto. Such center of gravity can be readily found when the parts are in position and the reflector 10 is turned to the position indicated in Fig. 2 where the longitudinal axis of the reflector is in a substantially horizontal line. Should a heavier lamp be used or should the socket and lamp cord be changed with a corresponding change in weight, the balance can be recovered by shifting the members 12 along the sleeve 11 to the position at which the ball 18 lies at the center of gravity of the assembled unit.

In the operation of the structure, the clamp member 19 is pressed inwardly to separate the jaws 20 and then released when they are in engagement with a supporting surface. With the reflector unit mounted so that its center of gravity is coincident with the ball 18, the reflector may be supported in balance and may be readily tilted to any other desired position during the use of the structure. Tightening of the bolt 23 may be employed as desired to render the frictional grip upon ball 18 sufficiently tight. Should the balance of the unit be changed through the substitution of another lamp or other parts, movement of the members 12 along the sleeve 11 can be readily made upon loosening bolt 13 and then tightening it after the adjusted position brings the ball 18 at the center of gravity of the unit structure.

The bracket 15 is held rigidly in position because of the pressure of sleeve 11 outwardly against the wide bands 12 and because the platform 16 is gripped and held by the outwardly turned flanges 14.

In the modification shown in Fig. 4, the reflector 26 is provided with an opening 27 and the ball member 28 is equipped with a flange 29 and the neck 30 extending through the opening 27. The neck 30 may be swaged to form a head 31 for locking the ball 28 in position. Preferably the location of the opening 27 is such that the ball 28 may be maintained at the center of gravity of the assembled unit.

It will be understood that other means may be provided for providing a support at the center of gravity of the unit and also for providing adjustment of the universal joint to positions to which the center of gravity may be shifted.

While in the foregoing specification, I have set

forth certain details of structure for the purpose of illustrating preferred embodiments of the invention, it will be understood that such details may be modified widely by those skilled in the art without departing from the spirit of my invention.

I claim:

1. In reflector apparatus, a reflector body equipped with a rearwardly-extending socket sleeve, a pair of arcuate members secured together at their upper end and provided at their lower ends with outwardly-extending wings, a metal bar having a slot therein receiving said wing portions and having a horizontal platform resting upon said wings, said bar having a downwardly-curved body following the curvature of the reflector body, a ball supported by said bar at about the balance point of said reflector body, and clamping attachment means providing a releasable universal seat receiving said ball.

2. In reflector apparatus, a reflector body equipped with a rearwardly extending socket sleeve, a ring slidably engaging said sleeve and equipped with lower ends extending outwardly to form supporting flanges, a metal bar having a slot therein receiving said ring and resting upon said flanges whereby said bar is supported against tilting upon said ring, said bar having a downwardly curved body generally following the curvature of the reflector body, a ball supported by said bar at the lower end thereof, and a clamping attachment providing a releasable universal seat receiving said ball.

3. In reflector apparatus, a reflector body equipped with a rearwardly extending socket sleeve, a wide band ring receiving said sleeve and adapted to be clamped there-about in slideable relation, a metal bar carried by said band for slideable movement toward and away from said reflector body, said bar having a downwardly curved body following the general curvature of said reflector body, a ball supported by said bar at its lower end, and a clamping attachment means providing a releasable universal seat receiving said ball.

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