

No. 885,856.

PATENTED APR. 28, 1908.

H. D. McFADDIN.
COMBINATION LIGHT REFLECTOR AND DIFFUSER.
APPLICATION FILED JULY 7, 1906.

Fig. 1.

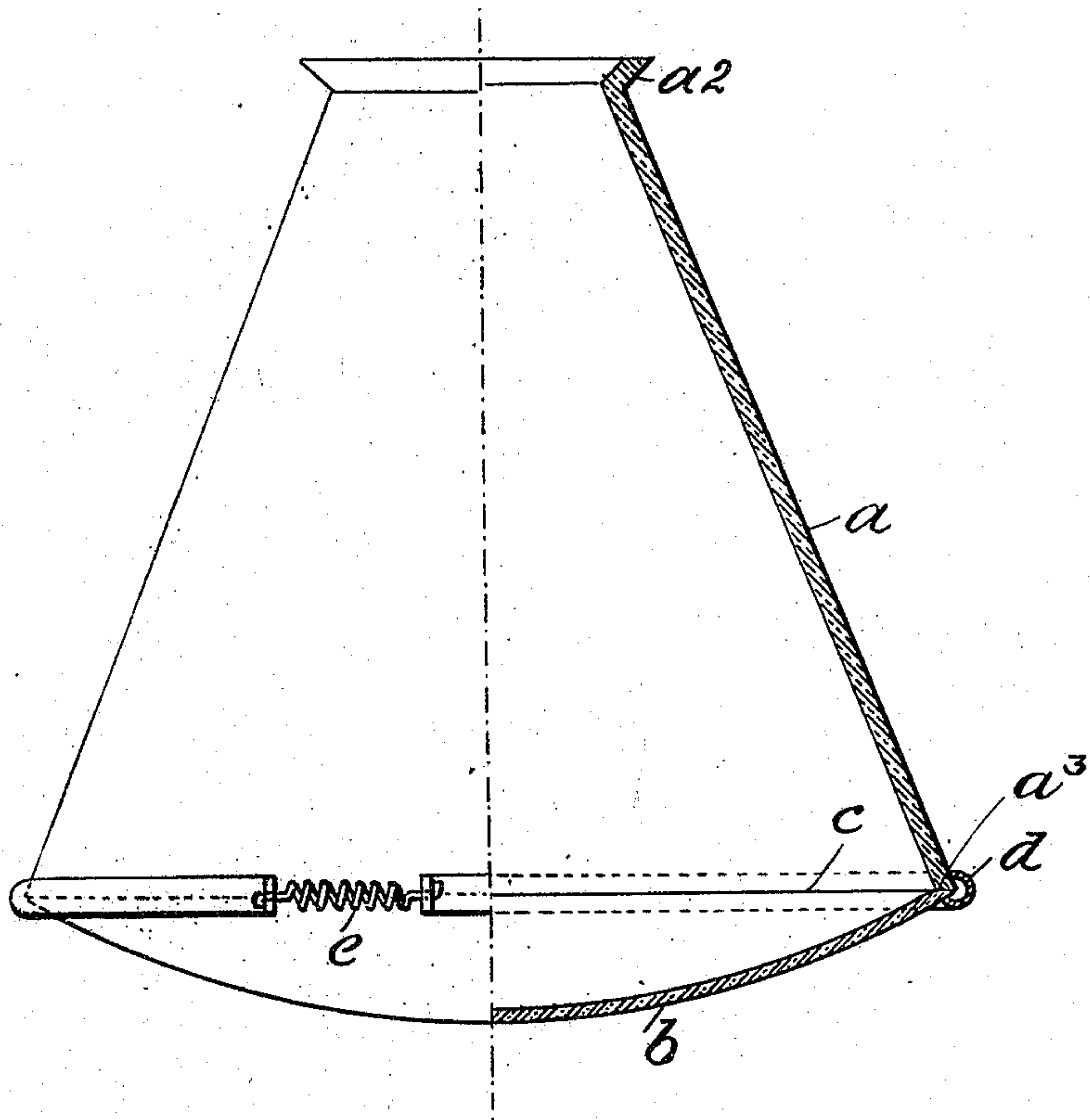
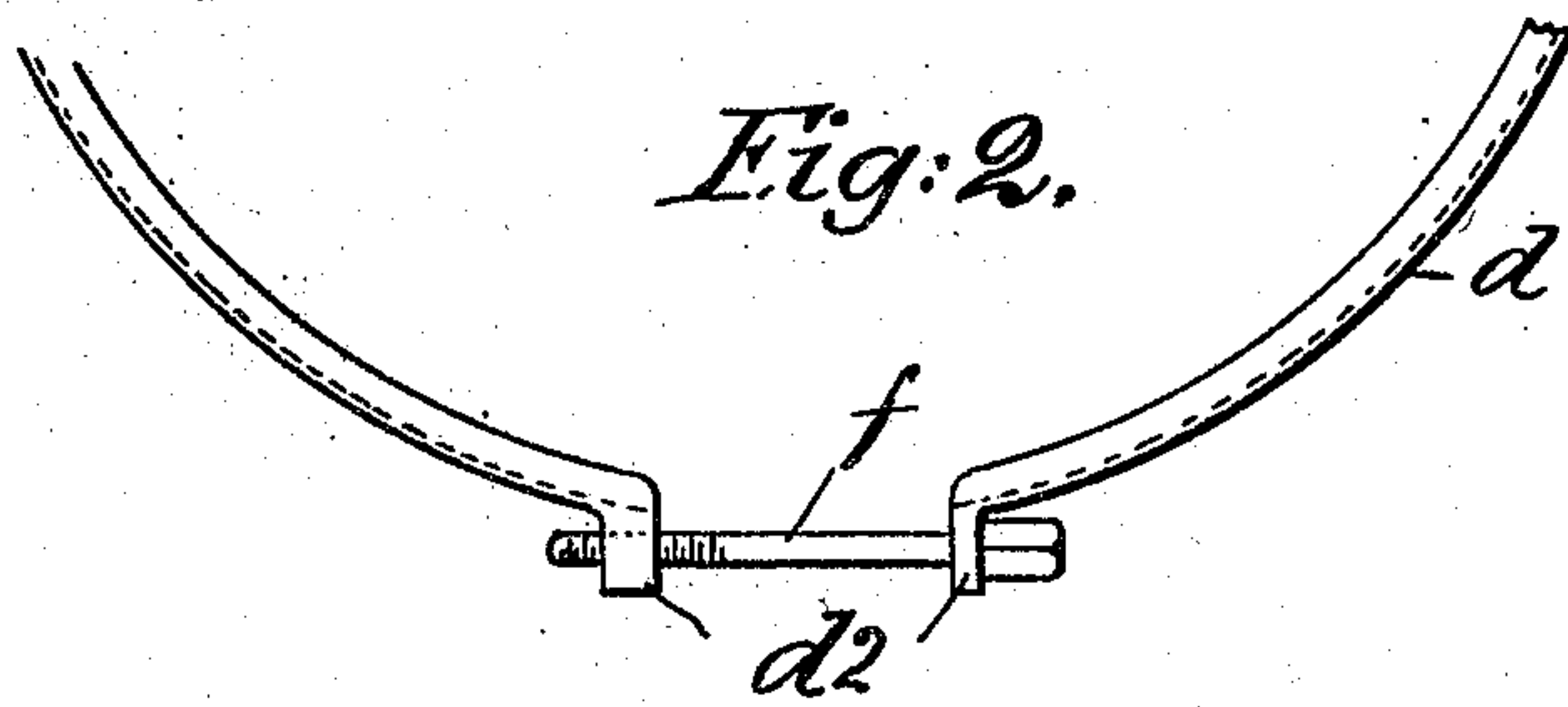


Fig. 2.



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COMBINATION LIGHT REFLECTOR AND DIFFUSER.

No. 885,856.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed July 7, 1906. Serial No. 325,132.

To all whom it may concern:

Be it known that I, HARRISON D. McFADDIN, a citizen of the United States, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Combination Light Reflectors and Diffusers, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to light reflectors and diffusers for use in connection with incandescent lamps, gas burners, and other lamps and illuminators, and the object thereof is to provide a combination device of this class which comprises a reflector and a diffuser detachably connected with the light discharging end of the reflector, the said light discharging end of the reflector being preferably conical in form or flared and the diffuser being concavo-convex in form, and the perimeter of the diffuser being so formed as to snugly fit together and to form, when placed together, a circular projection forming, in cross section, an angle of approximately forty-five degrees, said reflector and diffuser being connected by an open elastic band having in its inner surface a groove adapted to receive said circular projecting portion and provided with tensional or other devices for securing the separate parts or ends thereof together.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which;

Figure 1 is a plan view of my improved combination light reflector and diffuser, part thereof being shown in full lines and part in section; and,—Fig. 2 a detail view showing a modification of the means for securing the diffuser to the reflector.

In the practice of my invention, I provide a reflector *a* which, in the form shown, is of the ordinary conical type and provided at its smaller end with a flaring rim or collar *a*³ by which it may be connected with the support of an ordinary incandescent electric lamp, gas burner or similar device. I also provide a light diffuser *b* which is preferably concavo-convex in cross section and is made of glass and may be composed of ground

glass, sanded glass, or if desired said diffuser may be of prismatic construction.

The perimeter of the diffuser and the base or light discharging end of the reflector are so formed as to closely fit together as shown at *c* in Fig. 1, and the greatest diameter of the diffuser *b* is the same as that of the greatest diameter of the light discharging end of the reflector *a*, and when said diffuser and reflector are placed together as shown in Fig. 1 the outer surfaces or walls thereof form, in cross section, an angle of approximately forty-five degrees as shown at *a*³, and said parts are detachably connected by means of an open elastic band *d* grooved on its inner side so as to receive the projecting annular and angular portion formed by the reflector and diffuser when placed together, and the separate end portions of the open elastic band *d* are connected in the form of construction shown in Fig. 1, by means of a contractile spring *e* which serves to contract the band *d* and to securely hold the reflector and diffuser in the position shown in Fig. 1. The reflector *a* may also be of any preferred construction and it may be of the porcelain type, the inner side of which is colored white and the outer side of which is provided with a coating of different color.

Instead of employing the contractile spring *e* for the purpose of connecting the end portions of the band *d*, said ends may be provided with jaws *d*² as shown in Fig. 2 through which is passed a screw *f*.

In practice I prefer to make the band *d* of sheet metal, bent longitudinally, so that it is semi-circular in form in transverse section, or the said band may be made in any desired manner, and instead of consisting of a single piece it may be composed of two or more pieces connected by a spring or springs *e* or by a screw or screws *f*. With this construction the diffuser *b* may be detached from the reflector whenever desired, in order to clean said parts, or the diffuser may be detached from the reflector when its use is not required.

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

In a device of the class described, the combination with a reflector the light-discharging end of which is provided with a flattened edge to form a seat, of a diffuser concavo-convex in cross section associated with said

body and having its edges flattened to cooperate with the flattened edge of the light-discharging end of the reflector, said edges of the reflector and diffuser cooperating to form
5 an angular projection at the meeting portions of the reflector and diffuser, a band encircling the reflector and diffuser having an open inner side to receive the projecting portions of the reflector and diffuser, and means
13 for tensioning said band, whereby the same is adapted to embrace the meeting portions of

the reflector and diffuser for holding the same in associated relation.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 5th day
15 of July 1906.

HARRISON D. McFADDIN.

Witnesses:

C. E. MULREANY,
F. A. STEWART.