Aug. 18, 1942. H. HAEUSSLER 2,293,540

RAY REFLECTOR

Filed Jan. 21, 1941

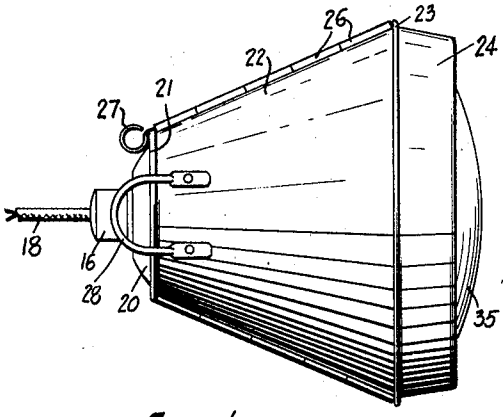


Fig. 1.

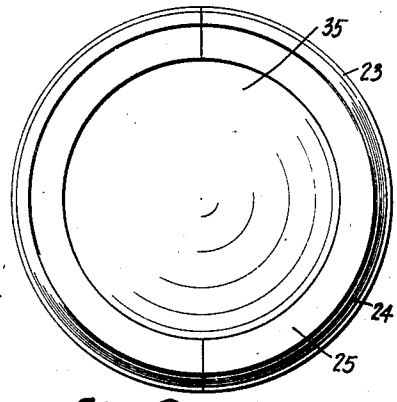


Fig. 2.

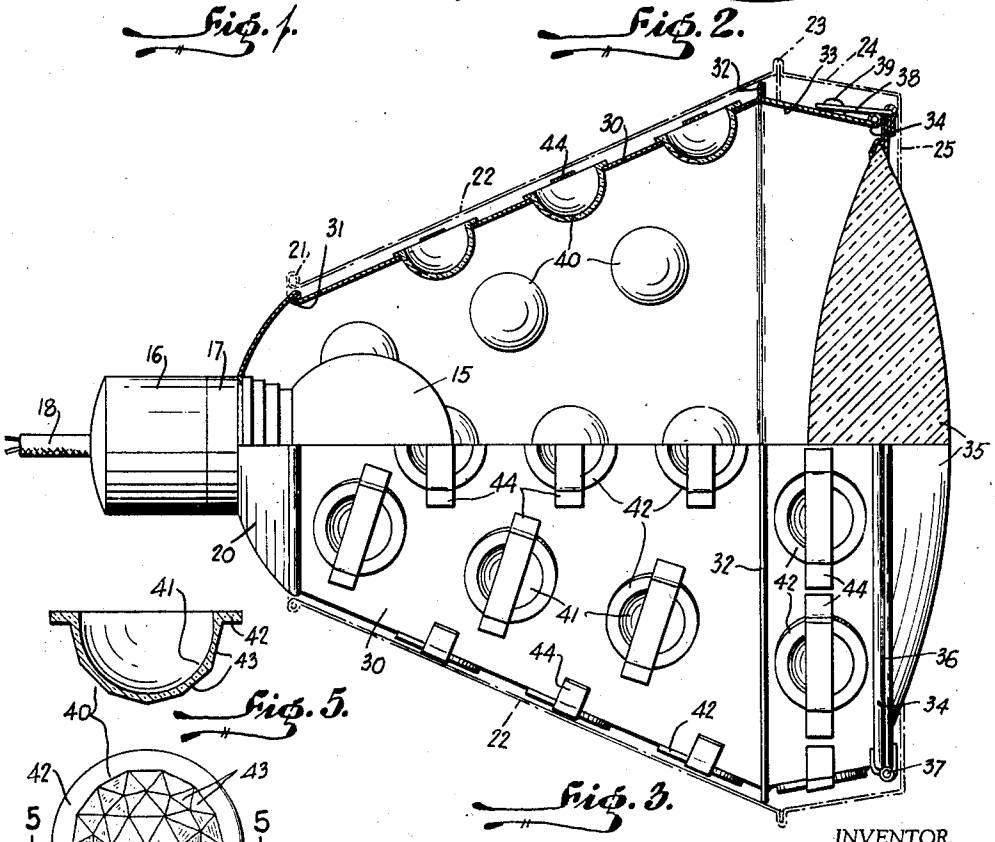


Fig. 3.

Fig. 5.

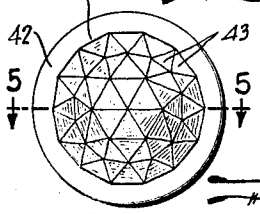


Fig. 4.

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RAY REFLECTOR

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Application January 21, 1941, Serial No. 375,102

1 Claim. (Cl. 240—41.36)

This invention relates to electric illuminating devices and more particularly to types in which a light bulb is enclosed within the confines of a reflector having a frontal lens.

An object of the invention is to provide means to multiply the rays emanating from an incandescent lamp bulb, thereby to increase the brilliancy, intensity and strength of the light many fold without the expenditure of additional energy.

A further feature is in the provision of a reflector shell studded with a plurality of individual jewel reflectors, each having a multiplicity of facets, so directed as to greatly enhance light rays from the lamp.

Another purpose is to produce an effective reflector, at a comparatively low cost, capable of long continued service without deterioration.

These and other analoguous objects are accomplished by the novel construction, combination and arrangement of parts hereinafter described and illustrated in the accompanying drawing, constituting a graphical component of this disclosure, and in which:

Figure 1 is a side elevational view of an embodiment of the invention as enclosed within a housing.

Figure 2 is a front elevational view of the same.

Figure 3 is a partial side, partial sectional view of the reflector drawn to an enlarged scale.

Figure 4 is a plan view of one of the jewels still further enlarged.

Figure 5 is a transverse sectional view taken on line 5—5 of Figure 4.

Referring in detail to the drawing, the numeral 15 designates a conventional type of electric bulb, engaged in a socket 16, having a fixed collar 17 and supplied with current entering through the cable 18 connected with any suitable source of electric energy.

Fixed on the collar 17 is a dome shaped cap 20, directed over the stem of the bulb, its peripheral edge 21 being beaded.

A pair of uniform semi-conical shells 22 have beads 23 at their outer edges, by which are connected relatively short, convergently inclined terminal bands 24, having inreaching flanges 25.

These shells are connected, along their side edges, by a series of tubular eyes 26, arranged interengagingly in the manner of hinge joints, one set of which may be held in operative relation by a pin, and at the opposite edge by a similar but removable pin provided with a loop head 27 by which it may be withdrawn, thus permitting the shells to open when desired; a handle 28 may be attached to either or both shells for convenience in carrying the lamp as an entity.

A conical reflector 30, having a highly polished inner surface, is attached at its smaller end to the bead 21 on the cap 20, the reflector conforming in conicity with the shell housing, from which it is inwardly spaced.

The reflector is formed to present a re-enforcing, double flange 32 at its maximum diameter, then extended convergingly inward, as at 33, parallel with the shell terminal 24, to a bead 34 at its outermost front edge.

A lens 35 is enclosed in a guard ring 36, having a hinge 37 by which it is attached to the bead 34 at one point and at a point diametrically opposite is a catch 38 engageable with a button 39 set in the reflector band 33; this convergent band, together with the housing band 24, may be made at any preferred angle to the main elements 30 and 22.

Formed through the reflector 30 and its band 33 are a plurality of openings arranged in parallel rows adapted to receive jewels 40 having inreaching, semi-spherical chambers 41 and annularly flanged bases 42.

The inreaching exposed portions of the jewels are formed to present a plurality of facets 43, reflecting rays from the lamp in a manner to magnify the rays, many times, those in the band or rim 33 accentuating the effect of those in the main portion of the reflector.

These jewels are held in their setting by any preferred means, as clamp strips 44 passed over the flanges 42 and secured at their ends to the outer surface of the reflector 30.

From the foregoing it will be observed that a highly efficient, inexpensive lighting device has been disclosed in its preferred embodiment, subject to such changes as may be embraced in the annexed claim.

Having thus described the construction and application of the invention, what is claimed as new and sought to secure by Letters Patent, is:

In a light projector, the combination with a light source, and a conical reflector circumambient said source and extending therebeyond, an inverted conical band integral with the larger outer end of said reflector, said reflector and band having a plurality of circular openings, jewels extending through the openings, said jewels having flanges seated on the exterior of said reflector and band, and clamp strips extending across and over said flanges.

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