

March 7, 1933.

E. F. GUTH

1,900,552

LIGHTING FIXTURE

Filed Nov. 7, 1931

4 Sheets-Sheet 1

FIG. 1

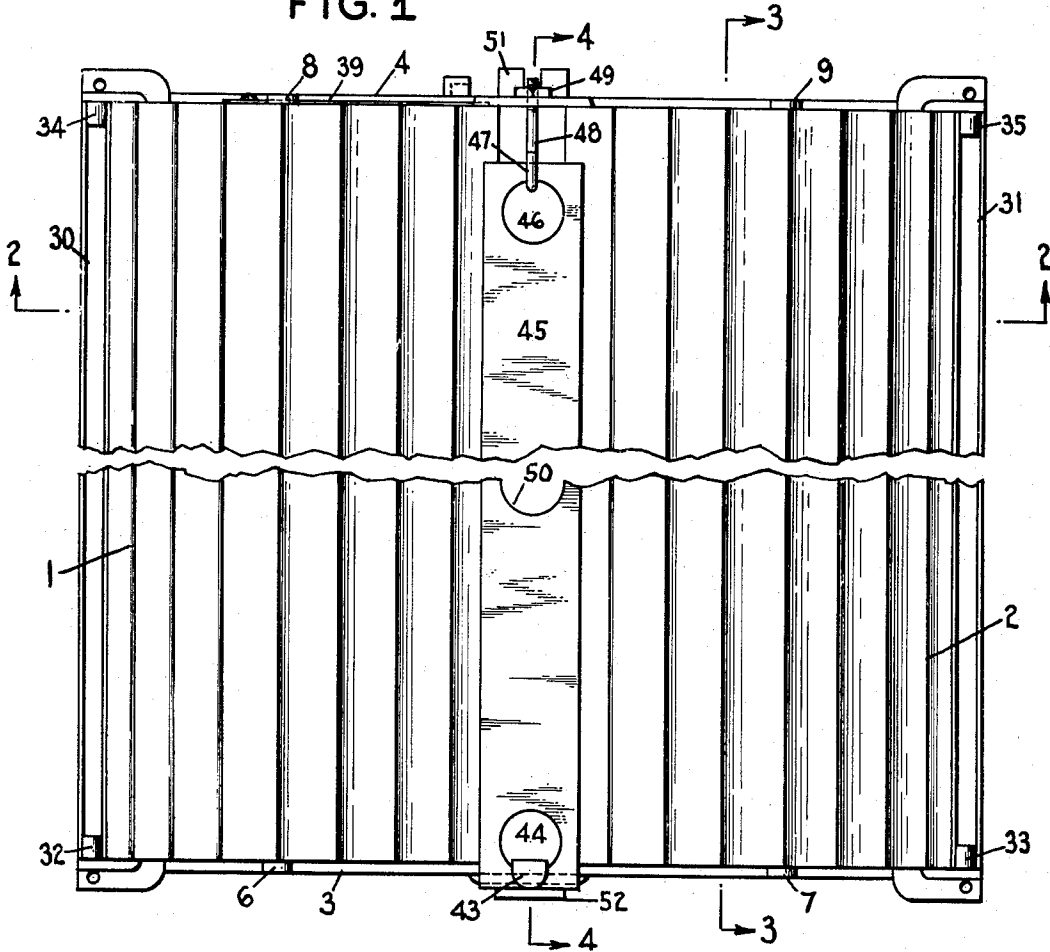
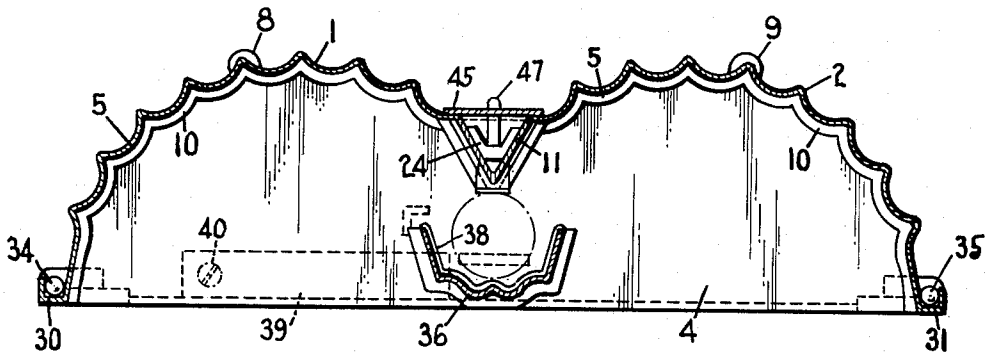


FIG. 2



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FIG. 3

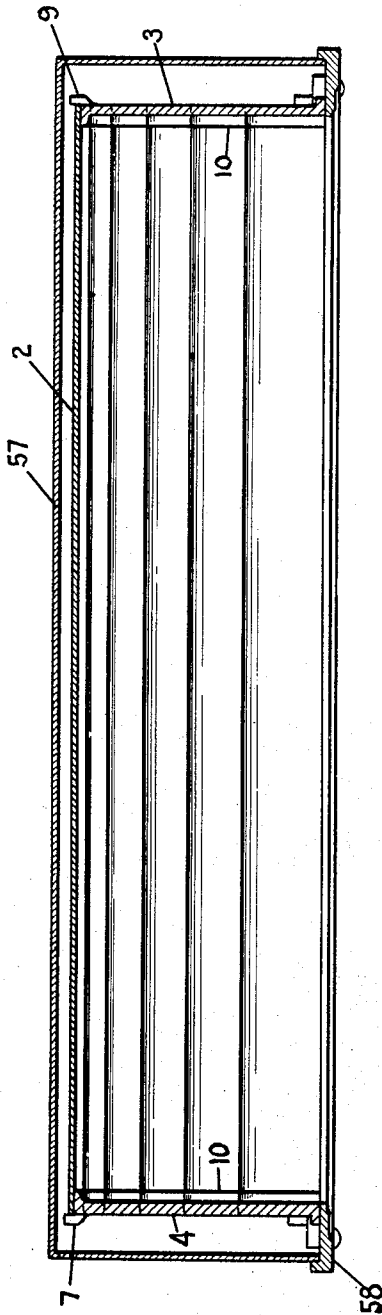
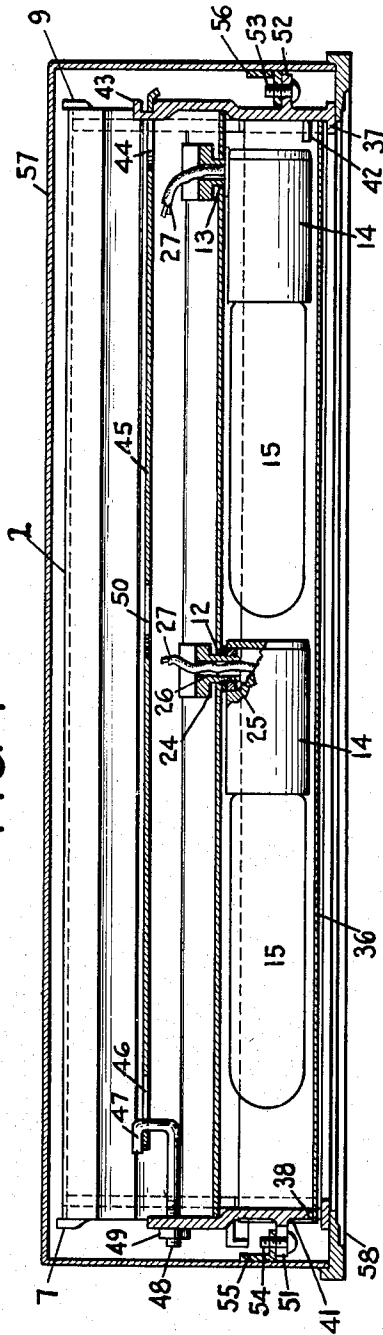


FIG. 4



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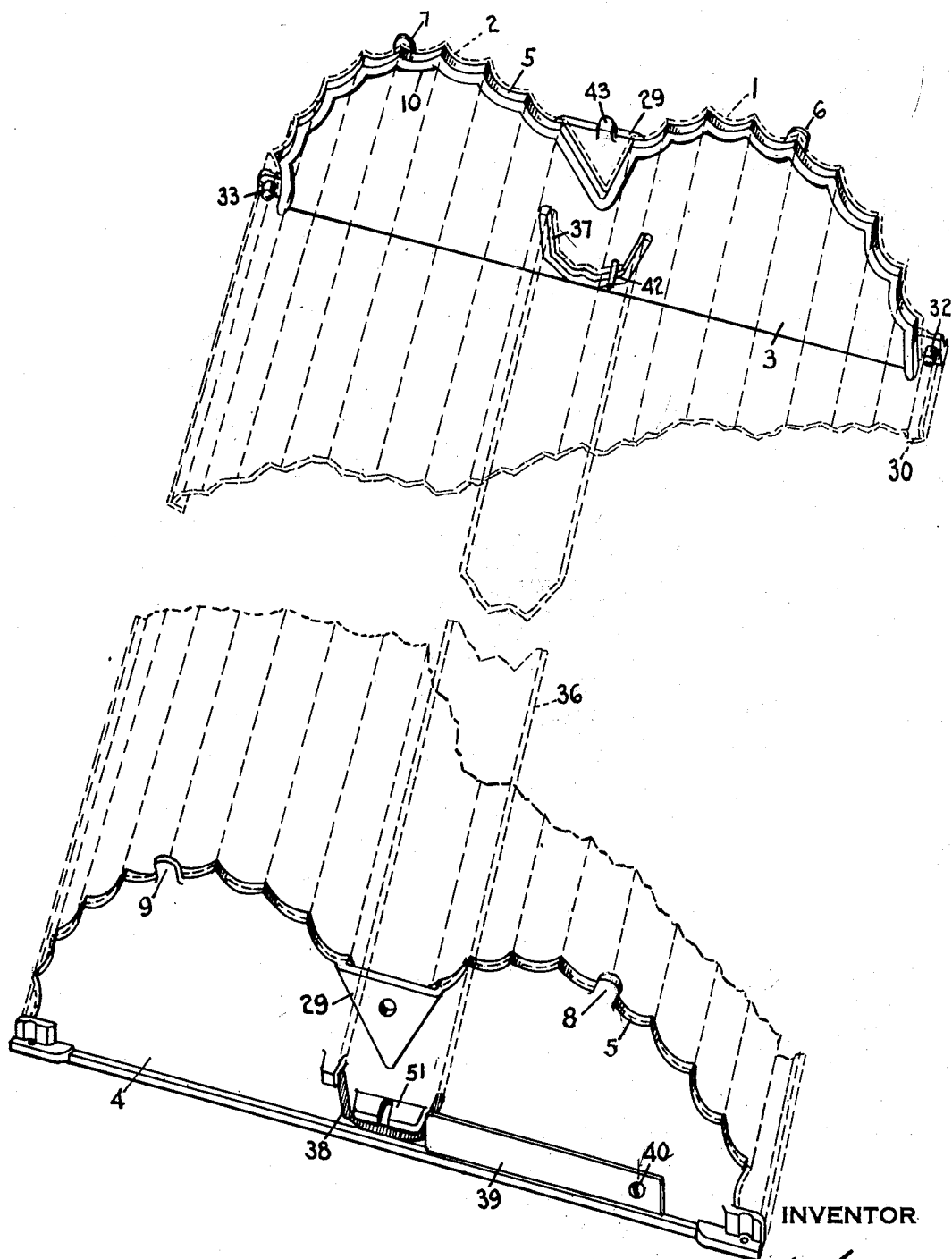
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FIG. 5



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FIG 6

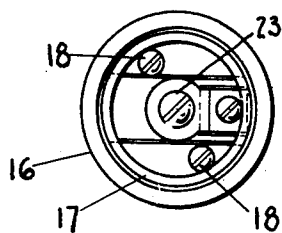


FIG. 7

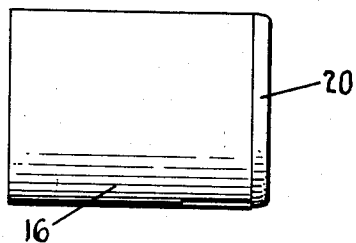


FIG. 8

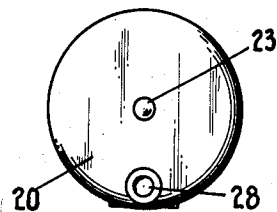


FIG. 9

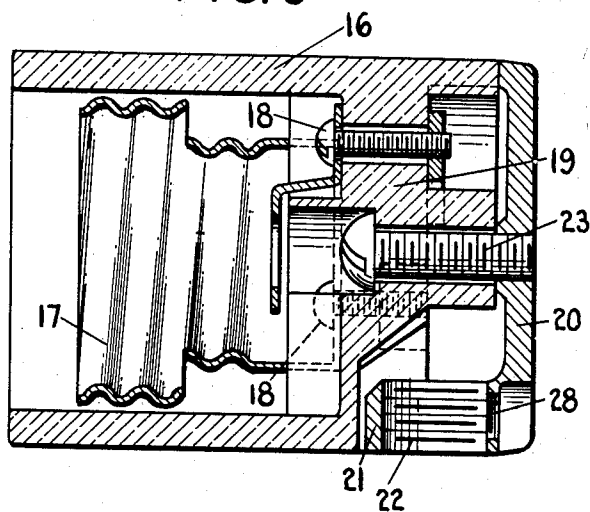


FIG. 11

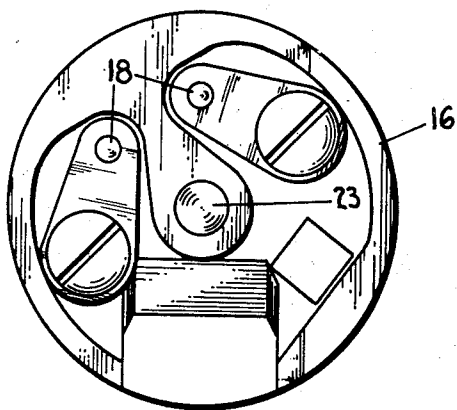
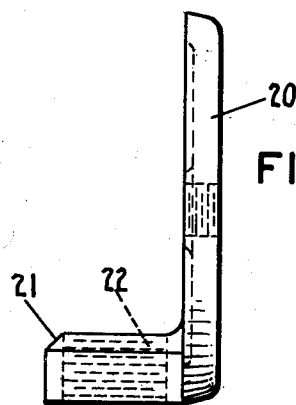


FIG. 10



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UNITED STATES PATENT OFFICE

EDWIN F. GUTH, OF WEBSTER GROVES, MISSOURI

LIGHTING FIXTURE

Application filed November 7, 1931. Serial No. 573,561.

My invention relates to that class of devices which are described in my copending application, Serial No. 537,851, filed May 16, 1931, and has for its object to improve and simplify the construction required for the said device.

My means of accomplishing the foregoing object may be more readily understood by having reference to the accompanying drawings, in which:

Fig. 1 is a plan view of my improved indirect lighting fixture;

Fig. 2 is a cross section taken on line 2—2 in Fig. 1;

Fig. 3 is a longitudinal section taken on the line 3—3 of Fig. 1, indicated by the arrows;

Fig. 4 is a longitudinal section taken on the lines 4—4 in Fig. 1 in the direction indicated by the arrows;

Fig. 5 is a perspective phantom view of the reflector;

Figs. 6, 7 and 8 are end, side and end elevations respectively, of my improved socket;

Fig. 9 is an enlarged longitudinal sectional view of the same;

Fig. 10 is a side elevation of the cap disassembled; and

Fig. 11 is an end elevation of the socket in Fig. 9, with the cap shown in Fig. 10 omitted.

Similar reference numerals refer to similar parts throughout the entire description.

As shown in the drawings, my fixture comprises a pair of corrugated reflectors 1 and 2. These reflectors are mounted upon end plates 3 and 4 which are provided with inwardly extending flanges 10, which are formed with a plurality of scallops 5 which are fitted to, and coincide with, the corrugations on the reflectors 1 and 2. Stops 6, 7, 8 and 9 are provided on the end plates 3 and 4 to hold the reflectors 1 and 2 in place. Preferably the reflectors are made from a single piece of metal connected by a V shaped channel 11, though obviously they can be made of two pieces and welded, brazed, or soldered together. The V shaped portion 11 is provided with a plurality of apertures 12 and 13 to which are secured my improved sockets

14 for carrying the electric light bulbs 15. These sockets are constructed, as clearly seen in Figs. 6 to 10 inclusive, of a body 16 formed of porcelain or other insulating material. In this body is mounted a standard threaded socket shell 17 which is secured by screws 18 in the usual manner to the top 19 of the body of the socket. A cap 20 is provided to cover the end of the socket. This cap 20 is provided with a lateral extension 21 which has a screw threaded aperture 22 formed therein. The cap being secured to the body 16 by means of a screw 23 which extends through the top 19 of the body and into a threaded central aperture in the cap 20. A saddle 24, the sides of which fit the walls of the V shaped portion 11 is provided with a neck or stem 25 which has external threads cut thereon which are adapted to fit the threads 22 in the extension 21 of the cap 20. It will be apparent that by screwing the socket tightly upon this stem 25 the saddle 24 will be drawn tightly against the walls of the V shaped member 11 and the socket will be held securely in position. In order to prevent the socket from unscrewing, I provide a threaded aperture 28 designed to receive a small set screw which, when tightened up against the threads on the neck or stem 25 will effectually prevent the socket from coming loose.

A central aperture 26 is provided through the stem 25 for the entrance of the electric conductors 27. A triangular shaped lug 29 is formed on each of the end pieces 3 and 4 and these lugs fit into the V shaped member 11.

The outer edges 30 and 31 of the reflector are turned over upon themselves so as to form sockets to receive lugs 32, 33, 34 and 35 formed upon the end plates 3 and 4 respectively. In this manner, due to a slight spring in the reflectors the end plates 3 and 4 are held securely in position.

I provide a shield 36 for the electric lamps 15, one end of which fits into a socket 37 formed by a flange on the end plate 3. The other end plate is provided with an opening 38, which conforms to the configuration of the shield 36, a flat spring 39 which may be

secured in place by a screw 40 bears against the end 41 of the shield 36 and holds it firmly against the flange 37.

When access to the lamps is desired for the purpose of changing or cleaning a lamp all that is necessary to do is to move the shield 36 longitudinally and this will retract the spring 39 until the shield is disengaged from the flange 37 when the shield can be quickly and conveniently lifted out of place and the lamps cleaned or changed with a minimum of effort. A suitable stop 42 is provided to hold the shield from movement when in place.

The plate 3 is provided with a lip 43 which is constructed to enter an aperture 44 formed in a back plate 45 the other end of this plate is also provided with an aperture 46 adapted to receive a hook 47, and the end 48 of which extends through an opening formed in the wall of the end plate 4. This end 48 is provided with threads and has a suitable nut 49 mounted thereon. Obviously by tightening this nut the two end plates are drawn tightly into engagement with the reflectors 1 and 2 and are held securely in position. A central aperture 50 is provided in the back plate 45 for the admission of conductors 27.

The whole fixture is then mounted in a casing 57 provided with bottom, end and side walls, respectively. The end plates 3 and 4 are provided with outwardly extending lugs 51 and 52 in which are mounted screws 53 and 54 which engage brackets 55 and 56 suitably secured to the end walls of the casing or container.

It is often found in practice that the container is not plumb due to the work of the bricklayers, plasterers or other workmen, it is however essential that the reflector and frame be plumb regardless of the container. I accomplish this by providing a horizontal slot in one of the lugs on the end plates and a vertical slot in the other. This permits the reflector to be set plumb even though the container is not. It follows that when the reflector is plumb the frame 58 will also be plumb.

From the foregoing description it will be apparent that I have provided means which greatly facilitate assembly of the fixture, all of which are comparatively inexpensive, since they can be cast in the desired form so that the necessity for the employment of skilled labor in the construction of the fixture is reduced to the minimum. It will also be seen that I have provided a highly convenient form of socket for use with my fixture and one which cannot easily get out of order or cause trouble.

Having described my invention what I regard as new and desire to secure by Letters Patent is:

1. The combination, with a pair of corrugated reflectors, of end plates therefor, inwardly extending flanges on said plates hav-

ing scallops which are fitted to said corrugations, a plurality of lugs on said plates, the edges of said reflectors being bent to form sockets for said lugs and means to hold said plates and reflectors securely together.

2. The combination, with a pair of corrugated reflectors, joined by a V shaped member, of end plates therefor, inwardly extending flanges on said plates having scallops which are fitted to said corrugations, a plurality of lugs on said plates the ends of said reflectors being bent to form sockets for said lugs and means to hold said plates and reflectors securely together.

3. The combination, with a pair of corrugated reflectors, joined by a V-shaped member, of end plates therefor inwardly extending flanges on said plates having scallops which are fitted to said corrugations, a plurality of lugs on said plates the edges of said reflectors being bent to form sockets for said lugs, means to hold said plates and reflectors securely together, a plurality of electric lamps mounted in sockets on said V, a shield for said lamps, a socket on one of said plates to receive said shield, there being an aperture in the other plate which conforms to the configuration of said shield and spring means to hold said shield in place.

4. The combination, with a pair of corrugated reflectors, joined by a V shaped member, of end plates therefor, inwardly extending flanges on said plates having scallops which are fitted to said corrugations, a plurality of lugs on said plates, the edges of said reflectors being bent to form sockets for said lugs, means to hold said plates and reflectors securely together, a plurality of electric lamps mounted in sockets on said V, a shield for said lamps, a socket on one of said plates to receive said shield, there being an aperture in the other plate which conforms to the configuration of said shield, spring means to hold said shield in place, a casing to receive said reflector and end plates, and means to detachably secure said casing thereto.

5. The combination, with a pair of corrugated reflectors, joined by a V shaped member, of end plates therefor, inwardly extending flanges on said plates having scallops which are fitted to said corrugations, a plurality of lugs on said plates, the edges of said reflectors being bent to form sockets for said lugs, means to hold said plates and reflectors securely together, a plurality of electric lamps mounted in sockets on said V, a plurality of saddles which fit in said V, a threaded neck on each saddle, on which the electric lamp socket is mounted, there being an opening through said neck for the electric conductors for said socket.

6. The combination, with a pair of corrugated reflectors, joined by a V shaped member, of end plates therefor, inwardly extending flanges on said plates having scallops

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which are fitted to said corrugations, a plurality of lugs on said plates the edges of said reflectors being bent to form sockets for said lugs, means to hold said plates and reflectors securely together a plurality of electric lamps mounted in sockets on said V, a plurality of saddles which fit in said V, a threaded neck on each saddle, on which the electric lamp socket is mounted, there being an opening through said neck for the electric conductors for said socket, said sockets comprising a body formed of insulating material, a threaded socket shell mounted in said body, a cap for said body, means to secure said cap to said body, an extension on said cap having a threaded aperture which fits the threads on the necks on said saddle, and means to prevent said socket from being unscrewed.

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