May 19, 1953 R. PRYNE 2,639,368

RECESSED LIGHTING FIXTURE WITH DROP HINGED COVER

Filed May 12, 1949

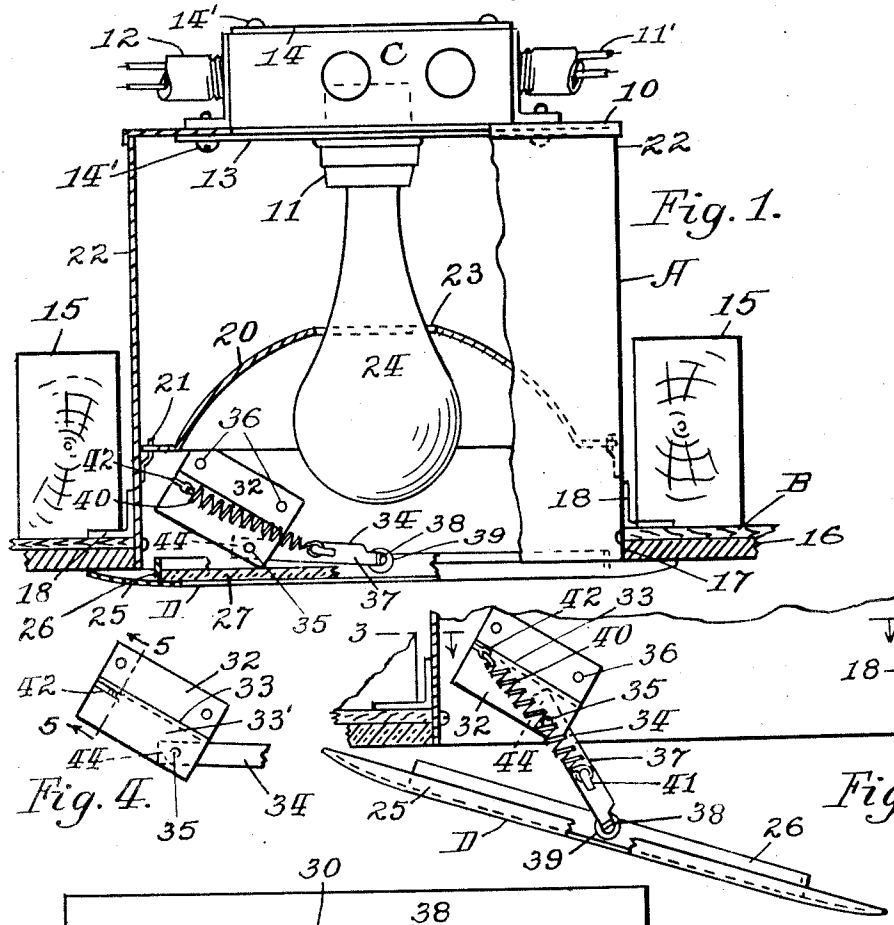

Fig. 1.

Fig. 2.

Fig. 4.

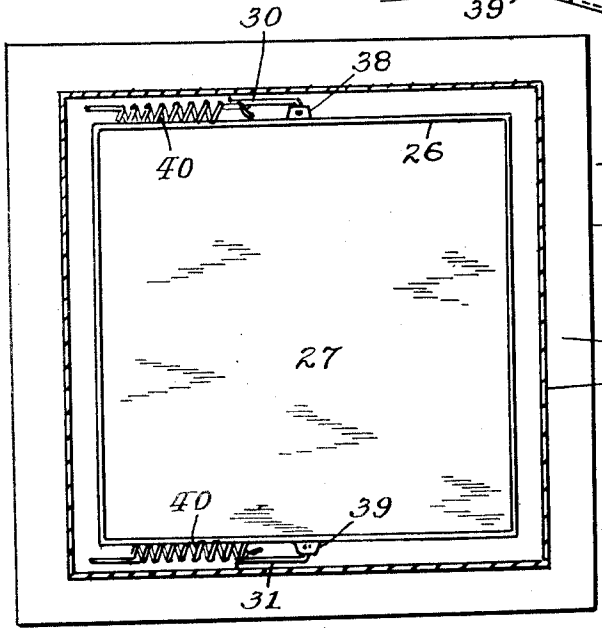

Fig. 3.

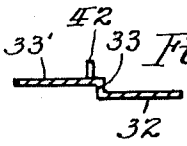

Fig. 5.

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Patented May 19, 1953

2,639,368

UNITED STATES PATENT OFFICE

2,639,368

RECESSED LIGHTING FIXTURE WITH DROP HINGED COVER

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Application May 12, 1949, Serial No. 92,857

1 Claim. (Cl. 240—78)

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My invention relates to improvements in recessed electrical lighting fixtures which may be installed in ceiling, side or other walls of structures. The primary object of my invention is to provide a fixture of its kind, which is so designed that the outlet box or splice box, light socket, reflector, illuminating means, cover and other portions are readily accessible for splicing, connecting, cleaning, repairing, replacing and other purposes.

This invention is an improvement upon the structure shown in my companion application, Ser. No. 38,234, filed July 12, 1948, issued as Patent No. 2,588,760 on March 11, 1952.

Heretofore it has been difficult and at times hazardous for an attendant to reach while on a ladder and service a fixture. My improvement in addition to other advantages reduces the above hazard to a minimum and simplifies the construction of the fixture so that it is easily installed and serviced, the cost of construction is reduced, and the operation of the fixture is facilitated. My improved fixture is also readily adapted to modern building construction and the electrical supply service which is in general use.

With these and other objects and advantages in view, my invention comprises the features of construction and combination of parts hereinafter described and claimed.

In the accompanying drawing forming part of this specification, Fig. 1 is a typical elevational view partly broken away and in section, showing my improved recessed lighting fixture when installed in a ceiling structure and its front closed; Fig. 2 is a vertical section of a detail portion of the structure shown in Fig. 1, when the front of the fixture assumes open position to permit servicing; Fig. 3 is a horizontal sectional view taken approximately on and below the line 3—3 of Fig. 2, when the front is closed; Fig. 4 is a plan of a portion of one of the spring controlled hinge units by which the front of the fixture is supported, and Fig. 5 is a section of the hinge base plate taken on the line 5—5 of Fig. 4.

My improved lighting fixture comprises a box-like housing A, which is designed to be recessed in a wall structure such as B, said housing having connected to its inner end wall 10, a typical outlet box C of a conduit system for making the usual connection with the conventional light socket 11 and the usual electrical service line 11'.

The housing A is provided with one or both inner and outer removable side covers 13 and 14, which are fastened removably by screws 14' or

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other suitable fastening means, for permitting splice or other connections to be made between the usual service lines such as 11' and the socket 11. When the electrical connection is made any excess wire may be packed in the outlet box C in the usual manner. The removable cover 13 also permits access to the connections in the outlet box from within the housing as hereinafter described. The screws 14' which fasten the cover 13 may also serve to fasten the outlet box to the end wall 10.

The wall structure B may represent the ceiling, side or any other portion of a building structure and as shown has the usual rafters 15, or frame members for supporting the usual lath and plaster or other type of wall finish such as 16. A suitable opening 17 is provided through the wall finish 16, to receive the housing A and as shown the housing is fastened to the wall structure B by the angle clips 18 or other suitable means. The lower end portion of the housing is open, as shown, and a reflector 20 is removably supported horizontally therein by the separable clip connecting elements 21, which are secured to the opposite sides 22 of the housing. This reflector has a central opening 23 through which the illuminating light bulb 24 in the socket 11 projects downwardly. When the light bulb is unscrewed and removed from its socket, the reflector can be lifted off of its fastening supports 21 and removed downwardly from the recessed housing, thus providing free access upwardly to the socket and outlet box. The reflector, however, is not essential to the invention.

The lower open end portion of the housing is normally closed by the cover D which has a frame 25 conforming in marginal outline and overlapping the edge of the opening through the wall finish 16, which surrounds the lower end of the housing. The frame of the cover D has an upstanding enclosing flange 26 within which a light transmitting plate 27 is held, thus forming a window through which light from the bulb 24, either in clear or diffused condition is transmitted outwardly from within the housing.

The cover D is supported either in closed horizontal position as shown in Fig. 1, or in open inclined position as shown in Fig. 2, by a pair of similar oppositely disposed spring controlled hinge units 30 and 31. Each of these hinge elements consists of a supporting oblong plate 32 which is formed by a longitudinal shoulder 33 with an offset outstanding portion 33' (Fig. 5), below which a spring actuated supporting arm 34 is pivotally secured at 35 (Fig. 4). The sup-

porting plate **32** is secured on one side of the housing by rivets **36** or other suitable means so that the arm **34** may swing freely. The outer end portion **37** (Fig. 2) of the arm **34** is formed with a lateral pivot **38** which rotatively engages in one of the outwardly directed sockets **39**, there being a pair of said sockets provided in opposite side portions of the enclosing flange **26** on the frame **25**. A retractable helical spring **40** is secured between an engaging catch **41** on the outer portion of the arm **34** and the engaging catch **42** on the hinge plate **32**. The connecting points of said spring **40** with the arm **34** and catch **42** are in offset relation to the pivot **35**, whereby the cover is retained in closed position automatically by the springs **40** of the opposite pair of hinge elements. The arms **34** are sufficiently flexible so as normally to automatically engage the sockets **39** but permit lateral separation so that the cover can be disconnected and removed when the latter is in open position. In this manner the recessed housing can be opened so that its parts are fully accessible for adjusting, cleaning and servicing, or for any other purpose desired. When the cover is opened and inclines downwardly from the position shown in Fig. 1, towards the position shown in Fig. 2, the short inner end portions **44** of arms **34** are adapted to strike the shoulder elements **33** and limit the downward inclination of the cover.

The means thus provided enables the cover to be connected to or disconnected from the arms **34** in a snap-on manner and without the use of tools and without the use of bolts, screws, nuts or other fastening means, all of which saves time, labor and expense.

I have described the principles of operation of my invention, together with the construction thereof which I now consider to represent the best embodiment thereof, but I desire to have it understood that the construction shown is only illustrative and that the invention can be carried out by other means and applied to uses other than those above set forth within the spirit of the invention and the scope of the following claim.

I claim:

In a lighting fixture unit adapted to be recessed into a building wall structure, an outer shell, a lamp socket in said shell, a window cover over the lower portion of said shell, snap-acting opening and closing means for said cover comprising a pair of similar, oppositely-disposed, spring-controlled hinge units, each hinge element consisting of a supporting plate positioned on opposite sides of said shell, said plate being formed with a longitudinal shoulder and an integral offset outstanding portion, a spring-operated supporting arm pivotally secured to said plate near one end thereof, said end of the supporting arm being sufficiently spaced from the pivot so that it will strike said longitudinal shoulder and limit the downward inclination of the window cover and hold it by spring action in predetermined open position, the other end of said arm being provided with a lateral pivot, a corresponding socket in said window cover, a retractible helical spring between catches on the supporting plate and supporting arm respectively, the connecting points of the spring to said catches being offset with respect to the pivot point of the arm on said supporting plate, whereby the cover is retained in closed position automatically by spring action.

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