

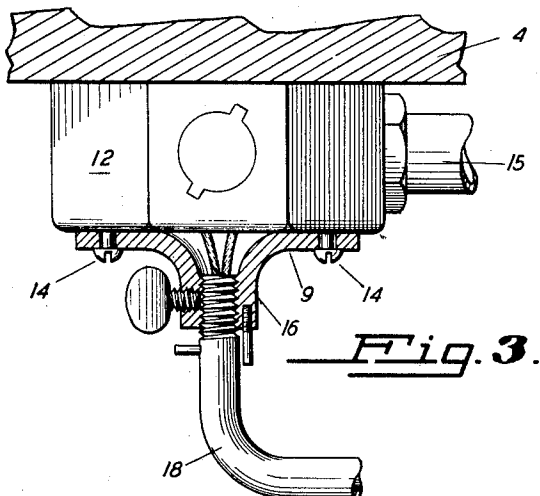
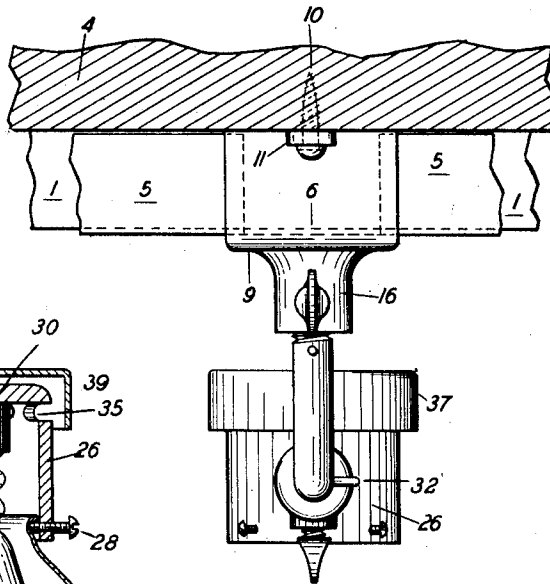
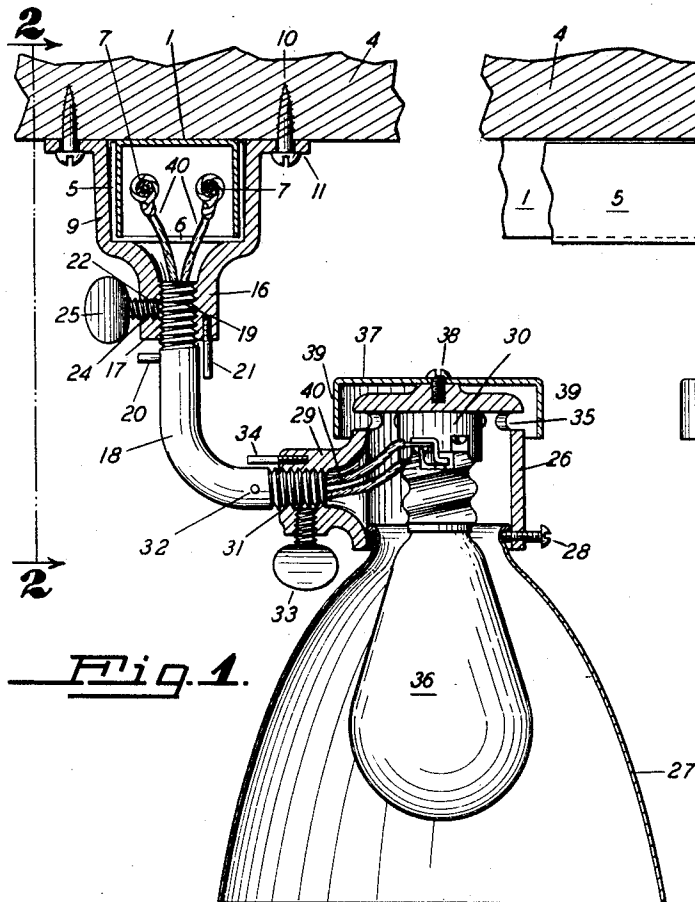
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ADJUSTABLE LAMP HOUSE

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ADJUSTABLE LAMP HOUSE

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4 Claims. (Cl. 240—52)

My invention relates to an adjustable lamp house and more specifically to a lamp house carrying a light concentrating reflector which can be adjusted to any desired position, without exposing the current supply wires.

Among the objects of my invention are: to provide an adjustable spot or flood light in which the supply wires are entirely concealed; to provide an adjustable lamp and light concentrating reflector holder which may be fitted to standard conduit outlets; to provide an adjustable light fixture which will comply with underwriters' specifications for shop window and counter use; to provide an adjustable lighting fixture which can be extended from standard conduit without exposing the supply wires; to provide an adjustable lighting fixture having a minimum fire hazard and which can be locked in any desired position; and to provide an adjustable lighting fixture with approved protection to its supply wires which can be adjusted to all positions without twisting the supply wires.

Other objects of my invention will be apparent or will be specifically pointed out in the description forming a part of this specification, but I do not limit myself to the embodiment of my invention herein described, as various forms may be adopted within the scope of the claims.

Referring to the drawing:

Figure 1 is a view partly in elevation and partly in section of my device as applied to the channel or show case type of conduit.

Figure 2 is a side view in elevation taken from position indicated by line 2—2 in Figure 1.

Figure 3 is a view partly in elevation and partly in section of the device as applied to a standard outlet box of the round conduit type.

In the dressing of store windows, counter displays, and departmental exhibits, it is highly desirable to use both spot and flood lights to bring out the merits of the displayed merchandise to best advantage. Heretofore such spot and flood lights have been connected to supply conduits by flexible wires using plugs, or temporary connections, in order that the lights may be adjusted in desired positions to give the proper effect. Inasmuch as such display lights are generally of high wattage, a store window, for example, often a maze of crossed wires hidden by draperies, constitutes such a fire hazard as to be condemned by underwriters and in many cases forbidden by local ordinances. Nevertheless such installations are made, often in violation of law, in order to get the proper effect, because there have been no fixtures available which could be readily adjustable, and still comply with fire regulations. When losses by fire have occurred under such conditions, payment of insurance has often been greatly reduced and many times completely denied. My invention supplies a light which is both adjustable

and fireproof in the sense of being acceptable under the prevailing rules of fire insurance.

Broadly speaking my invention comprises the combination of a lamp house with associated socket and reflector with a base or cover fixture which fits standard conduit outlets.

The cover and lamp house are connected by a piece of conduit having a 90° bend and inserted at one end into the cover, and at the other end into the lamp house. These insertions constitute a rotatable joint at both ends, having their planes of rotation at right angles, thus allowing complete adjustment of the lamp house relative to the supply conduit. Stops are provided at each joint so that rotation cannot be more than 360°, and means are provided for locking the joints at any desired degree of rotation.

Referring to the drawing an embodiment of my invention as applied to show case conduit is shown in Figures 1 and 2. A metal channel 1 is commonly attached to a wall 4 or a like support, by any suitable means. This channel opens outwardly and is protected by a metal duct cover 5 fitting over the channel closely. Where an outlet is desired a portion of the duct cover is cut away to form an opening 6 giving access to the interior of the conduit formed by the cooperative relationship of the channel and duct cover and to wires 7, connected to supply mains which commonly are laid in the conduit.

A cover fixture 9 is provided preferably in the form of a yoke which will fit closely over the opening 6 and close it, being held in position by screws 10 in flanges 11 provided on the base of the cover fixture. This yoke also serves in place of a strap, and not only keeps the cut channel cover ends in place, but helps to position the conduit.

An alternative form of the cover fixture 9 is shown in Figure 3. Here the shape of the cover is such that it completely fits over the opening of a standard conduit outlet box 12 and is held in place by bolts 14 through holes provided in the cover. Outlet box 12 is commonly connected to conduit 15 of the round type through which supply wires pass. The outlet box may be the terminus of the line as shown, or the conduit may pass to other boxes by means of "knock-outs" or portions of the box adapted to be broken out to form holes for the attachment of conduit.

Irrespective of the type of conduit used, the remaining portions of cover fixture 9 are identical and the following description will apply to both types.

The central portion of the cover fixture is provided with a boss 16 which is bored out and tapped at 17. A tube in the form of a length of round conduit is bent, preferably to a 90° angle, to form a stem or link 18, the near end 19 of which is threaded and screws into the boss 16, but not to

the end of the threads. A joint is thus made, and the link is free to rotate on the threads of the cover.

A pin 20 is inserted into the wall of the link near the threads, and extends at right angles to the wall. A stop pin 21 is inserted into the end of the boss and extends into the path described by pin 20 as it rotates, and prevents rotation of the link around the cover for more than one revolution.

The side of boss 16 is bored and tapped where the link screws into the boss at 22, and a set screw 24, preferably made with a wing 25 for a good finger hold, is used to lock the rotation of the link at any convenient point.

A lamp house 26, preferably in the form of a cylinder open at one end, carries a reflector 27, which may be either a flood or spot type, and is secured to the lamp house by means of screws 28. The lamp house is provided on one side with an embossment 29, and has mounted within it a lamp socket 30 of the usual type.

The lamp house embossment is also bored out and tapped at 31, and the far end of link 18 is threaded and screwed part way in forming a second joint whereby the lamp house is free to rotate around the end of the link. The plane of rotation, however, will be at 90° to the plane of rotation of the cover fixture joint.

The far end of the link is provided with a rotating pin 32, and the embossment has a restriction pin 34 inserted adjacent to the link and parallel to it, preventing the rotation of the lamp house through more than one revolution. Thumb screw 33 locks the joint.

The lamp house is further provided with slots 35 at the back to allow air to circulate and cool the bulb 36 normally used in the socket. In order that no particles of inflammable material, or metal may reach the lamp socket, a protecting flange 37 is screwed to the base of the lamp house by bolt 38, and is provided with a skirt 39 which extends over the slots. Air may pass between the skirt and walls of the lamp house, but other materials are excluded.

After the device has been assembled as described, fixture wires 40 are drawn through the cover, link, and into the lamp house and connected to the proper connections on the lamp socket. The device is then ready for use, and may be secured over the conduit and the fixture wires connected to the supply mains as shown at 40.

In dressing a window or other display space it is customary to supply current in conduit, with appropriately located outlets around the edge of the area. Any desired number of fixtures such as I have described, may be equipped with flood or spot reflectors and lamps, and positioned at the outlets and screwed or bolted in place. The length of the link members may be varied, and the lights rotated in the two planes until each one is pointing in the desired direction, and the sought for lighting effect obtained. The lights may then be locked by the thumb screws and draperies hung over the fixtures if desired, without danger of fire.

Any lighting effect possible with ordinary lamps equipped with open cords may be duplicated without exposing the display space to the danger of fire from crossed circuits, or shorting in any one circuit, and the objections heretofore offered by fire prevention agencies and insurance underwriters are eliminated.

I claim:

1. An adjustable lamp house comprising the combination with a supply conduit having an opening therein and containing a pair of electric main wires, of a cover for said conduit, a hollow stem forming a right angle screwed to said cover to form a rotatable joint therewith, means for limiting the rotation of said stem on said cover to less than 360°, a lamp house containing a lamp socket screwed to said stem to form a rotatable joint therewith, a pair of lamp supply wires fastened to said socket and passing through said rotatable joints and said hollow stem and connected to said main wires, and a stop on said last-mentioned rotatable joint for limiting the total twist of said lamp supply wires to less than two complete turns.

2. An adjustable lamp house comprising the combination with a supply conduit having an opening therein and containing a pair of electric main wires, of a cover for said conduit, a hollow stem forming a right angle screwed to said cover to form a rotatable joint therewith, means for limiting the rotation of said stem on said cover to less than 360°, a lamp house containing a lamp socket screwed to said stem to form a rotatable joint therewith, a pair of lamp supply wires fastened to said socket and passing through said rotatable joints and said hollow stem and connected to said main wires, and means for limiting the rotation of said lamp house on said stem to less than 360° whereby the total twist of said lamp supply wires is limited to less than two complete turns.

3. In combination with a light concentrating reflector, a fixture adapted to cooperate with an opening in a standard supply conduit containing electric main wires, a lamp house carrying said reflector, a lamp socket within said lamp house, a hollow link forming a 90° angle having one end screwed into said fixture to form a rotatable joint and having the other end screwed to said lamp house to form a second rotatable joint, the planes of revolution being at right angles, a pair of lamp supply wires connecting said lamp socket and said main wires and passing through said lamp house, link and fixture, and a stop on each of said joints to prevent an individual joint rotation of over 360°, said stops cooperating to prevent a total twist of said lamp supply wires of more than two full turns between said socket and said main wires in any position of said reflector.

4. In combination with a light concentrating reflector, a fixture adapted to cooperate with an opening in a standard supply conduit containing electric main wires, a lamp house carrying said reflector, a lamp socket within said lamp house, a hollow link forming a 90° angle having one end screwed into said fixture to form a rotatable joint and having the other end screwed to said lamp house to form a second rotatable joint, the planes of revolution being at right angles, a pair of lamp supply wires connecting said lamp socket and said main wires and passing through said lamp house, link and fixture, a stop on each of said joints to prevent an individual joint rotation of over 360°, said stops cooperating to prevent a total twist of said lamp supply wires of more than two full turns between said socket and said main wires in any position of said reflector, and thumb screws on said cover and on said lamp house for locking said joints at any desired degree of rotation.

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