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G. H. COLE

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STREET LIGHTING FIXTURE

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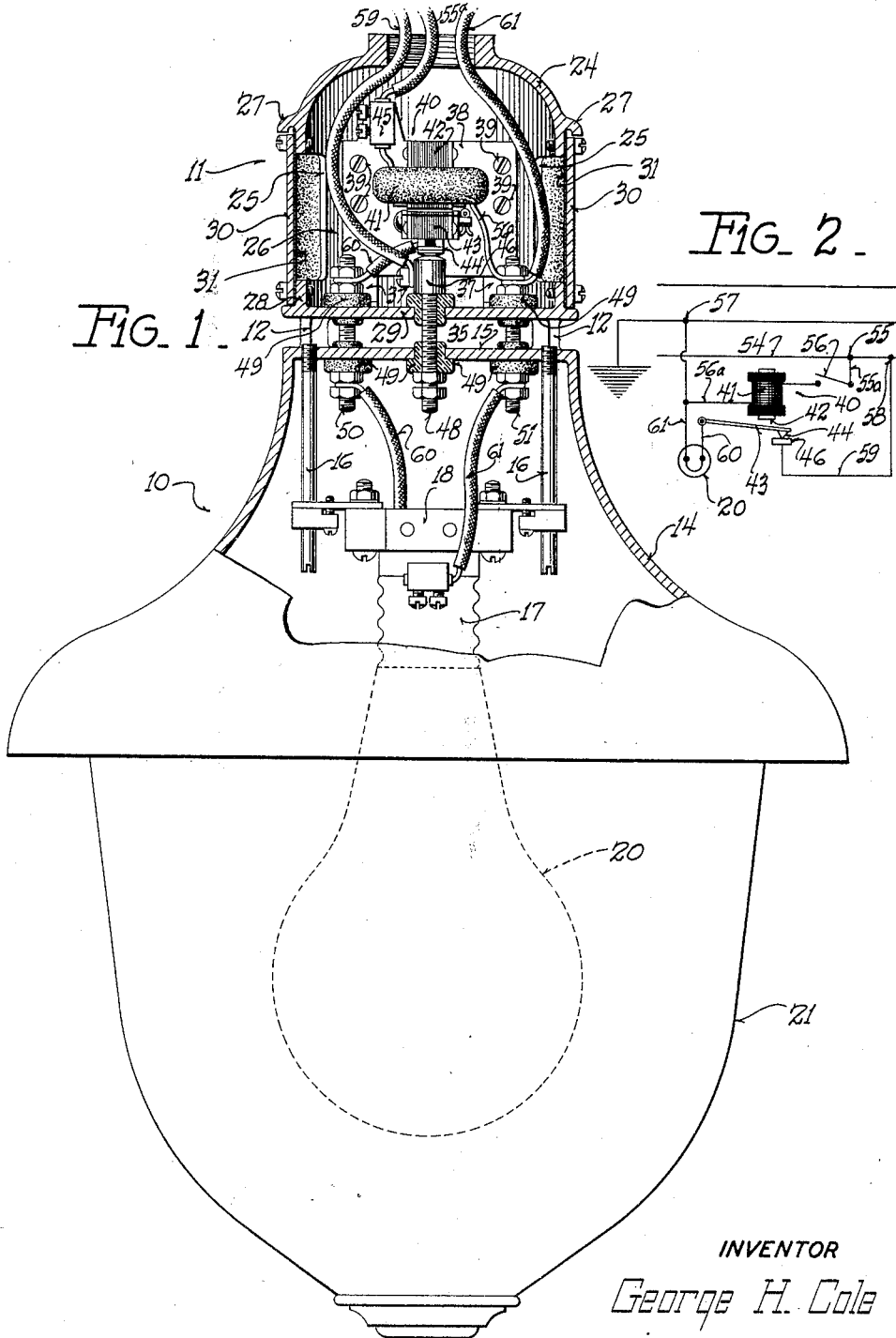


FIG. 1.

FIG. 2.

INVENTOR  
*George H. Cole*  
BY *Lucretia Jones*  
ATTORNEY

# UNITED STATES PATENT OFFICE

GEORGE H. COLE, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO LINE MATERIAL COMPANY, OF SOUTH MILWAUKEE, WISCONSIN, A CORPORATION OF DELAWARE

## STREET LIGHTING FIXTURE

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This invention relates to street lighting fixtures and is an improvement on the application of George W. Goldner, Serial No. 385,057.

5 In street lighting fixtures, it has been common practice in the past to have a single contact switch operate a plurality of lighting fixtures. The application of George W. Goldner referred to above, brought out the  
10 idea of using an individual switch to control the lighting units and have a single switch to control the current through all of the relays.

15 Structures wherein the switch unit is formed integrally with the lamp serves very well for small installation, but when the size of the lamp is increased and this is especially true where glassware is used in connection with the lighting fixture, there is considerable heat generated, which heat oxidizes the  
20 contact points of the switch, and necessitates frequent renewals and repairs to the unit.

It is, therefore, an object of the present invention to eliminate this difficulty and produce a lighting fixture in which the trouble  
25 caused by the heating of the element is eliminated.

The invention conceives the use of an integral lamp and switch structure provided  
30 with adequate ventilating space between the lighting fixture and the switch so that heat generated by the lighting fixture is not transmitted to the switch, but dissipated into the surrounding air. One form of the invention  
35 is shown in detail in the accompanying drawings in which:

Figure 1 is an elevational view, partly in section, of a lighting fixture embodying the present invention; and

40 Figure 2 is a typical wiring diagram for lighting fixtures of this type.

Referring to the drawings, the lighting fixture is shown as composing a lower section 10 and an upper section generally designated 11.  
45

The two sections are made integral and joined by a plurality of connecting links 12.

The lower section 10 comprises a downwardly concave portion 14 which may be of  
50 metal, porcelain or other suitable material

and which has a top wall 15 formed therewith. A plurality, (preferably three) of studs 16, are screwed in appropriate holes in the top 15, and support a socket 17 held  
55 on the base 18. The socket is of the design ordinarily used to hold an incandescent lamp 20. On the lower side of the concave body portion 14, there may be attached a glass globe 21 of usual design to diffuse the light and remove glare.  
60

The upper section of the fixture which has been generally designated 11 comprises a housing 24 having a plurality of openings 25 arranged circumferentially thereabout to facilitate assembling the device, leaving a plurality of ribs 26 connecting the upper part  
65 of the housing 27 with the lower part, the lower part 26 terminating in a floor 29.

The openings 25 are covered with plates 30 which press gaskets 31 or other suitable means to keep moisture out of the housing.  
70

As has been explained previously, the lower and upper sections 10 and 11 respectively, are joined by a plurality of ribs 12, formed integrally therewith, and spaced about the peripheries of the lower and upper sections to provide an air space 35 through which air may freely circulate.  
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The housing 24 is provided with a pair of upstanding ribs 37 to which is attached the base plate 38 which may be screwed on by screws 39 or other suitable means. The plate 38 mounts the relay generally designated 40 thereon, and which comprises a coil 41 having a core 42, an armature 43 with a contact  
80 point 44 thereon, which rests, in the de-energized position of the coil 41, on a second contact point 46.  
85

The plate 38, likewise, supports a terminal member 45 forming a connection between one side of the coil and the incoming wires. Electrical connections are made from the power lines to the lamp 20 through the walls 15 and 29 by means of a plurality of binding post screws 48, 50 and 51 which pass through bushings 49 made of suitable insulating material. In the form disclosed, three such binding posts have been shown, two of which numbered 50 and 51 connect to the terminals of the incandescent lamp 20, while the third,  
100

numbered 48 carries the contact 46 at the upper end thereof.

Referring for the moment to Figure 2 as giving the best illustration of the wiring, it will be seen that the relay 40 is connected at one side to a power line 54 as shown at 55 through the line 55a and through the main operating switch 56 to the relay coil 41 and back to the other wire of the power line through a wire 56a connected to the wire 61 which is in turn connected to the other side of the power line as shown at 57.

Tracing the lamp circuit from the connection 58 with the power line 54, power passes through the wire 59 across the contactor points 46 and 44 through the wire 60 to the lamp 20, out of the lamp 20 on the wire 61 to the connection 57 herebefore described.

It will thus be seen that when the switch 56 is open, the relay is deenergized and the armature down. When the armature is in lowered position, the lamp 20 is connected in the power circuit through the contacts 44 and 46. When it is desired to put the lamp out, the switch is closed, energization of the relay 40 draws the armature 43 to the core 42 to break the contact between the points 44 and 46.

The air space 35 between the members 15 and 29 provides free circulation of air therebetween and it will be readily apparent that the only means by which heat can travel from the lamp 20 to the upper housing 24 is through the relatively small connectors 12 and the equally small binding post screws 48, 50 and 51. All of the remainder of the heat generated must of necessity be dissipated into the atmosphere due to the circulation of air provided in the space 35.

It will thus be seen that there has been provided a relatively simple device to prevent the oxidation of the contact points of a combined switch and lighting fixture.

What is claimed as new and desired to secure by Letters Patent is:

1. In a combined lighting fixture and switch, a compartment for housing the light, a compartment for housing the switch provided with circumferential apertures to permit assembling of the switch therethrough, removable plates covering said apertures, means joining said compartments to provide an air space therebetween.

2. In a combined lighting fixture and switch, a first compartment provided with an end wall, a second compartment provided with an end wall spaced from the end wall of said first compartment, and means joining said compartments to hold the same in rigid spaced relationship.

3. In a combined lighting fixture and switch, a first compartment provided with an end wall for housing a light, a second compartment provided with an end wall spaced from the end wall of said first compartment

for housing a switch, said last named compartment being provided with apertures in the side wall thereof to permit the assembly of the switch therethrough, removable plates covering said apertures, and means integrally connecting said compartments to hold said end walls in spaced relationship and provide a free circulation of air between said end walls.

4. In a combined lighting fixture and switch, a first compartment provided with an end wall for housing a light, a second compartment provided with an end wall spaced from the end wall of said first compartment for housing a switch, said last named compartments being provided with apertures, removable plates covering said apertures, means rigidly joining said compartments to hold said end walls in spaced relationship and provide free circulation of air between said walls, said end walls being provided with the aligned ports therein, binding posts passing through said aligned ports and terminating within said compartments to provide electrical connection therebetween and means insulating said binding posts from each other.

5. In a combined lighting fixture and switch, a first compartment provided with an end wall, a second compartment provided with an end wall spaced from the end wall of said first compartment, means rigidly connecting the compartments to hold the same in spaced relationship, said end walls having spaced aligned ports therein, binding posts passing through said aligned ports to transmit current from one said compartment to the other said compartment, and means insulating said binding posts from each other.

In testimony whereof, I hereunto affix my signature.

GEORGE H. COLE.