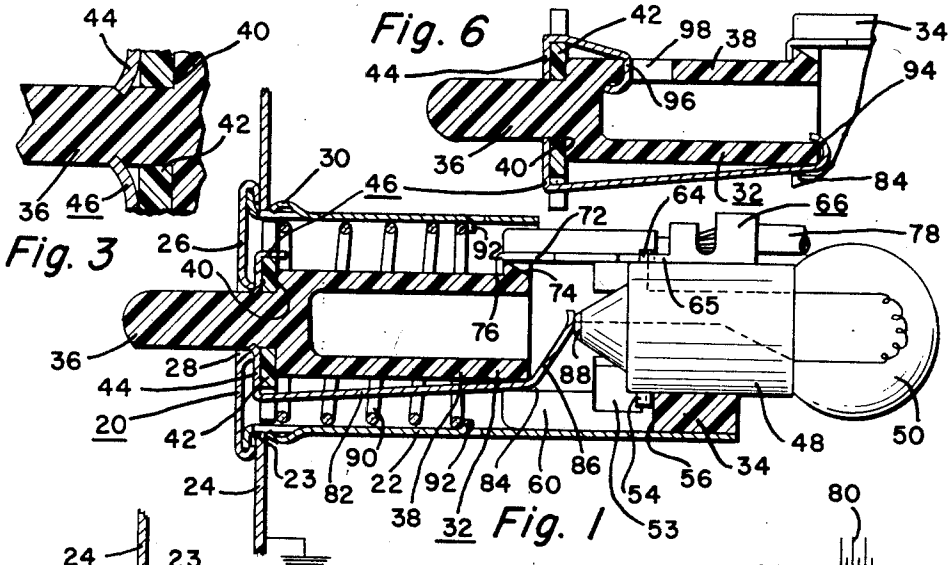
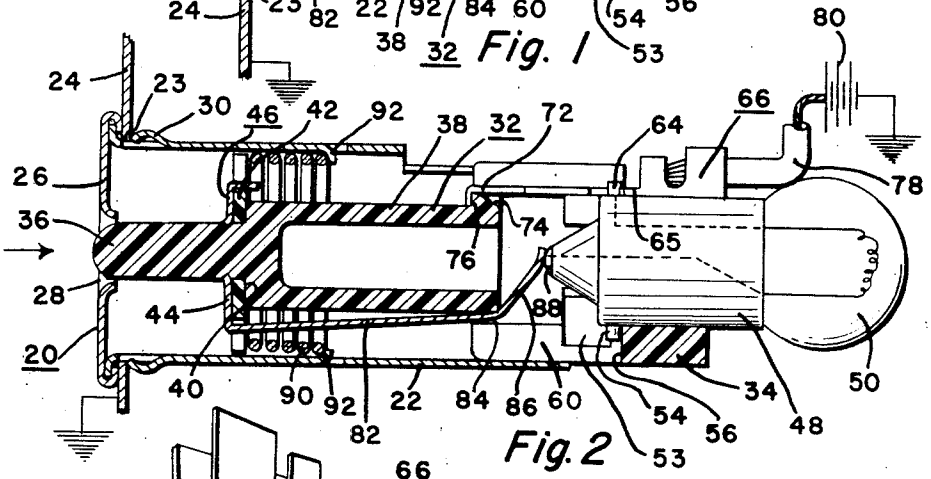
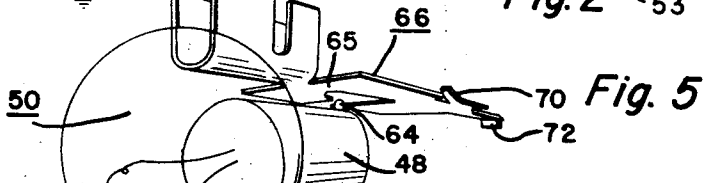
April 9, 1957 W. E. BROWN 2,788,407

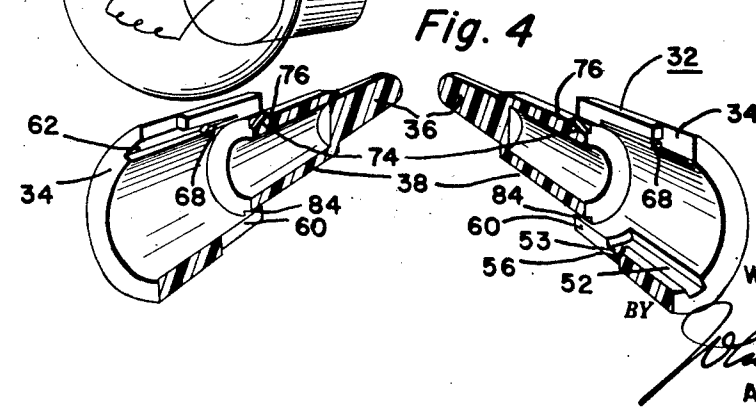
COMPARTMENT LIGHT AND SWITCH

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COMPARTMENT LIGHT AND SWITCH

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This invention relates to compartment lights and more particularly to an improved device wherein a bulb holder is moved relative to a support for closing when opening a circuit therebetween.

Heretofore in compartment light switches, particularly in glove compartment switches as are used in connection with motor vehicles, a structure as provided wherein the bulb is maintained in a substantially stationary position relative to the switch structure and the compartment. Structures of this type generally utilize a movable contact member which, when brought into connection with the center terminal of the stationary bulb completes a circuit which includes the grounded body of the motor vehicle. The present invention is directed to an improved and simplified device, of the character described wherein the bulb is carried by a mounting that it is movable relative to the switch housing and when so moved will make and break a circuit with the switch housing and the other body portions of the vehicle.

It is an object, therefore, of the present invention to provide a compartment lamp holder wherein the holder is moved relative to the support for making and breaking an electric circuit with said support.

It is another object of the present invention to provide a compartment switch and lamp holder wherein a unitary member, movable relative to a support, has a lamp socket in one end and has means on the other end for moving the lamp relative to the support and for making and breaking an electric circuit between the support and lamp.

It is a further object of the present invention to provide a unitary member in a compartment switch and lamp holder wherein the member is made of insulating material and has a lamp socket on one end that is movable relative to the support and has means on the other end for moving the lamp relative to the support and for making and breaking an electric circuit between the support and lamp.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawings wherein a preferred embodiment of the present invention is clearly shown.

In the drawing:

Figure 1 is a view partly in section of a lamp holder and switch according to the present invention wherein the parts are in a closed circuit position.

Figure 2 is a view of the switch and lamp holder in Figure 1 with the parts positioned in an open circuit position.

Figure 3 is an enlarged sectional view showing the positioning of the contact member relative to the unitary actuating and socket member as in Figures 1 and 2.

Figure 4 in perspective shows the arrangement of parts of the unitary socket actuating member as employed in the switch Figures 1 and 2. In this view the unitary member is divided for purposes of illustration.

Figure 5 in perspective shows an incandescent lamp having a bayonet type socket and the terminal having a socket securing portion which is embedded in the socket in the unitary switch member.

Figure 6 shows a modification of the securing of the contact member to the unitary member as shown in Figure 3.

In the drawings, the numeral **20** designates a lamp and switch holder that includes a tubular support member **22** which is adapted to be received in an aperture **23** of a panel **24**, such as that portion of an instrument panel of an automotive vehicle which surrounds the glove compartment opening which is closable by a door, not shown, and which is located so that the door when in the closed position will conceal the opening in panel **24** from view.

The tubular support member **22** is closed on one end by a bezel **26** which has a central aperture **28**. The bezel **28** and the struck-out circumferentially spaced tang portions **30** formed in the walls of member **22** are adapted to secure the tubular support member in aperture **23** in the panel as shown in Figures 1 and 2 of the drawings, and when in position will electrically connect member **22** and bezel **26** to panel **24** for the purpose which will become hereinafter apparent.

The switch and lamp holder **20** is provided with a unitary member **32** that is axially movable within member **22**. This unitary member **32**, preferably formed, of insulating material such as a molded phenol formaldehyde condensation product or other suitable plastic or rubber-like material, has a socket-receiving portion **34** on one end and an extending portion **36** on the other end that is adapted to pass through aperture **28**. Intermediate the socket portion **34** and the extending portion **36** is a shoulder portion **38** which connects the socket receiving portion **34** with the extending end portion **36**. The shoulder portion **38** is constructed relative to the extending end portion **36** to provide an abutting surface **40** whereagainst a collar **42**, of insulating material is positioned and there held by the annular portion **44** of contact member **46**. The annular portion **44** is sized relative to the extending end portion **36** so that when the contact member **46** is pressed into position on end portion **36**, the inner surfaces of annular portion **44** will be embedded in the material forming the extending end portion **36** adjacent the abutting surface **40** to thus securely hold the parts assembled as shown in Figure 3 of the drawing.

As heretofore set forth, the socket portion **34** is formed on one end of the unitary member **32**. This socket portion **34** is preferably formed to receive the male socket portion **48** of an incandescent lamp **50** and is formed with a longitudinally extending groove **52** which joins with a transverse groove **53** to pass one of the bayonet lugs **54** of the lamp **50** behind an abutting surface **56** which is formed on the root end of a longitudinally extending slot **60** extending in the socket portion **34** from the shoulder portion **38**. Diametrically opposed to the longitudinal groove **52** is a second longitudinally extending slot **62** which is adapted to pass the other bayonet lug **64** of the incandescent lamp **50** into a position where the lug **64** is seated behind the lug holding portion **65** of terminal member **66**. This terminal member **66** is secured in slots **68** of socket portion **34** when the extending tang **70**, formed on terminal member **66**, embeds itself in the material forming the socket adjacent the slot **68**. An extending hook portion **72**, also formed on member **66** passes over an inclined surface **74** and behind lug portion **76** of the member **32** so as to securely anchor the terminal member **66** in place. This terminal member **66** is also provided with a metallic portion which is suitably formed so as to embrace and be crimped around the

terminal end of a wire 78 to form a secure electrical connection therewith, as may be achieved by soldering. The wire 78 is connected through a battery 80 diagrammatically shown, with a ground.

The contact member 46 is formed to have a metallic strip portion 82 projecting at right angles to the annular portion 44. Portion 82 extends through a suitable opening in collar 42 and an opening 84 in member 32 so that the curved end 86 of strip portion 82 will engage the central terminal 88 of lamp 50 and thereby complete an electric circuit between the lamp 50 and the panel 24 when the parts of the switch are in the position shown in Figure 1. The curved end 86 also acts as an antirattle device and maintains the bayonet lugs 54 in locked position relative to socket portion 34.

When the parts of the device 20 are assembled, member 32 is normally urged to the position shown in Figure 1, by a spring 90 which is coaxially disposed between the shoulder portion 38 and the tubular support member 32. Spring 90 has one end resting on a plurality of circumferentially spaced tangs 92, formed in the walls of the tubular support member 22, and has the other end resting on the insulated collar 42 and constantly urges the annular portion 44 of contact member 46 into engagement with the portions of the walls of bezel 26 which surround aperture 28 and make electrical connection therewith.

As is clearly apparent in Figures 1 and 2, when a force is applied against the extending end portion 36, the unitary member 32 will be moved to the right as in Figure 2 to break contact between the contact member 46 and the bezel portion 26. This movement of member 32 may be occasioned when a door, not shown, of the compartment engages the end portion 36.

In Figure 6, a modification is shown wherein the contact 46 is secured to the unitary member 32 when a tang portion 94 adjacent the curved end 86 is bent to engage the material adjacent the shoulder portion 38 at opening 84 and a second extending tang 96, provided on contact member 46, passes through a suitable opening in collar 42 and is bent around a wall of an opening 98 in shoulder portion 38. These tangs 94 and 96 securely maintain the contact 46 in position on the shoulder 38.

From the above it is manifest that the switch and lamp holder 20 according to the present invention may be readily assembled as when the bezel 26 is secured to the tubular member 22 to complete a support member subassembly. A second sub-assembly which includes the unitary member 32, collar 42, contact member 46 and terminal member 66 may be assembled as heretofore noted. In this connection it is to be noted that the wire 78 may be assembled with the terminal member 66 before it is placed in position in the socket end 34 of the unitary member 32. When this subassembly is completed, spring 90 is arranged relative to unitary member 32 and the tubular member 22 so that the parts when included in a tubular support member will be held in position when tangs 92 are inwardly bent to maintain the spring 90 and the other parts of the switch 20 in proper assembled position for insertion in the opening in panel 24.

While the embodiment of the present invention as herein disclosed constitutes a preferred form it is to be understood that other forms might be adapted.

What is claimed is as follows:

1. In a device of the character described, the combination comprising: a support, a unitary member bodily movable relative to said support and having an integral incandescent lamp socket portion on one end and an integral contact actuating portion on the other end, means for normally yieldably urging said unitary member to a predetermined position relative to said support and contact means carried by said member on said other end for electrically connecting a lamp carried by said socket portion to said support only when said member is in said predetermined position.

2. In an electric switch and lamp socket, the combination comprising: a tubular support having a closed end with an aperture in said end, a unitary member having an integrally formed socket for holding an incandescent lamp in one end, an integral portion on the other end adapted to pass through said aperture and a shoulder intermediate said ends, a spring means carried by said support and positioned intermediate the socket and shoulder for urging said member to a normal position whereby said extending end projects through said aperture exterior of said support and the shoulder portion is juxtaposed to the closed end of said support, and means carried only by said member for electrically connecting said support and lamp when the actuator is in said normal position.

3. In an electric switch and lamp socket, the combination comprising: a tubular support member having an aperture in a closed end adapted to be positioned in an opening in a panel, a unitary member coaxially movable within the tubular support having an integral socket portion on one end for holding the bayonet lugs of an incandescent lamp, an extending portion on the other end adapted to extend through said aperture and a shoulder portion intermediate said ends adapted to be juxtaposed to said closed end when said extending end extends through said aperture, a spring adapted to urge said member to a position wherein the extending portion passes through said opening, and a means carried by said member and responsive to the axial position of said member relative to said support for completing a circuit between said lamp and a current source.

4. In a device of the character described, a tubular support, a unitary member axially movable in said tubular support having an integral socket adapted to hold the lugs of an incandescent lamp on one end and extending portion on the other end adapted to project exterior to said support, spring means associated with said support and member for constantly urging said second mentioned end to a normal position to extend exterior to said support, and means carried by said second end for electrically connecting a lamp in said socket with said support when said member is in said normal position relative to said support.

5. In a device of the character described, the combination comprising: a tubular support having a closed end with an aperture in said end, a unitary member of insulating material having an integral socket for receiving bayonet lugs of an incandescent lamp at one end, an integral portion on the other end adapted to pass through said aperture, and a shoulder intermediate said ends, a spring coaxially disposed between said member and said support and operatively associated therewith for urging said member to a normal position whereby said end portion projects through said aperture, and a conducting means having an annular portion surrounding said end portion and disposed adjacent said shoulder for contacting the closed end of said support when said member is in the normal position; said conducting means having a contacting portion extending from said annular portion to said socket portion of said member for contacting one of the terminals of a lamp when said lamp is in said socket whereby said lamp is electrically connected with said support where said member is in the normal position.

6. The combination as set forth in claim 5 wherein the conducting means has tang portions for embracing and maintaining said means in position relative to said member.

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