# United States Patent

**Barnard et al.**

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## [54] HOLDER FOR A CAPLESS LIGHT BULB


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[51] **Int. Cl.** ..... **B60q 3/04**

[58] **Field of Search** ..... 240/8.14, 8.16, 8.18, 2, 2.1, 240/22, 23, 46.59, 41.55; 40/130 R, 130 D, 130 K, 130 D, 130 X; 116/129, 129 T; 339/59 L, 92; 340/79, 80, 84, 85, 378, 381, 366



[56] **References Cited**

UNITED STATES PATENTS

| | | | |
|---|---|---|---|
| 2,703,398 | 3/1955 | Harrington et al. | 340/381 |
| 2,843,845 | 7/1958 | Vozza | 340/378 |
| 2,961,631 | 11/1960 | Smith | 340/381 X |
| 2,998,597 | 8/1961 | Edwards | 340/378 |
| 3,080,554 | 3/1963 | Jacobel, Jr. et al. | 340/378 |
| 3,210,876 | 10/1965 | Towne | 40/130 |
| 3,233,033 | 2/1966 | Mitchell | 339/59 L |
| 3,292,174 | 12/1966 | Toth et al. | 340/381 |
| 3,508,257 | 4/1970 | Grogan, Jr. | 340/381 |

FOREIGN PATENTS OR APPLICATIONS

| | | | |
|---|---|---|---|
| 1,480,168 | 4/1967 | France | 240/8.16 |



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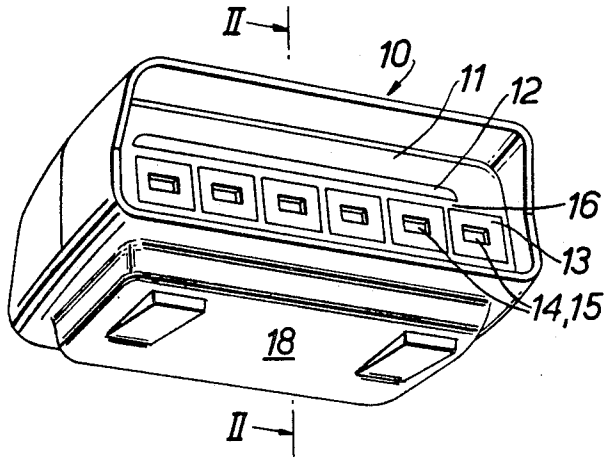
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[57] **ABSTRACT**

A holder for a capless light bulb constructed so as to permit light from a capless light bulb held by the holder to emanate from both the bulbous portion and the pinched portion of the capless light bulb. Indicator apparatus incorporating such a holder is also described.


**9 Claims, 6 Drawing Figures**



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2 Sheets-Sheet 1

FIG. 1.

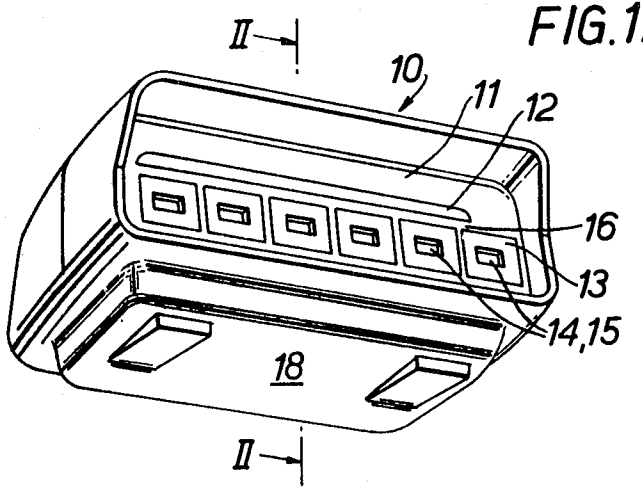



FIG. 2.

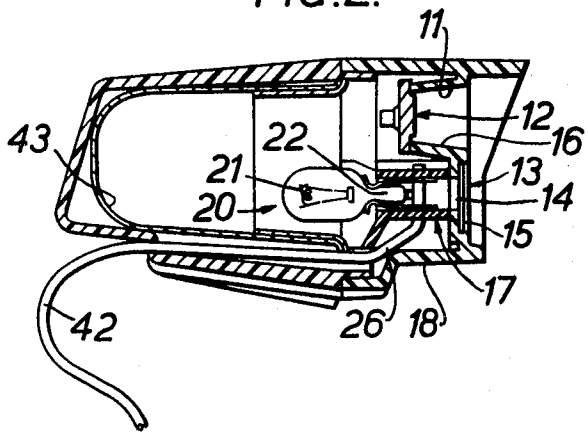
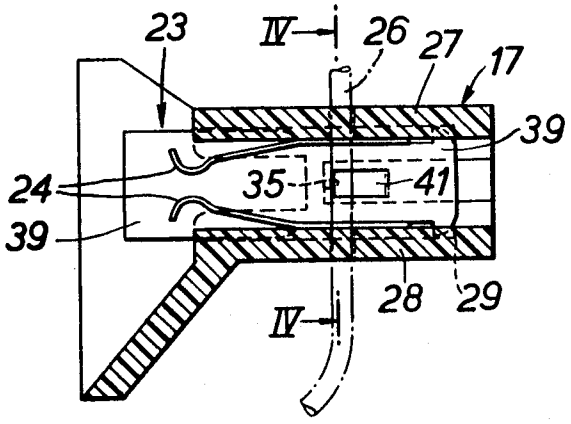



FIG. 3.




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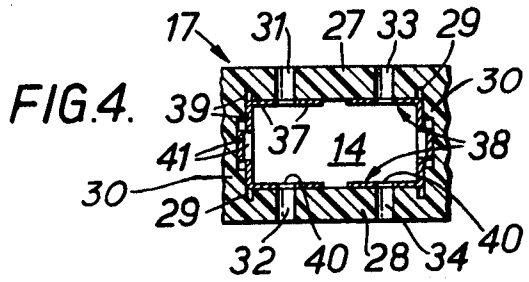



FIG.4.

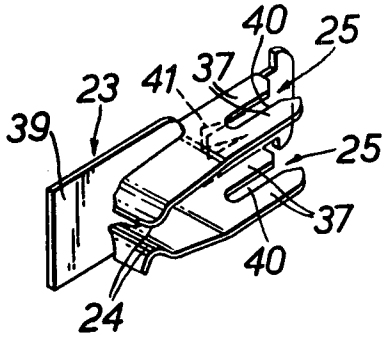



FIG.5.

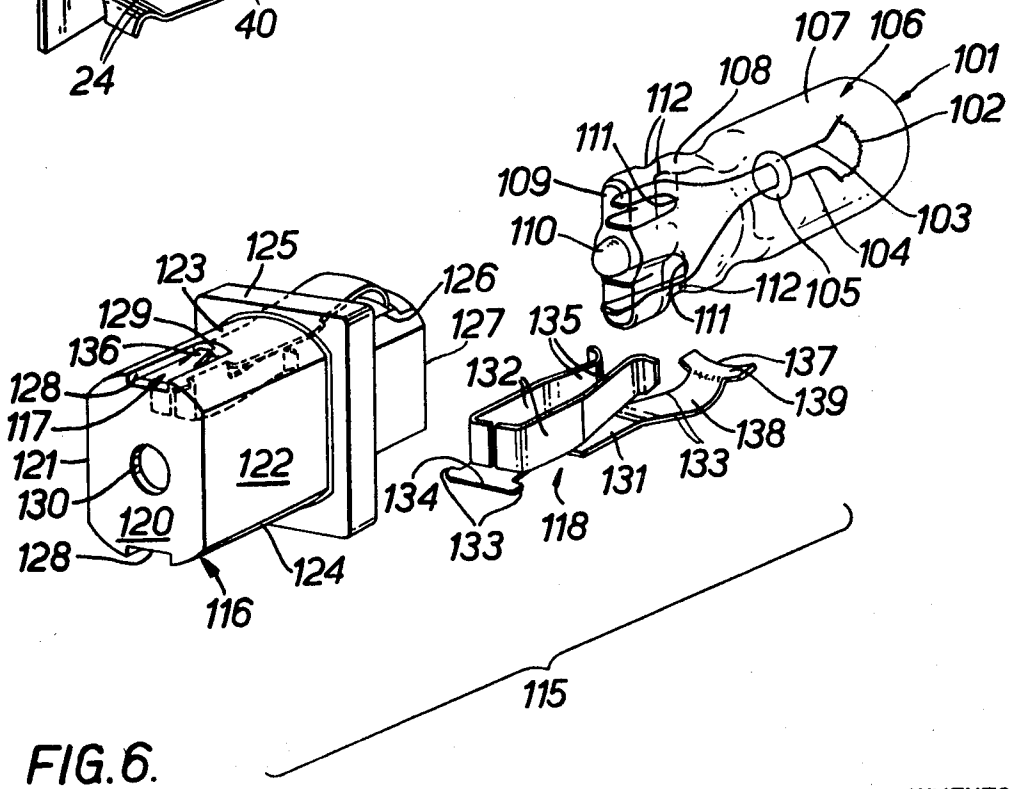



FIG.6.

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# HOLDER FOR A CAPLESS LIGHT BULB

This invention relates to holders for capless light bulbs and to apparatus incorporating at least one such holder.

A capless light bulb comprises an electric element and two supply leads or wires surrounded by a sealed glass envelope that is formed with a bulbous portion spaced about the element and a pinched portion sealed about the supply leads, the supply leads projecting from the pinched portion and being bent back upon themselves, preferably one each side, of the external surface of the pinched portion to constitute the terminals of the capless light bulb.

According to one aspect of the invention there is provided a holder for a capless light bulb, comprising a body of electrically insulating material having two contact strips mounted therein so as to retain a capless light bulb and make electrical contact with the terminals of the capless light bulb, characterized in that said body is constructed so as to permit light from a capless light bulb held by the holder to emanate from both the bulbous portion of the capless light bulb and the pinched portion of the capless light bulb.

In one form of holder according to this invention, the body is a moulding of opaque plastics material and is provided with an aperture at one end that is intended to be adjacent the pinched portion, whereby in use light emanates from the pinched portion through the aperture and also from the bulbous portion projecting from the opposite end of the body.

In an alternative form of holder according to this invention, the body is a moulding of translucent plastics material closed at one end by a translucent wall adjacent which the pinched portion of the capless light bulb is intended to lie, whereby in use light emanates from the pinched portion through the translucent wall and also from the bulbous portion projecting from the opposite end of the body.

As used herein the word "translucent" is intended to additionally convey the meaning of the word "transparent."

The said translucent wall may form part of a light transmission element adapted to guide or pipe the light emanating from the pinched portion to a desired region remote from the capless light bulb.

According to another aspect of this invention there is provided indicator apparatus incorporating at least one holder of said one form and for visually indicating to an observer a condition in equipment to which the indicator is connected.

By way of example, embodiments of this invention will now be described, reference being had to the accompanying drawings of which:

FIG. 1 is a perspective sketch of indicator apparatus according to this invention for visually indicating to an observer (by means of warning light bulbs) a condition in equipment to which the indicator apparatus may be connected;

FIG. 2 is a cross-sectional view taken along the line II—II of FIG. 1 and shows a holder according to this invention in cross section;

FIG. 3 is an enlarged view of the holder shown in FIG. 2;

FIG. 4 is a cross-sectional view taken along the line IV—IV of FIG. 3;

FIG. 5 is a perspective view of an electrical connector; and

FIG. 6 is an exploded perspective view of another holder according to this invention and a capless light bulb.

Referring first to FIGS. 1 and 2, the indicator is housed in a casing 10 formed of plastics material generally as a parallelepiped of rectangular cross section, the front wall 11 of the casing being separable from the remainder of the casing and comprising a window that is divided into upper and lower portions 12 and 13. The upper portion 12 is recessed so that part of the casing top wall extends forwardly thereof to constitute a shroud, is continuous, and extends almost the whole width of the front wall from casing side wall to casing side wall. The lower portion 13 is discontinuous, the discontinuations being provided by six apertures 14 each of which is covered externally by a strip 15 of blue or green colored translucent material. The upper and lower portions of the window are separated along their length by an intermediate wall 16 that projects inwardly of the casing towards the rear wall and that is generally parallel to the top and bottom walls of the casing.



A holder 17 for six capless light bulbs 20 is moulded of opaque plastics material for removable snap-fit attachment to the front wall 11 and is located internally of the casing between the intermediate and bottom walls 16 and 18 of the casing. Each capless light bulb 20 comprises an electric element and two supply wires surrounded by a sealed glass envelope that is formed with a bulbous portion 21 spaced about the element and a pinched portion 22 sealed about the supply wires, the supply wires projecting from the pinched portion and being bent back upon themselves, one each side, over the external surface of the pinched portion to constitute the terminals of that capless light bulb. The bulbous portions of some of the light bulbs are coated with a red colored translucent film and the bulbous portions of some others of the light bulbs are coated with yellow colored translucent film. Preferably the red and yellow colors are saturated red and saturated yellow (or at least as near as possible to saturated red and saturated yellow). Six similar chambers, one for each capless light bulb, are provided through the holder 17 in aligned communication with the apertures 14. Each chamber (see also FIG. 3) is internally fitted with two similar resilient metallic contact strips 23 the rear ends 24 of which directly engage the terminals of a capless light bulb in the region of its pinched portion 22 so that the bulbous portion 21 projects from the rear (i.e., inner) end of the holder 17. The aperture 14 through the opposite end of the holder (i.e., through the casing front wall 11) is such that in use illumination from the light bulb's electric element may travel rearwardly of the light bulb (i.e., forwardly of the casing) through the pinched portion 22 of the glass envelope and outwardly of the holder 17 through its associated aperture 14 in said opposite end. The front ends 25 of the contact strips 23 (see FIG. 5) each have at least one open-ended elongate slot 40 therein to accommodate the central conductor of an insulated supply lead 26 transversely of the strip. Each pair of contact strips 23 thereby serve as electrical connectors for interconnecting the two terminals of a capless light bulb and the two insulated electrical supply leads for those terminals.

As best shown in FIGS. 3 and 4, each of the six chambers of the holder 17 is of generally rectangular cross section with internal dimensions substantially equal to the dimensions of each aperture 14. The top wall 27 of each chamber has two holes 31, 33 therethrough in vertical alignment with two holes 32, 34 through the bottom wall 28 of that chamber. Channels 29 extending longitudinally of each chamber are provided in the chamber top and bottom walls at their intersection with the chamber sidewalls 30. Each sidewall is stepped intermediate its length to provide a shoulder 35 that faces the casing front wall 11. As best shown in FIG. 5, each contact strip 23 is shaped from a metal sheet stamping of generally E-shaped configuration, so that its two outer limbs 38 face one another. The limbs 38 adjacent their rear ends 24 are bowed inwardly towards one another and at their planar, platelike front ends 25 are each provided with an open-ended longitudinally directed elongate slot 40 defined by the parallel edges of jaws 37 (having suddenly diverging extremities) that form part of that limb's front end. The central limb 39 is provided intermediate its ends with a laterally bent-out tag 41.

During assembly, the holder 17 is placed on a jig such that six upstanding blocks of the jig enter into the front ends (i.e., those to be disposed nearest casing front wall 11) of the holder's six chambers, i.e., the two pairs of holes 31, 32 and 33, 34 are each in horizontal alignment. For each chamber the end portion of one insulated supply lead 26 is inserted horizontally first through hole 32 and then on through hole 31, and the end portion of another insulated supply lead 26 is inserted horizontally first through hole 34 and then on through hole 33. Thus each end portion is supported in a generally horizontal attitude by the holder's top and bottom walls 27, 28 and is temporarily supported by the uppermost faces of the jig blocks.

An electrical connector for each of the two supply leads 26 in each chamber (which connector is constituted by a contact strip 23) is inserted horizontally into the chamber from the

rear end thereof with the slotted front end portion **25** leading. The channels **29** receive the edges of central limb **39** and during insertion the chamber sidewall parallel to central limb **39** is deformed until the extremity of the resilient tag **41** passes the side wall shoulder **35** which thereafter inhibits removal of the connector. As the connector is inserted each pair of jaws **37** of its leading front end portion **25** engage the insulated supply lead **26** and cause the latter to enter into the elongate slot **40**, defined by that pair of jaws, the internal jaw edges simultaneously causing the insulation to be removed in the plane of the platelike front end part of each limb **38** so that the internal jaw edges resiliently engage the sides of the central conductor of the otherwise insulated supply lead **26** in the two planes. Thus each one of a pair of electrical connectors **23** is anchored in each chamber by the tag **41** and is connected to each one of a pair of supply leads **26**. The holder **17** is then removed from the jig (whence each insulated supply lead **26** is unsupported between the limbs **38**) and either before or after its attachment to the casing front wall **11**, a capless light bulb can be inserted into the rear of each chamber with its pinched portion **22** leading so that the connector rear ends **24** snap over the pinched portion **22** to thereby removably retain the capless light bulb in the chamber and simultaneously engage its terminals.

The twelve insulated supply leads **26** are gathered together within the casing and pass through an aperture in the casing bottom wall **18** as a planar loom **42** with the insulation of each central conductor moulded integrally to that of its neighboring central conductor.

A reflector **43**, preferably a curved white painted sheet, is located between the top and bottom walls of the casing **10** to reflect light outwardly of the casing through the upper window portion **12**.

In use, when one of the capless light bulbs is on, a beam of light is directed rearwardly of the light bulb through the pinched portion **22** (i.e., forwardly of the casing) and is visible in the lower portion **13** of the window through the associated aperture **14** as a narrow beam of blue or green light due to the color of the translucent strip **15** covering that aperture. Simultaneously a beam of light from the same light bulb is directed forwardly of the light bulb through the bulbous portion **21** (i.e., rearwardly of the casing) and has a red or yellow color depending on that bulbous portion's translucent coating. This red or yellow colored light beam is reflected by the reflector **43** so as to pass through the upper portion **12** of the window and be visible as a wide beam of red or yellow light extending substantially uniformly over the whole area of the upper portion of the window.

Since the reflector **43** will also reflect some red or yellow light through the remaining, unlit capless light bulbs, the blue or green strips **15** associated with those unlit light bulbs acting as a filter will stop this unwanted red or yellow light passing wholly through the window portion **13** and so prevent observer confusion as to which of the capless light bulbs is actually on. It will be appreciated that the red or yellow coatings on the bulbous portions of the unlit capless light bulbs will themselves act to some extent as filters to the unwanted reflected light from the light bulb that is actually on. For example, if a yellow-coated capless light bulb is on, most of the unwanted reflected yellow light can pass through the remaining unlit yellow-coated capless light bulbs and comparatively little can pass through the unlit red-coated capless light bulbs. Whether the light incident on the filter strips **15** is wanted "white" light emanating from the light bulb's glowing electric element or is unwanted reflected red or yellow light transmitted by or through the glass envelope of an unlit light bulb, only the wanted light is transmitted by the blue or green filter strip **15** associated with the light bulb that is actually on, the blue or green filter strips **15** associated with the remaining unlit light bulbs being substantially opaque to the unwanted red or yellow light incident thereon. It will be readily understood that the color of the strips **15** can in practice be chosen to be substantially opaque to both the light colors transmitted by or through the bulbous portions **21**; that is to say the range of light wavelengths that the filtering strips **15** will transmit can exclude the ranges of light wavelengths emanating from the coated bulbous portions. Conveniently the blue or green filter strips **15** may be those sold by British Celanese Limited as "CINEMOID 19" and "CELASTOID 20" respectively, although the latter is preferred since the "white" light produced by the electric elements of the preferred capless light bulbs is somewhat lacking in wavelengths associated with the color "blue" and the color "-green" occupies a substantial area (or volume) of the color "-triangle" (or space)—see "Physical Aspects of Colour" by Dr. P. J. Bouma (particularly FIG. 110 and the color plate photograph accompanying the book).

It will be apparent that the above-described indicator apparatus provides little or no masking of the capless light bulbs **20**, the distinction between light colors being provided by light-filtering means.

For example, if the indicator is connected in a motor vehicle, it may be considered imperative for the vehicle to be stopped immediately if any one of the following (category A) conditions are present:

Low Oil Pressure
High Coolant Temperature
Low Brake Fluid
Low Clutch Fluid
Low Power-Steering Fluid
Light Failure
Bonnet or Doors Open

and to be stopped as soon as conveniently possible if any one of the following (category B) conditions are present:

Generator Malfunction (e.g., broken fan belt)
Low Fuel Level
Low Coolant Level
Boot Open
Brake Linings Worn

Although the presence of a condition in categories A and B will be indicated to the observer by the smaller area of green or blue light visible over the aperture **14** in the lower portion **13** of the window, the degree of safety hazard may be conveniently differentiated between the two categories by coating the bulbous portions of the light bulbs corresponding to category A conditions with a red-colored translucent film, and by coating the bulbous portions of the light bulbs corresponding to category B conditions with a yellow-colored translucent film. Furthermore, if the indicator is to be additionally used for indicating generally nonhazardous (category C) conditions such as:

High Light Beam On
Trafficator On
Handbrake Operational
Spot or Fog or Reversing Light On

the bulbous portions **21** of the capless light bulbs corresponding to each of these category C conditions may be masked or shielded from the reflector **43** so that light from any one of these light bulbs is only visible as a small green or blue beam in the lower portion **13** of the window over the aperture **14** and is not visible over the substantially larger area of the upper portion **12** of the window.

It will be appreciated that legends corresponding to the conditions may be marked on the similarly colored translucent strips **15**, or may be marked on the forwardly directed edge of the intermediate wall **16**. As an alternative to adhesively securing the blue or green colored strips **15** in the apertures **14**, they may be trapped between the holder **17** and the internal surface of casing front wall **11**. In another alternative arrangement, the strips **15** are omitted and each of the apertures **14** is fitted with a removable button of blue or green colored translucent material to achieve the same result.

In an alternative construction the holder **17** for the capless light bulbs may be molded integrally with the front wall **11** and/or be formed of a clear transparent or a green or blue translucent plastics material, in which case the six chambers

need not be apertured as at **14** at their front ends remote from the bulbous portions of the light bulbs.

It will be apparent that the number of conditions to be indicated by the indicator and of which category may be readily chosen by selecting the desired number of light bulbs with the desired colored coating (for categories A and B) and inserting them into their chambers in the holder **17** from the front of the casing, the fact that the casing front wall **11** is removable facilitating this operation as well as the replacement of burnt-out light bulbs. To facilitate individual selection of the conditions desired to be indicated and in which hazard category (A or B), the legends may be provided on pressure-adhesive labels and the light bulbs may be chosen according to the color of the coating on their bulbous portions (for hazard category C the color may of course be black).

In the embodiment of FIG. **6**, the capless light bulb **101** comprises an electric element **102** and two supply leads or wires **103**, **104** connected to the electric element and supported in electrically insulating relationship to one another by a bead **105**. A sealed glass envelope **106** is formed with a bulbous portion **107** surrounding the element **102** and spaced therefrom, and with a pinched portion **108** surrounding leads **103** and **104** and sealed thereto. The supply leads **103**, **104** project through the base **109** of the pinched portion one each side of a glass nipple **110** projecting rearwardly of the base **109**, and each supply lead **103**, **104** is formed into a loop **111** bent back, one loop on each side of the pinched portion, to constitute a light bulb terminal and to overlie a recess **112** formed in the pinched portion **108**.

The holder **115** comprises an opaque body **116** moulded from a suitable plastics material such as a Type 6.6 Nylon (e.g., that sold in the United Kingdom under the Trademark "-MARANYL"), and two resilient, shaped, metal contact strips **117** and **118** one of which (**117**) being shown mounted in position in the body **116** and the other (**118**) being shown removed from the body **116**.

The body **116** is formed with two parallel walls **121**, **122** connected at one end edge by a transverse wall **120** and at their side edges by two outwardly bowed walls **123**, **124**. The internal surface of each wall **121**, **122** is indented in the region of its intersection with the walls **123**, **124** to form grooves extending longitudinally of the body that are to receive the side edges of the contact strips **117** and **118**. The body is formed intermediate its ends with an outwardly directed surrounding flange **125** of generally rectangular outline. Each of the outwardly bowed walls **123**, **124** is formed with a wide, parallel-sided slot **126** extending from the other end **127** of the body **116** up to the flange **125**, and with a narrow, parallel-sided slot **128** extending from the wall **120** approximately three-quarters of the distance to flange **125** up to an end surface **129**. The wall **120** is provided with a circular aperture **130** substantially centrally of the wall **120**.

The two resilient, shaped, metal contact strips **117**, **118** are identical and disposed to be each mirror images of the other and are retained in body **116** by the said grooves and by the slots **126** and **128**. The details of only one of the contact strips (**118**) will now be described. The contact strip comprises a main limb **131**, and two limbs **132** generally at right angles to limb **131** and facing one another joined to the edges **133** of limb **131** adjacent one end edge **134** thereof. Remote from the region where they are joined to limb **131**, the limbs **132** are bowed inwardly towards one another as at **135**. The limb **131** is pierced adjacent said region to form an outwardly projecting resilient tongue **136** (see contact strip **117**) inclined towards the opposite end edge **137** of the limb **131**. The limb **131** is bowed outwardly at **138** in the vicinity of end edge **137** which latter extends beyond the limb edges **133** to form a bowed transverse rib **139**.

To assemble the light bulb holder, each of the two contact strips **117**, **118** is inserted into the moulded body **116** from said other end **127** with the end edges **134** leading and the side edges **133** sliding in the longitudinally extending grooves in the body. During insertion the tongue **136** of each contact strip is deflected inwardly of the housing by the inner surface of that part of wall **123** or **124** intermediate the slots **127**, **128** and springs outwardly as soon as the extremity of the tongue passes the end surface **129** of slot **128**. Thus the contact strips are held located against substantial movement longitudinally of the housing by the engagement of the end edge **134** against the inner surface of wall **120** and the engagement of the extremity of inclined tongue **136** against the slot end surface **129**; and are held located against substantial movement laterally of the housing by the side edges **133** engaging the longitudinally extending grooves in the internal surfaces of the body side walls **121** and **122** and the side edges of each rib **139** engaging the external periphery of slot **127** at its open end.

As the capless light bulb **101** is inserted into the said other end **127** of the holder **115** with the pinched portion **108** leading, the bowed regions **135** of contact strip limbs **132** splay outwardly over the terminals **111** and the pinched portion **108**, and then snap into the recesses **112** so as to simultaneously hold the light bulb **101** in position in the holder **115** and make electrical contact with the light bulb terminals **111**.

When electrical current is supplied to the capless light bulb **101** (for example through a flexible printed circuit, bared portions of which contact the bowed portions **138**) the element **102** glows brightly and light from it passes through the bulbous portion **107** to be visible at said other end **127** of the holder **115** and also travels along the glass envelope **106** to emanate from the nipple **110** at the pinched portion **108** and be visible through the circular aperture **130** at said one end of the holder **115**.

A similar result may be achieved by alternatively moulding the body **116** of a suitable plastics material that is translucent. In this case the wall **120** may be absent (i.e., the aperture **130** greatly enlarged) and/or the holder may be moulded integrally with a light transmission component for guiding or piping the light emanating from the pinched portion **108** to a desired region removed from the capless light bulb.

It will be appreciated that the external shape of body **116** may be such as to form a body module that may be directly coupled to one or more further modules of similar external shape. Alternatively, a plurality of capless light bulbs may be inserted into apertures or chambers formed in a single large plastics material moulding such that their bulbous portions project from one face of the large moulding, the opposite face of the large moulding being provided with holes therethrough in alignment with the capless light bulbs so that light emanating from any one capless light bulb will be visible from the one face through the glass bulbous portion and will be visible from the opposite face through the glass pinched portion and its associated hole in the opposite side face.

We claim:

1. In combination, an electrically energizable capless light bulb comprising a translucent bulbous portion, a translucent pinched portion and supply leads projecting from the pinched portion and bent back upon themselves over the exterior of said pinched portion to constitute terminals of the capless light bulb; a holder for said bulb comprising a body of electrically insulating material having a first region adjacent the bulbous portion of said capless light bulb and having a second region adjacent the pinched portion of said capless light bulb, contact strips in said holder in electrical contact with the terminals of the capless light bulb and having means mounting them in said body to retain the capless light bulb in said body, first means defining a first window disposed in the vicinity of said first region to permit light from the bulbous portion of said capless light bulb, when said bulb is electrically energized, to emanate from said first region and be visible as a first beam, and second means defining a second window disposed in the vicinity of said second region to permit light from the pinched portion of said capless light bulb, when said bulb is electrically energized, to emanate from said second region and be visible as a second beam distinct from said first beam.

2. A holder as claimed in claim **1**, wherein said body is a moulding of opaque plastics material and said second means defining said second window comprises an aperture.

3. A holder as claimed in claim 1, wherein said second means defining said second window is a wall moulded of translucent plastics material.

4. A holder as claimed in claim 3, wherein said wall is moulded integrally with said body.

5. A holder as claimed in claim 3, wherein said wall forms part of a light transmission element.

6. Indicator apparatus for visually indicating to an observer a condition in equipment to which the indicator apparatus is connected, comprising a casing having a front wall; a window in said front wall having small area portions; holder means retaining therein a plurality of electrically energizable capless light bulbs each of which comprises a bulbous portion, a pinched portion and supply leads projecting from the pinched portion and bent back upon themselves over the exterior of the pinched portion to constitute terminals of that capless light bulb; and means mounting said holder means within said casing to position each of said capless light bulbs rearwardly of an associated one of said small area portions, said holder means comprising for each said capless light bulb a body that is a moulding of opaque plastics material having a first region disposed remotely from said front wall adjacent the bulbous portion of that capless light bulb and having a second region disposed adjacent said front wall and adjacent the pinched portion of that capless light bulb, said body being apertured in the vicinity of both said first and second regions and in substantial alignment with one of said small area portions to permit light from any one of said capless light bulbs when electrically energized to emanate in one direction from said first region as a first beam, and to emanate in an opposite direction from said second region as a second distinct beam that is visible to an observer through said one of the small area portions.

7. Indicator apparatus according to claim 6, wherein said casing contains reflecting means generally facing said front wall and said window has a relatively larger area portion to permit light from said one electrically energized capless light bulb to emanate from said first region inwardly of said casing and be reflected by said reflecting means outwardly of said casing to be visible through said relatively larger area portion.

8. The structure of claim 1, wherein said body is a moulding of opaque plastics material and said first means defining a first window comprises an aperture.

9. An indicator apparatus for visually indicating to an observer a condition in equipment to which the indicator apparatus is connected, comprising: a casing having a front wall; a window in said front wall having a first portion and a plurality of distinct second portions which are each of smaller area than the area of said first portion; a plurality of electrically energizable light sources mounted within said casing adjacent said plurality of second window portions respectively, each of said light sources comprising a capless light bulb having a translucent bulbous portion and a translucent pinched portion from which supply leads extend outwardly and overlie the pinched portion to constitute terminals of the capless light bulb; and means for electrically connecting said terminals to the equipment for energization of a selected one of said light sources when a predetermined condition is present in the equipment whereby, upon energization, a part of the light emitted by any one light source will emanate from its bulbous portion and be visible as a first beam of light through said first window portion and a remaining part of the light emitted by said light source will emanate from its pinched portion and be visible as a second beam of light specific to the condition through the second window portion associated with that light source.

* * * * *