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LIGHT ASSEMBLY FOR ATTACHMENT TO A GUTTER

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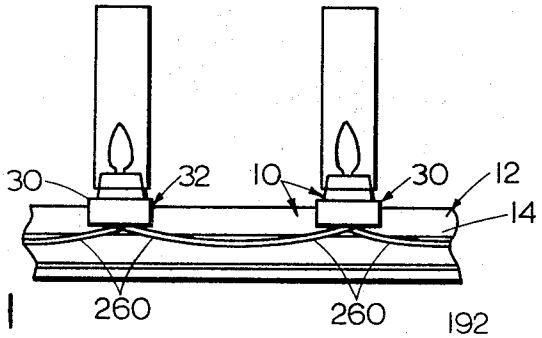



FIG. 1

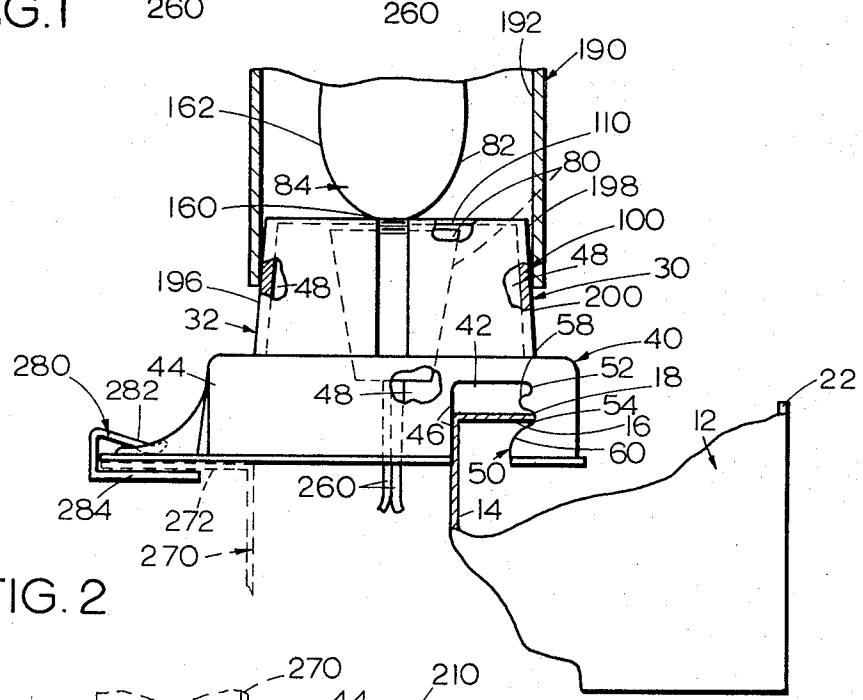



FIG. 2

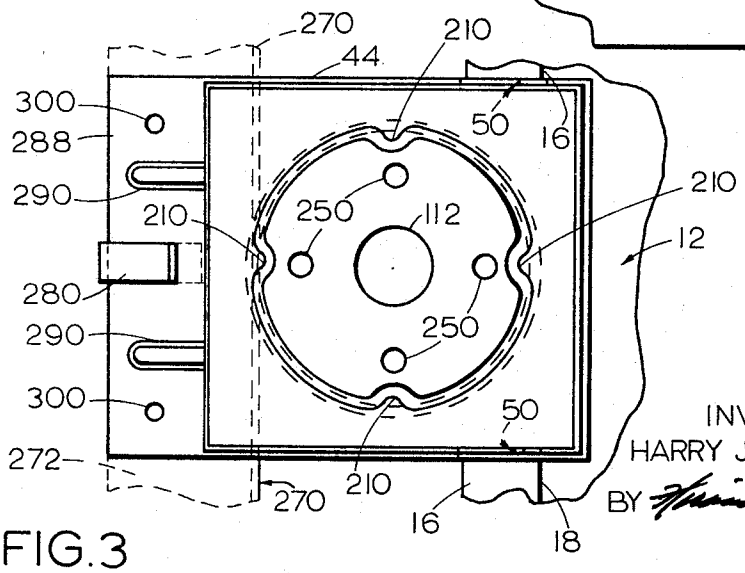



FIG. 3

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# LIGHT ASSEMBLY FOR ATTACHMENT TO A GUTTER

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This invention relates to decorative light fixtures and more particularly it is an object to provide a lighting assembly comprising a plurality of simulated candles each having a base portion, having a slot with a hook-like wall means for hooking about an upward forward flange of a rain gutter.

Heretofore lighting fixtures have been proposed for attachment to rain gutters. However, the center of gravity of each lighting fixture of my invention is disposed above the horizontal flange at the edge of a gutter whereby the fixture would have a tendency to fall off if their attachment to the gutter was the same as has been proposed in the prior art. In my opinion, fixtures extending upwardly from the gutter would have been marketed in quantity long ago if there had been known an effective way for their quick attachment to a gutter.

It is a particular object of this invention, therefore, to provide the base of lighting fixtures as described with portions that hook around and also under the terminal edge of the horizontal forward flange of a standard rain gutter.

A still further object is to provide a fixture having a base with a flange receiving slot having multiple notches for holding a candle-like section of the fixture more upright when mounted on gutters having edge flanges of varying depth.

A further object is to provide a lighting fixture as described which is provided with hook means for attaching it to a gutter having an unusually wide forward horizontal flange.

Still another object is to provide a lighting fixture, a candle-like portion of which is inexpensively made of cylindrical tubing, readily removable from the base portion for access to a lamp which would otherwise be inaccessible inside the tubing.

Another object is to provide a fixture as described having a substantially planar under surface adapted to rest on various horizontal supporting surfaces.

Other and further objects and advantages of the present invention will be apparent from the following detailed description, drawings and claims, the scope of the invention not being limited to the drawings themselves as the drawings are only for the purpose of illustrating a way in which the principles of this invention can be applied.

Other embodiments of the invention utilizing the same or equivalent principles may be used and structural changes may be made as desired by those skilled in the art without departing from the present invention and the purview of the appended claims.

In the drawings:

FIGURE 1 is a frontal elevation of the lighting assembly of this invention, in which two lights are shown as an example attached to a section of the rain guttering of a building.

FIGURE 2 is a side elevation of one of the light fixtures of FIGURE 1 shown with various portions broken away, and with other portions illustrated in section for purposes of illustration, the fixture being shown on guttering, a dotted line illustrating an optional position of the light fixture for attachment to guttering having an unusually wide upper flange.

FIGURE 3 is a top plan view of the light fixture of FIGURES 1 and 2, with the optional position of guttering showing in dotted lines, and with the upper tubing



removed and its position being shown in dotted lines, for purposes of illustration.

The light assembly of this invention is generally indicated at **10** in FIGURE 1, and has as one of its parts a conventional horizontally elongated rain gutter, generally indicated at **12**, having a forward wall **14**.

The forward wall **14** has a rearwardly extending flange **16**, best seen in FIGURE 2, which extends approximately horizontally rearwardly from the upper end of the forward wall **14**, as is conventional, the flange **16** being elongated in the direction of the elongation of the gutter, and the rearmost edge **18** of the flange **16** being spaced from the rearward wall **22** of the gutter.

A light fixture **30** forms part of a light fixture assembly **32** formed of a plurality of light fixtures, all of which are mounted on the gutter in a manner as best seen in FIGURE 2.

Each light fixture **30** has a base, generally indicated at **40**, the base **40** having an elongated slot **42** therethrough, extending from one side **44** to the other side **44** thereof, as is a way of expressing the construction, although the interior of the base **40** is hollow, having a central opening entering upwardly from the bottom thereof, such opening being best seen at **48** in FIGURE 2, portions of the side of the base **40** being broken away.

The slot **42** has a forward wall or forward side **46** disposed in engagement with the forward side of the forward wall **14** of the gutter **12**.

The slot **42** further has a rearward wall **50** provided with notch means **52** and **54** therein, one of which receives the rearward edge **18** of the flange **16**. Each notch means **52** or **54** has a lower wall surface means **58** or **60** respectively, each of which are adapted to extend under the rearward edge of the flange **16**, depending upon the horizontal width of the flange **16**, as also determines which of the notches **52** or **54** the flange will be received in.

As shown in FIGURE 2, for the flange width shown, the lower notch is best adapted to hold the elongated light fixture **30** upright, and as it is the lower wall surface means **60** of the lower notch **54** which extends under the rearward edge of the flange **16** in the illustration in FIGURE 2, extending thereunder a sufficient distance as to provide a hooking effect for gripping the rearward edge of the flange **16** at a time when a forward wall **46** of the notch **42** is engaging the forward wall **14** of the gutter.

The center of gravity of the light fixture **32** is disposed above the horizontal flange **16**, or in other words, above either one of the notches **52** and **54**, by a substantial distance, whereby the hooking effect of the notch is very important for preventing the fixture from falling forwardly off of the gutter, as could much more easily happen if the rearward wall **50** of the notch were vertical and straight, especially assuming that there is a slightly loose fit.

The light fixture assembly **32** has a plurality of electrical sockets **80**, one of which is seen in FIGURE 2. Each socket has an electrical lamp **82** received in it for providing a lamp and socket assembly, generally indicated at **84**.

The base **40** has an upper section **100**, having an approximately horizontal top wall **110** provided with a hole **112** therethrough, through which the threaded bottom **160** of the lamp **82** extends, with the lower end of the threaded bottom **160** received in the socket **80**, and the hole **112** being of lesser size than the upper part **162** of the lamp **82** above its base **160** and also of lesser size than the socket **80**, whereby the socket assembly **84** is thereby secured to the base **40** at its top wall **110**.

The upper base portion **100** can also be called an upwardly extending protrusion **100** and the protrusion or

upper base portion **100** receives thereon a cylindrical vertically elongated translucent tube **190** which thereby surrounds the lamp **82**, the inner surface **192** of the tube **190** being cylindrical and the outer surface **196** of the upper base portion **100** being approximately cylindrical, but having an upper end **198** of lesser size than its lower end **200**, whereby the side walls of the upper base portion **100** can also be called the outer surface **196**, defining approximately a frustro-conical configuration, on to which the lower end of the translucent **190** is wedged for providing a snug fit, so as to define means for maintaining the tube **190** on the protrusion or upper base section **100** in a strong wind.

Such a snug fit could cause the tube **190** to be very difficult to move from the base, and such removal is necessary in order to replace the lamp **82** when it is burned out. For this reason the protrusion or upper base section **100** has in its outer surface **196** at least one vertically extending indentation in its outer surface, such indentations being seen at **210** and the wall thickness of the upper base section **100** at the indentations **210** is not substantially thicker than wall surfaces of the upper base section **100** disposed between the indentations **210**, whereby the indentations **210** facilitate a compressing of the protrusion whereby its outer periphery becomes lesser when the tube **190** is squeezed thereon in assembly. This causes the tube **190** to be readily attached and removed from the protrusion or upper base section **100**.

It is important that the tube **190** and the upper base section **100** have the same coefficient of expansion, whereby once the tube is emplaced firmly on the upper base section **100** it will not tend to become loosened as a result of temperature changes, nor will it jam so tightly as to split light plastic of which it is made.

It is important that air circulation means be available in the light fixture assembly and air circulation from the outside of the tube **190** can enter through the indentations **210**, which are one form of air circulation means, another form being the provision of perforations **250** in the top wall **110**, to allow air circulation up through the open bottom of the base **40** and into the tube **190**. The perforations **250** and the indentations **210** further serve an important purpose for allowing rain drainage downwardly out of the tube **190**.

Referring now to FIGURE 1 it will be seen that the plurality of light fixtures **30** which form the light fixture assembly **32** can be of any number, two being shown for purposes of illustration, with electrical cord means **260** interconnecting the sockets **80** of the various light fixtures **30**.

It will be seen that the sections of the cord means **260** which extend between various fixtures **30** hang downwardly from the underside thereof for lowering the center of gravity of the assembly as a whole, for further increasing the stability of the fixtures on a gutter in a high wind.

Referring now to FIGURES 2 and 3, an alternate way of attaching the base **40** to a gutter is there illustrated on the left hand side of these views in which a gutter portion is shown in dotted lines at **270**, having an upper horizontal flange **272** which is of such width that it could not be received in the slot **42**. A way of attaching the base to such a flange **272** is shown, the way consisting of an approximately U-shaped clamp **280** formed of resilient material and having upper and lower sides **282** and **284** which press toward each other, the upper side **282** engaging the upper side of the base **40** in a vertically thin side projection **288** thereof, which latter extends approximately horizontally and is firmly attached to the remainder of the lower part of the base **40** by means of integral webs **290**.

As thus described it will be seen that this invention has provided a new and beautiful form of decoration with soft diffused light emanating from translucent tubing which is preferably white in appearance to resemble the most common candle color. The light fixtures being mountable on conventional guttering with sufficient stability for withstanding strong winds even though the base portions and the tubings are entirely formed of light and thin thermo-plastic material, whereby the objectives above set forth are believed fulfilled.

From the foregoing description, it is thought to be obvious that a light assembly constructed in accordance with my invention is particularly well adapted for use, by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention can be changed and modified without departing from the principles and spirit thereof, and for this reason, I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice, except as claimed.

I claim:

**1.** In combination, a horizontally elongated rain gutter having a forward wall, a rearwardly extending flange on said gutter attached to and extending approximately horizontally rearwardly from the upper end of said forward wall, said flange being elongated in the direction of the elongation of the said gutter and the rearmost edge of said flange being spaced from the rearward wall of said gutter, the forward wall of said gutter extending downwardly from said flange, and a light fixture, said light fixture having a base, having a horizontally extending slot therethrough, said slot having a forward wall disposed in engagement with the forward side of the forward wall of said gutter, said slot having a rearward wall provided with notch means therein receiving the rearward edge of said flange, said notch means having wall surface means extending under the rearward edge of said flange a sufficient distance as to provide a hooking effect for gripping the rearward edge of said flange, the center of gravity of said light fixture being disposed above said flange and also a substantial distance above said flange whereby said hooking effect causes said fixture to be arrested from falling forwardly off of said gutter, a socket, an electrical lamp received in said socket providing a lamp and socket assembly, means on said base in cooperative engagement with said lamp and socket assembly for securing said assembly to said base.

**2.** The combination of claim **1** in which said base has an upwardly extending protrusion, an elongated translucent tube having a lower end received on the exterior of said protrusion, means for maintaining said tube on said protrusion in a wind.

**3.** The combination of claim **2** in which said means for securing said tube on said protrusion comprises a snug fit therebetween.

**4.** The combination of claim **2** in which said protrusion is tapered from a lower portion of larger size to an upper portion of lesser size, and in which said tube means for securing said tube to said protrusion comprises a snug fit therebetween.

**5.** The combination of claim **4** in which said protrusion has an upwardly extending vertical side wall surface which has approximately vertically extending indentations therein for facilitating a compressing of said protrusion whereby its outer periphery becomes lesser when said tube is squeezed thereon in assembly for causing said tube to be readily attached and removed from said protrusion.

**6.** The combination of claim **1** in which said base has passages extending vertically therethrough through which nails can be disposed to attach the base to an object.

**7.** The combination of claim **1** in which said base has ventilation opening therethrough disposed inwardly of said tube.

**8.** The combination of claim **1** in further combination with a clip having two opposite spaced sides disposed one above and one below an edge of said base, said clip

having means interconnecting said space sides and urging said space sides towards each other.

9. The combination of claim 1 in which said notch means comprise a plurality of notches disposed one above another so as to adapt the base for receiving said gutter flanges of different widths.

10. The combination of claim 1 in further combination with at least one other similar light fixture similarly connected to said gutter and disposed along side said first light fixture, and flexible electrical wiring means interconnecting the sockets of said light fixtures, the electrical wiring means disposed between two of said light fixtures hanging downwardly below said gutter flange so as to lower the center of gravity of those parts described herein with the exception of the gutter for greater stability in maintaining said light fixture upright in a strong wind.



11. The combination of claim 1 in which said light assembly has its center of gravity disposed forwardly of the forward side of said gutter so that its weight exerts a force tending to lock the base in said described position engaging the rearward edge of said flange and the forward side of said forward gutter wall.

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