July 6, 1965 M. G. STOCK 3,193,229

HANGER FOR STRING OF LIGHTS

Filed April 11, 1963

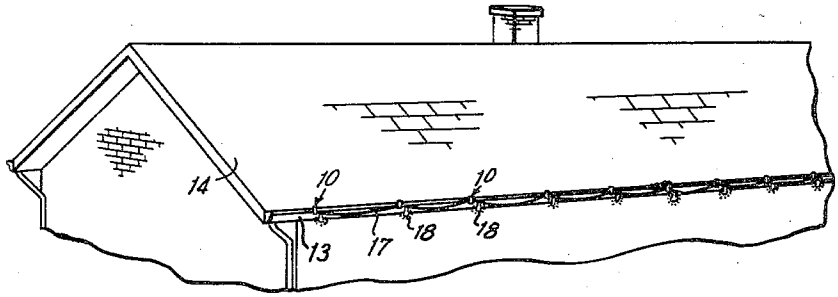


Fig. 1

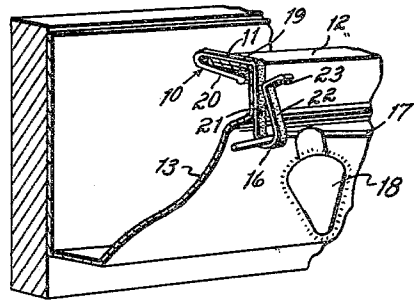


Fig. 2

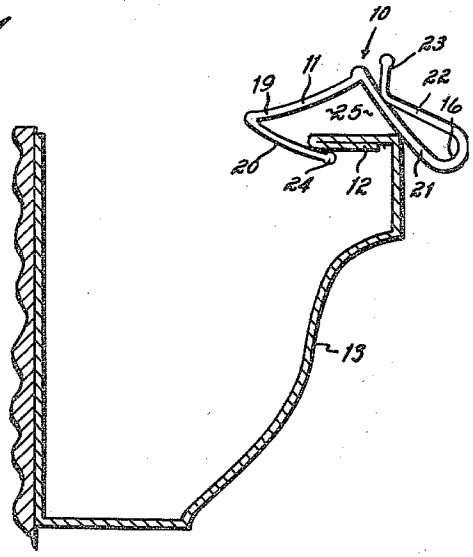


Fig. 3

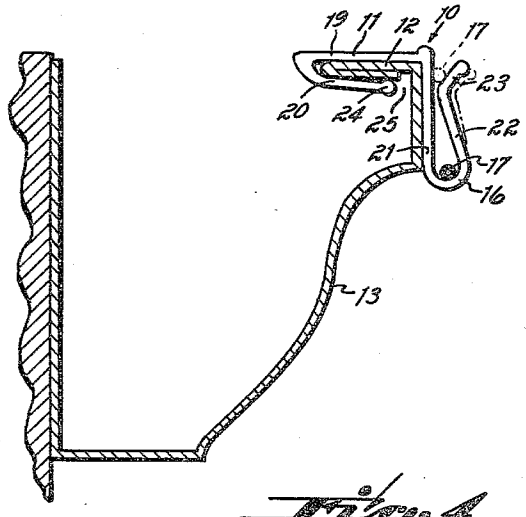


Fig. 4

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HANGER FOR STRING OF LIGHTS

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This invention relates to a device for hanging strings of lights and other like ornaments and more particularly the invention is directed to a hanger for use in securing a string of lights to a box-type rain gutter.

The manner of hanging a string of lights and other similar ornaments around the outside of a residence is a vexing problem which must be solved anew by each home owner because of the fact that there is not presently available any satisfactory device for attaching a string of lights to a house.

Left to his own devices, the home owner may adopt one of perhaps two principal approaches to the problem of hanging the lights, neither being particularly satisfactory. The first involves the home owner's driving a series of nails into the wood normally found just below the roof overhang and supporting the string of lights from such nails. If single pointed nails are used, they must be bent after being driven in, in order to keep the string of lights from sliding or being blown off. If double pointed nails are used, care must be exercised to avoid driving the nails so tightly against the wood as to damage the insulation on the string of lights. In either case, the constant rubbing of the string against the nails tends to fray the insulation and shorten the life of the string. Further, in the case of double pointed nails, the nails must be withdrawn to take down the lights, and this, too, could result in damage to the conductor insulation.

An alternative approach involves the bending of wires to form fasteners for securing the string of lights either to the rain gutter or to nails driven into the wood adjacent the rain gutter as described above. This process of hanging strings of lights is laborious, the problem of shorting the conductors or at least fraying the insulation is present and unless the hanging is done quite carefully, there is no insurance that the string of lights will stay on in the wind.

The objective of the present invention has been to provide the clip through which strings of lights may be rapidly installed on the rain gutter of a home. The invention contemplates the provision of two interconnected hooks formed as an integral plastic member. The first hook is resilient and is adapted to be sprung or slipped into position over an inwardly projecting lip on a box-type rain gutter. The second hook is also resilient and normally is in the form of a closed loop but is adapted to be sprung open to receive the conductor of the string of lights and to close over the conductor to prevent its inadvertent escape from the hook. The portion of the hanger interconnecting the two hooks is oriented with respect to the two hooks so as to bear against the outside surface of the rain gutter and thereby to provide support for the string of lights, the added support tending to reduce or eliminate any bending stress which might weaken the hanger.

A number of advantages are derived from the construction described above. The configuration and resilience of the first mentioned hook combine to require a resilient distortion or flexing of the hook to slip it over the lip of rain gutter. The application of the hook to the rain gutter is easily performed but nevertheless provides a secure lock of hanger to the rain gutter which prevents the inadvertent removal of the hangers from the action of wind pulling on the hangers. When applied, however, the hangers may be slid along the rain gutters rather easily. Thus the hangers do not require proper positioning when applied to the rain gutter but rather can be applied and thereafter slid to that position designed to give the proper support to the string of lights. Further, when the string of lights is to be taken down, the operation is performed easily merely by pulling the one end of the string and sliding the string and hangers toward the person taking them down.

The desired structural organization and physical characteristics may be obtained for molding the hanger from nylon which has a number of characteristics ideally suited for this application. One of these is that it is receptive to vegetable coloring dyes so that the clips themselves can be given a decorative color when used for example in the hanging of Christmas tree lights.

Several features of the invention will become more readily apparent from the following detailed description taken in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of the roof of a house showing a plurality of the hangers employed in fixing a string of lights to a rain gutter,

FIG. 2 is a perspective view of a single hanger fixing a light string to a rain gutter,

FIG. 3 is a side elevational view of a hanger being applied to a rain gutter, and

FIG. 4 is a side elevational view of a hanger in place on a rain gutter.

Referring to the drawings, the hanger is indicated at **10** and has a first hook **11** adapted to be applied to a lip **12** of a rain gutter **13** attached to a roof **14** of a residence. A second hook **16** is integral with the first hook **11** and extends generally at right angles to the first hook. The second hook receives a conductor **17** which interconnects lights **18** to form the string of lights.

The rain gutter hook **11** is V-shaped and is formed of two legs **19** and **20** which provide an opening facing the second or conductor hook **16**. The conductor hook is U-shaped and is formed of two legs **21** and **22**. The leg **22** bears against the leg **21** to form a resiliently closed loop in which the conductor **17** is received. The leg **22** has an outwardly flaring guide **23** which facilitates the insertion of conductor **17** into the loop. The leg **21** is formed as a right angle extension of the leg **19** and is spaced from the end **24** of the leg **20** to provide an opening **25** to receive the lip of rain gutter.

The hanger **10** is preferably molded of nylon in order to provide the required resilience at extremes of temperatures. The nylon is a very strong plastic which withstands cold and hot temperatures; it is an insulator; it will not support its own combustion and it has a superficial softness which obviates any tendency of the hanger to fray the insulation on the conductor **17**.

In the use of the invention, the hanger is applied to a rain gutter in the manner illustrated in FIG. 3. It can be seen from that figure that to apply the hanger over the lip of a rain gutter the leg **20** must be resiliently sprung away from the leg **19** and the leg **21** of the conductor hook must be resiliently swung away from the leg **19** of the rain gutter hook. When the hanger is slipped into position, the respective legs are resiliently returned to their normal positions and securely hold the hanger from inadvertent removal. If a lateral force is applied to the hanger, it can easily be slid along the length of the rain gutter.

The string of lights is applied merely by introducing a conductor into the conductor hook **16** by first pressing the conductor against the flaring guide **23** and, with a little pressure, forcing the conductor into the loop, thereby spreading the legs **21** and **22** apart. Once the conductor is introduced, the legs resiliently return to their normal position forming a closed loop which securely retains the conductor.

In taking down the string of lights, as indicated above, an operator standing at one end of the string merely pulls the string toward him and the hooks become engaged by the light 18 and are slid along the rain gutter. Thus, it is not necessary to place a ladder up against the roof at every hanger position in order to remove the light string.

I claim:

1. The combination with a rain gutter having a generally vertical wall terminated by a horizontal inwardly projecting lip, of a hanger or resilient plastic material for hanging a light string, said hanger comprising:

first and second legs at right angles to each other,

a third leg forming a V-shaped hook with the first leg, the opening of the V facing the second leg, the end of said third leg being spaced from said second leg to provide an opening for the insertion of said rain gutter lip,

a fourth leg forming a U-shaped hook with the end of the second leg and extending along the side of said second leg remote from said first leg,

the free end portion of said fourth leg bearing against said second leg to form a closed loop for receiving said light string,

a guide in the free end of the fourth leg flaring away from the surface of the second leg,

said V-shaped hook receiving said rain gutter lip and said second leg bearing against the vertical wall of said rain gutter.

2. A hanger of resilient plastic material for hanging a light string on a rain gutter having a generally vertical wall terminated by a horizontally inwardly projecting lip, said hanger comprising:

a first leg,

a second leg connected at one of its ends to one end of the first leg and at right angles to said first leg,

a third leg connected at one end to the other end of said first leg and forming a first hook with the first leg, the free end of said third leg being spaced from said first leg and the opening of said hook facing one side of said second leg,

a fourth leg connected to the other end of said second leg and extending along the opposite side of said second leg and forming a second hook with the second leg,

said first hook adapted to receive said rain gutter lip and said second leg adapted to bear against the vertical wall of said rain gutter.

3. A hanger of resilient plastic material for hanging a light string on a rain gutter having a generally vertical wall terminated by a horizontally inwardly projecting lip, said hanger comprising:

a first leg,

a second leg connected at one of its ends to one end of the first leg and at right angles to said first leg,

a third leg connected at one end to the other end of said first leg and forming a V-shaped hook with the first leg, the free end of said third leg being spaced from said first leg and the opening of said hook facing one side of said second leg,

a fourth leg connected to the other end of said second leg and extending along the opposite side of said second leg and forming a U-shaped hook with the second leg,

the free end of the fourth leg flaring away from the surface of the second leg to form a guide for the introduction of a conductor into said U-shaped hook,

said V-shaped hook adapted to receive said rain gutter lip and said second leg adapted to bear against the vertical wall of said rain gutter.

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