Sept. 16, 1952 R. W. ADAMS ET AL 2,611,065

SWITCH DEVICE FOR CHRISTMAS TREE LIGHTS

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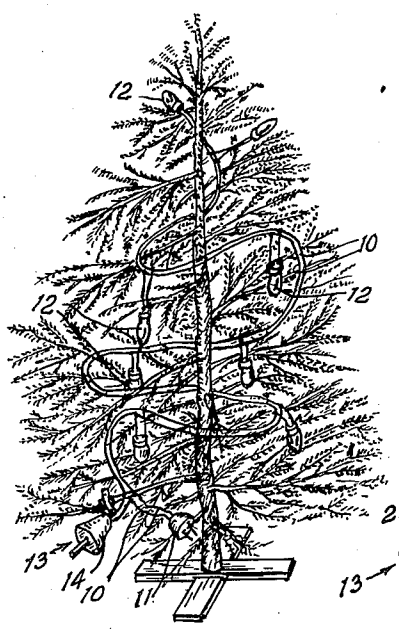

Fig. 1

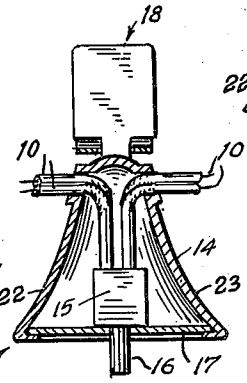

Fig. 3

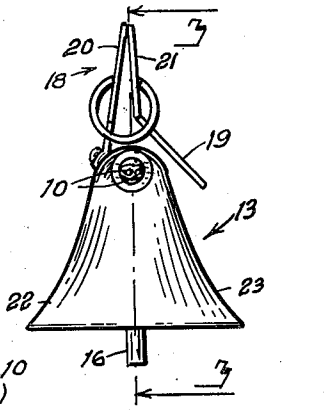

Fig. 2

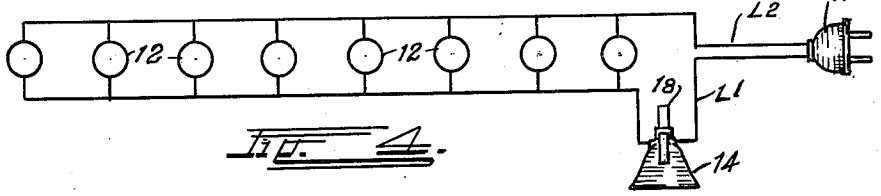

Fig. 4

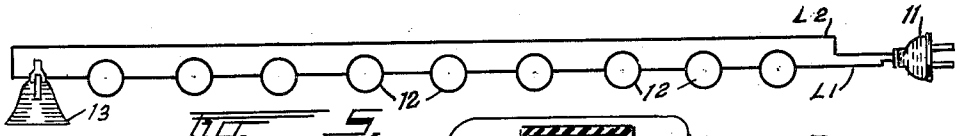

Fig. 5

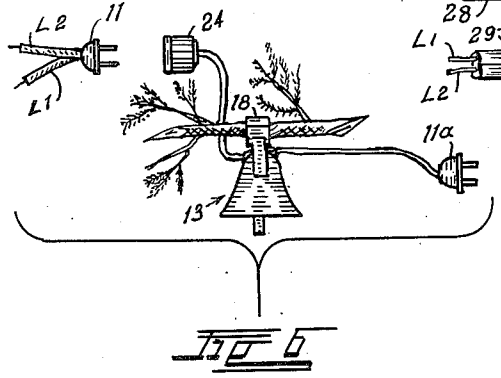

Fig. 6

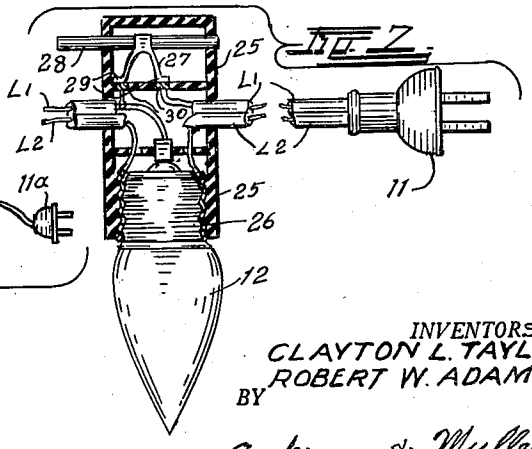

Fig. 7

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SWITCH DEVICE FOR CHRISTMAS TREE LIGHTS

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Application February 14, 1950, Serial No. 144,108

1 Claim. (Cl. 200—168)

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This invention relates to ornamental Christmas tree lights and more particularly to novel switch means for controlling electric current thereto.

Ornamental Christmas tree lights, prior to this invention, have been formed in strings, the light sockets being spaced along an electrical conducting wire or wires and the ends of the conductors connected to a conventional plug which is received by an electrical outlet box or its equivalent. It has been the practice to control the electric current to the lights by inserting or removing the plug from the outlet box or by connecting the string to a drop cord having a switch therein. This is inconvenient and cumbersome, in many cases, and the present invention obviates this procedure by novel switch construction.

One of the objects of the invention is to provide an ornamental switch which may be incorporated in a string of Christmas tree lights which switch may be secured to the Christmas tree at a convenient and readily accessible point thereon.

Another object is to provide an attachment device which may be employed with present strings of lights which will serve the foregoing purpose.

Further objects, advantages, and salient features, will become more apparent from a consideration of the description to follow, the appended claim, and the accompanying drawing, in which:

Figure 1 is a perspective of a Christmas tree decorated with lights and the subject of the invention;

Figure 2 is a side elevation of one form of ornamental switch employed with the string of lights;

Figure 3 is a section taken on line 3—3, Figure 2;

Figure 4 is a diagrammatic view of one type of circuit in which the invention may be practiced.

Figure 5 is a diagrammatic view of another type of circuit in which the invention may be practiced;

Figure 6 is a side elevation of an alternative form of the invention; and

Figure 7 is a vertical section through another alternative form of the invention.

Referring in detail to the drawing, and particularly Figure 1, the invention comprises, in general, a duplex electric conducting cord 10 having a jack or plug 11 at one end thereof adapted to be connected to an outlet box or electric socket, a plurality of lights 12, and an ornamental switch device 13 interposed in the light circuit.

Ornamental switch device 13, as best shown in Figures 2 and 3, comprises a tree ornament 14 to which is secured a switch 15. The switch illustrated is of the rotary tumbler type having an actuating member 16 which may be reciprocated axially, successive reciprocations moving the contacts therein to circuit making and circuit breaking relationship. A spring within the switch urges 16 outwardly to the position shown. Switches of this type are well-known in the art and hence the details thereof are omitted in the interests of clarity. The switch is secured in any suitable manner to a switch support 17, the latter being secured to the ornament. A spring clip 18, having an actuator 19 for spreading jaws 20, 21 is secured to ornament 14 in any suitable manner, the jaws being adapted to grasp a branch or twig of the Christmas tree. It is to be understood that the clip and particular switch illustrated are exemplary only and that any suitable means may be employed for securing the ornament to the tree and any other type of switch may be employed. Examples of the latter are switches with swinging actuators, commonly known as toggle switches, rotary actuators, and double actuators similar to the type illustrated, one actuator effecting circuit making and the other circuit breaking. The particular switch illustrated has the advantage that it may be operated with one hand since the index and second finger may engage the bell shaped ornament at points 22, 23 and actuator 16 may be depressed by the thumb.

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Figure 4 illustrates the switch employed in a parallel circuit of Christmas tree lights, the switch being interposed in line L' between the plug 11 and the first light of the parallel group.

Figure 5 illustrates the switch employed in a series circuit. In this installation the switch may be interposed at any point in lines L' or L^2.

Figure 6 illustrates an alternative form of the invention which may be employed as an accessory or attachment for present strings of lights which are not provided with switch means. The ornamental switch may be the same as previously described and is provided with a plug 11a and a plug receiving socket 24 to which is attached plug 11 on one end of lines L' and L^2 of the string of lights. The electric cords may, of course, be of any length so that the ornamental switch may be secured to the Christmas tree at a convenient point thereon. A single pole switch may be employed, as in the construction previously described, this switch being interposed in one of the electric conductors. It is apparent that with this attachment it will serve either a parallel or series circuit as shown in Figures 4 or 5.

In Figure 7 another form of the invention is illustrated wherein one of the lights of a conven-

tional string is provided with a special light socket with a switch therein. This construction comprises a housing **25** of electrical insulating material having a threaded metallic sleeve **26** at one end for receiving a conventional tree light **12**. The upper end of the housing is provided with a switch **27** which may be reciprocated by an actuator **28**, the actuator making or breaking the circuit between contacts **29**, **30**. The construction shown may be employed in Figure 4 in lieu of switch device **13**, line L' having switch **27** interposed therein and line L^2 connecting with the first light of the parallel string. It is apparent that the same type of switch may be employed in a series circuit as shown in Figure 5, the wiring connections therein merely being modified to control a series circuit rather than a parallel circuit. In the series circuit the special switch-socket may be interposed at any point in the string rather than at the first light thereof. The switch-socket may be secured to the tree in any suitable manner, such as by a clip as shown in the other embodiments of the invention.

While the ornamental switch **14** has been illustrated as bell shaped, it is to be understood that this is exemplary only, and it may be made in any shape desired or to simulate any object. Many modifications will become apparent within the purview of the invention and the illustrations are to be regarded as illustrative only and the scope of the invention determined by the appended claim.

Having described the invention, what we claim as new is:

An electric switch for use in an electric circuit having a plurality of electric lamps connected in series therein, said switch comprising a switch body having spaced terminals and manual means for effecting electrical connection between the terminals and for breaking said connections, an outwardly and downwardly flaring shell enclosing said switch body, means for attaching the switch body to the shell so as to be partly concealed by the shell, and means for effecting a connection of the switch and shell to a stationary support comprising a spring clip.

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