

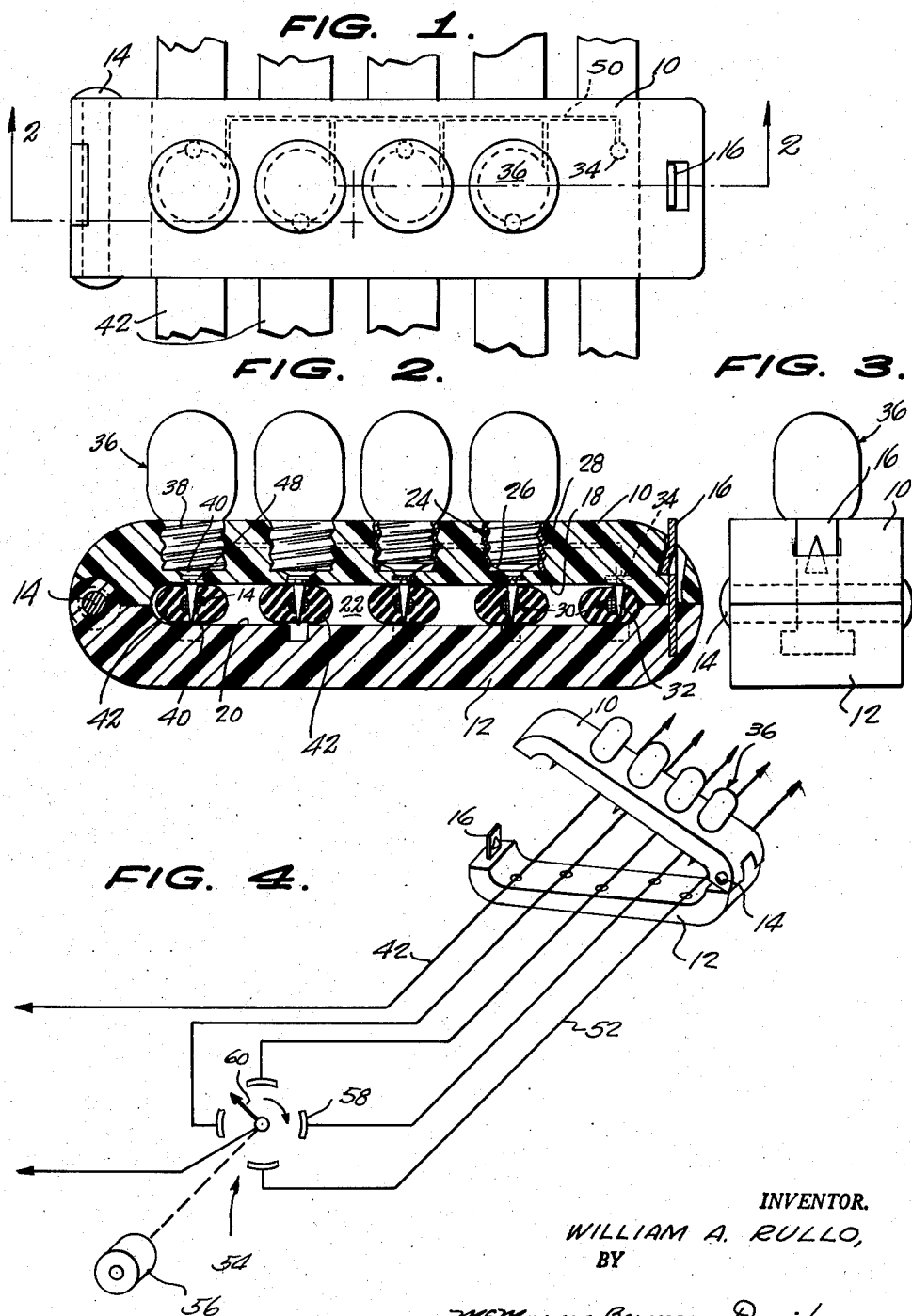
Dec. 6, 1960

W. A. RULLO

2,963,572

LAMP UNIT

Filed Oct. 16, 1959



1

2,963,572

LAMP UNIT

William A. Rullo, Whistler St., Box 256, Hollsopple, Pa.

Filed Oct. 16, 1959, Ser. No. 847,000

4 Claims. (Cl. 240—10)

The present invention relates to a lamp unit of the type employing decorative or miniature lamp bulbs such as Christmas tree lamp bulbs or the like.

Presently in use are lamp units employing Christmas tree lamp bulbs, the lamp units being assembled with a length of conductor between each lamp unit so that the units may be strung as a decoration over a Christmas tree or the like. A novel and unique display of colored lights is obtained by connecting one string of lights of one color to a contact in a rotary or multiple contact switching device and connecting other strings of other colors of lamps to other contacts of the device so that the decorated tree or wherever the lamp strings are applied is first of one color and then of another color. This arrangement requires a relatively large number of strings of light bulbs and a corresponding number of lengths of electrical connecting cord or wire.

An object of the present invention is to provide a lamp unit which may be used in multiples to decorate an object such as a Christmas tree or the like, each unit having provision for several lamps of different colors, the lamps being arranged and the connecting wires arranged so that an electric switching device with multiple contacts may be employed to illuminate the colors sequentially in turn or in any mixed arrangement.

Another object of the present invention is to provide a lamp unit which is simple in structure, one which is easily fitted with lamp bulbs of the decorative or miniature type, one from which used lamp bulbs are removed with ease and facility, one which lends itself to attachment to the connecting light cord with efficiency, and one which is highly effective in action.

A further object of the present invention is to provide a lamp unit for a plurality of lamp bulbs which is of simple structure, one easily fabricated of common materials in conventional plastic casting machines or the like, and one which is economically feasible.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in conjunction with the annexed drawing, in which:

Figure 1 is a top plan view of the lamp unit according to the present invention with connecting wires shown in dotted lines;

Figure 2 is a view taken on the line 2—2 of Figure 1;

Figure 3 is an end view of the assembly shown in Figure 1; and

Figure 4 is an isometric view on a reduced scale, of the lamp unit according to the present invention with the circuit of the lamp unit shown schematically.

Referring in greater detail to the drawing in which like numerals indicate like parts throughout the several views, the lamp unit according to the present invention comprises a pair of elongated jaw members 10 and 12, each fabricated of insulating material and arranged in face to face confronting relation.

The confronting face of the jaw member 10 is provided with a recess 18 and the jaw member 12 is pro-

2

vided with a recess 20, the recesses 18 and 20 being in registry with each other and being transversely disposed and opening through the opposite sides of the respective members 10 and 12. The recesses 18 and 20 together form a tunnel 22 having open ends and disposed transversely of the jaw members 10 and 12.

A plurality of lamp sockets 24 are disposed in the member 10 with each socket 24 having its bottom adjacent the tunnel 22, each bottom being designated by the numeral 26. Each socket 24 is provided with an electrically conductive wall 28 of the threaded type common to receptacles for lamp bulbs.

A grounding member embodying a pin 30 having a shank 32 and a head 34 on one end of the shank 32 is positioned within and supported with the head 34 embedded in the wall of the tunnel 22.

A lamp bulb 36, having a base contact 40 and a shell contact 38, is removably carried by each of the sockets 24 with the shell contact 38 in electrical contact with the socket wall 28 and with the base contact 40 bearing against the bottom 26 of the socket 24.

A plurality of conductors, embodying wires 42, extend into the tunnel 22 so that one of the wires 42 is adjacent each socket 24. The wires 42 are shown in full lines in Figures 1 and 2 and schematically in Figure 4.

A plurality of electrical connectors, each embodying another contact pin 44 having a shank 46 and a head 48 on one end of the shank 46, are positioned within and supported with their shanks 46 in the tunnel and with their heads 48 in the bottoms 26 of the sockets 24 with each electrically connecting the base contact 38 of the adjacent lamp bulb 36 to the adjacent conductor or wire 42 by penetrating the same and making electrical contact therewith.

An electrically conductive means, embodying an embedded wire 50, connects the socket walls 28 to the grounding member or first-mentioned contact pin 30, as shown in dotted lines in Figures 1 and 2. A conductor or wire 52 extends through the tunnel 22 for penetration by the shank 32 of the pin 30.

A multiple contact sequentially timing switch, as shown schematically at 54 in Figure 4, is in circuit with the wires 42 and the wire 52 and a source of electrical current. The switch 54 is driven by a motor 56. The switch 54 and its motor 56 are of conventional construction and include a plurality of fixed contacts 58 and a movable contact arm 60 which swings over and makes contact with each of the fixed contacts 58 in turn. Such a switch may have many rings of contact 58 and have provision for illuminating each bulb 36 in turn or any of the bulbs together and in any sequence desired.

More than the four lamp bulbs 36 may be incorporated in the jaw member 10, as desired, the limit only being the number of wires which may be accommodated within the tunnel 22. It is found convenient to employ a five-strand multiple wire conductor cable which is easily separated and its separate wires easily penetrated by the pins 30 or 44 of the jaw members 10 and 12. Additionally, more than one of the units of the present invention may be employed and the connecting wires may be of such length as to permit the units to be positioned in various locations about an article to be decorated such as a Christmas tree or the like.

The unique feature of the invention of having a Christmas tree or the like decorated with lamps burning in first one color at one location and then in another color at the same location and in sequence all over the tree is believed novel and commercially feasible.

What is claimed is:

1. A lamp unit comprising a pair of elongated jaw members each fabricated of insulating material arranged in face to face confronting relation and releasably se-

3

cured together, the confronting face of each of said jaw members having a transversely disposed recess opening through opposite sides thereof, said recesses being in registry with each other and forming together an open-ended transversely disposed tunnel, a plurality of lamp sockets in one of said jaw members and each socket having the bottom adjacent said tunnel, a lamp bulb having a base contact and a shell contact carried by each of said sockets, a grounding member within and supported in said tunnel, a plurality of conductors extending into said tunnel so that a conductor is adjacent each socket, a plurality of electrical connectors within and supported in said tunnel and each electrically connecting a base contact of a lamp bulb to the adjacent conductor, and electrically conductive means connecting the walls of said sockets to said grounding member.

2. A lamp unit comprising a pair of elongated jaw members each fabricated of insulating material arranged in face to face confronting relation and releasably secured together, the confronting face of each of said jaw members having a transversely disposed recess opening through opposite sides thereof, said recesses being in registry with each other and forming together an open-ended transversely disposed tunnel, a plurality of lamp sockets in one of said jaw members and each socket having the bottom adjacent said tunnel, a lamp bulb having a base contact and a shell contact carried by each of said sockets, a grounding member within and supported in said tunnel, a plurality of conductors extending into said tunnel so that a conductor is adjacent each socket, a plurality of electrical connectors within and supported in said tunnel and each electrically connecting a base contact of a lamp bulb to the adjacent conductor, electrically conductive means connecting the walls of said sockets to said grounding member, and a multiple contact sequential timing switch in circuit with said conductors, said means, and a source of electric current.

3. A lamp unit comprising a pair of elongated jaw members each fabricated of insulating material arranged in face to face confronting relation, means releasably securing said jaw members together, the confronting face of each of said jaw members having a transversely disposed recess opening through opposite sides thereof, said

4

recesses being in registry with each other and forming together an open-ended transversely disposed tunnel, a plurality of lamp sockets in one of said jaw members and each socket having the bottom adjacent said tunnel, a lamp bulb having a base contact and a shell contact carried by each of said sockets, a grounding member within and supported in said tunnel, a plurality of conductors extending into said tunnel so that a conductor is adjacent each socket, a plurality of electrical connectors each embodying a contact pin within and supported in said tunnel and each electrically connecting a base contact of a lamp bulb to the adjacent conductor, and electrically conductive means connecting the walls of said sockets to said grounding member.

4. A lamp unit comprising a pair of elongated jaw members each fabricated of insulating material arranged in face to face confronting relation, means releasably securing said jaw members together, the confronting face of each of said jaw members having a transversely disposed recess opening through opposite sides thereof, said recesses being in registry with each other and forming together an open-ended transversely disposed tunnel, a plurality of lamp sockets in one of said jaw members and each socket having the bottom adjacent said tunnel, a lamp bulb having a base contact and a shell contact carried by each of said sockets, a grounding member embodying a contact pin within and supported in said tunnel, a plurality of conductors extending into said tunnel so that a conductor is adjacent each socket, a plurality of electrical connectors each embodying another contact pin within and supported in said tunnel and each electrically connecting a base contact of a lamp bulb to the adjacent conductor, and electrically conductive means embodying a wire connecting the walls of said sockets to said first-mentioned contact pin.

References Cited in the file of this patent

UNITED STATES PATENTS

2,518,628	MacIntyre	Aug. 15, 1950
2,650,948	Findlay	Sept. 1, 1953
2,692,374	Carson	Oct. 19, 1954
2,795,768	Duckworth et al.	July 11, 1957