March 29, 1949. F. J. BARANY 2,465,419

CIRCULAR ELECTRICAL OUTLET

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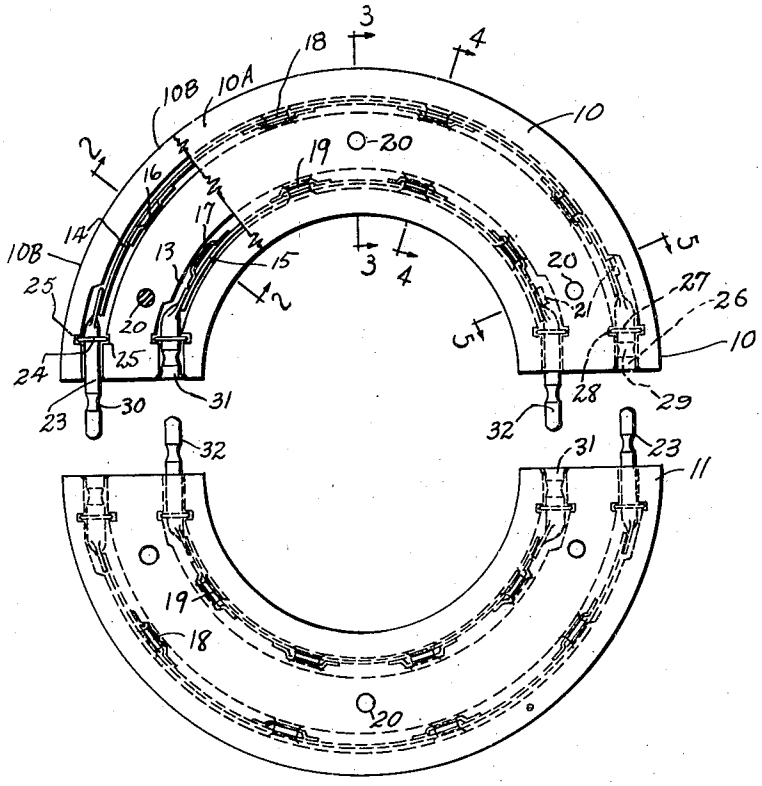


Fig. 1.

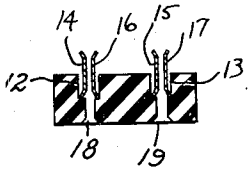


Fig. 2.

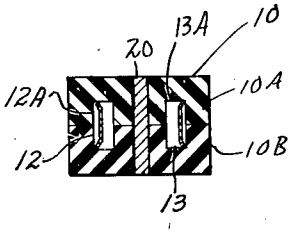


Fig. 3.

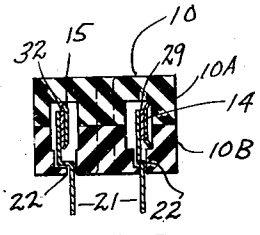


Fig. 5.

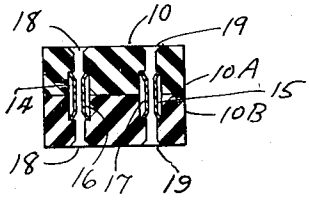


Fig. 4.

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CIRCULAR ELECTRICAL OUTLET

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2 Claims. (Cl. 173—334)

1

This invention relates to an electrical receptacle.

The principal object of the invention is the provision of a circular electrical outlet receptacle adapted to be positioned about a supporting object such as the trunk of a Christmas tree.

A further object of the invention is the provision of a two-part, circular electrical outlet adapted to retain itself in engaged relation about a supporting object and provided with a plurality of electrical outlets.

A still further object of the invention is the provision of a circular electrical outlet comprising a simple assembly of identically formed body parts holding and spacing a pair of current conductors in operative relation, and providing means for access to the said conductors as by the connection plug of an electrical appliance.

A still further object of the invention is the provision of a circular electrical outlet including means facilitating electrical energization of the conductors formed therein.

The circular electrical outlet shown and described herein has been devised to form a more efficient means of supplying electrical energy to a multiplicity of individual circuits such as can be employed in connection with decorative illumination of a Christmas tree.

It is known that electric lights are commonly used for decorative purposes on Christmas trees and that of necessity a considerable number of pairs of conductors must be connected to a single source of electric energy such as a conventional electrical outlet on the wall of a room in which the Christmas tree is located.

The present invention relates to a device which will facilitate this connection of the various lighting circuits employed on the tree and will also facilitate the placement of a plurality of individual electric lights, each of which has a pair of conductors leading to a current source. The device is formed of two parts which are easily assembled about the trunk of the Christmas tree. In assembled position the device completes the electrical circuit through the conductors in the circular electrical outlet, and at the same time holds the device in electrical position and thereby in self-supporting position on the Christmas tree.

With the foregoing and other objects in view

2

which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a top plan view of the circular electrical outlet.

Figure 2 is a cross sectional elevation taken on line 2—2 of Figure 1.

Figure 3 is a cross sectional elevation taken on line 3—3 of Figure 1.

Figure 4 is a cross sectional elevation taken on line 4—4 of Figure 1.

Figure 5 is a cross sectional elevation taken on line 5—5 of Figure 1.

By referring to the drawings and Figure 1 in particular, it will be seen that a circular electrical outlet has been disclosed which takes the form of two half-circular body members 10 and 11, respectively, and each of which body members 10 and 11 comprises a two-part subassembly as shown in the cross sectional views comprising Figures 3, 4 and 5 of the drawings. In these figures, the top portion of the subassembly is indicated by the numeral 10A and the bottom portion by the numeral 10B.

In Figure 1 of the drawings, the circular electrical outlet is shown with the two half-circular sections thereof in disengaged relation. The left hand portion of the uppermost half is shown broken away to more clearly illustrate the uppermost surface of the lower portion 10B of the subassembly forming the portion 10 of the circular electrical outlet, and to illustrate the formation therein of a pair of channels 12 and 13.

Positioned in the channels 12 and 13 are a pair of conductors 14 and 15 which take the form of metallic strips positioned on their edges in the channels 12 and 13 and retained in that position by the application of the upper half 10A of the subassembly.

At intervals along the metallic conductors 14 and 15 loop portions 16 and 17 have been added as by spot welding the same to the conductors 14 and 15. The loop portions 16 and 17, as illus-

trated in cross section in Figure 2 of the drawings, in conjunction with the conductors 14 and 15 form sockets properly shaped for the reception of the prongs of a conventional electrical connection plug such as is commonly employed on extension cords and electric appliances and the like.

In order that prongs of such a plug may reach the current carrying conductors 14 and 15 and register between the same and the loops 16 and 17 formed thereon, a plurality of pairs of radially spaced openings 18 and 19 are formed in both portions 10A and 10B of the subassembly making up each of the halves 10 and 11 of the circular electrical outlet. This construction is best shown in cross sectional view comprising Figure 4 of the drawings. It will be observed that electrical connection prongs can be inserted into the circular electrical outlet from either the top or the bottom, as desired.

The subassembly portions 10A and 10B are assembled with respect to one another by means of a plurality of rivets 20 or any comparable fastening means which pass through the two portions 10A and 10B and therefore hold the assembly in assembled position. A cross sectional detail of one of the rivets 20 is illustrated in Figure 3 of the drawings and its relation to the conductors 14 and 15 in the channels 12 and 13 is shown.

In order that the circular electrical outlet may be energized, means for engaging a conventional electrical outlet is incorporated and, as shown in Figures 1 and 5 of the drawings, consists of a pair of depending prongs 21 which are spot welded or otherwise affixed to the electrical conductors 14 and 15 and extend downwardly through the subassembly 10B by way of a pair of openings 22 formed therein. It will be observed that the subassembly 10A is provided with a pair of channels 12A and 13A which register with the channels 12 and 13 formed in the subassembly 10B. Together these channels 12 and 12A and 13 and 13A form convenient and practical means of positioning the conductors 14 and 15.

In order that the two half portions 10 and 11 of the circular electrical outlet may be positioned together, as in locating the circular electrical outlet about the trunk of a Christmas tree, oppositely disposed prong and socket members have been formed on each of the end sections of each of the portions 10 and 11 of the circular electrical outlet. These constructions are best shown in Figure 1 of the drawings.

By again referring to Figure 1 of the drawings, it will be seen that a prong 23 is affixed as by spot welding or otherwise to one end of the conductor 14 and that it has an area of enlarged diameter, as indicated by the numeral 24, formed thereon which registers with offset portions 25 formed on the channel 12. The opposite end of the conductor 14 is provided with a tubular socket 26 which is spot welded or otherwise affixed to the conductor 14 and it has an area of enlarged diameter 27 formed thereabout which registers with offsets 28 formed in the channel 12 which are exactly the same as the offsets 25 heretofore referred to. The socket 26 is also provided with an area of reduced diameter 29 which is adapted to create a spring-like tension on the connection prong inserted thereinto. In this connection it will be seen that the connection prong 23 is provided with an area of reduced diameter 30 so that it will snap into position in the socket in which it is placed and be held thereby, thus holding the two halves 10 and 11 of the circular electrical outlet in assembled position about a support and at the same time establish electrical connection between the two halves of the device.

The conductor 15 is provided with duplicate end constructions but in reversed relationship, a socket 31 being affixed to the end of the metallic conductor 15 and adjacent the prong 23 and a prong 32 affixed to the other end of the conductor 15 and positioned adjacent the socket 26. It will be noted that the description given referred to the uppermost half of the circular electrical outlet illustrated in Figure 1, a portion of which has been broken away so that its construction may be more readily seen.

It will be observed that the lower half of the circular electrical outlet is an exact duplicate in all respects with the exception that it is provided with the downwardly depending prongs 21 through which energization of the device is made. It is obvious that if desired these can also be incorporated in the lower half of the device rather than in the upper half, as shown.

It will thus be seen that a simple and efficient circular electrical outlet has been disclosed which may be positioned about the trunk of a Christmas tree, snapped into assembled position and energized by connecting it to the end of a drop cord in a conventional manner. In such position it will provide a plurality of outlets into which Christmas tree lights may be plugged either singly or the Christmas tree light strings commonly used.

It will be seen that the construction results in the formation of a circular electrical outlet which is energized when it is assembled and connected to a current source and that the means of connecting the halves in an electrical circuit is also the means for holding the device in assembled relation. The component parts may be simply and economically formed as one mold will suffice for the formation of the four body sections comprising the two subassemblies 10A and 10B of each half 10 and 11. The conductors are of simply, easily formed construction and are automatically retained in position in the device by the assembly of the same.

Having thus described my invention, what I claim is:

1. A circular supporting multiple electrical outlet comprising two half-circular body members each formed of two half-circular sections secured together in oppositely disposed relation, matching grooves formed on the registering surfaces of the half-circular body sections and arcuate metallic conductors positioned in the said grooves, and radially spaced pairs of openings formed in each of the half-circular body members providing access to the said conductors, prongs affixed on the ends of two of the conductors and protruding beyond the half-circular body members, and socket members formed on two of the conductors and within the half-circular body members, the prongs and sockets adapted to register with one another, and a pair of prongs, one attached to each of the said conductors, and depending below the said body members to provide means for energizing the said conductors.

2. A circular electrical outlet comprising two half-circular bodies each formed of two half-circular body sections and means holding the half-circular body sections together, radially spaced grooves formed in each of the opposing surfaces of the half-circular body sections and metallic conductors positioned in said grooves,

clips affixed longitudinally to each of the said conductors at intervals along the lengths thereof, spaced pairs of openings formed in the body members in registry with the said clips, a pair of depending prongs affixed one to each of the said conductors and extending beyond the said bodies to provide means for connecting an electrical circuit to the said conductors and prongs affixed on the ends of two of the conductors and extending beyond the ends of the half-circular bodies, and socket members formed on two of the conductors and positioned within the bodies, the prongs and the sockets adapted to register with one another and hold the half-circular bodies of the electrical outlet together.

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