

Jan. 26, 1971

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3,559,149

ELECTRICALLY WIRED BASEBOARD

Filed Oct. 29, 1968

2 Sheets-Sheet 1

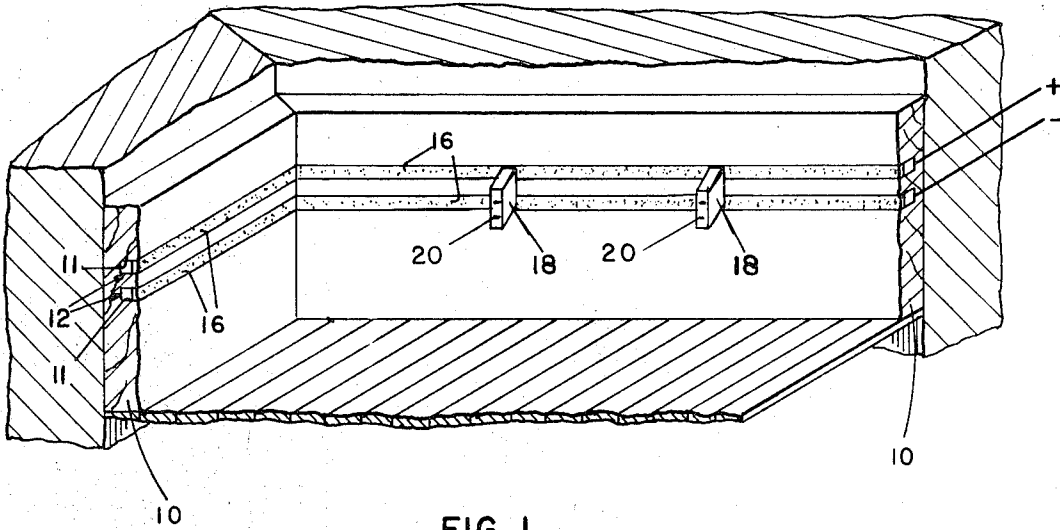


FIG. 1

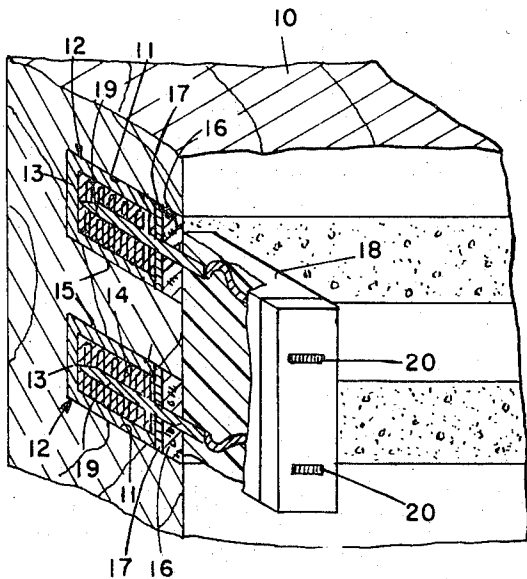


FIG. 2

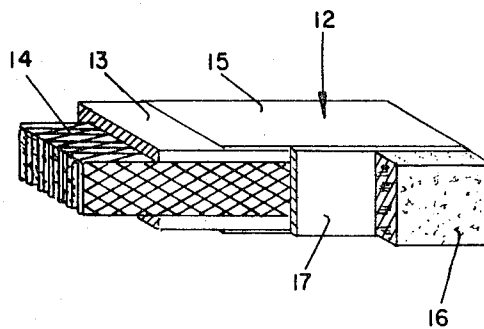


FIG. 3

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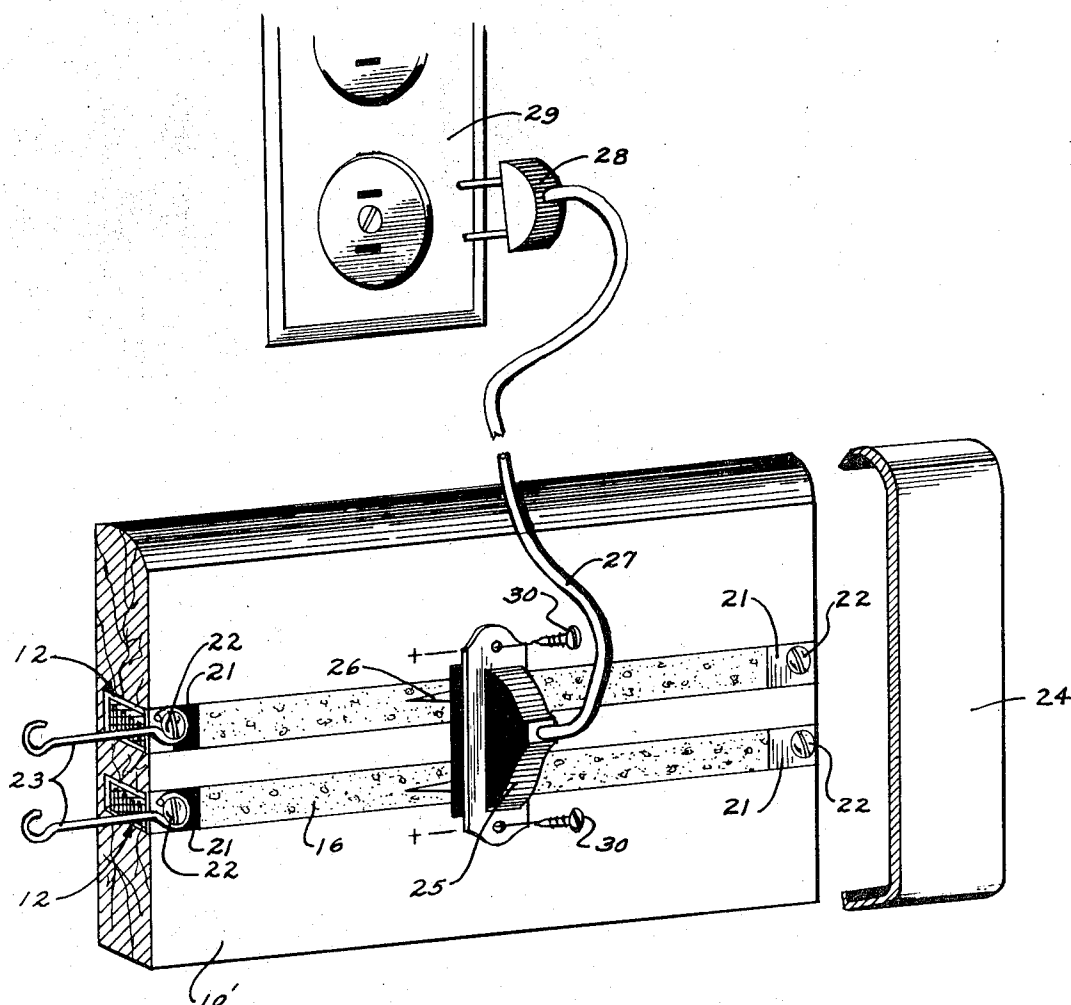


FIG. 4

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ELECTRICALLY WIRED BASEBOARD

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Filed Oct. 29, 1968, Ser. No. 771,485

Int. Cl. H01r 13/38

U.S. Cl. 339-23

5 Claims

ABSTRACT OF THE DISCLOSURE

A baseboard having built-in electrical conductors running the length thereof to enable a tap-off to be made at any point therealong for use of lamps, appliances and the like, the conductors in the form of spaced, parallel, insulated metal channels containing a braided mass of fine wires with a covering of resilient insulating material flush with the baseboard and a tap-off device having pointed spikes capable of readily penetrating the insulating covering and entering and making electrical contact with the fine wires in the channels.

This invention relates to electrical outlet devices and more specifically to such devices of the continuous type which run the length of the baseboard in a room so that a tap-off may be made at any point therealong wherever needed.

Determining the number of electrical outlets in a building or home and the placement thereof to afford the utmost convenience has presented problems in the past, as it is almost impossible, when a building is in the planning stage, to anticipate what use the various areas or rooms are to be put, and in what locations the various devices requiring electrical power are to be placed. The result is, that all too frequently it is found, after a room or area is furnished the electrical outlets are just not in the proper places and resort to make-shifts such as long appliance cords, multiple outlet plugs, etc. must be had.

The use of continuous outlets, i.e. those which may be plugged into anywhere along their length, have been used and they solve the problem to a certain extent. Most of these devices however are unsightly and difficult to install.

The above objections have to a great extent been overcome by the use of the present invention, as it is built at the factory as a finished baseboard ready to install and contains the electrical conductors therein and only requires installation as in the case of any baseboard and the simple connection of the conductors therein to the source of electrical supply. As the outer insulating cover is made flush with the outer surface of the baseboard the whole device is neat in appearance and may be painted or decorated to completely hide the insulating covers and yet may be tapped into at any point therealong with the special spiked plug provided therefor which may be easily pressed through the insulating covers and into electrical contact with the conductors therein.

It is therefore one object of this invention to provide a continuous outlet which is pre-assembled into a finished baseboard which may be installed with a minimum of labor.

It is another object to provide such an electrical outlet which is neat in appearance and can, if desired, be decorated to be substantially completely hidden.

It is still another object to provide a continuous outlet which has a large current carrying capacity due to its large conductors.

The above and other objects and advantages will become more apparent as this description proceeds and reference is had to the accompanying drawing forming a part of this specification and in which like characters of reference refer to like parts in the several views.

FIG. 1 is a fragmentary perspective view of my invention as it would appear installed in a corner of a room;

FIG. 2 is a fragmentary perspective view thereof partly in section, showing the interior construction thereof and a tap-off plug inserted therein; and

FIG. 3 is a fragmentary perspective view showing the details of one of the conductors and associated parts thereof; and

FIG. 4 is a perspective view of a slightly modified form.

Referring now more specifically to the drawing, 10 indicates a baseboard of conventional shape and proportions and of any of the conventional materials, provided with a pair of spaced grooves 11 into each of which a conductor for electricity generally indicated at 12 is fitted.

The conductor 12 consists of a channel 13 of any electrical conductive material, for example, aluminum, copper or the like, with its interior space filled with a mass of fine resilient metallic wires 14 preferably twisted, woven or braided to form a mass into which a connector prong may be inserted to connect the same electrically with the channel 13.

The outer surface of the channel 13 is insulated from the baseboard at 15 by any of the well known means, for example, surface coating such as anodizing or by means of fish paper or plastic film.

As may be seen in the drawing the conductor channel is set in from the outer surface of the baseboard and this space is filled by a resilient cover or facing strip of insulating material 16 of cork, rubber, plastic or the like. The outer surface of this strip is preferably made flush with the outer surface of the baseboard for neatness of appearance and is held in place by a resilient adhesive 17.

In order to make contact with the imbedded conductors 12 an adapter plug 18 is provided. This adapter is fitted on one side with a pair of pointed prongs 19 and on the other side with slots 20, the latter adapted to receive the prongs of a conventional appliance plug which internally of the adapter 18 will make electrical contact with the pointed prongs 19.

The prongs 19 may be pressed against and readily made to penetrate the outer cover strip 16 and enter the mass of fine wires 14 and thereby make electrical contact therewith and with the main conductor channels 13 anywhere along the length of the baseboard.

In the modification of FIG. 4 the baseboard section 10' is of definite pre-determined length and contains conductors 12 like those in the embodiment shown in FIGS. 1 to 3. At the ends of the conductors, however, terminal members 21 are provided and these terminal members contain screws 22 to which jumper wires 23 may be attached for electrically connecting the conductors of an baseboard section abutted against the end of the first section.

A cover element 24 may be employed to hide the joint between two sections of baseboard and cover the terminals and jumper wires.

FIG. 4 also shows one means for supplying current to the baseboard. A plug 25 with spiked prongs 26 for penetrating the insulating strip 16 and embedding themselves into the mass of wires 14 and making electrical contact therewith is provided. The plug may then be fed through a conventional flexible cord 27 and plug 28 from a conventional wall outlet 29. The plug 25 may be more or less permanently fastened in place by screws 30 if desired.

The electrical outlet described is for the usual two wire circuit. Obviously it may be adapted to a three wire circuit by providing a third conductor device like those specifically described.

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Having described my invention, what is claimed as new is:

1. An electric wired baseboard comprising
 - (a) a baseboard having at least one groove in its outer face extending the length thereof,
 - (b) an electric conductor of channel shape located at the bottom portion of the groove, the open side of the channel facing the outer face of the baseboard,
 - (c) a mass of electrically conductive fine wires in the channel conductor and in electrical contact therewith,
 - (d) a cover strip of resilient insulating material in the outer portion of said groove and covering the open side of the channel conductor and its contained wires, said cover strip capable of being penetrated by a sharp prong anywhere along its length to afford electrical connection of the prong with the wires and channel conductor in said groove.
2. A structure as defined in claim 1 wherein an electrical connection is provided at least at one end of the electric conductor within the baseboard to afford connection to another length of similar electric conductor in an adjacent baseboard.
3. The structure defined in claim 1 in which the channel conductor is provided with an insulating covering on its outer surfaces to electrically insulate the channel from the walls of the groove in the baseboard.

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4. The structure defined in claim 2 in combination with an adapter plug having at least one pointed prong penetrating the outer resilient cover strip and extending into the mass of fine wires in the channel to make electrical contact therewith and through said mass with the channel conductor.

5. The structure defined in claim 2 where the said cover strip is comprised of silicone rubber and cork.

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U.S. Cl. X.R.

339—96, 154