

Aug. 25, 1936.

J. N. NIELSEN

2,052,312

WALL OUTLET AND FITTING

Original Filed Jan. 15, 1927

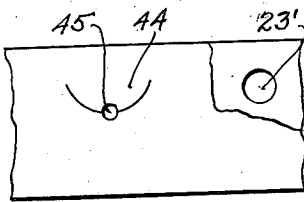


FIG. 2

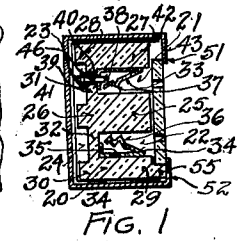


FIG. 1

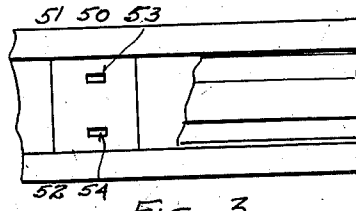


FIG. 3

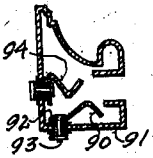


FIG. 7

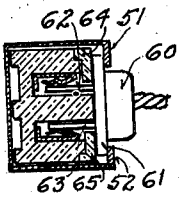


FIG. 4

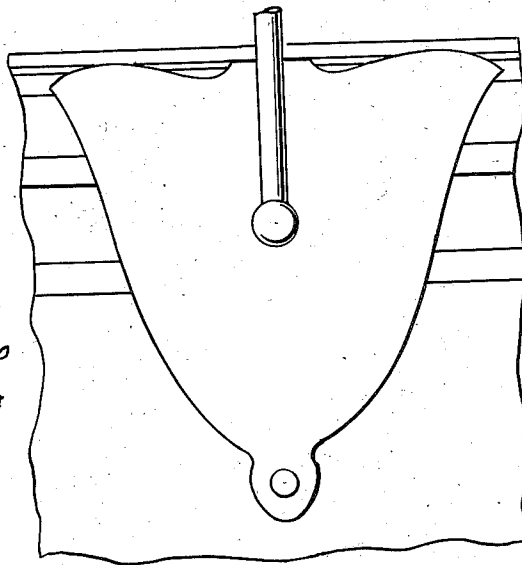


FIG. 8

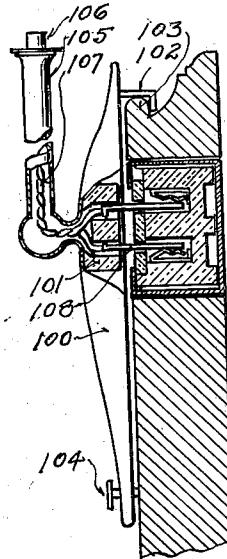


FIG. 9

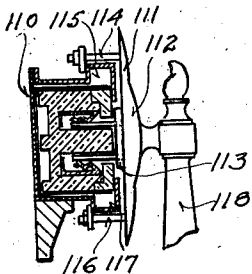


FIG. 11

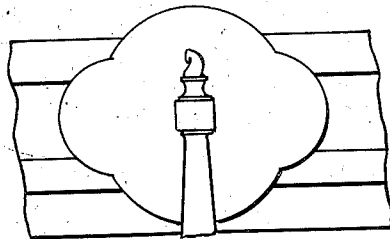


FIG. 10

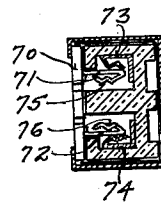


FIG. 5

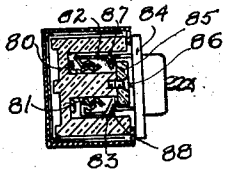


FIG. 6

INVENTOR

Joseph N. Nielsen

UNITED STATES PATENT OFFICE

2,052,312

WALL OUTLET AND FITTING

Joseph N. Nielsen, New York, N. Y.

Original application January 15, 1927, Serial No. 161,313; Patent No. 1,903,833, dated April 18, 1933. Divided and this application April 17, 1933, Serial No. 666,417

2 Claims. (Cl. 247—3)

This invention relates to wall outlets and particularly to room outlets provided in dwellings or offices for the attachment thereto of fixtures, such as floor lamps, vacuum cleaners and the like.

In modern dwellings it is customary to provide a number of wall outlets in a room to give some latitude in arrangement of furniture. A common experience, however, is that the outlets are not located to conform with a preferred arrangement, and as a consequence extension cords are used. Such extensions are apt to interfere with walking or other uses of a room, and present danger of being broken or cut with resulting short circuits.

The present invention has for an object an outlet of such a character that it is possible to "plug in" at any point along a wall and avoid the use of extension cords. Another object is an outlet that includes a conduit and junction box so that line connections can be made thereto at a convenient place while supplying an outlet at any other desired location. An ancillary object is the provision of a fixture supported in conductive connection with the outlet so that a loose cord connector is obviated. These and other objects will become apparent from the description that follows.

Briefly described, embodiments of the invention for accomplishing these objects include a molding or its equivalent within which are two spaced conductors insulated from each other, the molding being slotted so that access may be had to the conductors at any point along the length of the molding. The molding may form part of or run along the upper edge of the baseboard of a room; or it may form a decorative horizontal band along the upper part of the wall alone or in conjunction with a plate rail, wainscot paneling or the like. Incorporated with the molding may be additional features, such as lengthwise adjustable bars, to conceal the slots, or plugs slidably held to limit access to the conductors. The lengthwise adjustment along the molding permits the use of a fixture including a plug element having terminals for engaging the conductors.

In the accompanying drawing,

Fig. 1 is a section of an embodiment of an outlet on the line I—I of Fig. 2;

Fig. 2 is a rear view thereof;

Fig. 3 is a front elevation thereof;

Fig. 4 is a section of a modified form of outlet;

Fig. 5 is a section of another modification;

Fig. 6 is a section of a third modification;

Fig. 7 is a section of an outlet for small currents;

Fig. 8 is an elevation of a base for a fixture in conjunction with an outlet;

Fig. 9 is a side view of the base;

Fig. 10 is an elevation of another fixture mounting; and

Fig. 11 is a side view thereof.

The wall outlet shown in Fig. 1 comprises a molding including a strip of insulation 20 that has parallel contiguous and coplanar longitudinal slots 21, 22 in one side thereof and slots 23, 24 in the opposite side to form middle insulating partitions 25, 26, edge portions 27, 28, 29, 30, and slot defining or bridging walls 31, 32. For the slots 23, 24 there may be substituted circular recesses, as shown at 23' in Fig. 2. Within the slots 21, 22 are metal conductors 33, 34 extending the length of the slots; each conductor has a base portion 35 resting against the bottom of the slot and a reverse bend portion 36 shaped with longitudinal contact edges 37, 38 to grip the prongs of a plug. The conductor is preferably of spring metal to resist distortion and return to its original conformation. At intervals the base portion is secured by screws 39 extending through openings 40 in the wall 31 or 32; for this purpose the base portion can be thickened as by nuts 41 soldered or otherwise formed on the base portion. A sheet of fiber insulation 42 closes the slots 23, 24, and a metal jacket 43 holds it in place. Lips 44 are cut in the metal jacket to give access to the screws 39, and these lips can be bent outward for nailing or otherwise securing the molding in place. Circular openings 45 provide for the passage of a lead to a screw 39.

The molding may be used as above described by inserting the prongs or terminals of a plug anywhere along the length of the molding into contact with the conductors; but it is preferred to restrict access to the conductors. Figs. 1 and 3 illustrate bars or plates of insulation 50 which are engaged by intumed edges 51, 52 of the jacket 43; perforations 53, 54 in one or more of the bars receive the prongs of a plug. These bars are arranged for removal and replacement as desired, and for this purpose can be made narrower than the insulation, with or without spacing strips 55 which may be integral with the insulation 20. When it is desired to change the location of a plug connection, a perforated bar is removed and the others shifted to provide for its new location.

In place of bars to conceal or protect the con-

ductors and limit the plug connections, sliding plugs 60 can be used as shown in Fig. 4. The plug has a rectangular base 61 engaged by the jacket edges 51, 52 and slidable along the molding. The slot opening can be made narrow and limited to the thickness of a prong 62 or 63 by an insulation strip 64 or 65; other constructions can be substituted.

As a further guard against accidental unrestricted use of plugs, modified forms of construction shown in Fig. 5 or 6 can be used. In the form shown in Fig. 5 a sliding plate 70 carries prongs 71, 72 to contact with conductors 73, 74, and it is in turn perforated to receive the terminals of the usual plug; for contacting the latter the prongs have return spring sections 75, 76. In the form shown in Fig. 6 the conductors 80, 81 are metal strips of any suitable shape for contact with spring prongs 82, 83 extending from a sliding plate or plug 84; for holding or guiding the plate or the plug a removable insulating strip 85 can be used that is held in place by screws 86 and engaged by projections 87, 88 on the prongs.

Fig. 7 illustrates in cross section a molding adapted for use in conjunction with embodiments as above described. It is designed primarily for small currents, such as radio or telephone currents, and it is accordingly fitted to receive a jack. A spring metal strip 90 is separated from the casing 91 of the molding by an insulation strip 92 and riveted to the casing by insulated rivets 93. The casing, if metallic, can serve as the other conductor or a second strip 94 can be secured to the casing for this purpose, and it may be insulated like the first from the casing.

Sections of the molding can be connected into continuous lengths by providing one section with the insulation 20 projecting from its metal jacket 43 and the succeeding section with its metal jacket extending to engage the projecting insulation of the first section; the conductors can be made continuous by bonds 46, extending from a screw 39 of one section to a screw 39 of the next section, and these bonds can lie within the slots 23, 24. Other constructions can be substituted for this purpose.

The molding in its various embodiments can be used as above described or it can be used in combination with a fixture; such a combination is shown in Figs. 8 and 9. A molding is mounted along the upper edge of a baseboard and a finishing strip is secured in place above it; the latter may be the molding of Fig. 7. A base plate 100 of any desired design carries a plug 101 having terminals or prongs engaging the conductors in the molding. Hooks 102 or the like extend from the plate to support it from an upstanding edge 103 on the finishing strip or molding, and a set screw 104 can be provided in the lower part of the plate to contact the baseboard for adjusting the position of the plate. A standard 105 rises

from the plate to carry light fitting or the like 106 to which conducting wires 107 extend from the prongs 108 of the plug 101.

The molding is useful in other relations, and Figs. 10 and 11 illustrate a molding disposed at a suitable height on a wall. On this molding 110 is slidably mounted a bracket fixture 111 comprising a plate 112 enclosing a plug 113 and with one or more clamping screws 114 at the top for engaging an upstanding edge 115 on the molding and a screw or screws 116 at the bottom engaging a downwardly projecting edge 117 on the molding; the plate carries the fixture element 118. The molding can be applied exteriorly to a wall and thus used as a decorative band, or it can be inset or made flush with the wall; in the latter case spring clips extending into the conductor slots, or expanding wedges or the like, can be used to maintain the plate in position.

Evidently the molding can be finished to correspond with that of the room where it is applied by painting or enameling. The insulation can be of any suitable material as porcelain or fiber, and the exposed portions given an appearance to accord with the effect desired.

This application is a division of my copending application No. 161,313 filed January 15, 1927 and which has become Patent No. 1,903,833, April 18, 1933.

I claim:

1. A combined outlet and fitting comprising in combination a baseboard for a room including a molding, continuous conductors extending longitudinally and accessibly supported and housed within said molding for continuous longitudinal contact therewith, and a fitting supported in slidable relation to said molding, said fitting including a base, prongs extending from said base for contact with said conductors, suspension means for said base and in engagement with said baseboard for supporting the base with the prongs in contact with said conductors, a standard extending upwardly from and carried by the base, and a light fixture carried by said standard whereby an upwardly extending lamp is obtained adjustable along the wall of a room but out of contact with the floor.

2. A combined outlet and fitting comprising in combination a baseboard of a room including a molding, continuous conductors extending longitudinally and accessibly supported and housed within said molding for continuous longitudinal contact therewith, and a fitting supported from said baseboard in cooperative relation with said molding, said fitting including prongs for contact with said conductors, supporting means for engagement with said baseboard for maintaining contact of said prongs with said conductors, an upwardly extending standard carried by said supporting means, and a light fixture carried by the standard.

JOSEPH N. NIELSEN.