March 25, 1930. M. PROPP 1,751,842

CURRENT TAP FITTING

Filed July 28, 1925

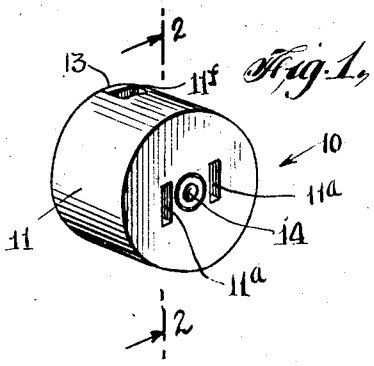


Fig. 1,

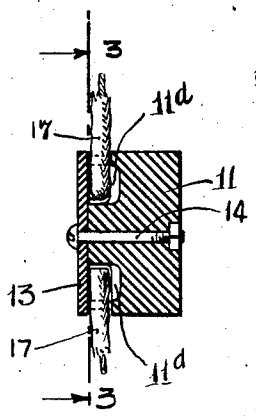


Fig. 2,

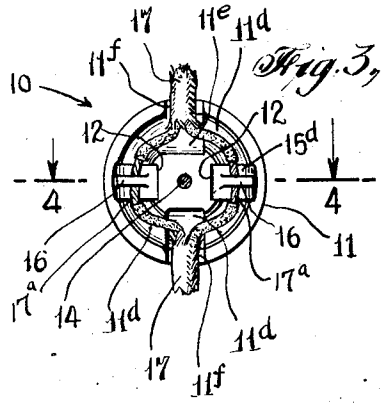


Fig. 3,

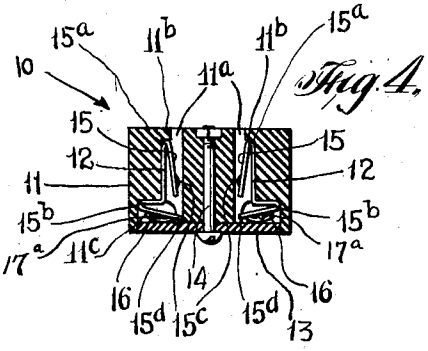


Fig. 4,

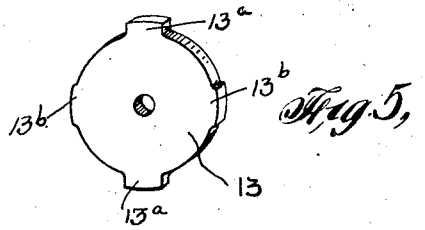


Fig. 5,

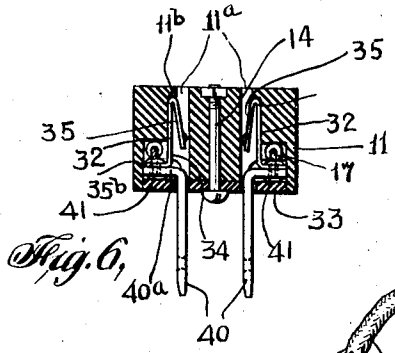


Fig. 6,

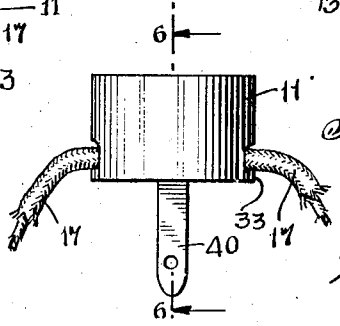


Fig. 7,

INVENTOR

BY

ATTORNEY

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1,751,842

UNITED STATES PATENT OFFICE

MORRIS PROPP, OF NEW YORK, N. Y., ASSIGNOR TO THE M. PROPP CO. INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

CURRENT TAP FITTING

Application filed July 28, 1925. Serial No. 46,555.

This invention relates to attachment fittings for electric circuits. More particularly the invention is directed to improved fittings which may be adapted to provide a quick-detachable circuit tapping means or circuit outlet, to form an attachment plug having an outlet or receptacle portion, and for other like purposes.

Among the objects of the invention is the provision of an improved fitting of the character described comprising few parts, which is extremely simple in construction, cheap to manufacture, and practical and efficient to a high degree for the purposes described.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter described and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a perspective view of a fitting embodying the invention;

Fig. 2 is a cross-sectional view taken on line 2—2 in Fig. 1;

Fig. 3 is a plan view of the fitting with the cover member removed to show the interior;

Fig. 4 is a cross-sectional view taken on lines 4—4 in Fig. 3, the cover being shown in position;

Fig. 5 is a perspective view of the rear cover member;

Fig. 6 is a cross-sectional view taken on line 6—6 in Fig. 7; and

Fig. 7 is an elevational view of an attachment plug having an outlet or receptacle portion embodying the invention.

Referring in detail to the drawing, 10 denotes a fitting embodying the invention adapted to form a quick-detachable, circuit-tapping means such as a flush receptacle, fixture socket outlet, portable connecting outlet and the like. The fitting 10 may comprise a body portion 11 of any suitable shape, preferably formed of insulating material such as porcelain, phenol condensate products, or other like suitable substances, metal current carrying portions 12, and a rear cover member 13 preferably formed of insulating material. The current-carrying portions may be held against displacement within the body portion 11 in any suitable manner, as by means of the said cover member 13 and screw 14 extending centrally through said body portion, said screw serving to releasably retain the parts of the fitting assembled, as shown in Figs. 1 and 4.

The current carrying portions 12 are seen to comprise a plurality of spring contacting members 15, suitably constructed to extend into sockets or passage openings 11^a provided in the body portion 11. Each contact member extends only partially into the opening 11^a up to a guard and guiding ledge 11^b formed at the front or receiving end of said opening to eliminate possible short circuit or injury to persons handling the fitting. Said ledges 11^b serve also to restrict the entrance of said openings to all but co-operatingly constructed terminal blades of another quick detachable fitting (not shown) and to direct such blades to the contacting member 15, as is well understood.

These ledges also provide stops or supports for the ends 15^a of the members 15, as shown in Fig. 4.

For simplicity and cheapness each member 15 may preferably be formed as a unitary integral structure having looped ends 15^a and 15^b. The end 15^a is bent back to extend inwardly from the entrance end of the opening 11^a and, if desired, may be provided with a protuberance 15^c for releasably engaging an opening in a co-operating terminal blade of an attachment plug, not shown. The other looped end 15^b may be made to provide a suitable offset terminal binding means 15^d, such as the stamped spring tongue 16 which is adapted to engage with circuit conductor wires 17, the body portion 11 being recessed at 11^e to receive said means (see Figs. 3 and 4).

To provide a through passage adjacent said means for the wires 17, the body portion is formed with grooves 11^e depressed from the rear side adjacent the perimeter of the

body portion 11 and cutaway portion 11[f] adjacent to said grooves as shown in Figs. 1, 2 and 3.

The body portion 11[a] may also be recessed to receive the flat cover member 13 so as to space the wires 17 from the rear side of said body portion, as shown in Fig. 2.

In using the invention, the insulation is removed from the conductor wires 17, as at 17[a] and the bare wire engaged with the terminal binding means 15[d] of the member 15. The latter are then inserted into the openings 11[a], the cover member 13 positioned over the rear side of the body portion 11 and the screw 14 fastened to retain said cover members and body firmly together. The cover member 13 is preferably made of a sheet of insulating material, such as fibre, which is very cheap and forms a closure means which is practical to a high degree. Said cover member may be provided with peripheral extensions 13[a], 13[b] which are adapted to fit in corresponding recesses in the rear side of the body portion 11, the extensions 13[a] serving as a closure for the rear side of said cutaway portions 11[f] through which conductor wires 17 pass and also preventing relative rotary movement between the member 13 and said body portion.

In Fig. 6 is shown an adaptation of the invention in the form of an attachment plug having an outlet or receptacle portion. In this form the current carrying portion 32 may comprise terminal blades 40, extending outwardly through the cover member 33. The spring contact member 35 of said current-carrying portion may be similar in construction to the spring contact members 15 shown in Fig. 4 with the exception that each offset terminal end 35[b] of the member 34 is rigidly connected with a flat extension 40[a] of blade 40. Suitable means such as an eyelet fastener 41 may be provided for securing said extension 40[a] to the offset end 35[b], said fasteners serving as terminal posts for the conductor wire connection.

The conductor wires 17 may be soldered to said terminal posts or other attachment means of well known construction and may be provided in place of the eyelet form shown in Fig. 4 and described above.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. An attachment fitting of the character described comprising an insulating body portion having a recess formed in an end thereof, said body having passages leading from said recess therethrough, contact members mounted in each of said passages, each of said contact members having an inturned foot extending into said recess, conductor blades projecting from said insulating body portion, each of said conductor blades having an inturned foot in engagement with the foot of a contact member, conductor wires engaging the feet of said contact members, and an apertured insulation cover engaging the feet of said conductor blades for holding said contact members and conductor blades in position, said conductor blades passing through the apertures in said cover member.

2. An attachment fitting of the character described comprising an insulating body portion having a recess formed in an end thereof, said body having passages leading from said recess therethrough, contact members mounted in each of said passages, each of said contact members having an inturned foot extending into said recess, conductor blades projecting from said insulating body portion, each of said conductor blades having an inturned foot in engagement with the foot of a contact member, conductor wires engaging the feet of said contact members, and an apertured insulation cover engaging the feet of said conductor blades for holding said contact members and conductor blades in position, said conductor blades passing through the apertures in said cover, said body having cut-out portions for receiving the conductor wires, said cover having extensions received in said cut-out portions.

In testimony whereof I affix my signature.

MORRIS PROPP.