

UNITED STATES PATENT OFFICE

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ATTACHMENT-PLUG RECEPTACLE

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My invention relates to improvements in attachment plug receptacles.

The chief object of my invention is to provide an improved attachment plug receptacle, which can be manufactured and assembled more economically and efficiently than those heretofore made. Another object of my invention is to provide such a receptacle having its upper face of such construction as to facilitate the insertion of the blades of the attachment plug into the blade guideways of the receptacle. A further object of my invention is to provide an attachment plug receptacle having a receptacle-supporting yoke so connected to it, that the yoke may be removed or disconnected from the receptacle without destroying the assembly, that is, so that it may be removed without disturbing the means which retain and support the contacts in housed position in the receptacle body.

Further objects, and objects relating to details and economies of manufacture and construction, will definitely appear from the detailed description to follow. In one instance, I accomplish the objects of my invention by the devices and means described in the accompanying specification. My invention is clearly defined and pointed out in the appended claim. One embodiment of my invention is illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure 1 is a top plan view of a receptacle embodying my invention.

Fig. 2 is a view of that receptacle in side elevation.

Fig. 3 is a bottom plan view of the receptacle, with the sheet of insulation and the receptacle-supporting yoke removed.

Fig. 4 is a perspective view of one of the contact members, and

Fig. 5 is an enlarged, sectional view through the receptacle, taken on the line 5—5 of Fig. 1.

In the drawing, the same reference numerals refer to the same parts throughout the several views and the sectional view is taken looking in the direction of the arrows at the ends of the section line.

I have illustrated a receptacle comprising a body 10 formed of insulating material and recessed from its lower face to provide the chambers 11 in which the contacts are housed. The upper face of the receptacle body is substantially concave, the outer edge thereof being raised, as at 12, and the face being pierced, at 14, at substantially the lowest points of the concave face, to provide blade guideways leading to the chambers 11, within which the contacts are housed. The upper face of the body is provided with a central projection 15, located between the blade guideways 14, and having a central bore 16 therein, from which leads a passage 17 of smaller diameter receiving a tubular rivet 19, the head 18 of which is positioned in the bore 16. One side wall of each of the chambers 11 has a slot 25 extending therethrough, and the two slots 25 are located in opposite side walls of the body, as shown in Fig. 3. The blade guideways 14 are slightly offset from the inner side walls of the chambers 11, so as to form the overhanging shoulders 20, as seen in Fig. 5.

A contact is arranged in each of the chambers 11. Each contact comprises a strip 21, located in the corresponding slot 25, and having, at one end, a contact portion 22 extending downwardly from the strip 21, bent laterally at 23 to form the base of the contact, and then bent upwardly and toward the portion 22 to form the contact finger 24, so that these portions form opposed contact fingers housed within the chamber 11 of the receptacle. Upon the other end of the contact strip 21, a flange 27 is formed constituting a terminal flange and provided with a tapped hole 28 to receive a terminal screw. The lower side portions of the receptacle body are cut away on either side of the central part, so as to form the shoulders 26, one on each side of the receptacle body, which shoulders are located with one edge in line with the corresponding slot 25. The contacts are located in the chambers 11 with the base portion 23 of each contact substantially in line with the lower face of the receptacle body, the strip portion 21 located in the corresponding slot 25, and the terminal flange 27 engaging

the lower surface of the corresponding terminal shoulder 26. That shoulder is provided with a recess 30 to receive the projecting end of the terminal screw 29. The upper end of the portion 22 of the contact is curved laterally somewhat, as at 38, and engages the shoulder 20 in the chamber 11, which serves as a stop to limit the upward movement of the contact within the chamber.

When the contacts have been inserted in the chambers 11, a sheet 31 of insulation is applied to the lower face of the receptacle body and closes the lower ends of the chambers 11. The tubular rivet 19, in the passage-way 17, projects through this sheet of insulation and is upset or spun over it, so as to secure it in position and thus support the contacts in housed position in the chambers 11. A receptacle-supporting yoke 33 is provided which underlies the sheet of insulation 31 and is provided with laterally-extending arms 34, by which the receptacle may be mounted in position in the manner well understood in this art. A central hole 35 is provided in the base of the yoke 33, to receive the riveted-over portion of the rivet 19, and the yoke is secured in position by a screw 36 screwed into the tubular rivet 19 and having a head engaging the base of the yoke. It will be observed that the contacts are supported in position by the sheet of insulation independently of the receptacle-supporting yoke and that the latter may be removed entirely from the receptacle without disturbing the assembly thereof, that is, without disturbing the means which support the contacts in housed position within the receptacle body.

Both the body of insulating material and the contacts are of such form that they can be manufactured very cheaply and efficiently and their assembly is a comparatively simple matter so that the resulting receptacle is one which can be manufactured at a cost less than those heretofore on the market. Furthermore, the construction of the upper face of this receptacle is such as to guide the blades of the attachment plug into the proper position for insertion in the blade guideways and this facilitates the use of the receptacle.

I am aware that the construction illustrated may be varied considerably without departing from the spirit of my invention and, therefore, I am not to be restricted to the specific construction shown except as required by the appended claim.

What I claim is:

An attachment plug receptacle comprising a body of insulating material recessed from its lower face to provide contact receiving chambers and pierced from its upper face to form guideways leading to said chambers, said body having a central passage extending transversely therethrough and of greater diameter at its upper end than at its lower, contacts positioned in said chambers, a sheet

of insulating material applied to the lower face of said body, and a rivet in said central passage projecting through said sheet and upset to secure the latter to the body and a receptacle supporting yoke underlying said sheet and provided with an opening of larger area than the upset portion of said rivet for reception of said portion of the rivet.

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