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S. G. ANDERSON

2,993,188

TERMINAL FOR PRINTED CIRCUIT CARD

Filed Nov. 6, 1958

Fig.2

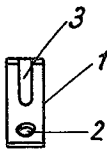


Fig.1

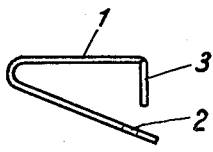


Fig.3

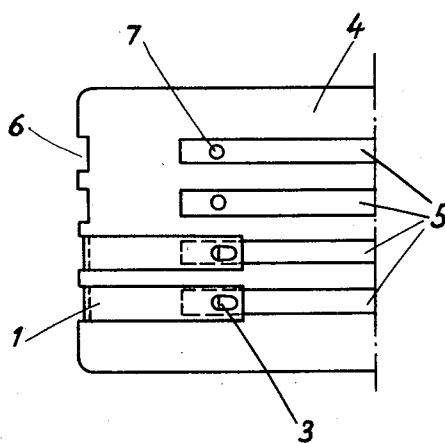


Fig.5



Fig.6

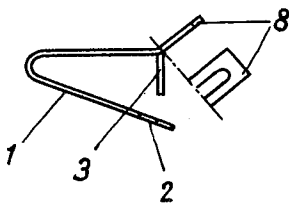
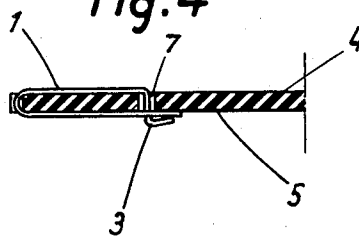


Fig.4



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1

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TERMINAL FOR PRINTED CIRCUIT CARD

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1 Claim. (Cl. 339-17)

The present invention refers to a contact plug device specially for printed circuits that are made on cards or plates of insulating material and designed for plugging into a fixed contact device.

At a known device the foil outlets of the printed circuits are designed as contacts. However, the foil is thin and easily torn and a convenient surface finish of the contacts such as gold or silver plating is difficult to carry out. At another known device contact metal strips are used, that are fastened to the plate by means of nails or rivets, but this device is relatively laborious to manufacture.

In the contact plug of the invention these disadvantages are eliminated and this is achieved principally by means of a metal strip that is placed round the edge of the plate and fixed to the same by means of a tongue provided at one end of the strip, which tongue passes through a hole in the plate and engages with the other end of the strip.

The invention will be further described by means of an embodiment with reference to the attached drawing, that shows the contact plug together with the contact strip used. FIG. 1 shows a side view and FIG. 2 an end view of the contact strip, while FIG. 3 shows a plan view of the contact plug and FIG. 4 shows a cross sectional view of the same. FIGS. 5 and 6 show alternative forms of the contact strip.

At 1 is indicated a contact metal strip that is bent principally in a U-form. The strip is provided with a hole 2 at the end of one branch and with a tongue 3 at the other end. The width of the tongue is somewhat smaller than the diameter of the hole, so that the tongue can be put through the hole.

On a plate 4 of insulating material a number of foil outlets 5 from printed circuits are arranged. Along one edge of the plate, that is intended to support the contact strips, the plate is provided with recesses for guiding of the contact strips. The widths of the recesses are equal to that of the strips, and their depths correspond approximately to the thickness of the strips. For fastening of the contact strips the plate is furthermore provided with holes 7 for the tongues of the contact strip. When mounting a strip the tongue is put through the hole 7

2

and through the hole 2 of the proper strip and bent (FIGURE 4).

The foil outlets 5 from the printed circuits are placed in such a manner that when mounting the strips they will be situated beneath said strips, whereby each strip makes contact with an underlying foil outlet. Soldering of the bent part of the tongue 3 to the adjacent part of the contact strip and the underlying foil outlet 5 can be made together with soldering of all the connections of the plate in the known way by means of so-called dip or series soldering in a soldering machine, whereby the contact surfaces of the strips are protected by being covered for instant with tape or a convenient sheet-metal.

The contact strip according to FIG. 5 is made of resilient material and with curved branches. Such a contact strip will work as a banana contact and the corresponding contacts of the fixed contact device may be designed as not resilient contacts. The contact strip can also be provided with a soldering tag 8 as shown in FIGURE 6.

I claim:

In a printed electrical circuit having an electrical conductor mounted upon one side of a supported insulated base plate having perforations extending through said conductor and said base plate adjacent to a marginal edge of said base plate, a terminal for said electrical conductor comprising an elongated strip having a transverse bend line defining one end of a pair of legs bendable toward each other about said bend line, the opposite end of one of said legs adapted to overlie said conductor and having an aperture adapted to be aligned with one of said perforations, the opposite end of said strip adapted to overlie the opposite side of said base plate from said conductor and having a tongue of reduced width receivable through said one perforation for insertion into said aperture of said one leg of said terminal, and said tongue being bendable in a direction away from said transverse bend line into overlying parallel relationship with said opposite end of said one leg of said terminal.

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