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[54] **ELECTRICAL CONNECTOR**
 1 Claim, 2 Drawing Figs.

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[56]

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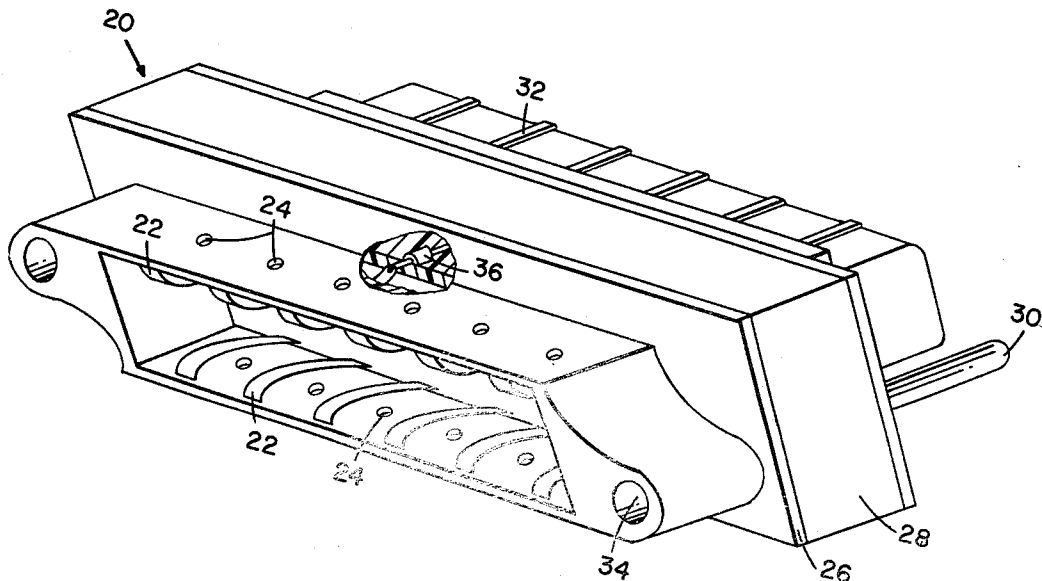
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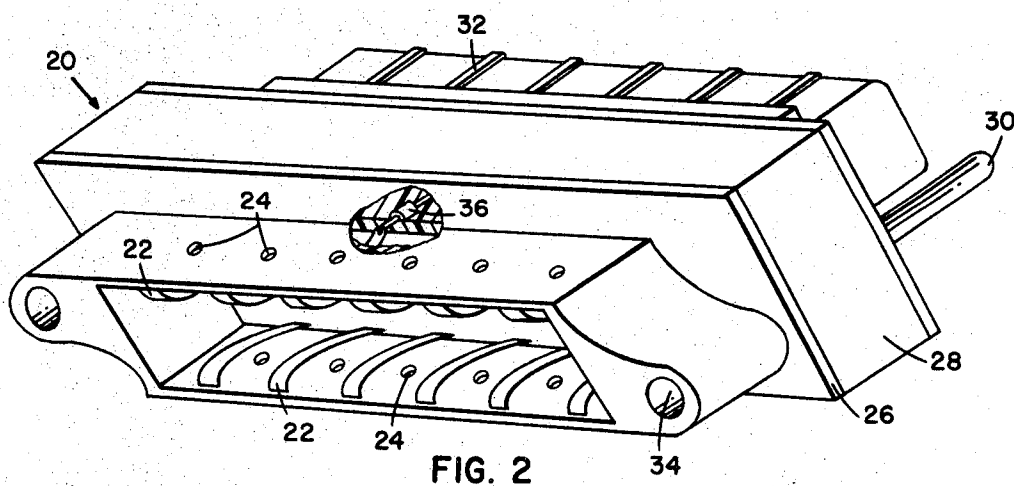
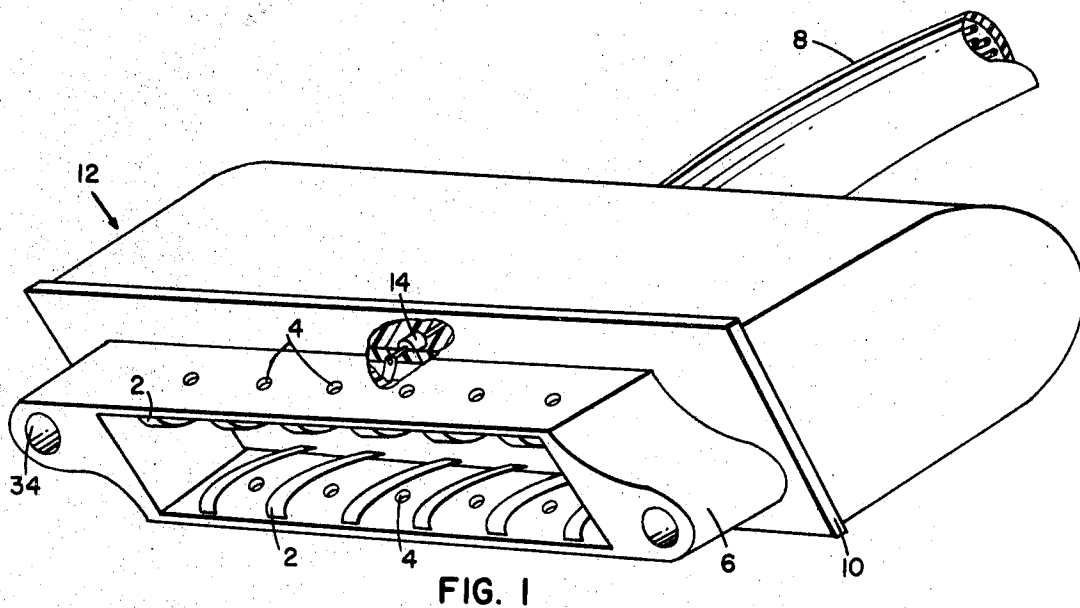
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ABSTRACT: An electrical connector having holes predeterminedly located therein whereby a test probe may be inserted to make contact with a particular contact of the connector.



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ELECTRICAL CONNECTOR

DEDICATORY CLAUSE

The invention described herein may be manufactured, used, and licensed by or for the Government for governmental purposes without the payment to me of any royalty thereon.

BACKGROUND OF THE INVENTION

Routine maintenance of missile systems requires that certain voltages or signals be checked. It is necessary to check the majority of these points inside the chassis. Many of these points are hard to get to or identify quickly. Others are precariously placed, making them difficult to reach without physical harm to the technician or danger of shorting the test point to another point within the chassis.

SUMMARY OF THE INVENTION

The present invention provides for a simple and direct manner in which any contact within a connector may be contacted with a test probe. The female part of the connector is fabricated such that a small opening is provided through which a test probe may be inserted to make contact with the contact of the connector. A numbered opening is provided for each contact.

DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a female connector plug, partly cut away.

FIG. 2 is a perspective view, partly cut away, of an adapter having a male and female portion.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1, contacts 2 are numbered from 1-6 on one side and from, 7-12 on the other side. Holes 4 are positioned in housing 6 such that one hole is immediately adjacent each contact. The hole may be any particular size to accommodate a particular test probe or may be made to have a rubber grommet through which the probe may be forced to engage contacts 2. The conductors of cable 8 are connected to terminals 14 on the back of faceplate 10 and encapsulated to form moldform connector 12. Each terminal of the back of faceplate 10 is connected to respective ones of contacts 2, numbered 1-12.

FIG. 2 discloses a connector adapter which may be inserted into an existing connector and thus provide convenient test

points without having to replace any existing cabling. Adapter 20 may be made to coordinate with any connector design. Basically, adapter 20 provides a male portion having the desired number of contacts 22 and a female portion also having the desired number of contacts 22. Test holes 24 are positioned adjacent each contact of the female portion. Contacts 22 and 32 are connected to respective terminals 36 on the back of faceplates 26. The area between faceplates 26 is then filled with molding compound 28. The adapter may be permanently inserted into any existing connector to provide convenient and accurate access to any contact for test purposes and to maintain circuit continuity. Guide pins 30 and guide pin holes 34 provide orientation for the adapter of FIG. 2 or the connector of FIG. 1.

It will be apparent to those skilled in the art that changes may be made in the form of the apparatus disclosed without departing from the spirit of the invention as set forth in the appended claims, and that in some cases certain features of the invention may sometimes be used to advantage without a corresponding use of the other features. As examples, the female portion of the adapter disclosed in FIG. 2 could be filled in with potting material to provide a device that could be used only during a desired test. The device could be inserted into a chassis to conveniently present the test points and removed after the points have been tested. In many cases the connector of FIG. 1 may be better utilized if the cable conductors and the terminals on the back of faceplate 10 are not encapsulated in a molding compound.

I claim:

1. An electrical connector comprising: a faceplate; a housing having a hole therethrough; a first plurality of contacts fixedly disposed on the sides of said hole; a first plurality of terminals disposed on a first side of said faceplate; said housing being disposed on a second side of said faceplate; means connecting said contacts to respective ones of said terminals; an individual perforation for each of said contacts, said perforation piercing said sides and communicating with said contacts; a second faceplate; a member secured to a first side of said second faceplate; a second plurality of terminals disposed on a second side of said second faceplate; a plurality of contacts disposed on a first and second side of said member; said first and second sides of said member being parallel and intersecting with said second faceplate; means joining said first plurality of terminals to respective ones of said second plurality of terminals and means encapsulating said means for joining said first plurality of terminals to respective ones of said second plurality of terminals.

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