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L. H. HILL
CONNECTER

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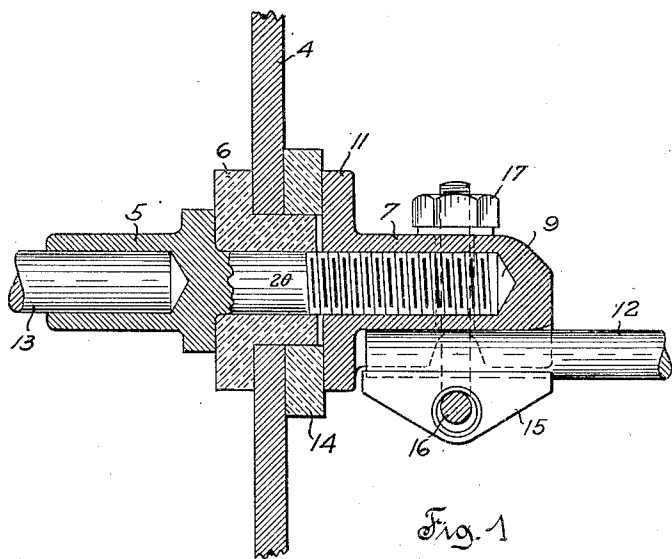


Fig. 1

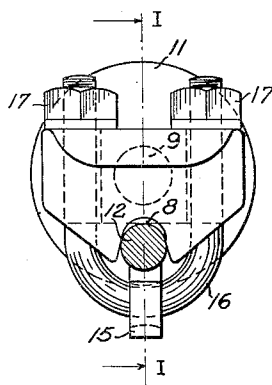


Fig. 2

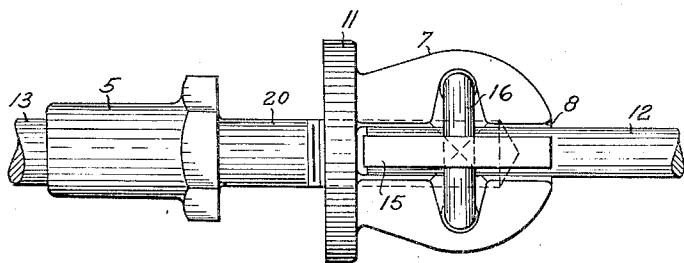


Fig. 3

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CONNECTER

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2 Claims. (Cl. 173—324)

This invention relates generally to connectors for removably connecting one conductor to others and particularly to connectors wherein one conductor is removably fastened to the connector by means of a screw thread or is permanently fastened to the conductor by sweating or soldering, and the other conductor or conductors are removably fastened to the connector by clamping means.

It is an object of this invention to provide a novel and improved connector of the above type, wherein the size of the connector is greatly reduced while at the same time the connector is stronger and more rugged.

It is a further object of this invention to provide a connector in which the body of the connector is more efficiently related to the clamping means physically, electrically and mechanically.

Another object of the present invention is to provide a connector of the above type, when used in an abutting relation to a supporting member, with a clamping means so related to the body of the connector as to greatly reduce the extent of the connector from the supporting member.

These and other objects and advantages are attained by this invention, various novel features of which will be apparent from the disclosure and drawing herein and will be more particularly pointed out in the claims.

An illustrative example of an application of this invention is shown in the accompanying drawing, in which:

Figure 1 is a sectional view of the assembled connector taken on the line I—I of Fig. 2;

Fig. 2 is an end view of the connector as shown in Fig. 1;

Fig. 3 is a bottom view of the connector.

The connector has a body member 7 which has a flange 11 on one end which provides an enlarged flat surface capable of forming an abutting support for the connector assembly.

The body member 7 has a longitudinal opening 9 which, as shown, may be threaded to receive therein a threaded portion of the shank 20 of a conducting stud member 5. The stud 5 is arranged to receive a conductor 13 therein which is fastened thereto in a suitable manner as by sweating or soldering. In the bottom of the body member 7 is a longitudinal groove 8 adapted to receive a conductor 12 which is clamped to the body member 7 by a U-shaped bolt 16 and saddle member 15. The bolt 16

straddles both the groove 8 and the opening 9 and is adjusted into clamping relation by the nuts 17.

Upon assembling the connector the stud 5 which has been connected to a conductor 13 by sweating or soldering is inserted through an opening in a casing 4 through an insulating bushing member 6. If the casing is non-conducting the members 6 and 14 may be omitted. An insulating gasket 14 is then placed in position and the connector screwed on to the stud 5, the flange 11 tightly clamping the stud member in position and rigidly supporting the same on the casing 4. The conductor 12 is then inserted in the groove 8 and the U-bolt adjusted to clamping relation by the nuts 17.

By arranging the groove 8 in overlapping relation to the longitudinal opening 9, the extent of the connector from the casing 4 is very materially reduced. This makes the connector more rugged and avoids breakage due to any strain that may be applied by the conductor 12 or due to an accidental blow delivered to the connector itself. This feature is of especial importance where the connector is the only member extending from the casing 4 as, for example, where the casing 4 is a transformer casing and connectors such as shown form the secondary terminals thereof. Also due to the overlapping relation of the two conducting members less material is necessary between them and hence a shorter electrical path is provided and the size of the connector is materially reduced without reducing mechanical strength.

Although only one embodiment of the present invention has been illustrated and described, it will be apparent to those skilled in the art that various changes and modifications may be made therein without departing from the spirit of the invention or from the scope of the appended claims.

It is claimed and desired to secure by Letters Patent:

1. In combination, a casing provided with an aperture therein, a conducting stud provided with a shoulder in abutting relation to one side of said casing and having a screw threaded portion extending through said aperture, a connector provided with a body member having an opening therein adapted to receive said screw threaded portion of said stud member, a flanged portion on said body member in abutting relation to the other side of said casing, a groove in the outer surface of said body member adapted to receive an additional conductor

therein in overlapping relation to said opening and means for clamping said additional conductor to said body member, said means including a member provided with portions extending through said body member and straddling said opening and said groove.

2. In a device of the character described, a casing provided with an insulated aperture therein, means for clamping a connector in said aperture comprising a conducting stud member provided with a shoulder in abutting relation to one side of said casing and provided with a screw threaded portion extending through said aperture, said means further comprising a body

member of said connector having a flanged portion in abutting relation to the other side of said casing and further provided with an opening in said body member adapted to receive said screw threaded portion of said stud member, means for clamping an additional conductor to said body member, said means comprising a groove in the outer surface of said body member overlappingly adjacent said opening and said last said means further comprising a U-bolt provided with portions extending through said body member and straddling said opening and said groove.

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