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(54) **Connector**

(57) A connector (1) for a cable (2) with a plurality of conductors and a common shielding (3), comprises a housing (4) of insulating material with contacts to be connected with the conductors, and a metal hood (5). The housing is at least partially accommodated in the hood and the shielding of the cable can be connected to the hood. The hood (5) is made as an integral part and surrounds an upper part of the housing only. The housing (4) is detachably mounted in the hood (5) by means of springy latching hooks (6) engaging in latching openings (7) of the hood.

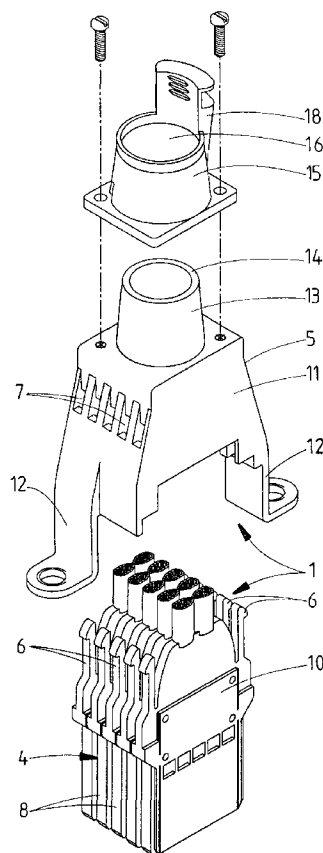


fig. 1

Description

The invention relates to a connector for a cable with a plurality of conductors and a common shielding, comprising a housing of insulating material with contacts to be connected with the conductors and a metal hood, the housing being at least partially accommodated in the hood, wherein the shielding of the cable can be connected to the hood.

At the known connector of this type the hood comprises two or more parts engaging partially around the housing, wherein by attaching the hood parts one to the other the housing is attached into the hood by cooperating lugs and recesses. Further, the construction of the known connector is such that it is not possible to insert two connectors one next to the other in one complementary connector in such a manner that the spacing between the contacts of adjacent connectors corresponds with the intermediate spacing of the contacts within one connector.

It is an object of the invention to provide a connector of the above-mentioned type wherein it is possible to quickly mount the housing in the hood.

A further object of the invention is to provide a connector of this type wherein the connectors are stackable, i.e. wherein the intermediate spacing between adjacent contact locations of two adjacent connectors corresponds with the intermediate spacing between adjacent contact locations within one connector.

To this end the connector of the above-mentioned type is characterized according to the invention in that the hood is made as an integral part and surrounds an upper part of the housing only, wherein said housing is detachably mounted in the hood by means of springy latching hooks engaging in latching openings of the hood. Thereby a connector is obtained, wherein the housing is mountable in the hood by simply inserting the upper part into the hood, whereby the latching hooks engage into the latching openings of the hood.

Preferably the latching openings are passages through the side walls of the hood in such a manner that the latching hooks of the housing can be pushed out of the latching openings from the outer side.

In a preferred embodiment of the connector of the invention the connector is stackable in that said housing has two opposite outer walls being coplanar with corresponding outer walls of the hood.

The invention will be further explained by reference to the drawings in which an embodiment of the connector of the invention is schematically shown.

Fig. 1 shows an exploded view of an embodiment of the connector of the invention.

Fig. 2 shows the connector of Fig. 1 as assembled.

Fig. 3 is a very schematically shown cross-section of the connector of the invention as inserted into a complementary connector.

Referring to the drawings a connector 1 is shown for a cable 2 with a plurality of not further shown con-

ductors and a shielding 3 shown in Fig. 3. The connector 1 is provided with a housing 4 of insulating material in which contacts not shown are received, wherein the conductors can be connected to the contacts. The connector 1 further comprises a metal hood 5 made as an integral part.

The housing 4 is detachably mounted in the hood 5 by means of springy latching hooks 6 engaging into latching openings of the hood 5. The housing 4 is an assembly of five modules 8 which are interconnected by means of pins and bores as further described in a patent application of the same applicant of the same date. Each module 8 includes two latching hooks 6.

The latching openings 7 of the hood 5 are made as passages through the side walls 9, so that the latching hooks 6 are accessible from the outer side and can be pressed out of the latching openings 7 to release the housing 4.

The housing 4 has two opposite outer walls 10, only one being shown in the drawings, said outer walls being in one plane with the corresponding outer walls 11 of the hood 5. Thereby a second connector 1 can be inserted adjacent to a first connector 1 into a complementary connector for receiving two connectors 1, for example, in such a manner that the intermediate spacing between adjacent contact locations of two connectors 1 is equal to the intermediate spacing between adjacent contact locations within one connector 1. In other words, in this manner the connector 1 is stackable.

The hood 5 comprises two flanges 12 by means of which the hood 5 can be connected to the shielding surrounding the complementary connector schematically shown in Fig. 3, as further described in the above-mentioned patent application of the same date.

The shielding 3 joins a conical outer wall 13 of an upright collar 14. A ring 15 is attached on the hood 5 and has a corresponding conical inner wall 16, wherein the shielding 3 is clamped between both conical walls 13 and 16. For a further explanation reference is made to a patent application of the same date of the same applicant. The cable 2 is clamped against an extension 18 of the ring 15 by means of a clamping strip 17.

It will be understood that it is of course possible to adapt the hood for receiving a housing which is assembled of a higher or lower number of modules 8.

It is further noted that in the described embodiment two twinaxial cables 19 are connected to each module 8. Therefore, in this case the cable 2 comprises ten twinaxial cables 19. It is however also possible to connect other types of cables or conductors to the modules 8 or to use other types of modules.

The invention is not restricted to the above-described embodiment which can be varied in a number of ways within the scope of the claims.

Claims

1. Connector (1) for a cable (2) with a plurality of conductors and a common shielding (3), comprising a housing (4) of insulating material with contacts to be connected with the conductors and a metal hood (5), the housing being at least partially accommodated in the hood, wherein the shielding of the cable can be connected to the hood, **characterized in that** the hood (5) is made as an integral part and surrounds an upper part of the housing only, wherein said housing (4) is detachably mounted in the hood (5) by means of springy latching hooks (6) engaging in latching openings (7) of the hood. 5 10 15
2. Connector according to claim 1, wherein said latching openings (7) of the hood (5) are passages through the side walls (9) of the hood in such a manner that the latching hooks (6) of the housing (4) can be pushed out of the latching openings from the outer side. 20
3. Connector according to claim 1 or 2, wherein said housing (4) has two opposite outer walls (10) being coplanar with corresponding outer walls (11) of the hood (5). 25
4. Connector according to claim 1, 2 or 3, wherein said housing (4) is an assembly of a plurality of equal interconnected modules (8), each module being provided with two latching hooks (6). 30
5. Module (8) for a connector (1) according to anyone of the preceding claims, comprising two springy latching hooks (6) for mounting the module in a hood (5). 35
6. Hood (5) for a connector according to anyone of claims 1-4, comprising latching openings (7) made as passages in two opposite side walls (9). 40

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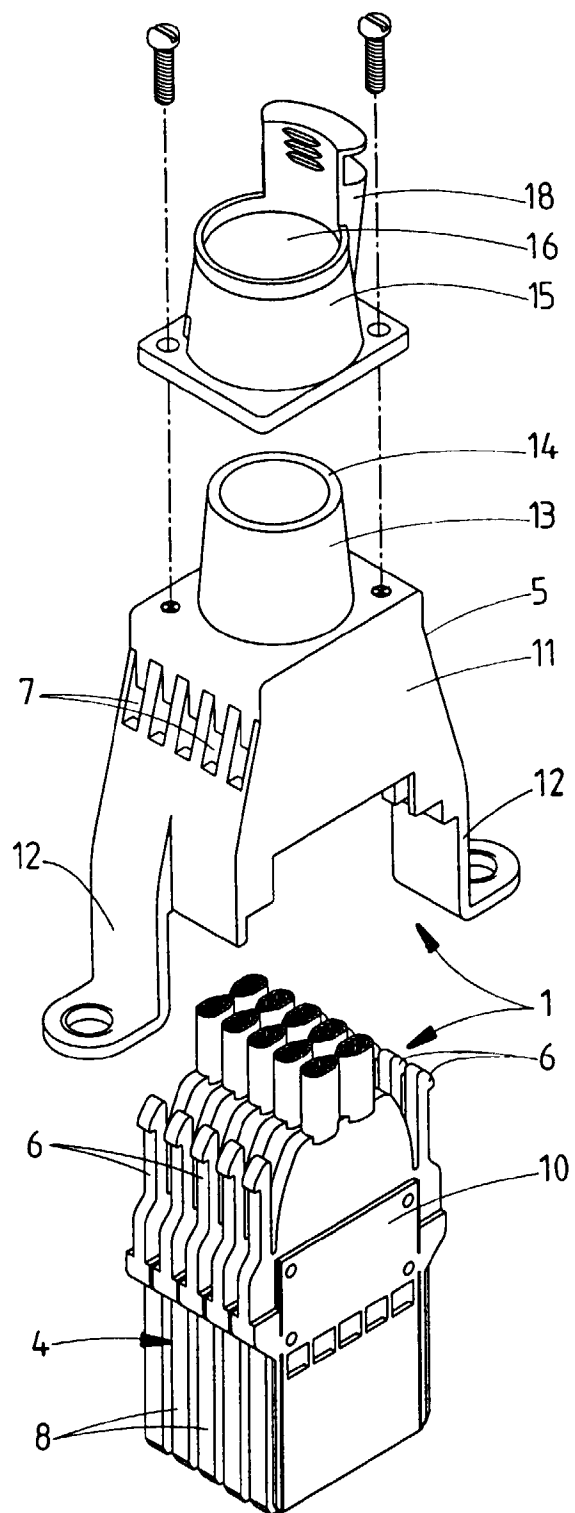


fig. 1

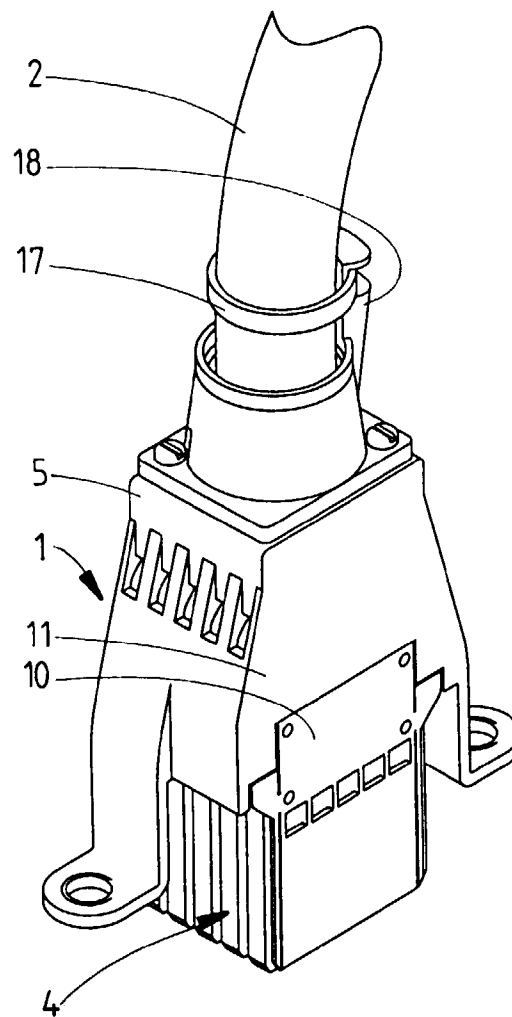


fig.2

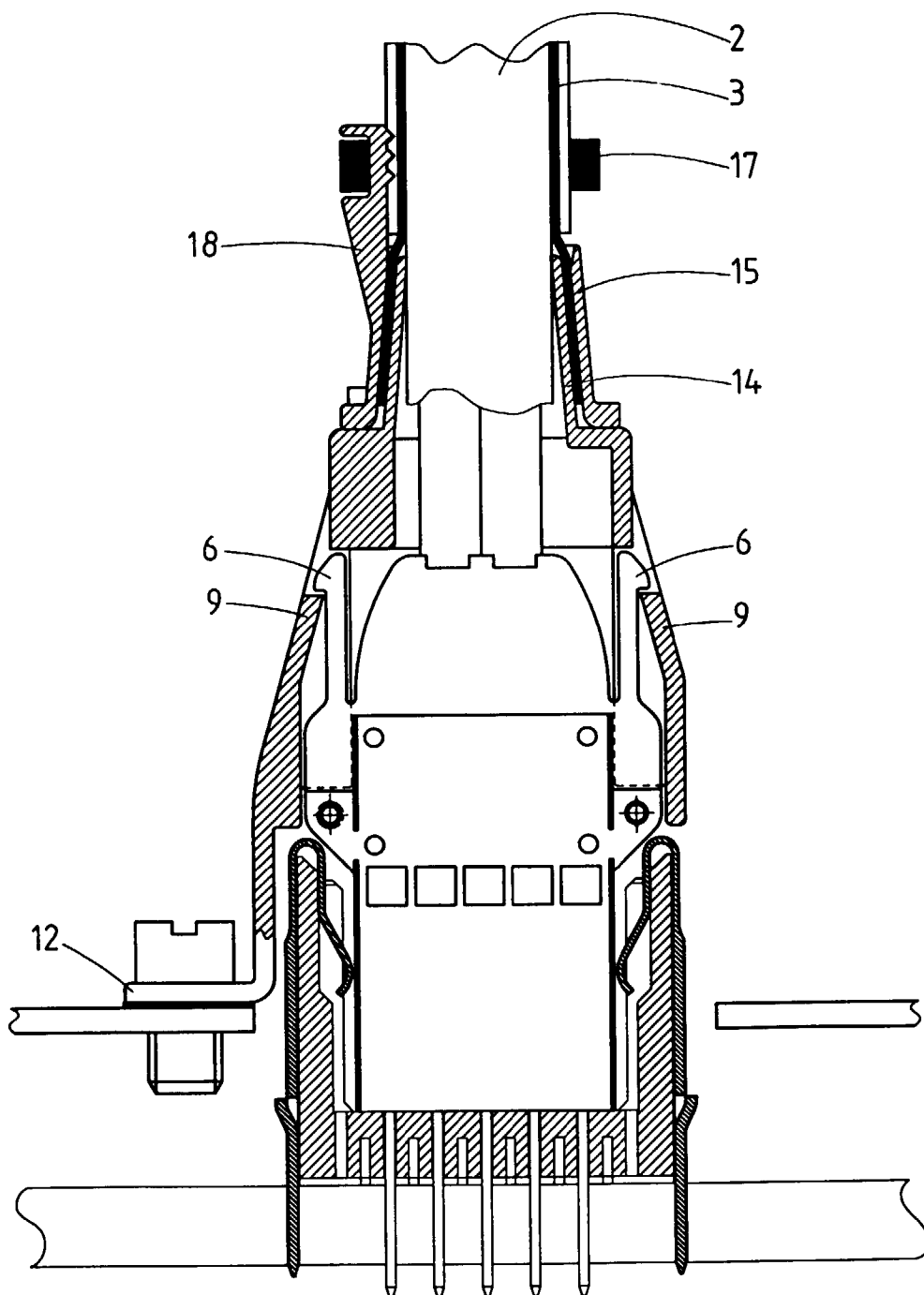


fig.3



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EUROPEAN SEARCH REPORT

Application Number
EP 96 20 0807

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	WO-A-92 22943 (GORE & ASS) 23 December 1992 * column 6, paragraph 2 - page 11; figures 1-16 *	1-5	H01R13/516 H01R13/627 H01R13/514
A	DE-U-93 11 781 (SIEMENS AG) 30 September 1993 * page 1 - page 12; figures 1-5 *	1	
A	AU-B-446 128 (BRYANT MANUFACTURING PTY. LIMITED) 25 February 1974 * page 2 - page 8; figures 1-4 *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H01R
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 17 July 1996	Examiner Tappeiner, R
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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