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(11) **EP 1 571 740 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
07.09.2005 Bulletin 2005/36

(51) Int Cl.7: **H01R 31/02, H01R 13/70**

(21) Application number: **05388018.3**

(22) Date of filing: **03.03.2005**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR**
Designated Extension States:
AL BA HR LV MK YU

(72) Inventor: **Hansen, Flemming Dyhr**
4873 Vaeggerlose (DK)

(74) Representative: **Carlsson, Eva et al**
Internationalt Patent-Bureau,
Hoeje Taastrup Boulevard 23
2630 Taastrup (DK)

(30) Priority: **04.03.2004 DK 200400079**

(71) Applicant: **Hansen, Flemming Dyhr**
4873 Vaeggerlose (DK)

(54) **Electrical socket outlet device**

(57) A socket outlet device comprising a casing (1) having an integral plug (1a) and at least two branched sockets (2, 3), in which each of the branched sockets

(2, 3) is provided with an individual switch (10, 11) for individual connection and disconnection of the electrical connection between each branched socket (2, 3) and the integral plug (1a).

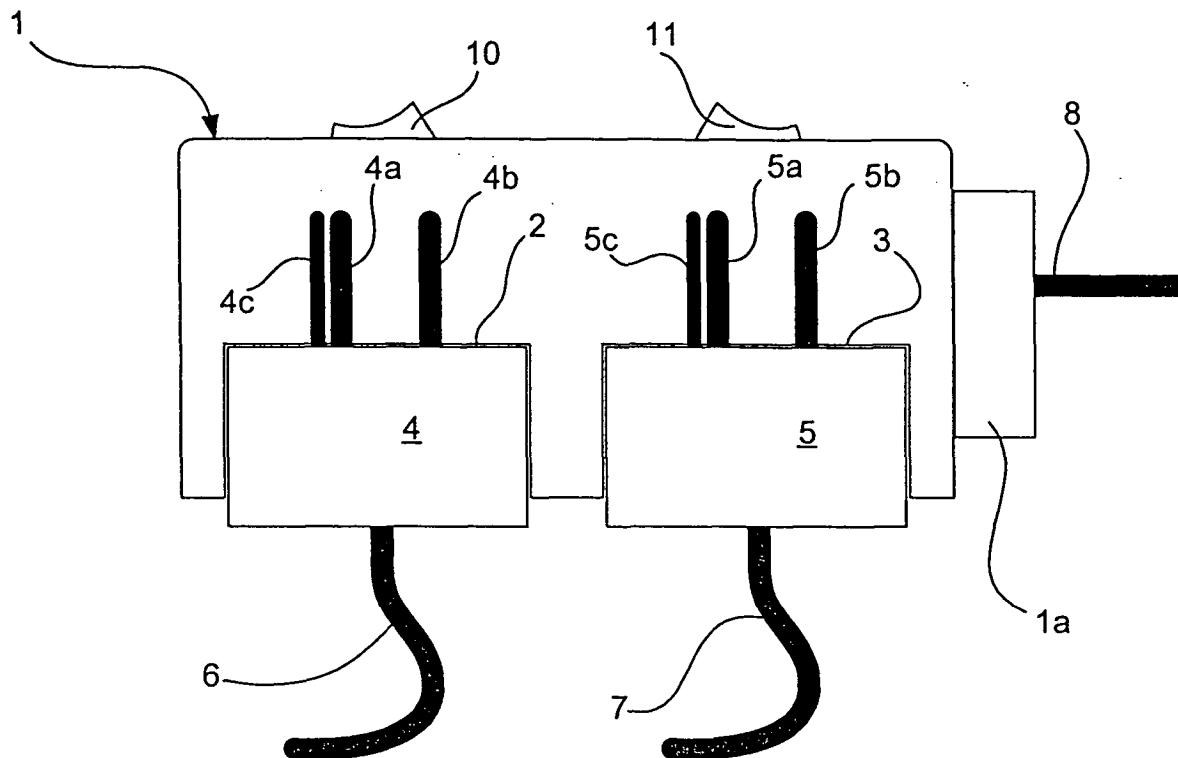


Fig. 1

EP 1 571 740 A1

Description

[0001] The invention relates to an electrical socket outlet device comprising a hollow casing, at least two branched sockets located in the casing and being each adapted to receive a plug, which is separate from the socket outlet device, and a plug integral with the casing to be inserted into a corresponding feed socket separate from the socket outlet device, wherein electrical conductors in the hollow casing connect the at least two branched sockets with the integral plug.

[0002] Many different embodiments of socket outlet devices of this type are known and are often used in situations, where it is advantageous to change one single feed socket, such as a wall socket, into two or more branched sockets. In particular in situations, in which only a single wall socket is available, it will be possible by means of the device described by way of introduction at the location of the wall socket and without the use of an extension lead to change the wall socket into several branched sockets, the subsequent advantages thus being gained.

[0003] Many existing wall sockets are not equipped with a switch for connection and disconnection of the electrical connection, which is often to the considerable inconvenience of the users. Often, it will thus be easier to switch off directly on the wall socket and also more safe, if the alternative in respect of each disconnection of the electrical device in question is to pull out the plug of either the socket or the apparatus with the risk of an electric shock or exposure of plugs, pins and lead to wear or even deterioration.

[0004] Furthermore, it has, due to the recently increasing awareness of the passive energy consumption of electrical devices, become to an even higher degree desirable to be able to switch off the electrical connection to such devices directly at the wall socket. This is, however, not possible in respect of the known socket outlet devices.

[0005] The object of the present invention is to provide a socket outlet device of the type mentioned by way of introduction, said socket outlet device overcoming the above-mentioned drawbacks.

[0006] In view of this, the socket outlet device according to the invention is characterized in that the casing is provided with an individual switch for each branched socket for individual connection and disconnection of the electrical connection between each of the at least two branched sockets and the integral plug.

[0007] By means of the socket outlet device according to the invention it is thus possible to establish a division of one existing feed socket without a switch into several branched sockets all being provided with an individual switch. The socket outlet device according to the invention thus combines the possibility of branching a feed socket with the possibility of providing the socket with a switch in such a manner that each feed socket is equipped with an individual switch.

[0008] The socket outlet device thus makes it possible for instance to equip an existing wall socket without a switch with a device changing the wall socket into several sockets, which are placed at the wall and which are equipped with individual switches. This makes it possible in an advantageous manner to separately connect or disconnect the electrical connection to various different electrical apparatuses from a single wall socket without a switch.

[0009] The socket outlet device according to the invention thus overcomes the drawbacks described of the existing socket outlet devices, which in many cases ensures an easier and safer connection and disconnection of electrical apparatuses and which may bring about considerable saving of energy.

[0010] In an embodiment of the invention the switches are positioned on the opposite side of the casing relative to their respective associated branched sockets. This reduces the production costs at the manufacture of the socket outlet device, just as the device can be positioned in the feed socket in such a manner that the switches facing in a direction, in which easy access to the switches is obtained without pins inserted in the branched sockets and the associated lead interfering with the operation of the switches.

[0011] The invention will be described in detail in the following by means of examples of embodiments with reference to the schematic drawing, in which

Fig. 1 is a lateral view of an embodiment of the socket outlet device according to the invention,

Fig. 2 is a bottom view of the socket outlet device according to Fig. 1, and

Fig. 3 is a top view of the socket outlet device according to Figs 1 and 2.

[0012] The embodiment shown in the drawing of a socket outlet device according to the invention comprises a casing 1 with two branched sockets 2, 3, which each comprises three pin holes in the form of conductive pin holes 2a, 2; 3a, 3b and pin holes 2c, 3c, respectively, for a possible earthing pin in three-pin plugs. Leads and wiring within the casing 1 may be made in a manner known per se or in any other suitable manner.

[0013] In the branched sockets in Fig. 1 two three-pin plugs 4, 5 have been inserted, each having a pair of pins 4a, 4b, 4c; 5a, 5b, 5c. From each plug 4, 5 conductive leads 6, 7 extend, said leads being connected to an electrical apparatus (not shown).

[0014] In the embodiment shown, it is of course also possible to plug in plugs without earthing pins, just as it is possible to design the socket outlet device according to the invention without holes for earthing pins. It is, of course, possible to place two-pin plugs (i.e. without earthing) in the feed sockets 4, 5.

[0015] In the casing 1 a plug 1a is moreover integrated, said plug comprising two pins 8, 9 protruding from the right end of the casing 1 and intended for being

plugged into a feed socket (not shown), such as a wall socket.

[0016] At the upper side, i.e. at the top of Fig. 1, two switches 10, 11 have been arranged for connection and disconnection of the electrical current between the branched sockets 2, 3 and the integral plug 1a. In Fig. 1 the switches 10, 11 are shown in connected condition and disconnected condition, respectively, current being supplied to the apparatus, which is connected to the branched socket 2, whereas current is not supplied to the apparatus, which is connected to the branched socket 3. The switches 10, 11 are not limited to the toggle switch embodiment shown. They may, for instance, also be designed as displaceable switches or any other suitable type of switches.

[0017] The invention is not limited to the embodiment shown in the drawing. It is for instance possible to place the integral plug pin at the other end of the casing, on the bottom of the casing or on one of the sides of the casing, just as the switches may be placed on one or more of the sides or ends of the casing. The sockets themselves may also have other shapes than the circular one shown, for instance substantially rectangular. The branched sockets and the switches may also be placed on the same surface of the socket outlet device.

[0018] The socket outlet device may further comprise more than two branched sockets, for instance three or four branched sockets, without exceeding the scope of the invention.

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Claims

1. An electrical socket outlet device comprising a hollow casing (1), at least two branched sockets (2, 3) located in the casing and being each adapted to receive a plug (4, 5), which is separate from the socket outlet device, and a plug (1a) integral with the casing (1) to be inserted into a corresponding feed socket separate from the socket outlet device, wherein electrical conductors in the hollow casing connect the at least two branched sockets (2, 3) with the integral plug (1a), **characterized in that** the casing (1) is provided with an individual switch (10, 11) for each branched socket (2, 3) for individual connection and disconnection of the electrical connection between each of the at least two branched sockets (2, 3) and the integral plug (1a).
2. An electrical socket outlet device according to claim 1, **characterized in that** the switches (10, 11) are positioned on the opposite side of the casing (1) relative to their respective associated branched sockets (2, 3).

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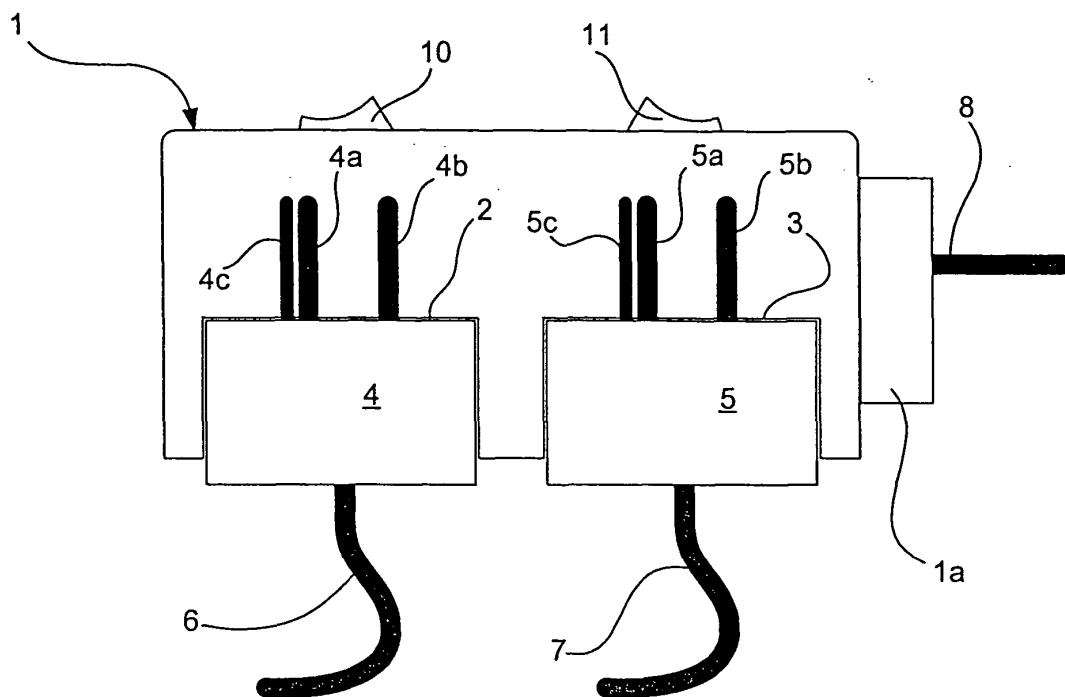


Fig. 1

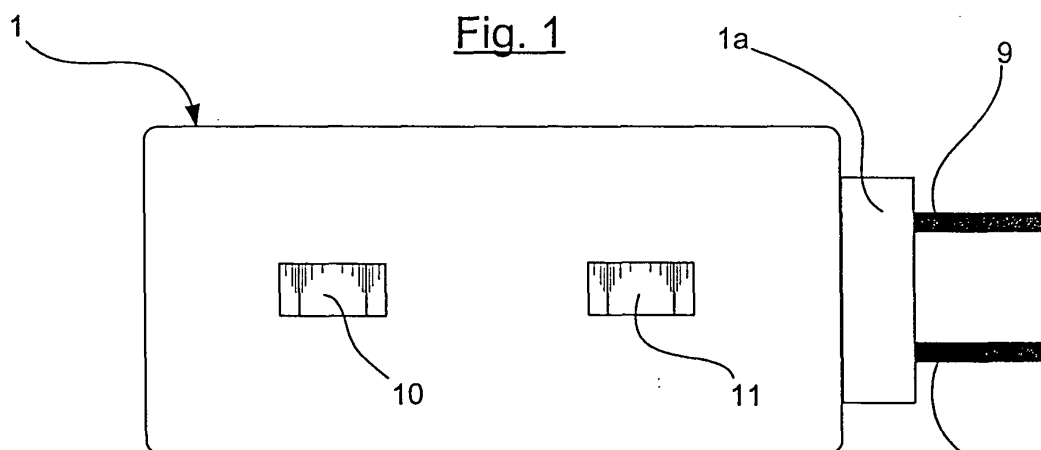


Fig. 2

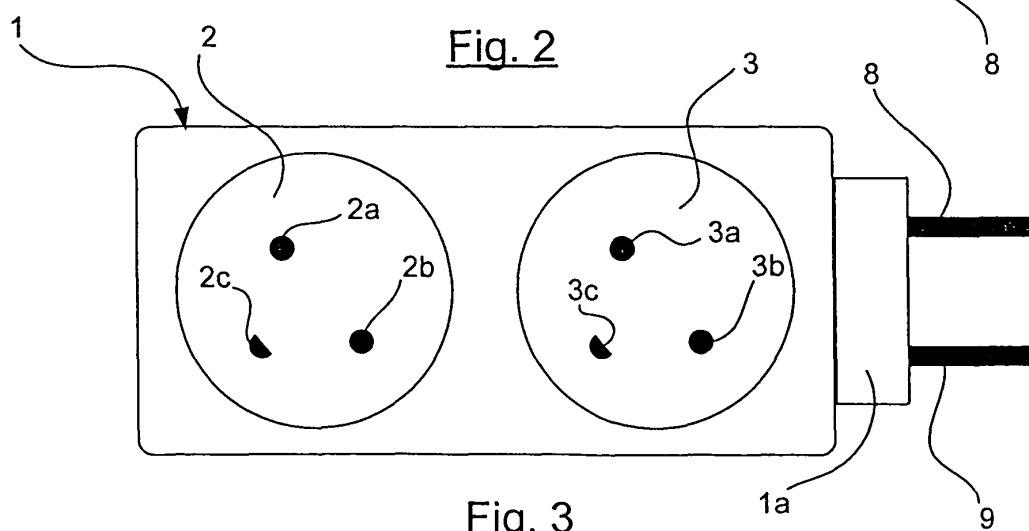


Fig. 3



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EUROPEAN SEARCH REPORT

Application Number
EP 05 38 8018

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 2003/176101 A1 (MILLER DONALD J. E) 18 September 2003 (2003-09-18) * paragraph [0004] *	1	H01R31/02 H01R13/70
Y	US 2002/195324 A1 (LEE JAE HA) 26 December 2002 (2002-12-26) * figure 14 *	1	
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A	US 6 220 880 B1 (LEE CHIU-SHAN ET AL) 24 April 2001 (2001-04-24) * figure 7 *	1	
A	US 2 706 225 A (C. W. FREEMAN) 12 April 1955 (1955-04-12) * column 2, line 66 - column 3, line 3 *	2	TECHNICAL FIELDS SEARCHED (Int.Cl.7) H01R
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 2 June 2005	Examiner Garcia Congosto, M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 05 38 8018

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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