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(71) Applicant: **All-Line Inc.**
Taipei (TW)

(72) Inventor: **Stekelenburg, Albert**
Taipei (TW)

(74) Representative:
LOUIS, PÖHLAU, LOHRENTZ & SEGETH
Postfach 3055
90014 Nürnberg (DE)

(54) Separable power strip

(57) A power strip including an outlet section and a separable cord section. The cord section includes a plug, an electrical connector and an electrical cord, while the outlet section mainly consists of a plurality of receptacles and a matching connector to be connected with the connector of the cord section. A number of options can be implemented on the cutlet sections. For example, an outlet section may further have a surge protector, a timer and an on/off switch. Preferably, the cord section comes with different cord lengths. With the separable power strips, the consumer can simply buy a separate cord section and connect it to an existing outlet section if he or she needs a power strip with a different cord length. When the cord section of a power strip becomes defective, one can simply replaced the defective cord section with anther cord section, without throwing away a working outlet section.

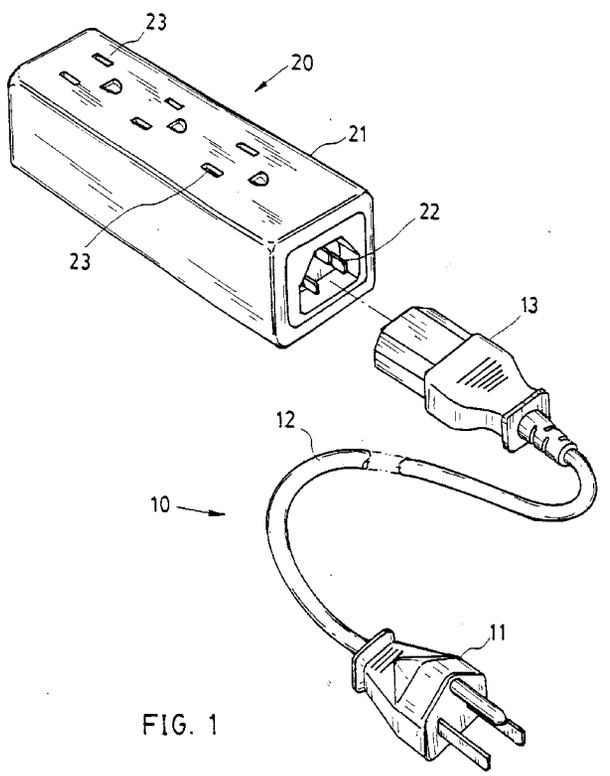

FIG. 1

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Description

Field of the Invention

[0001] The present invention is related to a power strip having a plurality of electrical outlets.

Background of the Invention

[0002] Extension cords and power strips are common household objects which are used as a means to effectively extend the length of the electric cord on an electric appliance or device. In general, an extension cord consists of a plug for receiving electric power from a wall socket, an electrical cord and at least one receptacle for providing electric power to one or more electric devices. In general, an extension cord does not come with a surge protector circuit and, therefore, it is not very useful for providing electrical power to a voltage sensitive device such as a computer. A power strip generally consists of a plug, an electrical cord and one or two rows of electrical receptacles. Some power strips also come with an on/off switch and a surge protector circuit. However, the electrical cord on the power strip is an integral part of the strip and its length is fixed. If the plug, the on/off switch or the surge protector circuit becomes defective, the entire power strip is usually thrown away. Moreover, a power strip with a short electrical cord cannot be used to connect to an electric device which is quite far from a wall socket. A power strip with an electrical cord with an excessive length, however, is costly and untidy.

[0003] It is advantageous to provide a multiple-outlet power strip wherein the length of the power cord can be changed.

Summary of the Invention

[0004] It is an objective of the present invention to provide a power strip wherein the length the electric cord can be changed.

[0005] It is another objective of the present invention to provide a power strip wherein the outlet section can be replaced or interchanged.

[0006] The above objectives can be achieved by providing a power strip having two separable sections: a cord section and an outlet section. The cord section consists of a plug, an electrical connector and an electrical cord electrically connecting the plug and the connector, the outlet section mainly consists of a plurality of receptacles and a matching connector to be connected with the connector on the cord section. A number of options can also be implemented on the outlet section. For example, an outlet section may further comprise a surge protector device, a timer or an on/off switch. Preferably, the cord section comes with different cord lengths. With the separable power strips, the consumer can simply buy a separate cord section and connect it to an existing outlet section if he or she needs a power strip with a different cord length. When the cord section becomes defective, one can replace the defective cord section with another cord section, without buying another outlet section.

[0007] The objectives and the scopes of the present invention will become apparent upon reading the description of the drawing.

Brief Description of the Drawing

[0008] Fig.1 shows a preferred embodiment of the separable power strip, according to the present invention.

[0009] Fig.2 shows another embodiment of the present invention.

[0010] Fig.3 shows an embodiment of the outlet section of the separable power strip.

[0011] Fig.4 shows another embodiment of the outlet section.

[0012] Fig.5 shows yet another embodiment of the cutlet section.

Detailed Descripticn of the Invention

[0013] Fig.1 shows a preferred embodiment of separable power strip, according to the present invention. As shown in Fig.1, the separable power strip consists of a cord section 10 and an outlet section 20. The cord section 10 comprises an electrical cord 12, a first connector 13, and a plug 11 for receiving electric power from a wall socket or a similar receptacle. Preferably, the first connector 13 is a female connector. The outlet section 20 mainly comprises a power strip body 21 to accommodate a plurality of receptacles 23, and a second connector 22 to be connected with the first connector 13 of a cord section. Preferably, the second connector 22 is a male connector. It is also preferred that the cord section comes with different cord lengths so that a consumer can select a cord section with a proper length to connect it to an outlet section.

[0014] Fig.2 shows another embodiment of the present invention. As shown in Fig.2 the cord section 30 comprises an electrical cord 33, a connector 34, and a Plug 31 having a surge protector device 32 so that an electric device that receives electric power through the connector 34 is protected from unexpected power surge. The connector 34 is compatible with the second connector 22 of the outlet section 20 shown in Fig.1. In that respect, the cord section 10 and the cord section 30 are interchangable.

[0015] Fig.3 shows an embodiment of the outlet section of the separable power strip. As shown in Fig.3, the outlet section 40 comprises a power strip body 41 to accommodate a plurality of receptacles 43, a connector 42 and a time 44 which can be set to turn on or cut off the Power in one or more receptacles 43 for a preset period at a preset time. The outlet section may further comprise an on/off switch 46 which can be manually op-

erated to turn on or cut off the power in all receptacles 43. It is understood that the connector 42 is compatible with the first connector 13 of the cord section 10 or the connector 34 of the cord section 30 shown in the previous drawing figures.

[0016] Fig.4 shows another embodiment of the outlet section. As shown in Fig.4, the outlet section 50 comprises a power strip body 51 to accommodate a plurality of receptacles 53, a timer 54, a connector 52 and a surge protector device 55. It is understood that the connector 52 is compatible with the first connector 13 of the cord section 10 or the connector 34 of the cord section 30. Preferably, an on/off switch 56 is provided on the outlet section to turn on or trun off the power.

[0017] Fig.5 shows yet another embodiment of the outlet section. As shown in Fig.5, the outlet section 60 comprises a power strip body 61 to accommodate a plurality of receptacles 63, a connector 62 and a surge protector device 64. It is understood that the connector 62 is compatible with the first connector 13 of the cord section or the connector 34 of the cord section 30. In that respect, the outlet section 60 are interchangeable with the outlet section 50 shown in Fig.4, the outlet section 40 shown in Fig.3, and the outlet section 20 shown in Fig.1 and Fig.2. The connector 62 may be designed to be compatible with the receptacle on a regular extension cord, so that the outlet section can be used in conjunction with a regular extension cord. But it can also be designed to be compatible with a PC power cord. It is also understood that one or more receptacles 63 can be designed as a universal socket, or an electrical socket compatible with a PC power cord. Moreover, the outlet section may further comprise a plurality of telephone jacks to accommodate telephone lines and fax machine data lines, and the telephone jacks may be surge-protected.

[0018] The present invention has been disclosed in preferred forms and the drawing figures are for illustrative purposes only. It shall be understood by those skilled in the art that many modifications, additions and deletions can be made therein without departing from the scope of the invention as set forth in the appended claims.

Claims

1. A power strip to be plugged into a wall socket to receive electric power comprising an outlet section and a separable cord section, the cord section comprising a plug, a first electrical connector and an electrical cord electrically connecting the plug and the first connector, the outlet section comprising a plurality of receptacles and a second electrical connector for electrically connecting to the first electrical connector to receive electric power therefrom.

2. The power strip of Claim 1 wherein the cord section further comprises a surge Protector device.

3. The power strip of Claim 1 wherein the outlet section further comprises a surge protector device.

4. The power strip of Claim 1 wherein the outlet section further comprises a timer capable of being set to turn on or cut off the power in one or more receptacles at a preset time for a preset period.

5. The power strip of Claim 1 wherein the outlet section further comprises an on/off switch.

6. The power strip cf Claim 4 wherein the outlet section further comprises a surge protector device.

7. The power strip of Claim 1 wherein at least one of the receptacles is a universal socket.

8. The power strip of Claim 1 wherein at least one of the receptacles is compatible with a PC power cord.

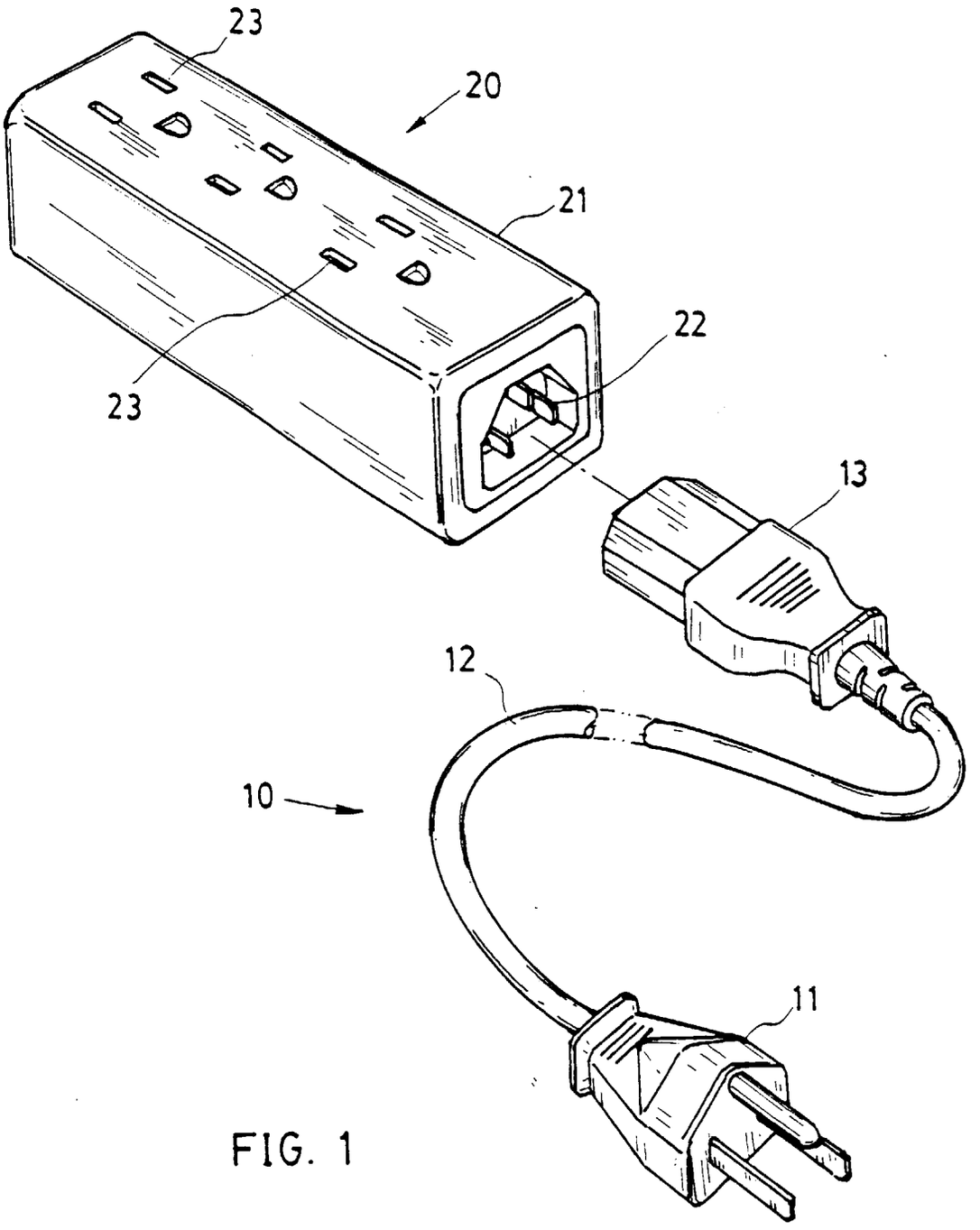

FIG. 1

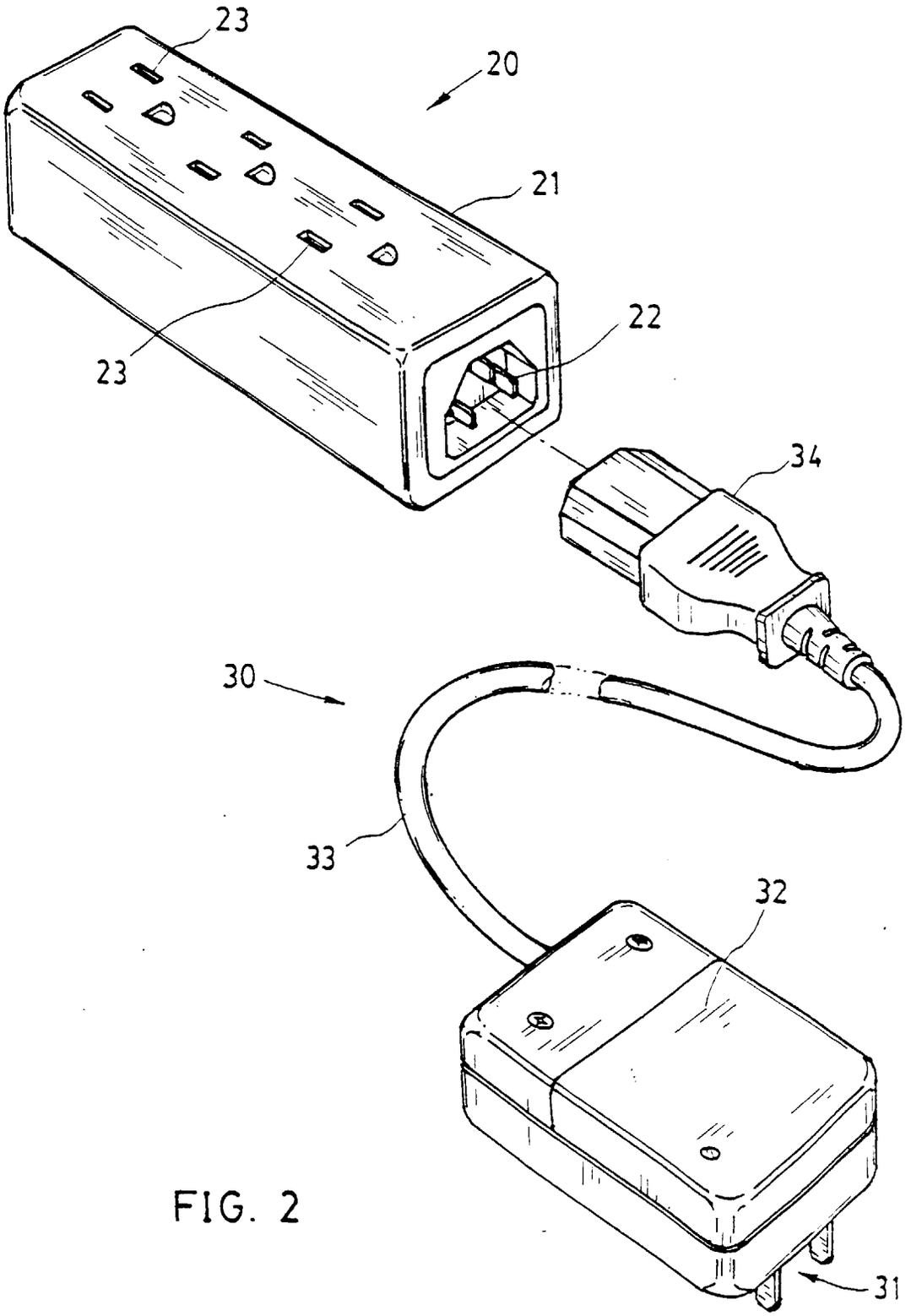

FIG. 2

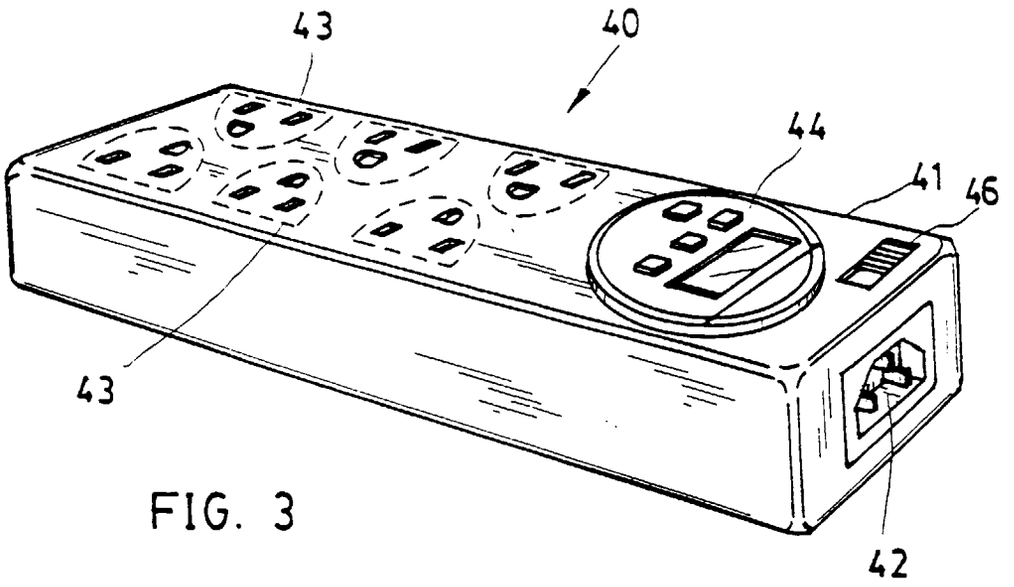

FIG. 3

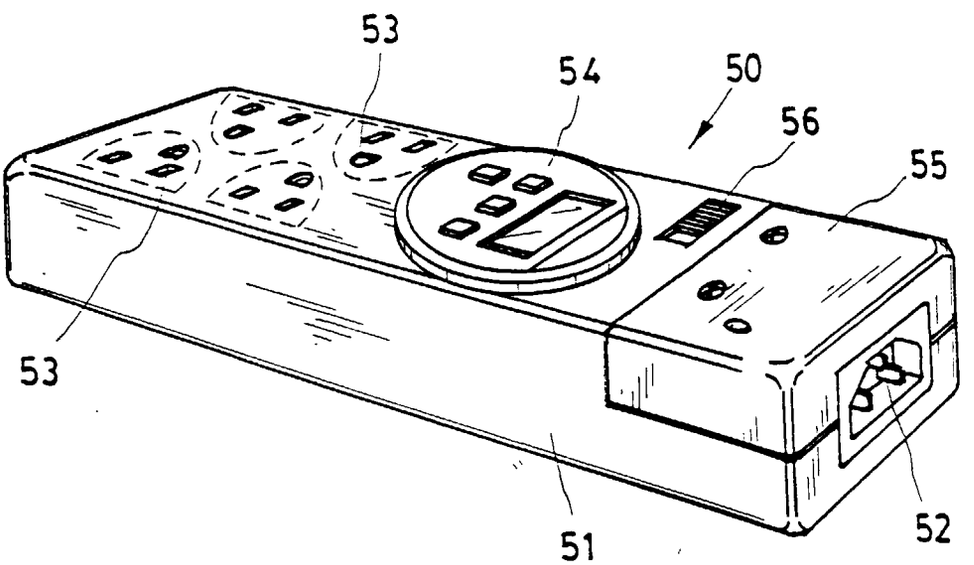

FIG. 4

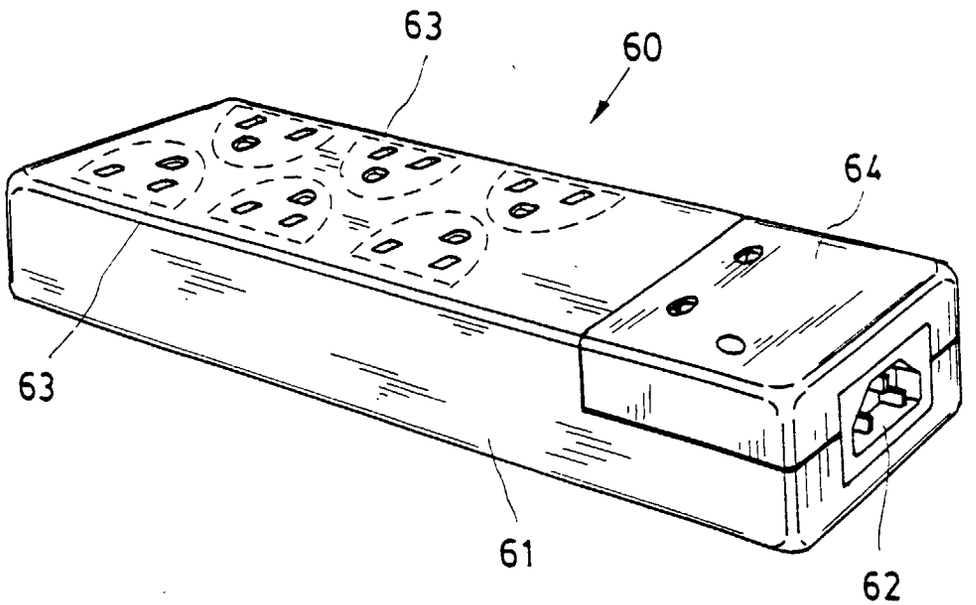

FIG. 5

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EUROPEAN SEARCH REPORT

Application Number
EP 98 11 1942

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)
X A	DE 296 18 638 U (HOFFMANN JOSEF) 13 February 1997 * the whole document *	1 5,8	H01R31/06 H01R27/02 H01R13/66
A	US 5 721 934 A (SCHEURICH CHRISTOPH E) 24 February 1998 * column 8, line 10 - line 51; figure 4 *	1,4,5,7,8	
A	DE 38 02 853 C (TELEFUNKEN ELECTRONIC GMBH) 19 January 1989 * the whole document *	2,4	
A	US 5 742 466 A (KRAM HARVEY) 21 April 1998 * column 2, line 15 - column 3, line 3 *	3-6	
A	US 4 907 118 A (HAMES EDWARD L) 6 March 1990 * column 3, line 47 - column 4, line 26; figure 1 *	2	

TECHNICAL FIELDS SEARCHED (Int.Cl.6)

H01R

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	17 November 1998	Salojärvi, K

CATEGORY OF CITED DOCUMENTS

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17-11-1998

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