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(54) **Multiplex extension cord for communications and power cables**

(57) The invention relates to a multiple extension cord for communications and power cables formed by at least one electrical cable (1), one telephone cable (2) and one television antenna cable (3), an insulating and flexible outer tubular body (5) housing them therein, leaving the fixed end and the free end (4) of each of the cables (1, 2, 3) exposed, and a casing (6) with electrical (7), telephone (8) and television antenna (9) outlets to which the fixed ends of the cables (1, 2, 3) are connected, the free ends (4) of said cables (1, 2, 3) being couplable to electrical (7), telephone (8), and television antenna (9) outlets arranged in an enclosure. The extension cord can additionally have additional cables such as a SCART connector (11), an HDMI cable (14), or additional feeder cables (13) for their connection to a SCART connector socket (12) or an HDMI socket (15) of electronic apparatus.

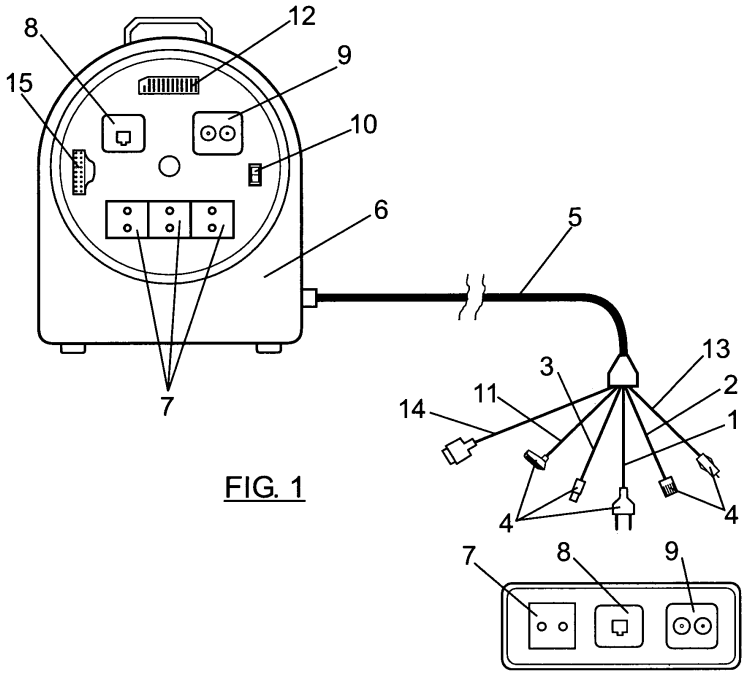


FIG. 1

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## Description

### Technical Field of the Invention

**[0001]** The present utility model belongs to the technical field of electrical accessories and cables, and more specifically to the technical field of extension cords, multiples and terminal strips for power cables.

### Background of the Invention

**[0002]** There are currently a great number of accessories for electric power cables intended to increase the distance from electrical outlets to which electrical apparatus can be connected, and also to be able to connect a plurality of electrical apparatus in one electrical outlet.

**[0003]** Extension cords are known in this sense consisting of a long cable which at one of its ends has a plug which is connected to the electrical outlet and at its other end has an electrical outlet to which electrical apparatus can be connected by means of a traditional socket at a considerable distance from the wall outlet. The problem with this type of extension cord is that it only allows connecting one electrical apparatus.

**[0004]** Multiples, or multisockets, solve the previous problem since they consist of a long cable and furthermore a casing comprising several electrical outlets instead of a single outlet. A plurality of electrical apparatus can thus be connected at a considerable distance from the wall outlet.

**[0005]** Terminal strips are similar to multiples and also have a long cable and a casing with several electrical outlets, and further have a switch in the casing which allows the passage of the current or closes it, therefore providing an additional safety feature.

**[0006]** All these devices have the drawback that they can only be used for electric power cables, when similar needs are known in communication cables such as telephone cables and television antenna cables. In other words the lengths of the cables can on occasions be short for connecting an apparatus to a telephone or television antenna outlet, and furthermore a large number of long cables, which get mixed up and become tangled generating problems for the user, is necessary in many arrangements.

**[0007]** A system solving the drawbacks existing in the previous systems of the state of the art is therefore desired.

### Description of the Invention

**[0008]** The present invention solves the problems existing in the state of the art by means of a multiple extension cord for communications and power cables having an electrical cable, a telephone cable and a television antenna cable, each one of these having a fixed end and a free end.

**[0009]** The multiple extension cord also has an insulating and flexible outer tubular body, which can be made of plastic and which houses therein the assembly formed by the electrical cable, the telephone cable and the television antenna cable grouped together, i.e. it envelopes the assembly of cables leaving both fixed and free ends of all cables exposed.

**[0010]** The multiple extension cord additionally has a casing which can also be made of plastic with a plurality of electrical outlets to which the fixed end of the electrical cable is connected, a telephone outlet to which the fixed end of the telephone cable is connected, and a television antenna outlet to which the fixed end of the television antenna cable is connected, the free end of the electrical cable being coupled to an electrical outlet, the free end of the telephone cable to a telephone outlet, and the free end of the television antenna cable to a television antenna outlet arranged in an enclosure.

**[0011]** The casing can thus be used as a conventional multiple for connecting several electrical apparatus, and a telephone and a television can further be connected in said casing without needing additional cables, given that the telephone and television antenna cables are included inside the tubular body of the multiple extension cord.

**[0012]** The casing can additionally include a television signal amplifier between the fixed end of the television antenna cable and the television antenna outlet of said casing in order to improve the television signal received.

**[0013]** In a preferred embodiment of the invention, the multiple extension cord can have a switch arranged in the casing and which is connected to the electrical cables. This switch opens and closes the passage of current to the electrical outlets of said casing.

**[0014]** The extension cord can further have a SCART connector cable inside the outer tubular body. This SCART connector cable also has a fixed end and a free end, both outside the outer tubular body. In this case the fixed end is connected to a SCART connector socket existing in the casing, and the free end can be coupled to a SCART connector socket of any electronic apparatus. Two apparatus which are spaced from one another can thus be connected via a SCART connector by means of the present multiple extension cord.

**[0015]** The extension cord also preferably has an HDMI cable oriented in the same manner as the rest of the cables, the fixed end of which is connected to an HDMI socket in the casing, and the free end to an HDMI socket of any electronic apparatus. Two apparatus, such as a video player and a display, spaced from one another can thus be connected via HDMI.

**[0016]** In a particular embodiment of the invention, the assembly of all the cables is grouped together and surrounded by a conventional shield mesh protecting them from external interferences and electrical noise.

**[0017]** The multiple communications and power extension cord of the present invention can additionally have an additional feeder cable also inside the outer tubular body. One end of this additional feeder cable can be connected to the lighter of a vehicle, the other end being

connected to a transformer arranged in the casing.

Description of the Drawings

**[0018]** An embodiment of the invention in reference to a figure will be described below in an illustrative and non-limiting manner to aid in understanding the invention.

**[0019]** Figure 1 shows a schematic view of the multiple extension cord object of the present invention, additionally showing the electrical, telephone and antenna cable outlets in the enclosure in which the extension cord is connected.

**[0020]** This figure refers to an assembly of elements which are:

1. electrical cable
2. telephone cable
3. television antenna cable
4. free end of the cables
5. outer tubular body
6. casing
7. electrical outlet
8. telephone outlet
9. television antenna outlet
10. switch
11. SCART connector cable
12. SCART connector socket
13. additional feeder cable
14. HDMI cable
15. HDMI outlet

Description of Preferred Embodiments of the Invention

**[0021]** As shown in the figure accompanying the description, the multiple extension cord for communications and power cables object of the present invention comprises an electrical cable 1, a telephone cable 2 and a television antenna cable 3. Each of these cables has a fixed end and a free end 4.

**[0022]** This electrical cable 1, telephone cable 2, and television antenna cable 3 are grouped together and enveloped by an insulating and flexible outer tubular body 5, except the fixed ends and the free ends 4 of each of the cables 1,2,3, which are outside the outer tubular body 5.

**[0023]** The multiple extension cord additionally comprises a casing 6 having a plurality of electrical outlets 7, a telephone outlet 8, and a television antenna outlet 9, the fixed end of the electrical cable 1 being connected to the plurality of electrical outlets 7, the fixed end of the telephone cable 2 to the telephone outlet 8 and the fixed end of the antenna cable 3 to the television antenna outlet 9. In addition, the free ends 4 of the electrical cable 1, of the telephone cable 2 and of the television antenna cable 3 are respectively coupled to an electrical outlet 7, to a telephone outlet 8 and to a television antenna outlet 9 arranged in an enclosure.

**[0024]** According to a preferred embodiment of the invention, the casing 6 further has a television signal amplifier placed between the fixed end of the television antenna cable 3 and the television antenna outlet 9 of said casing 6. The signal received through the television antenna cable 3 will be improved and a better television image will be provided by means of this signal amplifier.

**[0025]** In a particular embodiment of the multiple extension cord, the outer tubular body 5 and the casing 6 are made of plastic and the electrical outlet 7, the telephone outlet 8 and the television antenna outlet 9 are regularly arranged in said casing 6. A suitable distribution of the outlets 7, 8, 9 and a savings in space with respect to the longitudinal terminal strips and multiples of the state of the art is thus provided.

**[0026]** In a preferred embodiment of the invention, the multiple extension cord has a switch 10 in the casing 6 which is connected to the electrical cables 1. This switch 10 opens and closes the passage of current to the electrical outlets 7 of said casing 6 providing safety to said multiple extension cord.

**[0027]** In an additional embodiment of the invention, the multiple communications and power extension cord additionally has a SCART connector cable 11 inside the outer tubular body 6. This SCART connector cable 11 is oriented in the same direction as the electrical cable 1, the telephone cable 2 and the television antenna cable 3, and has a fixed end and a free end 4, both also outside the outer tubular body 6. The fixed end is attached to a SCART connector socket 12 existing in the casing 6 in this particular embodiment, whereas the free end 4 can be connected to a SCART connector socket 12 of any electronic apparatus. Two electronic apparatus, arranged at a distance from one another which a conventional SCART connector cable cannot cover, can thus be connected via SCART connector by means of the multiple communications and power extension cord.

**[0028]** In another preferred embodiment of the invention, the extension cord has an HDMI cable 14 with the same orientation as the rest of the cables 1, 2, 3, having a fixed end which is connected to an HDMI socket 15 arranged in the casing 6, and a free end which is connected to an HDMI socket of an electronic apparatus, being able to thus carry out the connection between two apparatus which are spaced from one another, for example a video player and a display.

**[0029]** According to a particular embodiment, the multiple communications and power extension cord further has an additional feeder cable 13 which is also inside the outer tubular body 6 and also has a fixed end and a free end 4. The additional feeder cable 13 is oriented in the same direction as the rest of the cables 1, 2, 3, 11, and its fixed end and its free end 4 are also exposed.

**[0030]** In this case the casing 6 has a transformer to which the fixed end of the additional feeder cable 13 is connected, and the free end 4 of the additional feeder cable 13 is coupled to the lighter of a vehicle. The multiple power extension cord can thus be used connected to a vehicle in the event that there is no nearby electrical outlet

7 or no power supply.

**[0031]** In a preferred embodiment of the invention, the assembly.of cables 1, 2, 3, 11, 13 which are inside the outer tubular body 6 is grouped and surrounded by a conventional shield mesh protecting them from external interferences.

## Claims

**1.** A multiple extension cord for communications and power cables, **characterized in that** it comprises at least

- one electrical cable (1),
- one telephone cable (2) and ,
- one television antenna cable (3)

the electrical cable (1), the telephone cable (2) and the television antenna cable (3) comprising a fixed end and a free end (4),

- an insulating and flexible outer tubular body (5) housing therein the assembly formed by the electrical cable (1), the telephone cable (2) and the television antenna cable (3) grouped together, leaving the fixed end and the free end (4) of each of the cables (1,2,3) exposed, and
- a casing (6) comprising a plurality of electrical outlets (7) to which the fixed end of the electrical cable (1) is connected, a telephone outlet (8) to which the fixed end of the telephone cable (2) is connected, and a television antenna outlet (9) to which the fixed end of the television antenna cable (3) is connected,

the free ends (4) of the electrical cable (1), of the telephone cable (2) and of the television antenna cable (3) being respectively couplable to an electrical outlet (7), to a telephone outlet (8), and to a television antenna outlet (9) arranged in an enclosure.

**2.** The multiple communications and power extension cord according to any one of the previous claims, **characterized in that** it additionally comprises a switch (10) arranged in the casing (6) and connected to the electrical cables (1), opening and closing the passage of current to the electrical outlets (7) of said casing (6).

**3.** The multiple communications and power extension cord according to any one of the previous claims, **characterized in that**

- it additionally comprises a SCART connector cable (11) inside the outer tubular body (6), with a free end (4) and a fixed end, and oriented in the same direction as the electrical cable (1), the telephone cable (2) and the television antenna cable (3), said free end (4) and said fixed end of the SCART connector cable (11) also being exposed,
- and **in that** the casing (6) additionally comprises a SCART connector socket (12) to which the fixed end of the SCART connector cable (11) is connected, the free end (4) of the SCART connector cable (11) being couplable to a SCART connector socket (12) of an electronic apparatus.

**4.** The multiple communications and power extension cord according to any one of the previous claims, **characterized in that**

- it additionally comprises an HDMI cable (14) inside the outer tubular body (6), with a free end (4) and a fixed end, and oriented in the same direction as the electrical cable (1), the telephone cable (2) and the television antenna cable (3), said free end (4) and said fixed end of the HDMI cable (14) also being exposed,
- and **in that** the casing (6) additionally comprises an HDMI socket (15) to which the fixed end of the HDMI cable (14) is connected, the free end (4) of the HDMI cable (14) being couplable to an HDMI socket (15) of an electronic apparatus.

**5.** The multiple communications and power extension cord according to any one of the previous claims, **characterized in that** it comprises an additional feeder cable (13) inside the outer tubular body (6), with a fixed end and a free end (4), and oriented in the same direction as the electrical cable (1), the telephone cable (2) and the television antenna cable (3), said free end (4) and said fixed end of the additional feeder cable (13) also being exposed,
and **in that** the casing (6) additionally comprises a transformer to which the fixed end of the additional feeder cable (13) is connected,
the free end (4) of the additional feeder cable (13) being couplable to a lighter of a vehicle.

**6.** The multiple communications and power extension cord according to any one of the previous claims, **characterized in that** the casing (6) additionally comprises a television signal amplifier placed between the fixed end of the television antenna cable (3) and the television antenna outlet (9) of said casing (6).

**7.** The multiple communications and power extension cord according to any one of the previous claims, **characterized in that** the assembly formed by the cables (1, 2, 3, 11, 13, 14) is covered by a shield mesh.

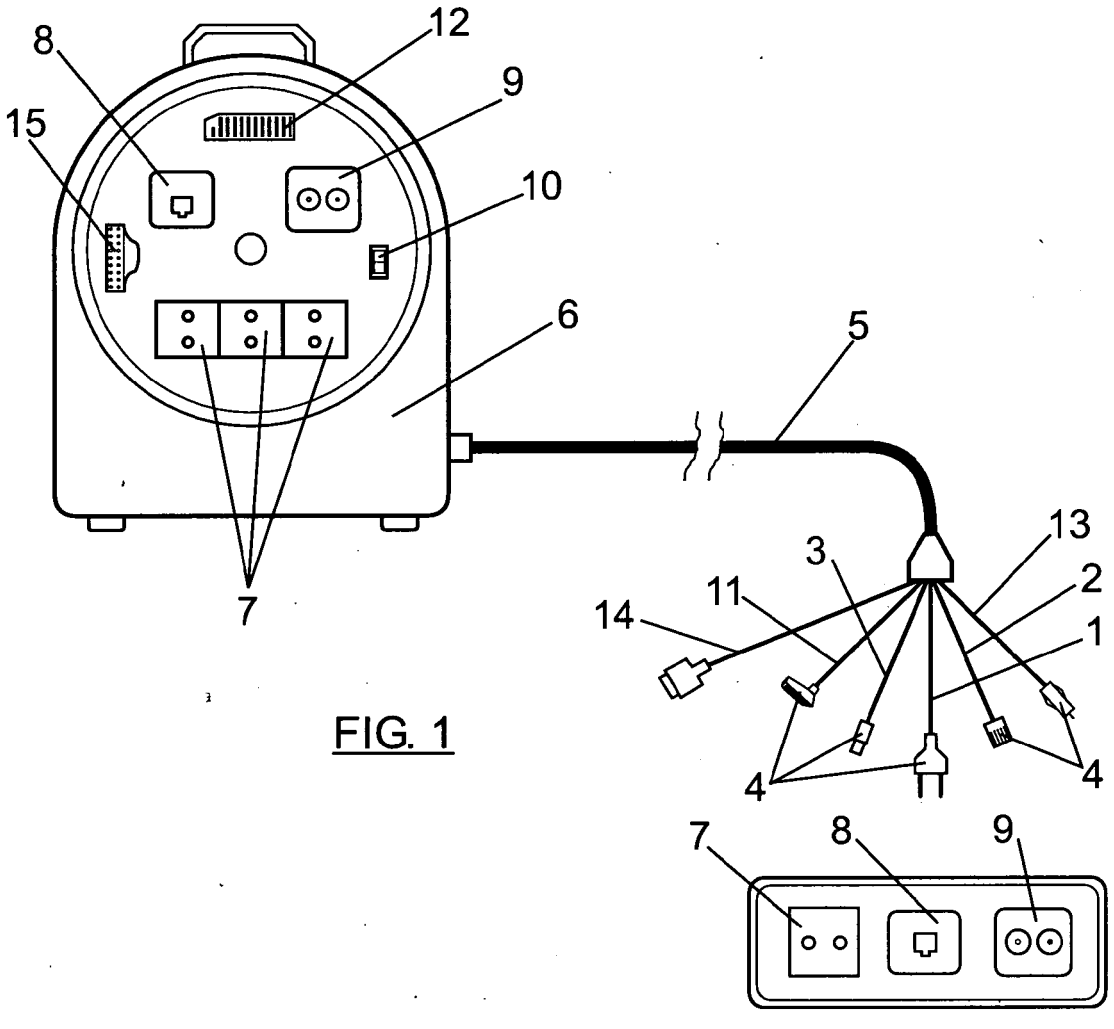


FIG. 1