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(54) Title: CHARGING ADAPTER FOR RADIOTELEPHONE

(57) Abstract: Portable radiotelephone (1) that operates wirelessly, which radiotelephone comprises one or more rechargeable batteries (8) for the current supply of the radiotelephone, and which radiotelephone comprises an adapter (5) fitted to the radiotelephone, which adapter comprises a plug or plugs (6) for connecting the radiotelephone directly to an AC network, and by means of which adapter one or more batteries of the radiotelephone can be charged.

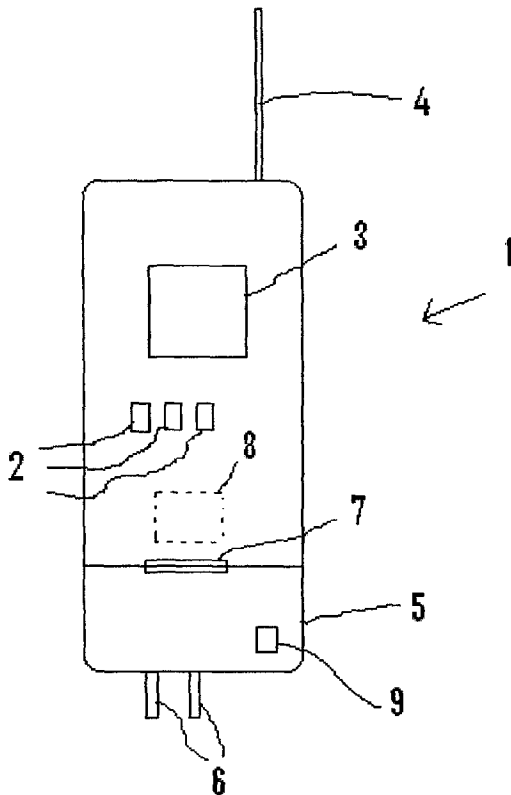


FIG. 1

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LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK,
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CHARGING ADAPTER FOR RADIOTELEPHONE

Background of the invention

- 5 The object of the invention is a portable radiotelephone that uses radio waves and operates wirelessly, such as e.g. a mobile phone, as defined in the preamble of claim 1.

Prior art

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A number of different portable radiotelephones are known in the art, which are used for different purposes, for professional use and for private use. Rechargeable batteries are used in radiotelephones for the current supply of the radiotelephones, and the batteries of radiotelephones are also charged with a separate charging apparatus, which charging apparatus is connected to a network current, and which charging apparatus further comprises leads for supplying charging current to the radiotelephone, for charging the batteries of the radiotelephone.

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A problem with prior-art solutions is that radiotelephone batteries require a separate charging apparatus for charging, and carrying it along can be awkward, and the charging apparatus can easily get lost, in which case charging of the batteries cannot be performed at all. In addition, the leads of the charging apparatus become easily entangled when e.g. they are carried in an accompanying bag that can contain other electronics comprising leads. An external charging apparatus of a radiotelephone is not a compact solution.

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The aim of this invention is to achieve a new type of radiotelephone, with which the drawbacks of prior-art solutions can be eliminated or reduced, and to achieve a radiotelephone, the batteries of which can easily be charged without a separate external charging apparatus of the radiotelephone being needed.

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Brief description of the invention

The radiotelephone according to the invention is characterized by what is stated in the characterization part of claim 1. The solution according

to the invention is also characterized by what is stated in claims 2-9. The solution according to the invention now being presented has some significant advantages when it is compared to prior-art solutions.

5 With the invention now being presented a new type of solution for a radiotelephone is achieved, wherein an adaptor is fitted to the radiotelephone, with which adapter the radiotelephone can be directly connected to a network current, for charging the batteries of the radiotelephone. With the solution according to the invention, the use of
10 a separate external charging apparatus of the radiotelephone can be avoided, and at the same time the problems it produces can be avoided. The solution according to the invention is also relatively simple and inexpensive to manufacture.

15 **Brief description of the figures**

In the following, the invention will be described in more detail by the aid of some embodiments with reference to drawings 1-2, in which the radiotelephone according to the invention is described.

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Detailed description of the invention

The radiotelephone 1 of Fig. 1 according the invention comprises one or more rechargeable batteries 8 for the current supply of the
25 radiotelephone, which battery is fitted inside the radiotelephone. The battery can be detachable or permanently built into or fitted into the radiotelephone. The radiotelephone comprises an adapter 5 fitted to the radiotelephone, which adapter comprises a connector 6, which can be e.g. a plug, for connecting the radiotelephone directly to an AC network
30 for charging the battery of the radiotelephone, such as to e.g. a 110-volt or 220-volt AC network or an AC network of some other voltage, and by means of the adapter one or more batteries of the radiotelephone can be charged from the AC network. According to Fig. 1, the adapter is fitted permanently to the radiotelephone, but the
35 adapter can also be detachable from the radiotelephone. The adapter is on the bottom part of the radiotelephone according to Fig. 1, but it can be situated also elsewhere, such as on the sides or on the rear side of the radiotelephone.

According to Fig. 1, the adapter is a part of the radiotelephone 1, but the adapter can also be detachable from the radiotelephone with a locking 7, such as with a quick-release locking. The quick-release locking can be a screw locking or some other suitable quick-release locking (not presented in figure). In Fig. 1 the display of the radiotelephone is marked with the reference number 3, and the buttons of the radiotelephone with the reference number 2, and also the antenna with the reference number 4. The radiotelephone according to the figure can also comprise a pushbutton or switch (9), with which the connector can be pushed inside the radiotelephone.

The adapter can be modular, in which case if the adapter is e.g. lost or broken, a corresponding adapter can be used. The connectors 6 of the adapter can be detachable and replaceable. The connector in the adapter 5 can be folded or pushed inside the adapter, as is presented in Fig. 2.

It is obvious to the person skilled in the art that the different embodiments of the invention are not either limited solely to the examples described above, and that they may for these reasons be varied within the scope of the claims presented below.

The radiotelephone described in the invention can be an ordinary portable radiotelephone, a mobile phone, or e.g. a mobile terminal, with which data can be sent and/or received.

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