

(12) United States Patent Kerai et al.

(54) BATTERY CHARGING

- (75) Inventors: Kanji Kerai, London (GB); Kalle Tuulos, Turku (FI)
- (73) Assignee: Nokia Mobile Phones Limited, Espoo (FI)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
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- (51) Int. Cl.⁷ H02J 7/00
- (58) Field of Search 320/106, 107, 320/110

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(45) Date of Patent: Mar. 11, 2003

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Primary Examiner-Edward H. Tso

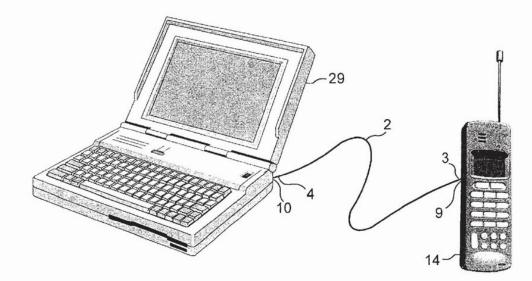
Assistant Examiner-Pia Tibbits

(74) Attorney, Agent, or Firm-Antonelli, Terry, Stout & Kraus, LLP

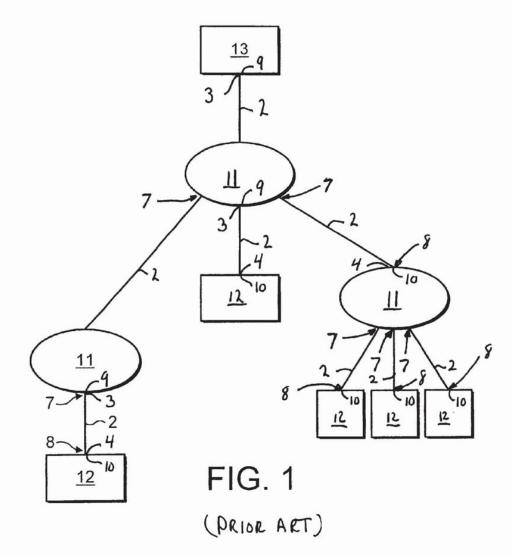
(57) ABSTRACT

A battery charging circuit is described in which power is derived from a communications port such as a USB interface (22) and is supplied to a rechargeable battery of a communications device. The communications device, which may be a mobile radio telephone, can be charged from the power supply or internal battery of a laptop computer equipped with a USB port and connected thereto with a suitable cable thereby avoiding the need for a user to carry a dedicated battery charger for the radio telephone.

44 Claims, 6 Drawing Sheets



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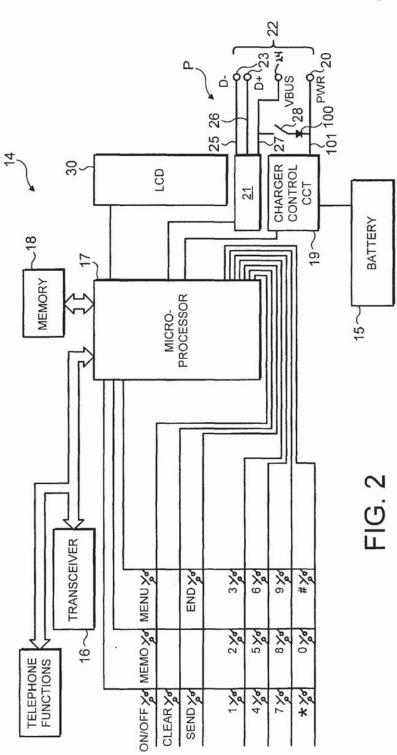
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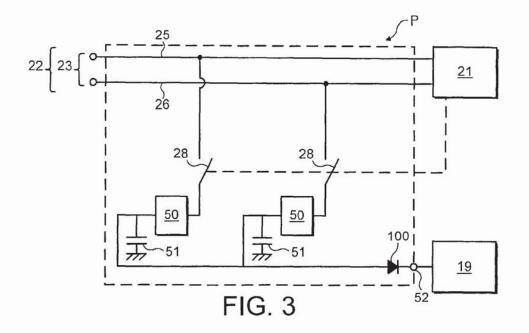


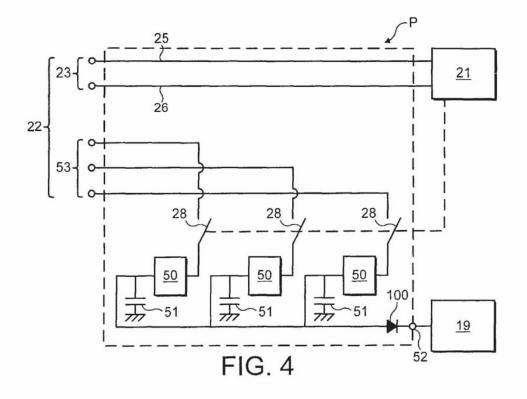
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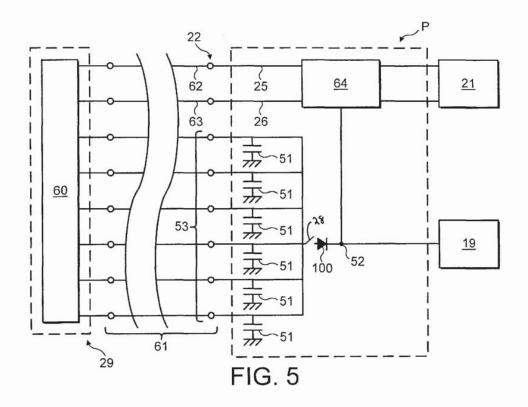
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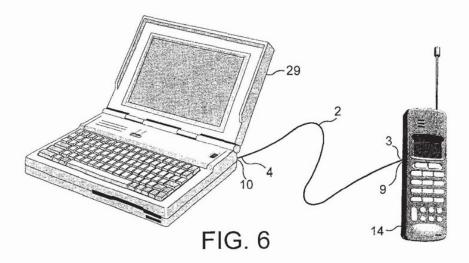




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