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**Kerai et al.**

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(54) **BATTERY CHARGING**

(75) Inventors: **Kanji Kerai**, London (GB); **Kalle Tuulos**, Turku (FI)

(73) Assignee: **Nokia Mobile Phones Limited**, Espoo (FI)

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May 26, 2000 (GB) ..... 0012946

(51) **Int. Cl.**<sup>7</sup> ..... **H02J 7/00**

(52) **U.S. Cl.** ..... **320/107**

(58) **Field of Search** ..... 320/106, 107, 320/110

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*Primary Examiner*—Edward H. Tso

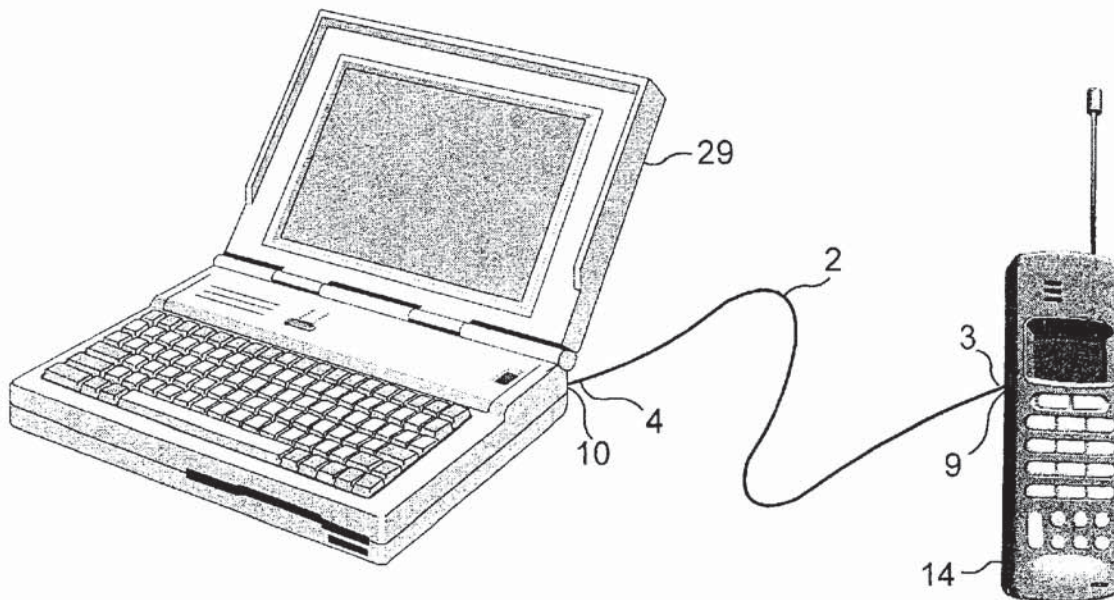
*Assistant Examiner*—Pia Tibbits

(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**



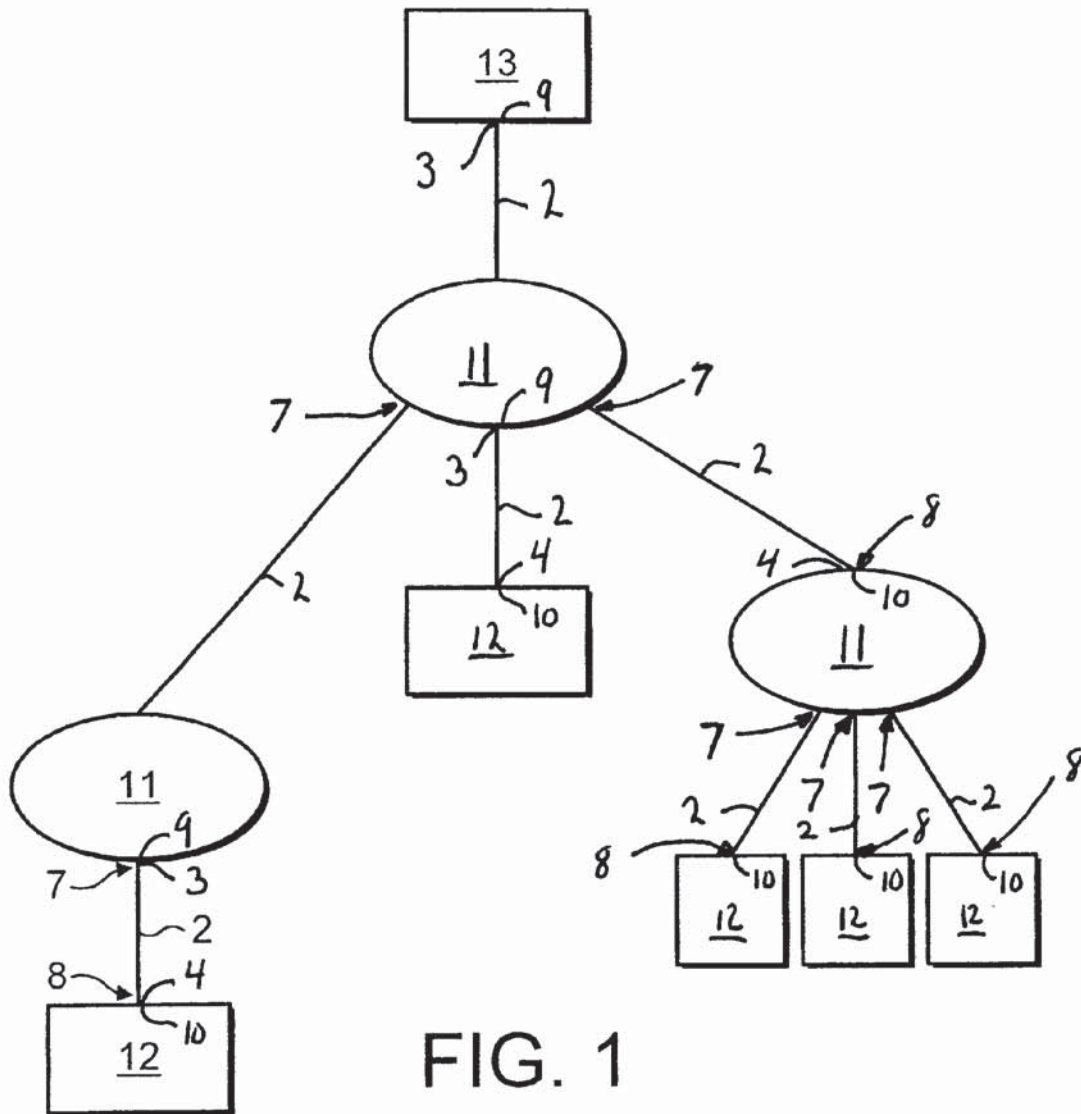


FIG. 1  
(PRIOR ART)

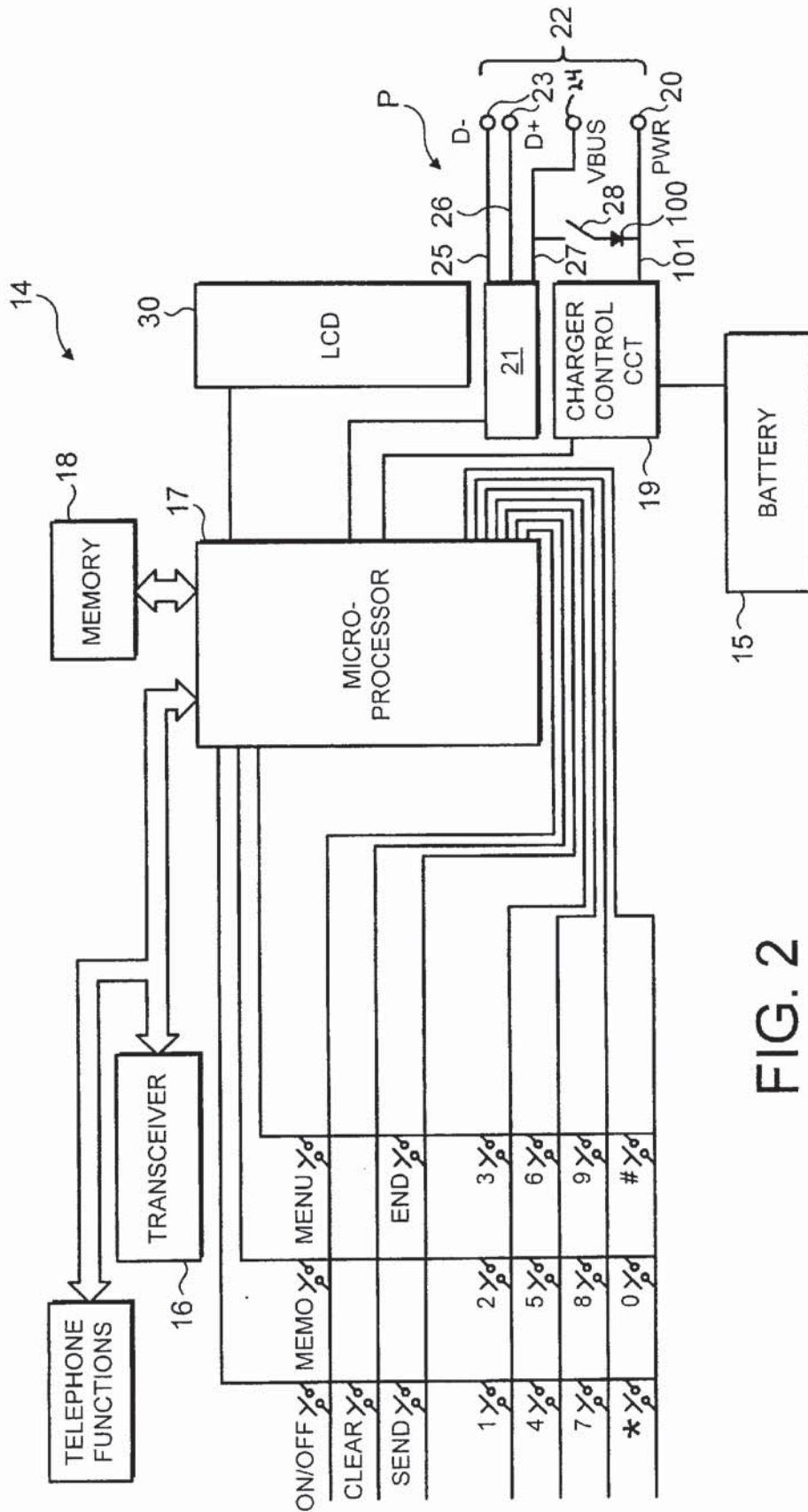


FIG. 2

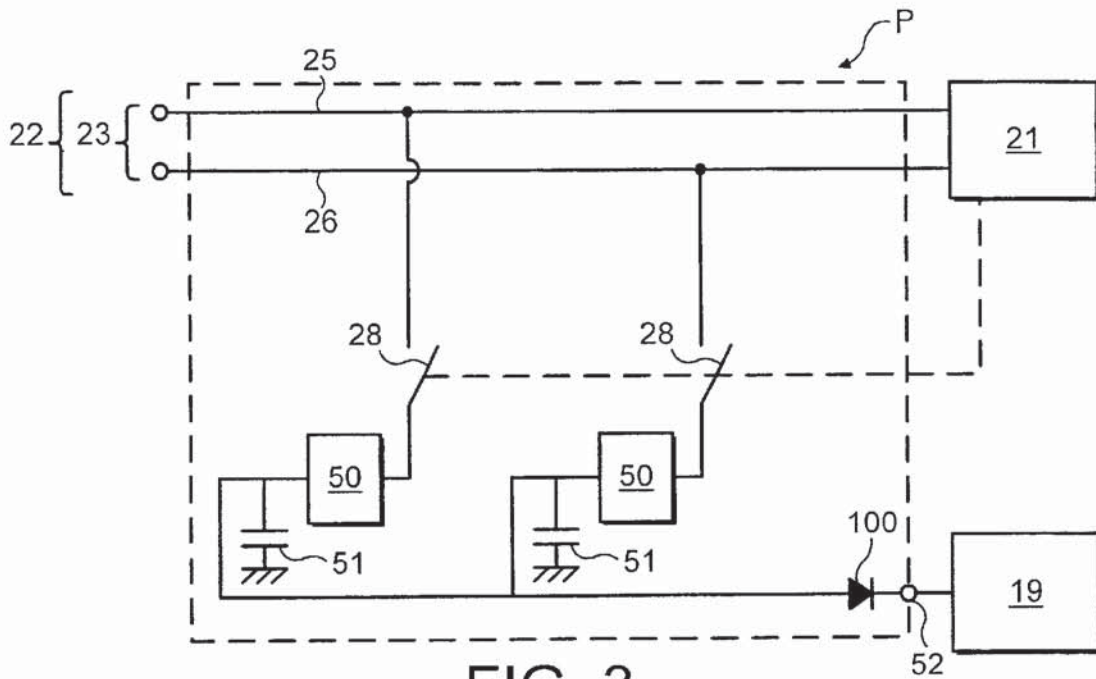


FIG. 3

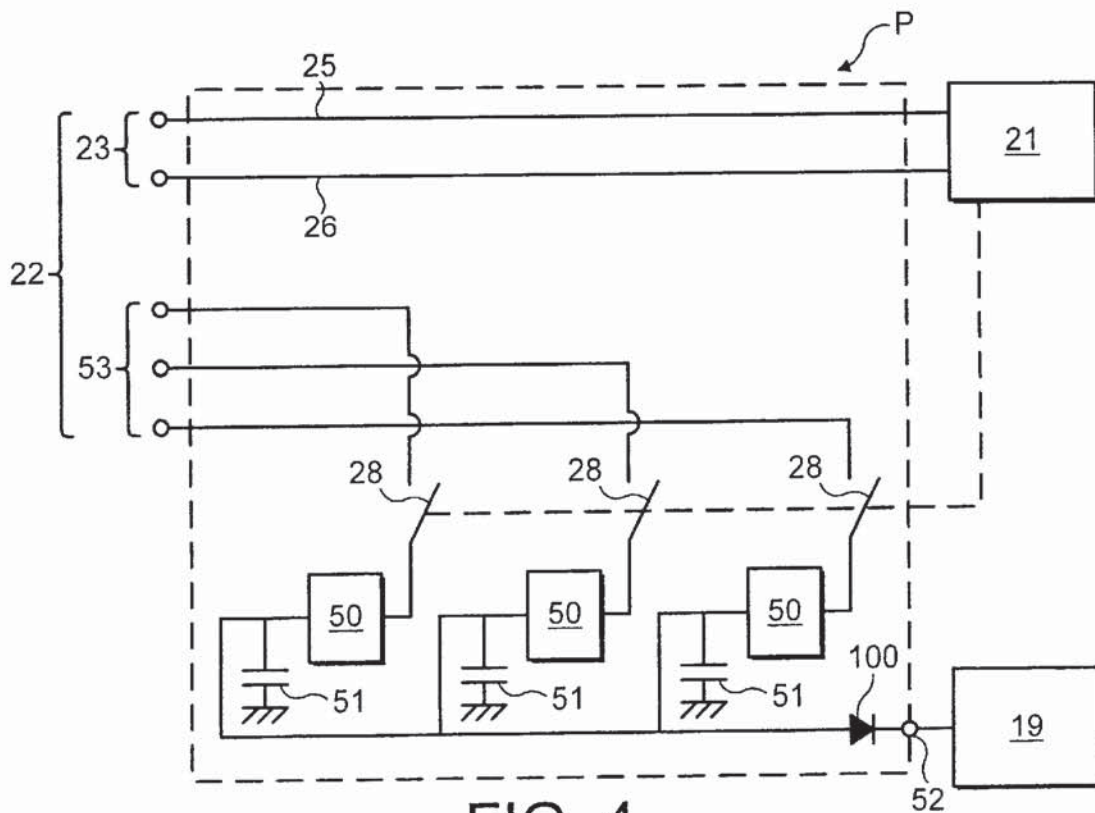


FIG. 4



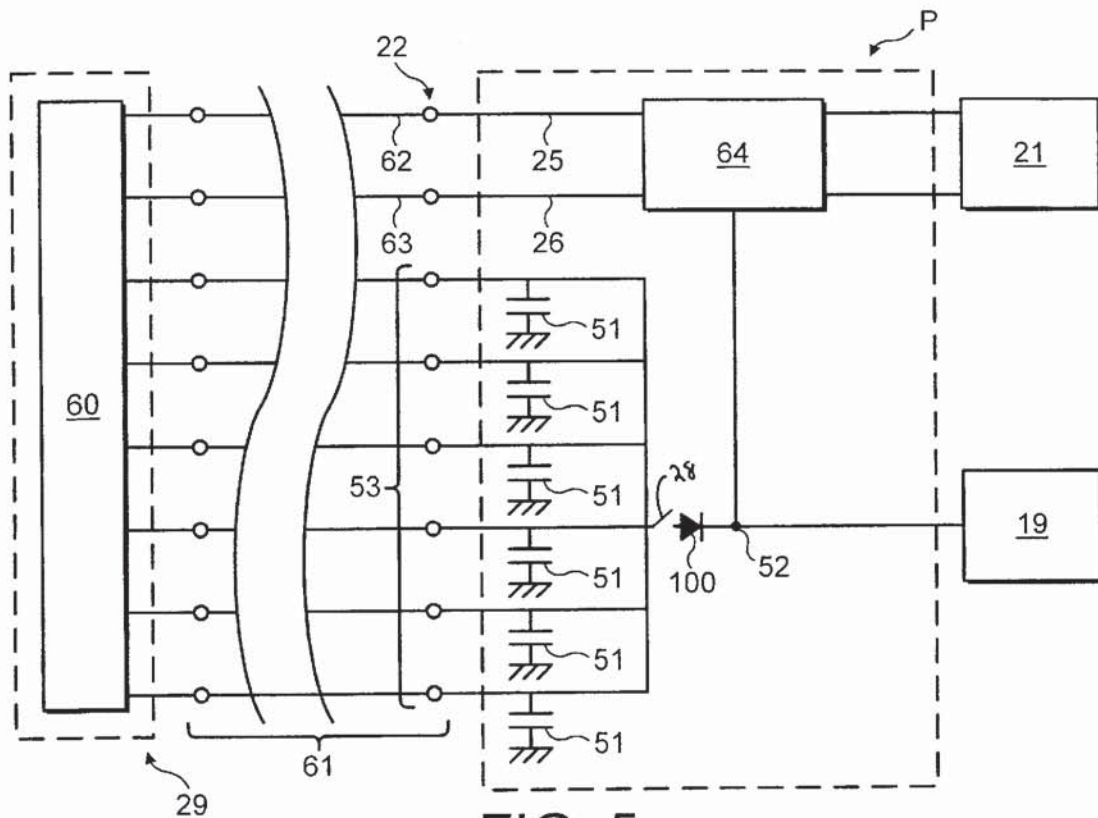


FIG. 5

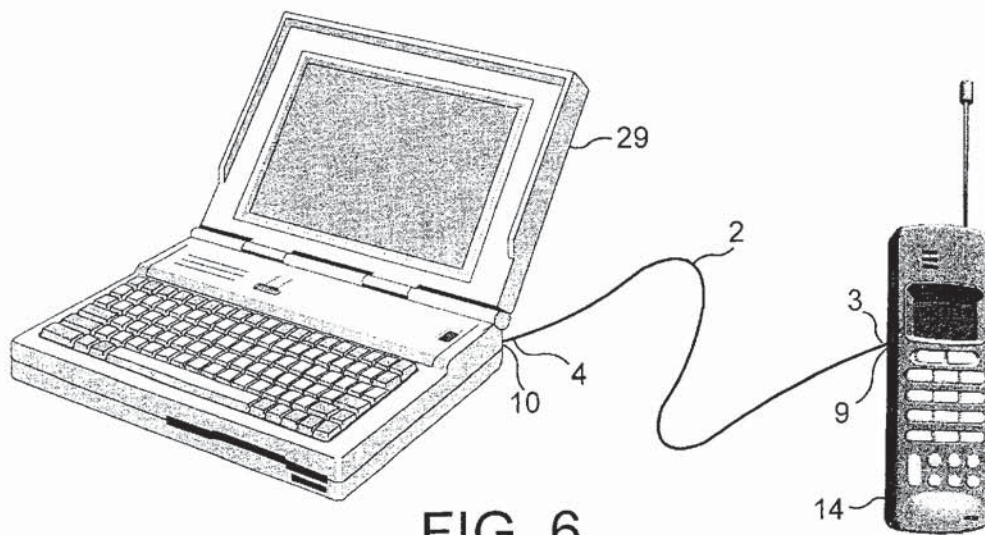


FIG. 6

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