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Brockmann et al.

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- [54] **CHARGER WITH INDUCTIVE POWER TRANSMISSION FOR BATTERIES IN A MOBILE ELECTRICAL DEVICE**
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[57] ABSTRACT

[30] Foreign Application Priority Data

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The invention concerns a charger (CU) for batteries (A) in an electrical mobile device (MU), wherein a power oscillator (OSZ) produces an alternating magnetic field with the primary part (W_{PRI}) of an inductive coupler, for the inductive transmission of charging power. By alternately receiving power for charging the batteries (A), the mobile device (MU) which is coupled to the charger (CU), charges the entire inductive coupler via its secondary coupler part (W_{SEC}). The charger (CU) contains detection means (SEL, AMP, RE and FE-DEM) which generate at least one control signal ($S_C 1$, $S_C 2$) when the inductive load of the coupler is periodically changed in order to switch the power level, which is inductively transmitted by the charger (CU) to the mobile device (MU), from a low average value in the stand-by mode to a higher average value for the charging operation.

- [51] Int. Cl.⁷ **H02J 7/00**
- [52] U.S. Cl. **320/108; 320/106**
- [58] Field of Search 320/106, 108, 320/160, 165, 114

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12 Claims, 3 Drawing Sheets

