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Lee et al.

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(54) **WIRELESS BATTERY CHARGING OF ELECTRONIC DEVICES SUCH AS WIRELESS HEADSETS/HEADPHONES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 196 days.

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(51) **Int. Cl.**
H02J 7/00 (2006.01)

(52) **U.S. Cl.** **320/108**; 320/114; 320/115

(58) **Field of Classification Search** 320/108
See application file for complete search history.

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Primary Examiner—Edward Tso

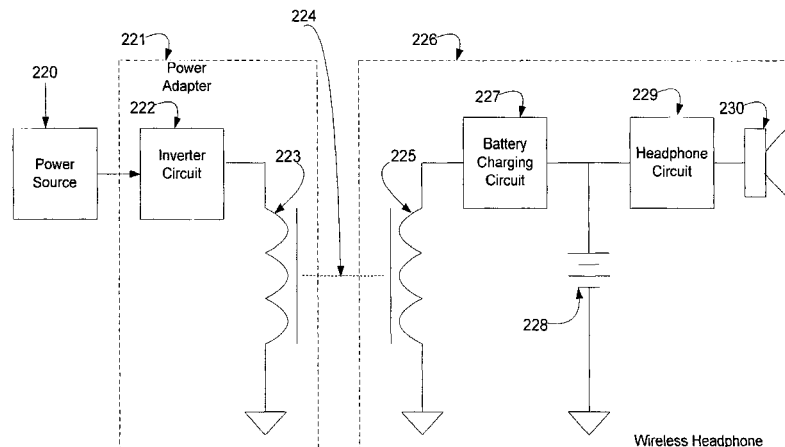
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(57) **ABSTRACT**

This disclosure relates to wireless battery charging of electronic devices such as wireless headsets/headphones. In one embodiment, an electronic device is provided comprising a speaker comprising a coil, and the coil is operative both to cause the speaker to produce sound and to receive energy transferred to the coil via inductive coupling. The received energy is used to recharge a rechargeable battery in the electronic device. In other embodiments, the coil used to receive the energy that recharges the battery is received by a coil other than the coil in the speaker.

18 Claims, 24 Drawing Sheets



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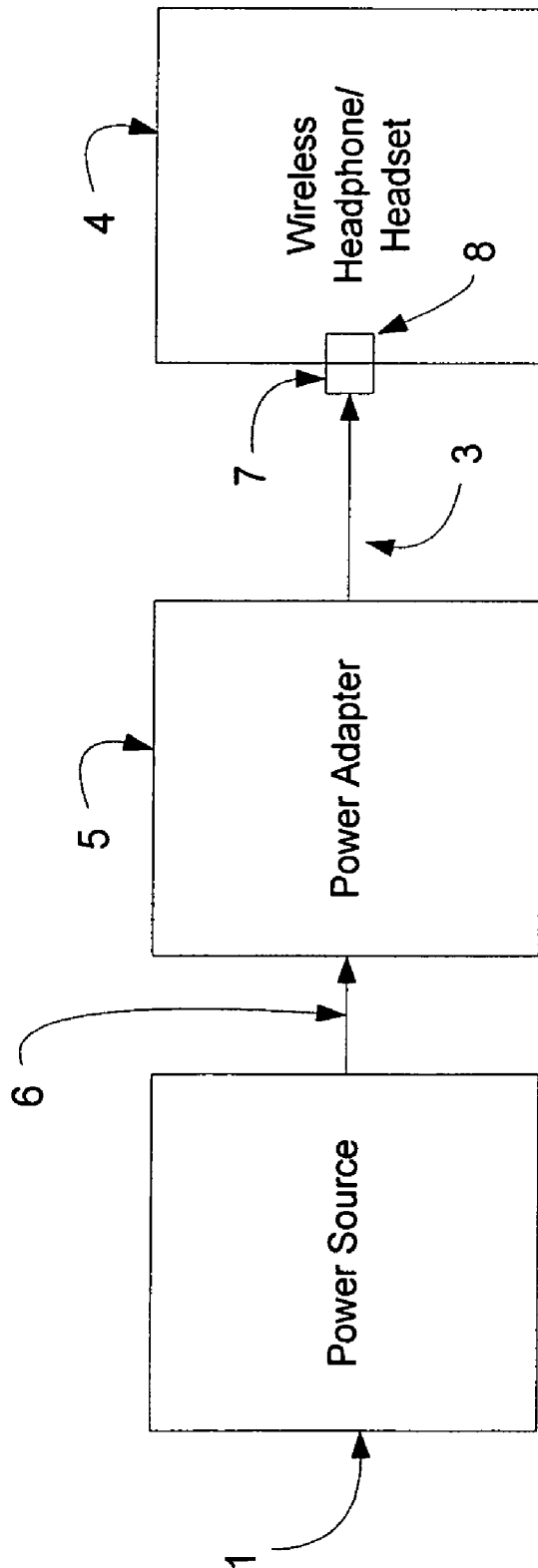


FIG. 1
(Prior Art)

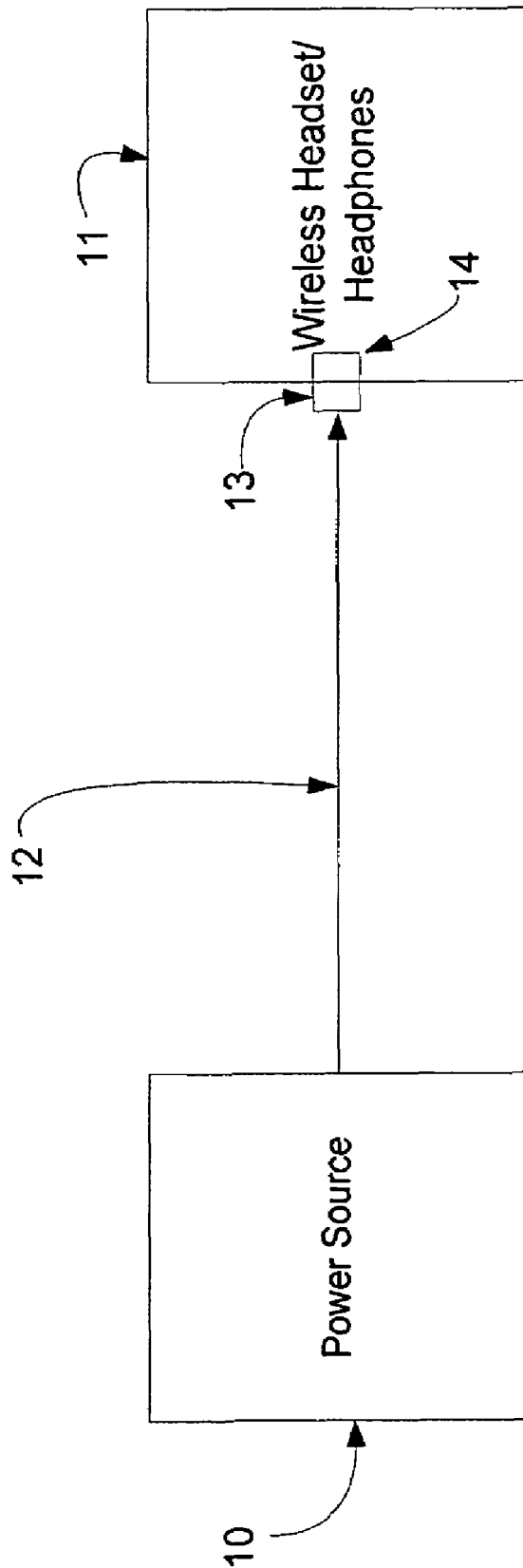


FIG. 2
(Prior Art)

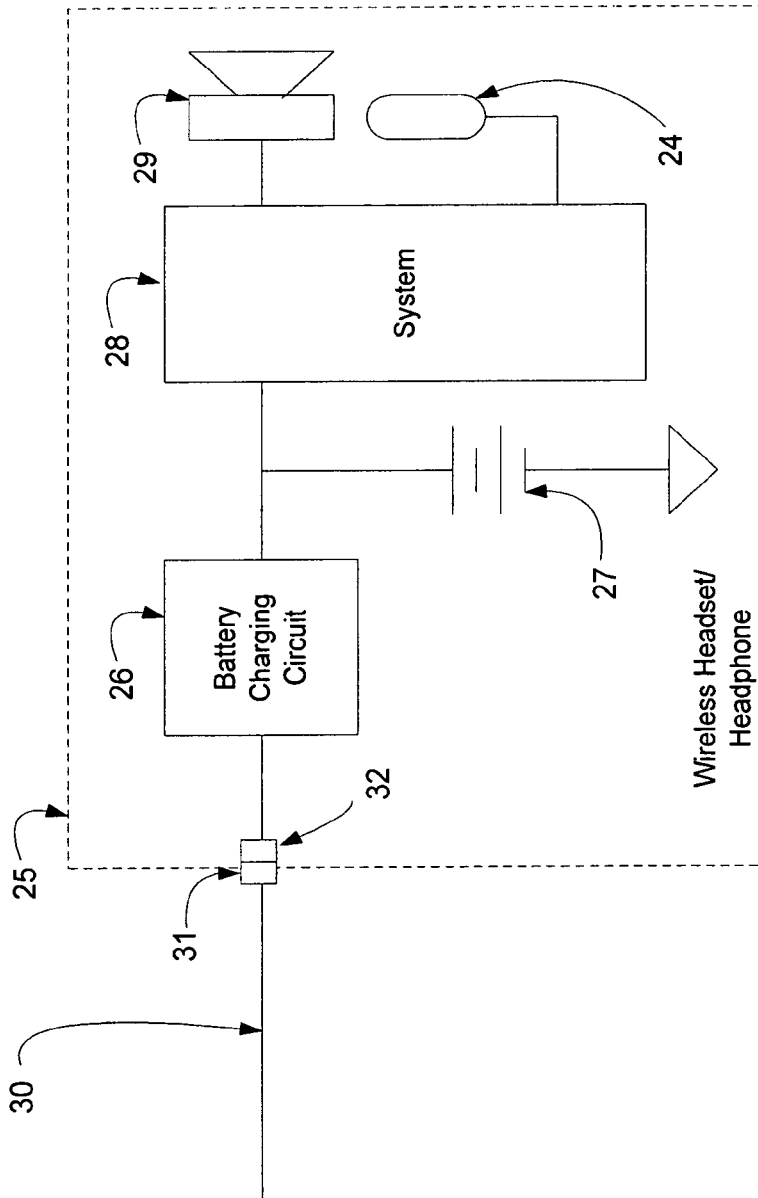


FIG. 3
(Prior Art)

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