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(54) **CONTACT-LESS POWER TRANSFER**

(52) **U.S. Cl. .... 320/108**

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(57) **ABSTRACT**

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There is disclosed a system and method for transferring power without requiring direct electrical conductive contacts. There is provided a primary unit having a power supply and a substantially laminar charging surface having at least one conductor that generates an electromagnetic field when a current flows therethrough and having an charging area defined within a perimeter of the surface, the at least one conductor being arranged such that electromagnetic field lines generated by the at least one conductor are substantially parallel to the plane of the surface or at least subtend an angle of 45° or less to the surface within the charging area; and at least one secondary device including at least one conductor that may be wound about a core. Because the electromagnetic field is spread over the charging area and is generally parallel or near-parallel thereto, coupling with flat secondary devices such as mobile telephones and the like is significantly improved in various orientations thereof.

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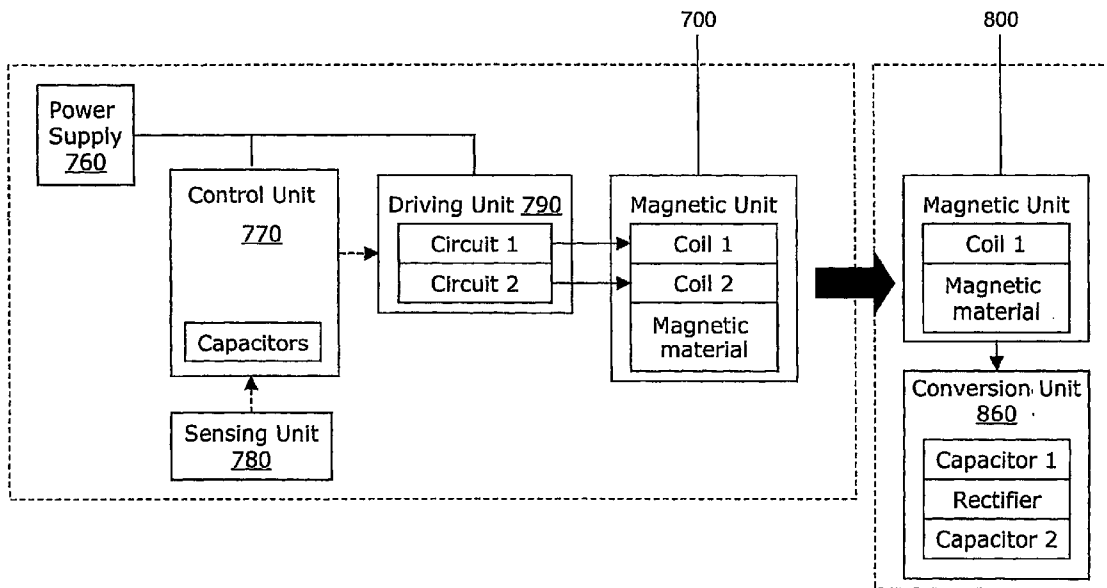
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**H02J 7/00** (2006.01)



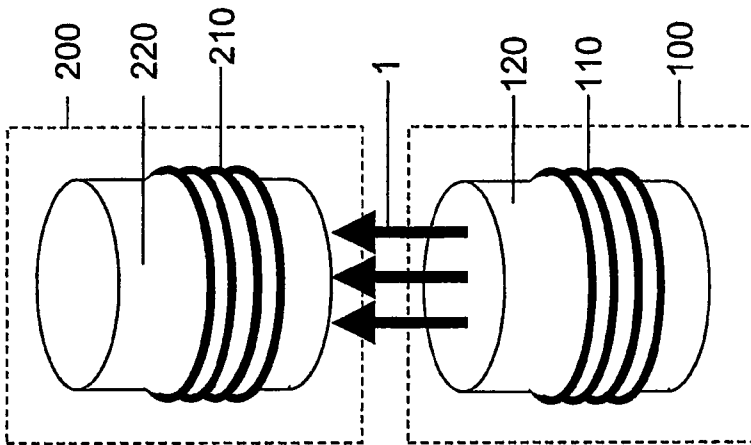


Figure 1a  
(Prior Art)

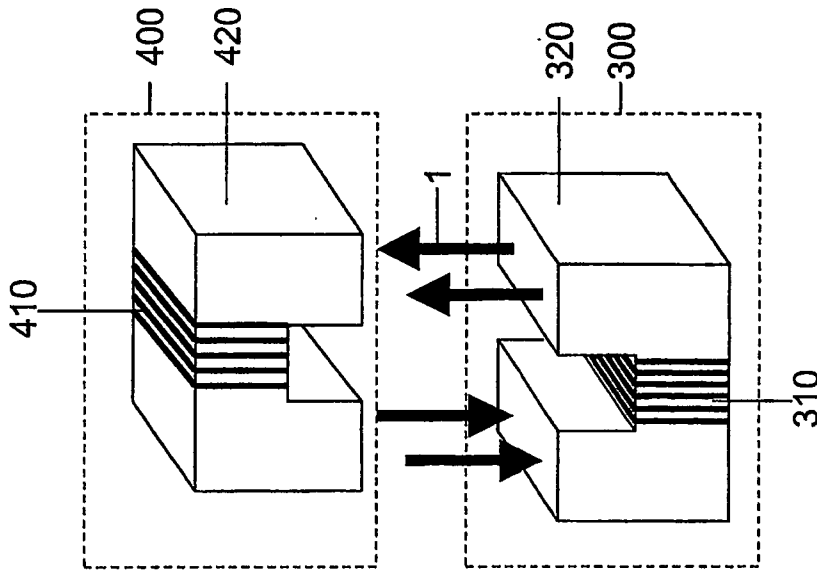


Figure 1b  
(Prior Art)

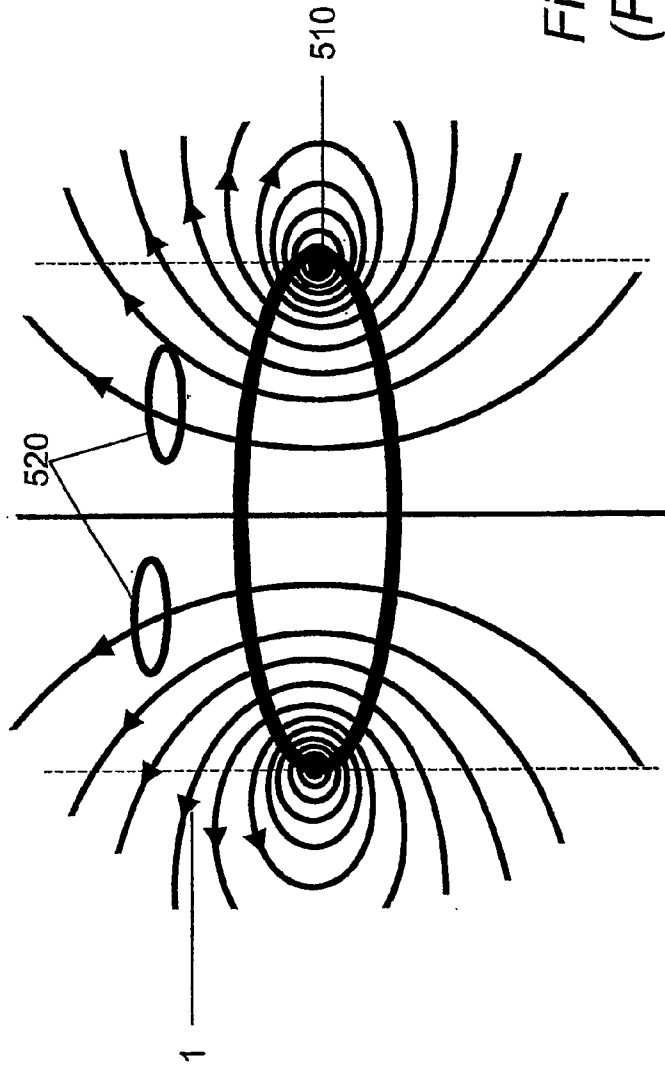


Figure 2a  
(Prior Art)

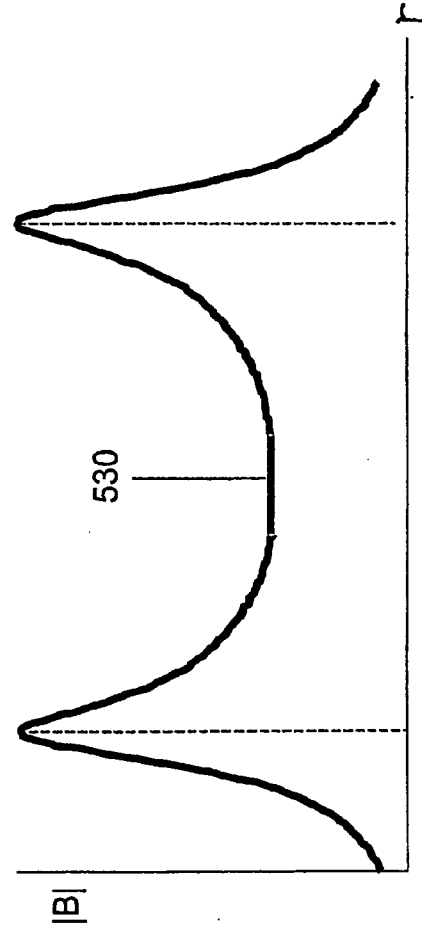


Figure 2b

X = 5mm

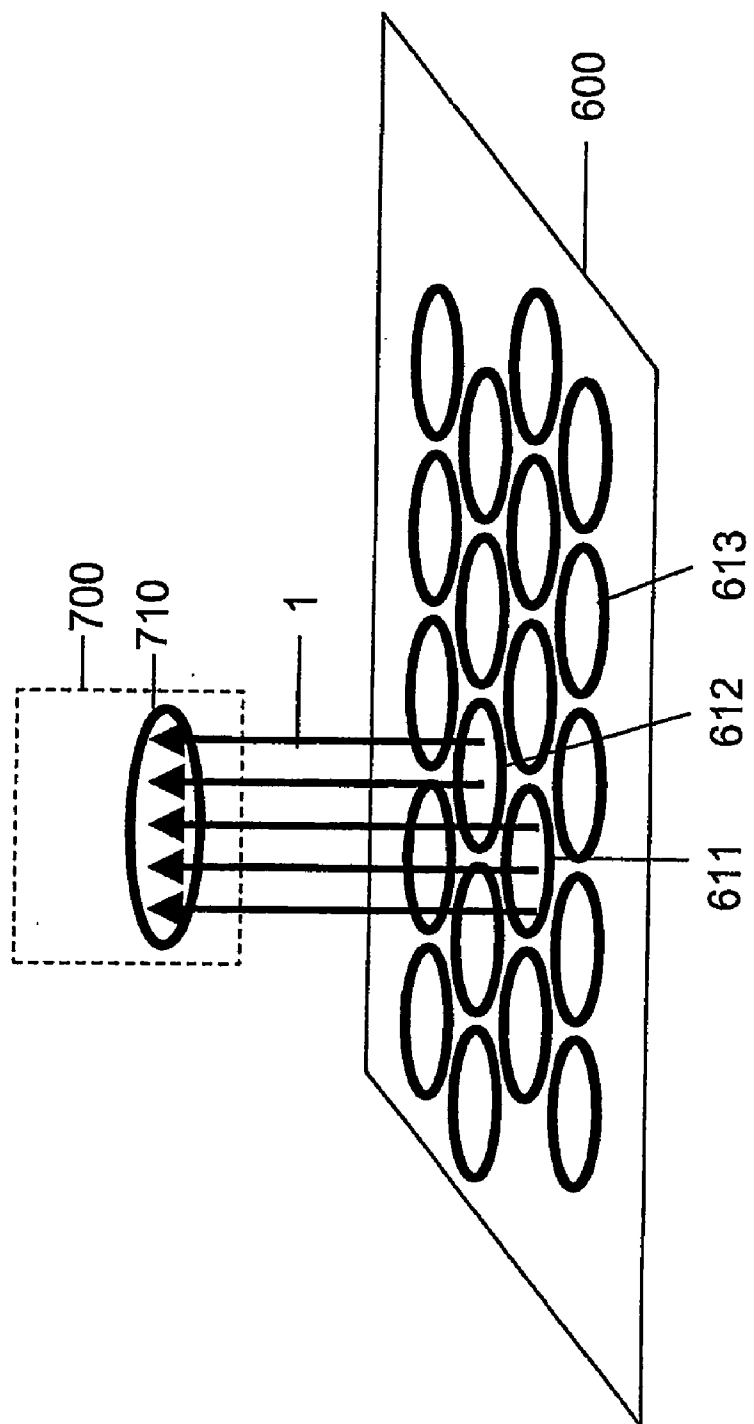


Figure 3

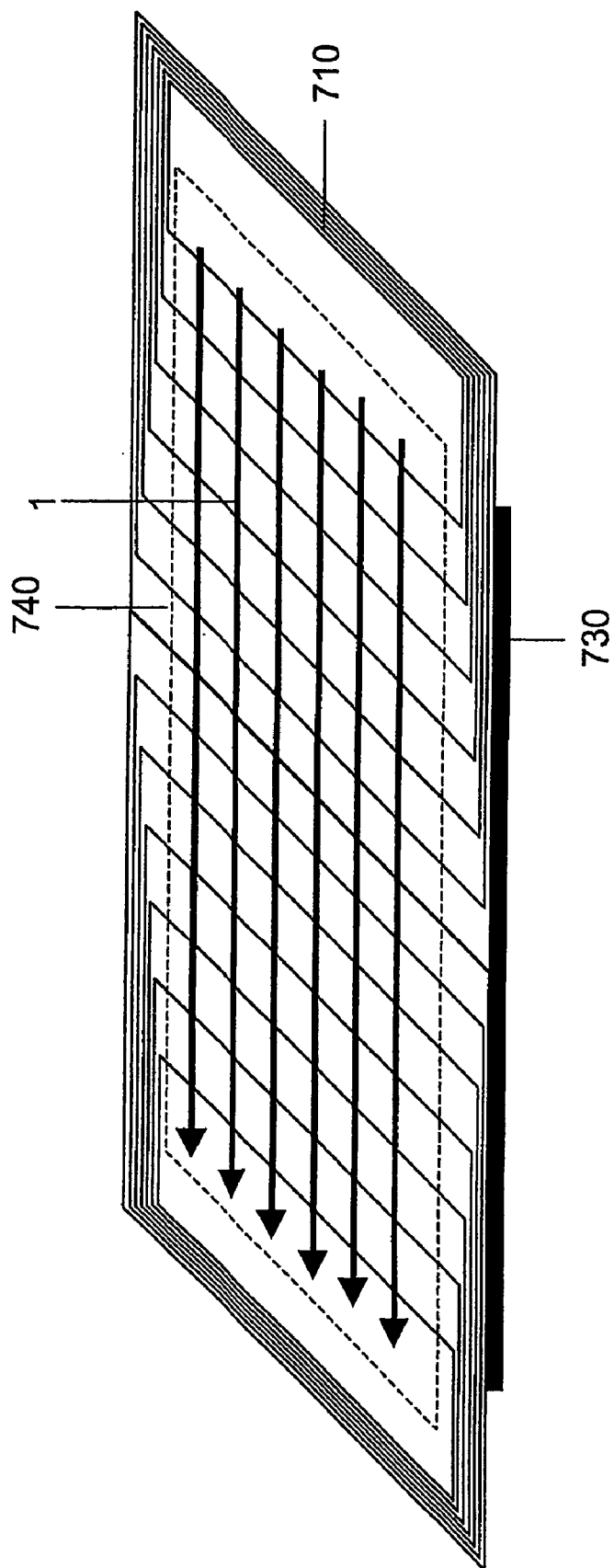


Figure 4a

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