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Lee et al.

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(54) **MAGNETIC FIELD SHIELDING SHEET FOR A WIRELESS CHARGER, METHOD FOR MANUFACTURING SAME, AND RECEIVING APPARATUS FOR A WIRELESS CHARGER USING THE SHEET**

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(52) **U.S. Cl.**

CPC **H02J 7/0042** (2013.01); **B32B 37/12** (2013.01); **B32B 37/18** (2013.01);

(Continued)

(58) **Field of Classification Search**

CPC H02J 5/005; H02J 7/025; H02J 7/0042; H02J 7/355; H01F 27/362; H01F 27/365

USPC 320/107, 108, 114; 336/84 R, 84 C
See application file for complete search history.

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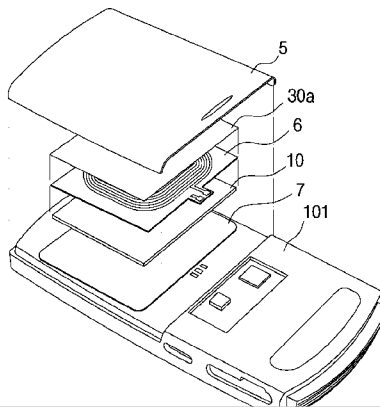
Primary Examiner — Edward Tso

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(57) **ABSTRACT**

Provided are a magnetic field shield sheet for a wireless charger, which blocks an effect of an alternating-current magnetic field generated when a charger function for a portable mobile terminal device is implemented in a non-contact wireless manner on a main body of the portable mobile terminal device and exhibits excellent electric power transmission efficiency, a method of manufacturing the sheet, and a receiver for the wireless charger by using the sheet. The sheet includes: at least one layer thin magnetic sheet made of an amorphous ribbon separated into a plurality of fine pieces; a protective film that is adhered on one surface of the thin magnetic sheet via a first adhesive layer provided on one side of the protective film; and a double-sided tape that is adhered on the other surface of the thin magnetic sheet via a second adhesive layer provided on one side of the double-sided adhesive tape, wherein gaps among the plurality of fine pieces are filled by some parts of the first and second adhesive layers, to thereby isolate the plurality of fine pieces.

18 Claims, 11 Drawing Sheets



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(52) U.S. Cl. CPC <i>B32B 38/0004</i> (2013.01); <i>H01F 27/365</i> (2013.01); <i>H01F 38/14</i> (2013.01); <i>H02J 5/005</i> (2013.01); <i>H02J 7/025</i> (2013.01)	

FIG. 1

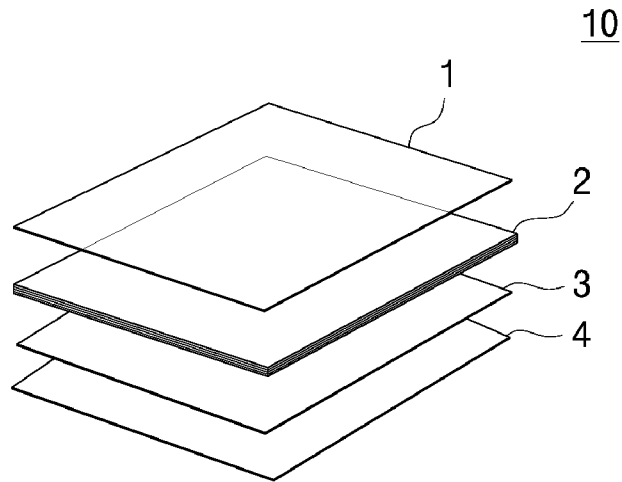


FIG. 2

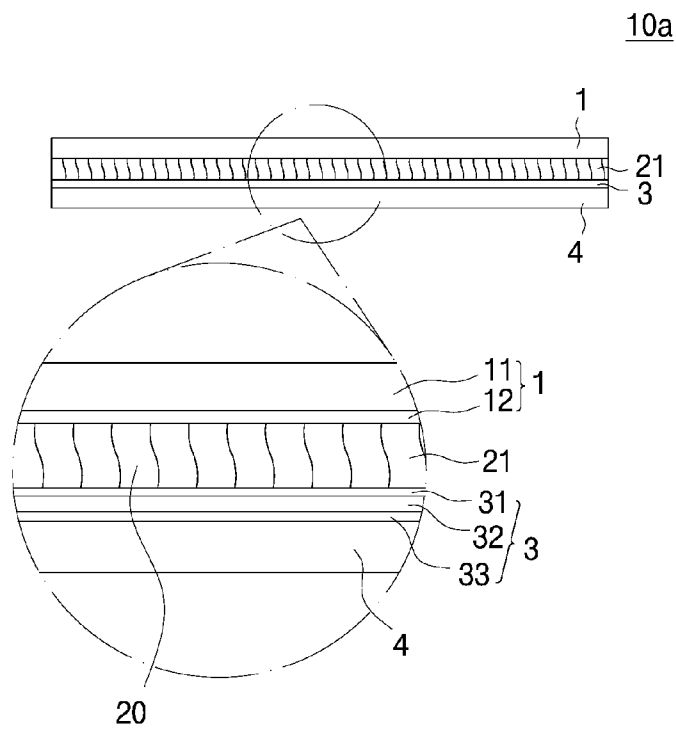


FIG. 3

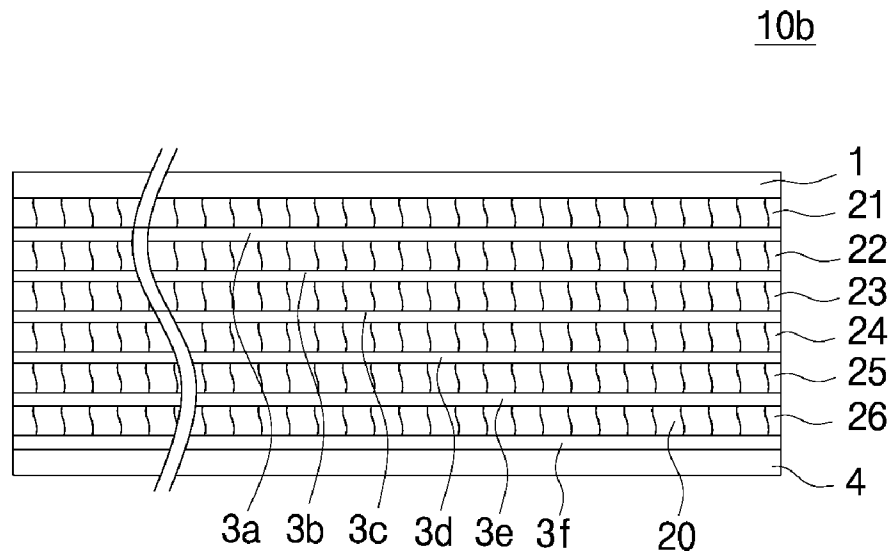


FIG. 4

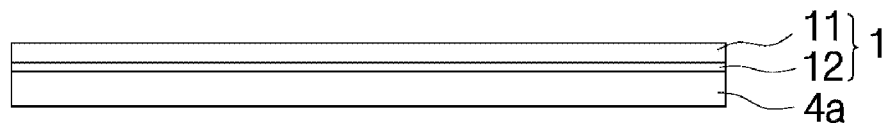


FIG. 5

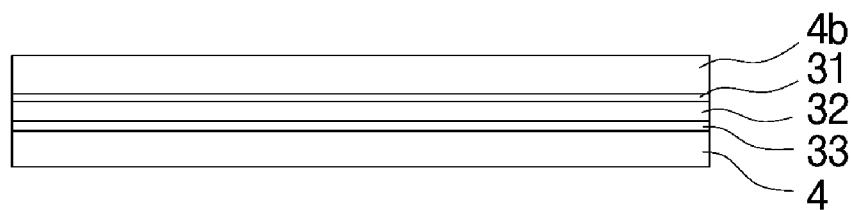
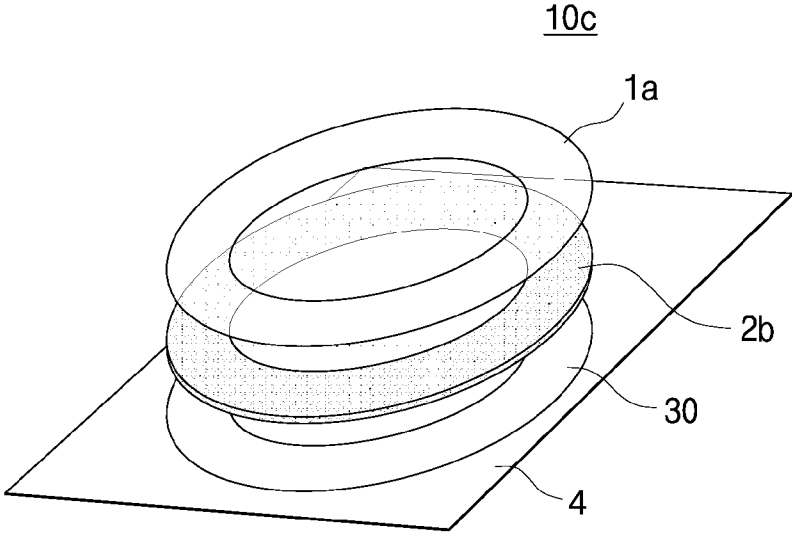


FIG. 6



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