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(54) **NONCONTACT COUPLER**

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(57) **ABSTRACT**

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A noncontact coupler comprising a pair of magnetic cores 1, 1 each having a U-shaped open magnetic path, a primary coil L1 and secondary coil L2 being wound around said cores 1, 1 separately respectively, said coupler transmitting AC electric power between said primary and secondary coils L1, L2 by means of an annular closed magnetic path B formed by opposing in proximity both open magnetic face sides of said cores, wherein said primary and secondary magnetic cores 1, 1 are respectively split at least at their sides facing to each other, and a gap forming a spatial magnetic path is interposed between said split pieces. A diameter a of a medium leg 51 positioned inside an annular groove 52 around in which the coils L1, L2 are wound (housed) is set almost equal to a width b of the annular groove 52. These provide effects of lightening a noncontact coupler while securing its performance and improving handleability with enhancing tolerance for positioning of the primary and secondary cores.

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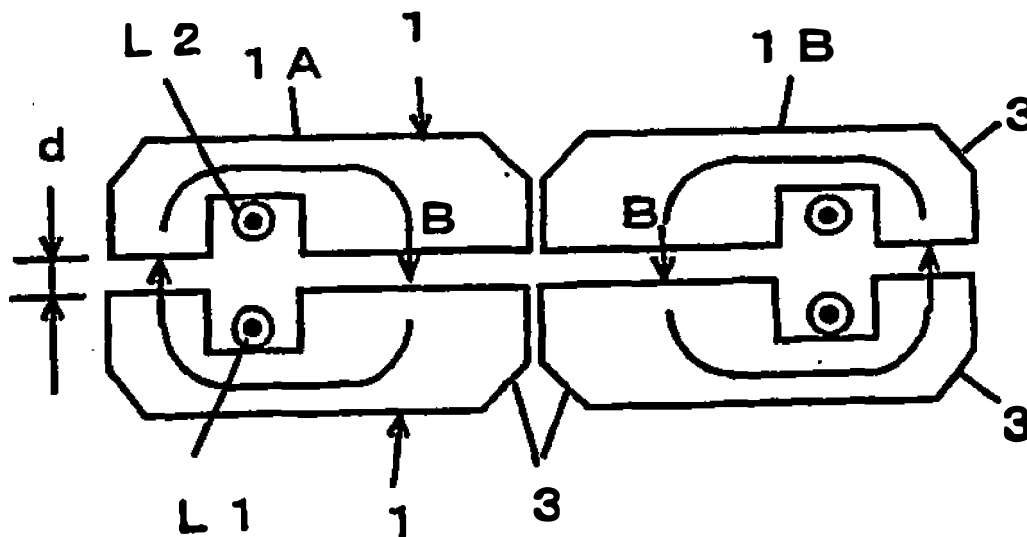
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A-A CROSS-SECTION

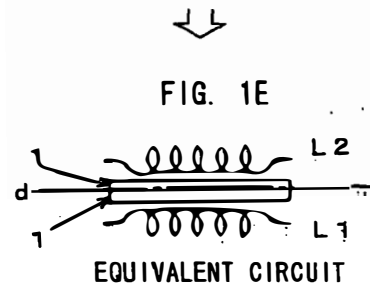
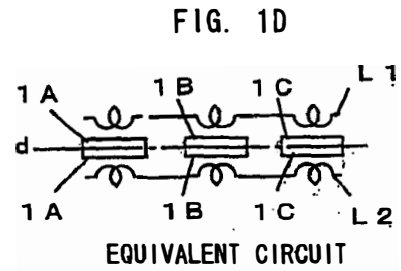
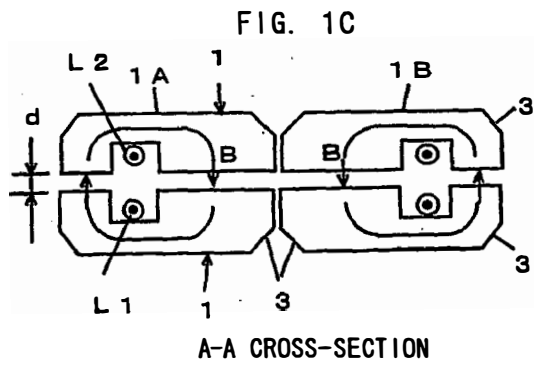
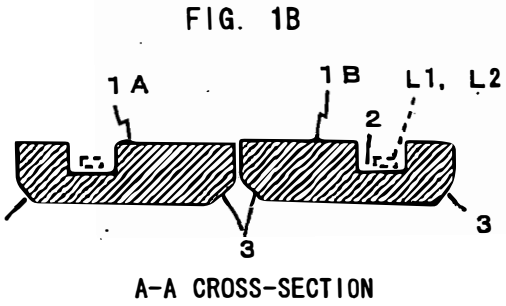
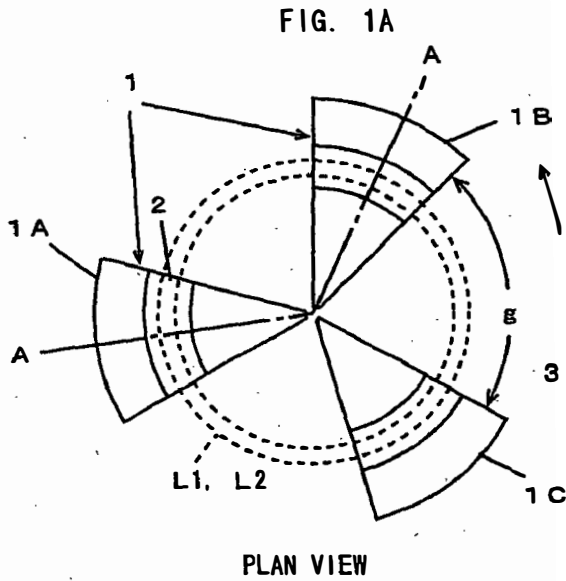


FIG. 2

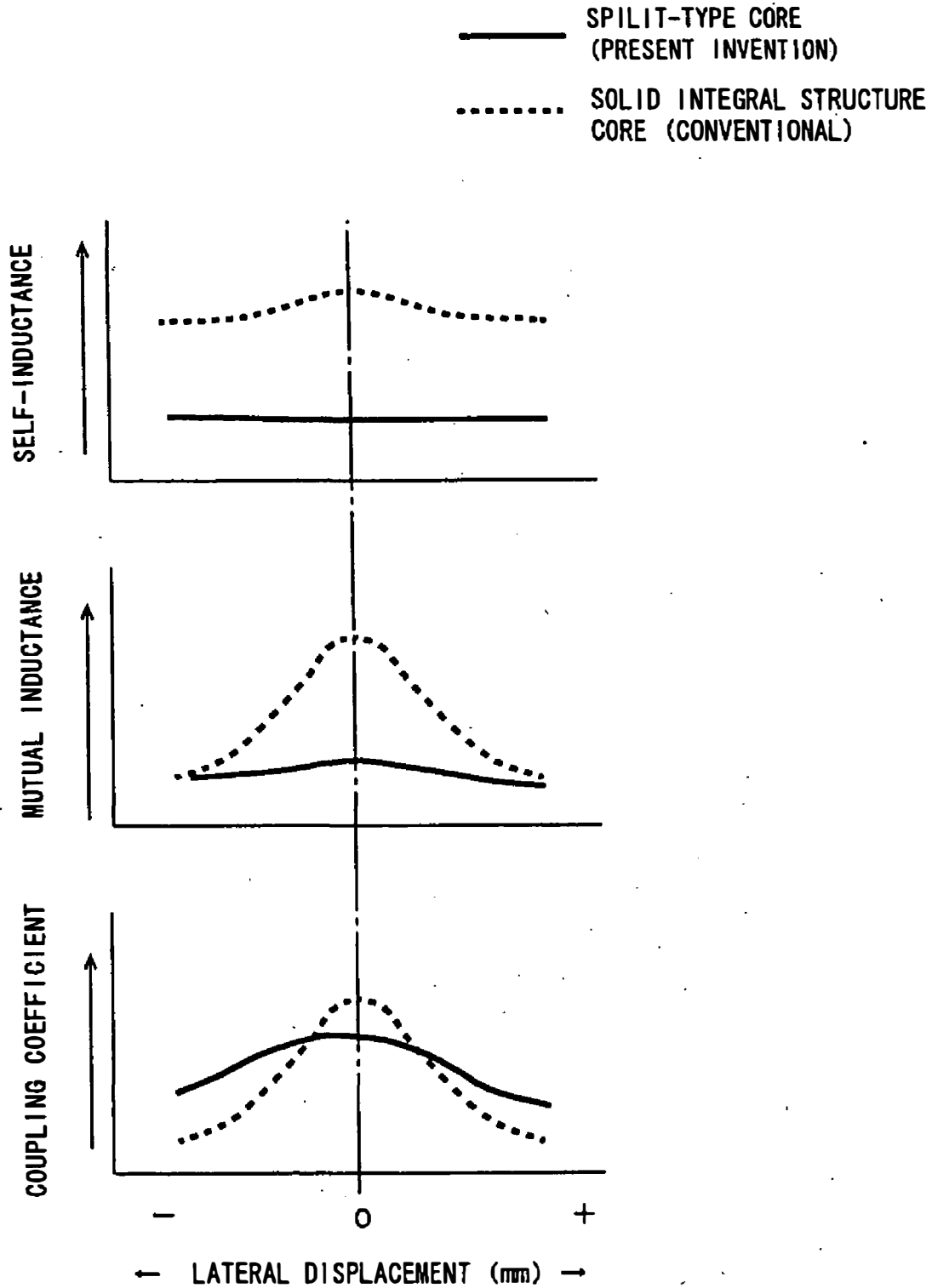


FIG. 3A

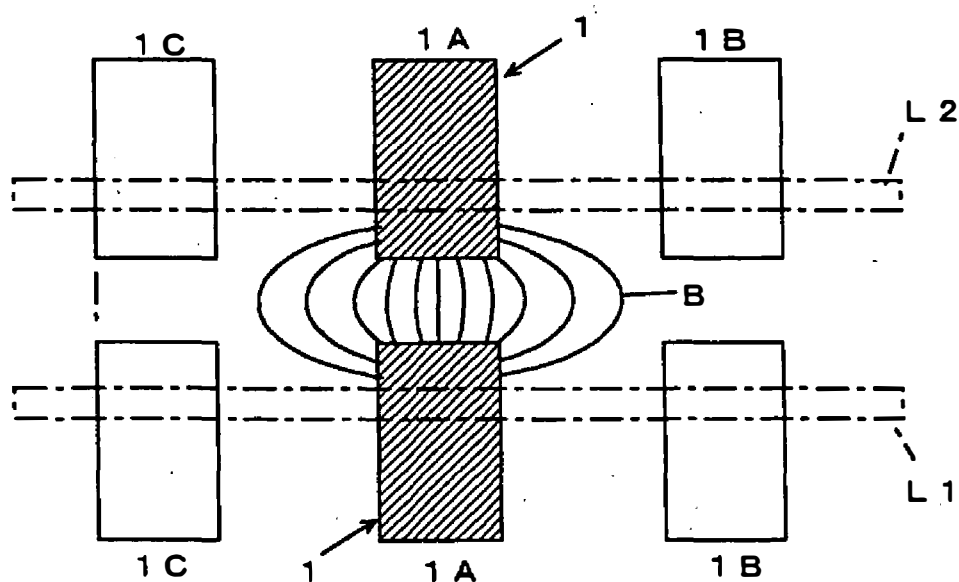
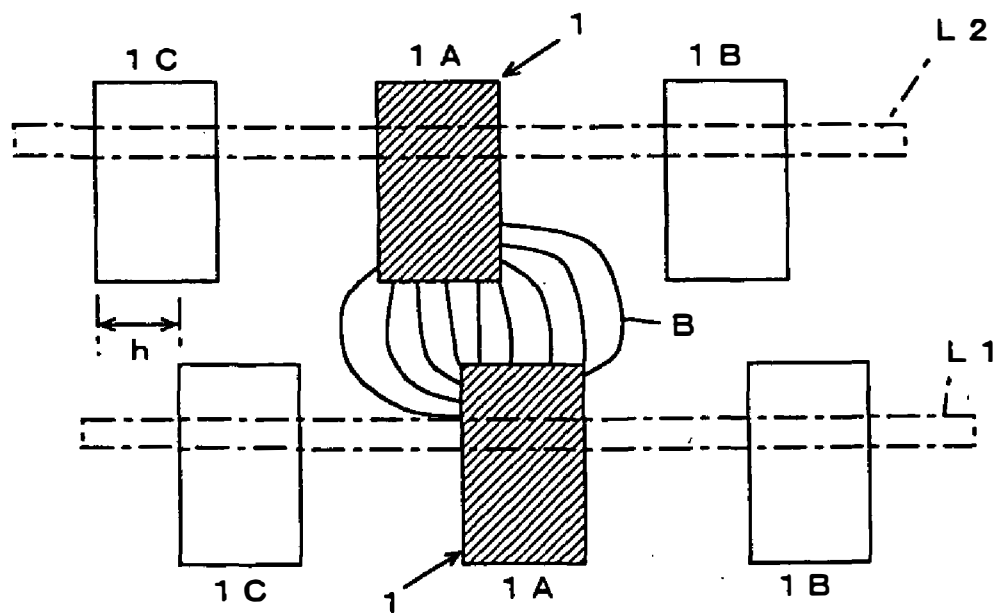
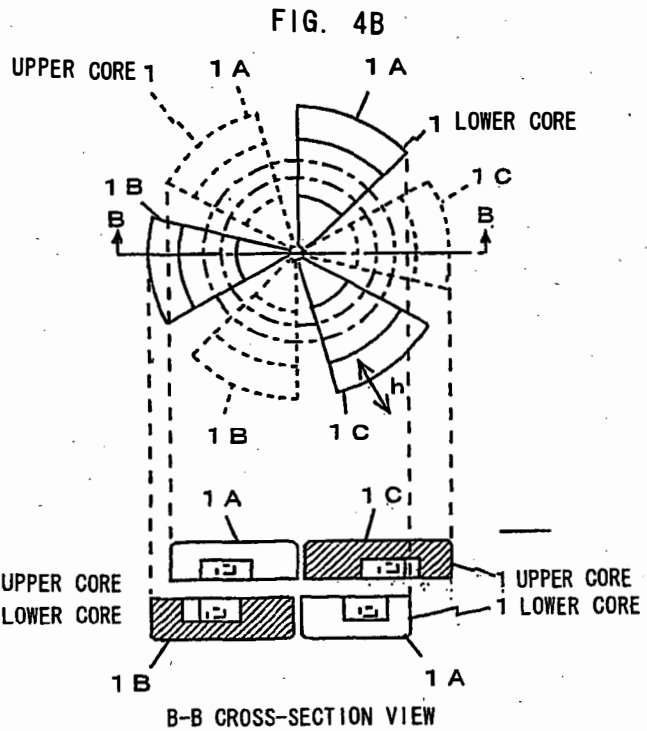
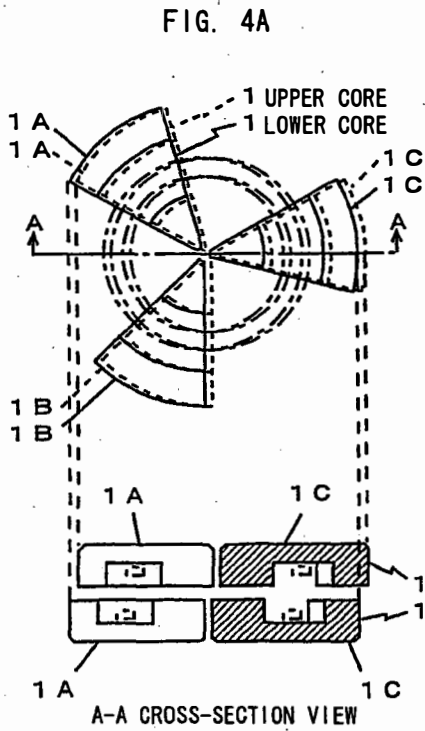


FIG. 3B





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