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Nishiyama et al.

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[54] MOTOR

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[51] Int. Cl.⁷ **H02K 1/27**

[52] U.S. Cl. **310/156**; 310/254; 310/259; 310/162; 310/42; 310/179

[58] Field of Search 310/254, 258, 310/259, 216, 217, 218, 156, 162, 166, 168, 179, 42; 29/596

[56]

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[57]

ABSTRACT

A motor comprises a stator core having plural teeth and slots provided among the teeth, a winding applied on the teeth by a turn, and a rotor incorporating plural permanent magnets. The rotor is rotated and driven by utilizing reluctance torque in addition to magnetic torque. Since the winding is not crossed, the size of the coil end is reduced.

21 Claims, 7 Drawing Sheets

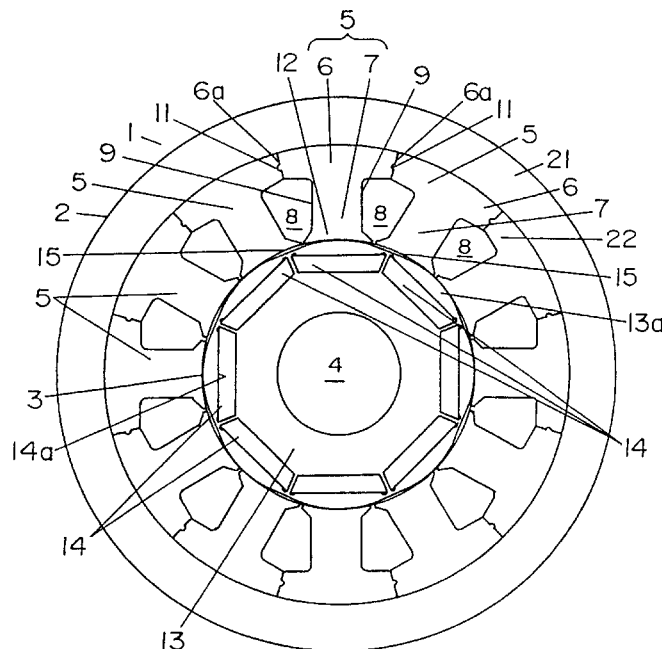


Fig. 1

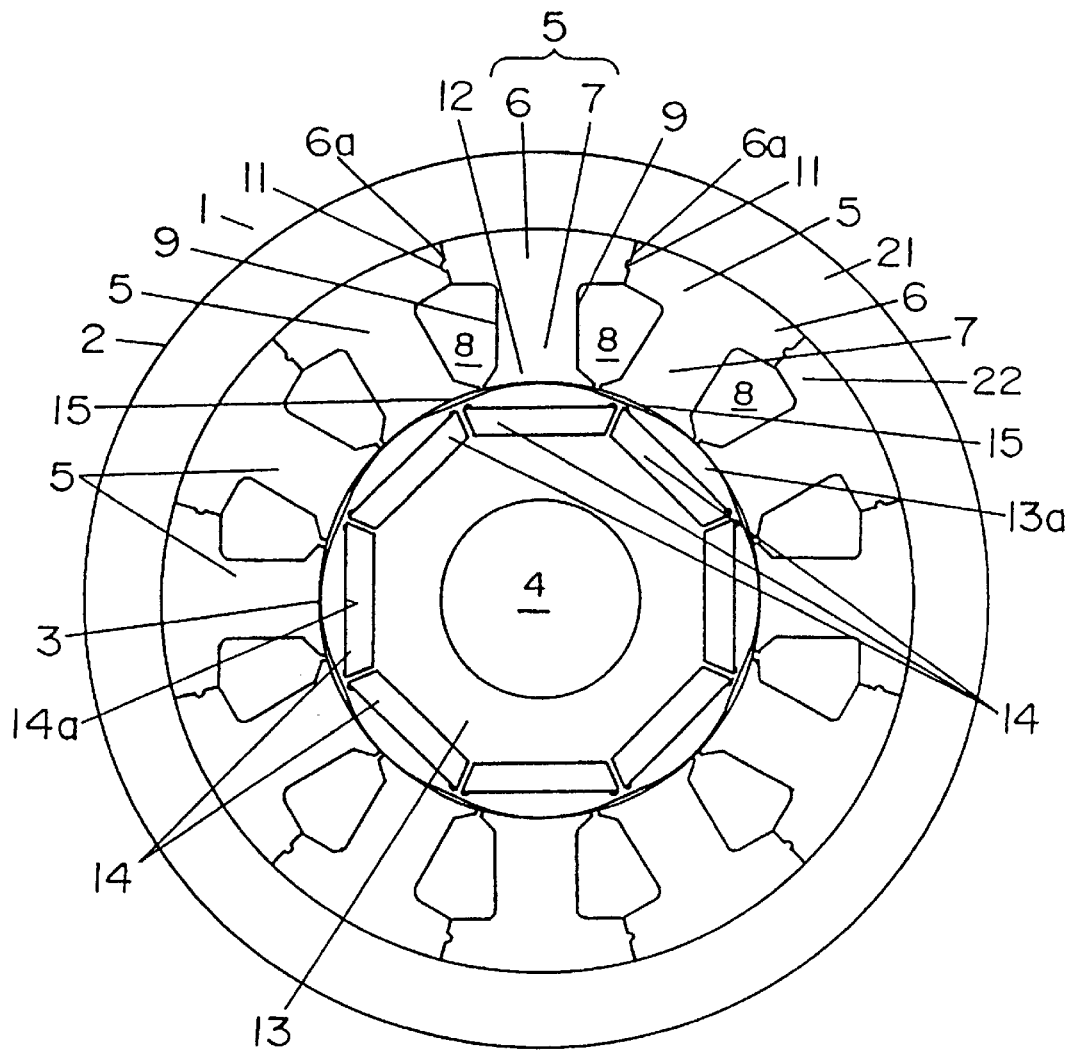


Fig. 2

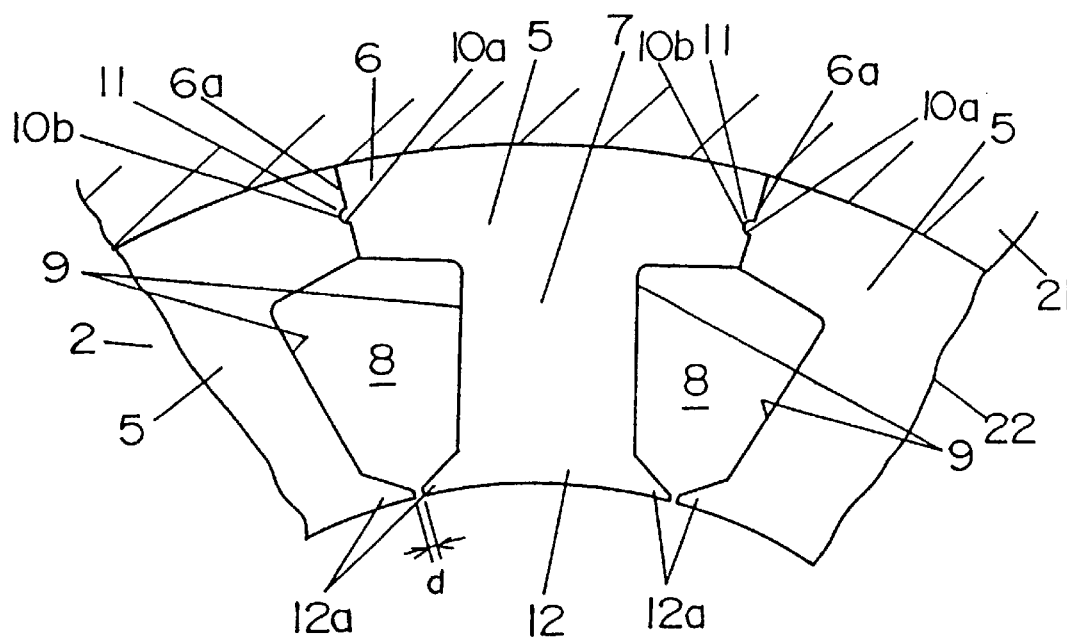


Fig. 3

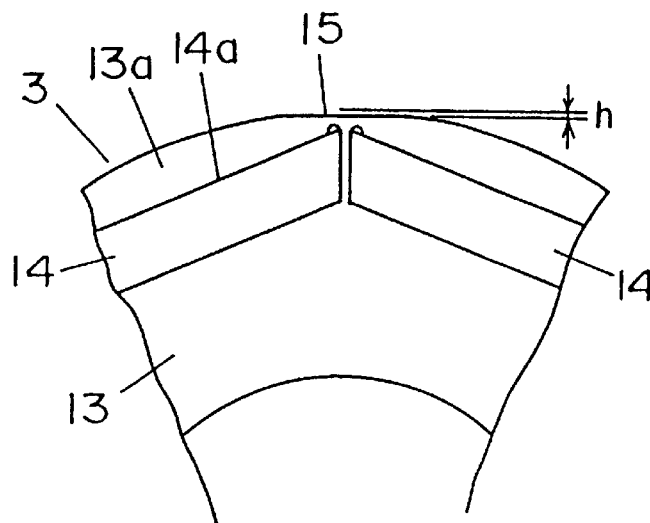


Fig.4

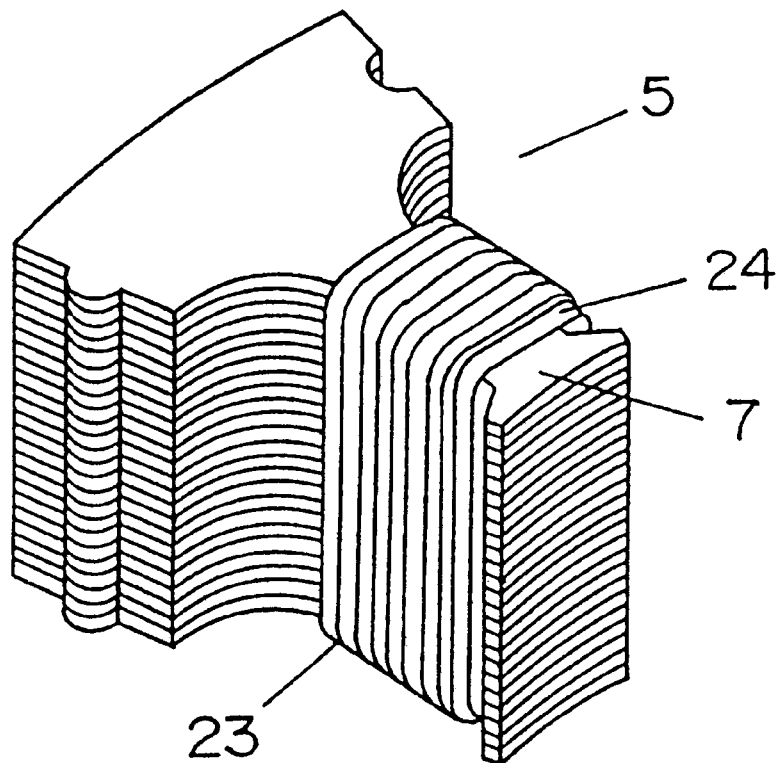
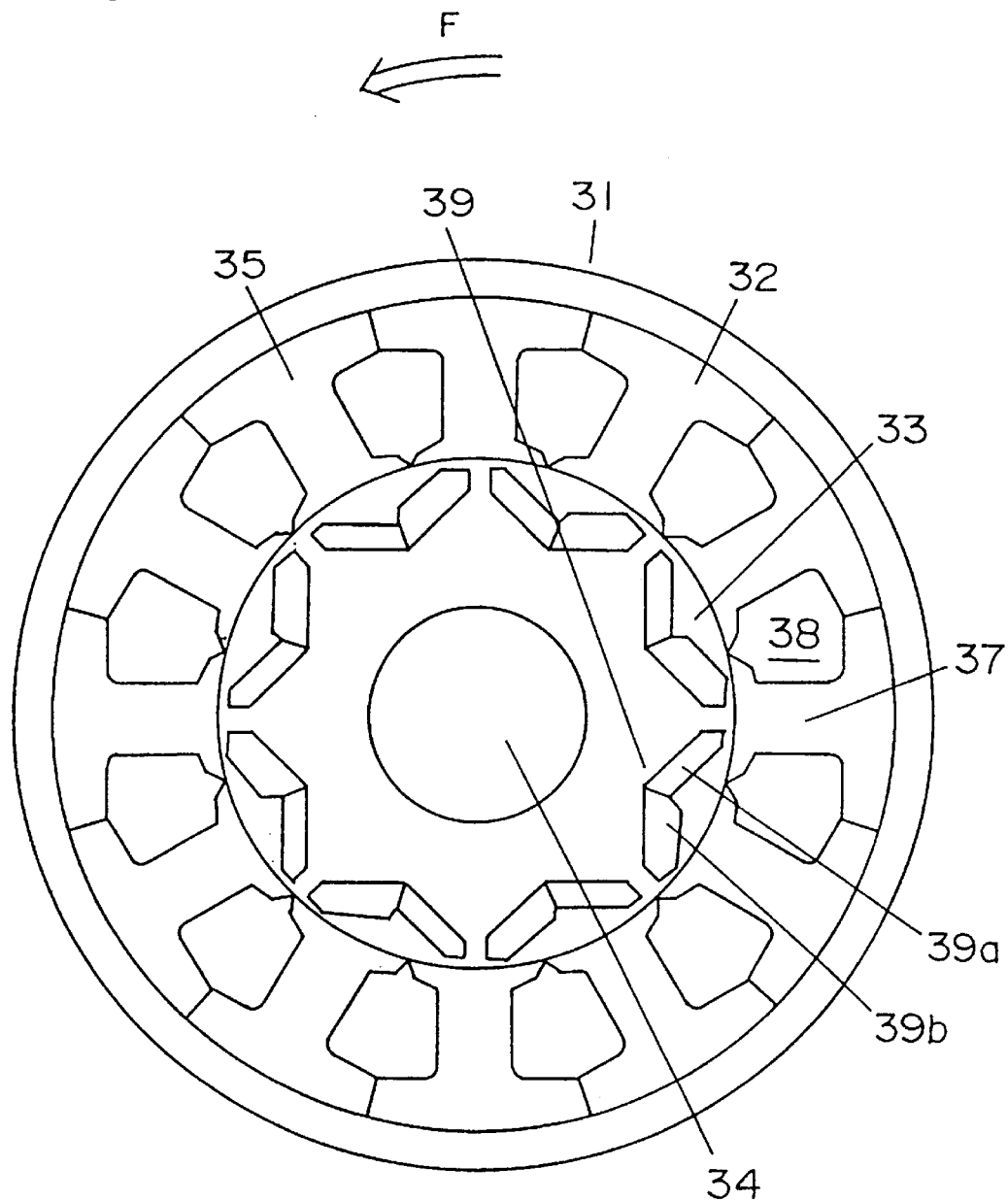


Fig.5



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