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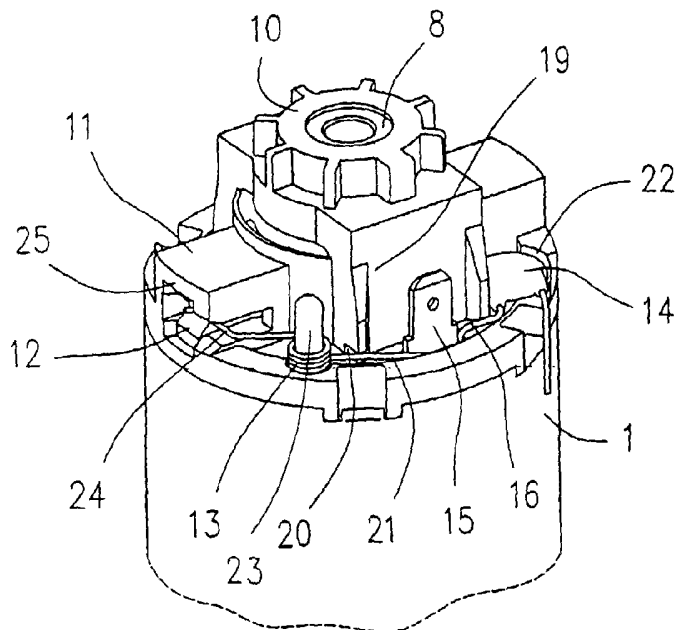
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(54) Title: IMPROVED BRUSH HOLDER FOR D.C. COMMUTATOR MOTOR WITH PERMANENT MAGNETS



(57) Abstract: The invention involves the improved bearing guard on the commutator side with the D.C. commutator motor with permanent magnets that in addition to simple connection of the electric voltage to the motor enables reliable brush control and simple mounting of other necessary elements (capacitor, rectifier circuit) without any special additional work operations. The improved bearing guard (10) on the commutator side including permanent magnets is provided with a built-in standard coupling element (15) whereof the mounting enables, in addition to its voltage connection function, the function of appropriate electric coupling with the spring (13) of the brush (12), such as attached to the protuberance (23), and with the capacitor (14) pin (16), requiring no additional work operations, whereby the spring (13) that presses

the brush (12) against the commutator is shaped in the way that it also creates the component of the force in the direction of the arrow (F2) that presses the brush (12) against the walls of the guide (25) and thereby reduces the unwanted noise, improves the commutation with the commutator, whereby the structure of the improved bearing guard also enables simple superstructure of the D.C. commutator motor with a rectifier circuit that may be directly fixed to the above bearing guard and due to the good utilization of space does not prolong the basic length of the motor.



WO 03/010873 A3



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**A. CLASSIFICATION OF SUBJECT MATTER**  
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According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

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A	GB 2 172 754 A (MABUCHI MOTOR CO) 24 September 1986 (1986-09-24) abstract; figures 1,2 ---	
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Patent family members are listed in annex.

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