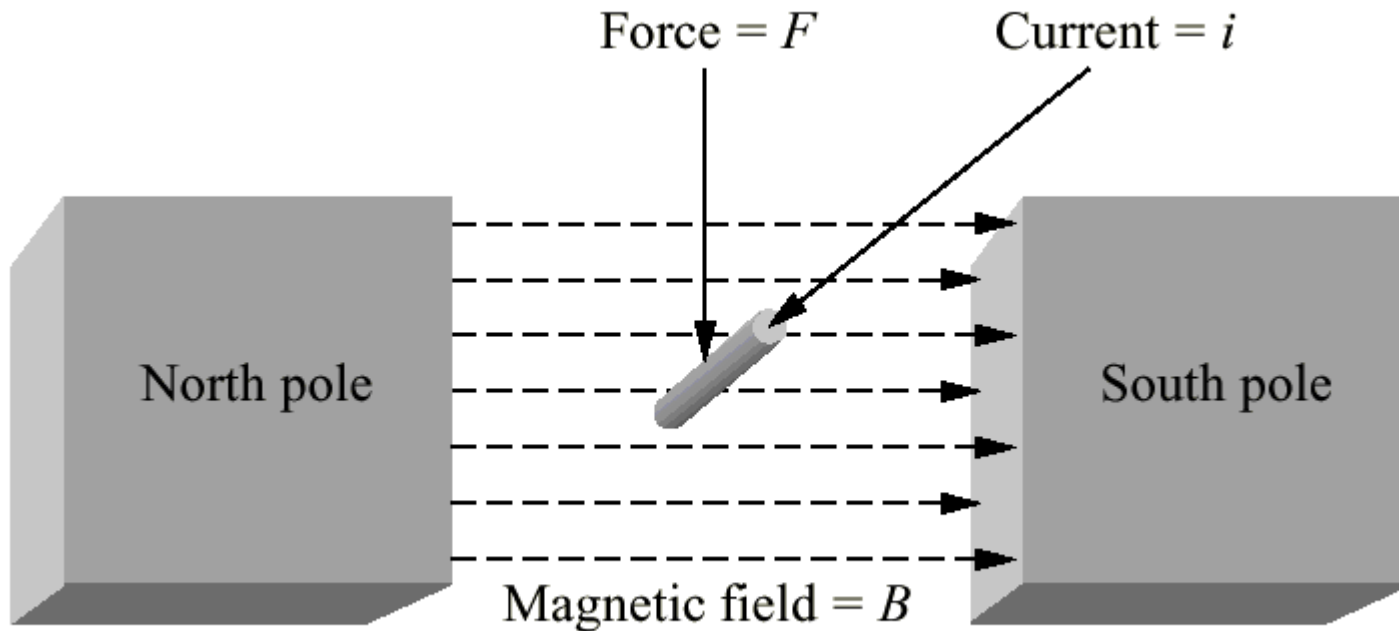


# Appendix F

## Derivation of a Schematic for a DC Motor

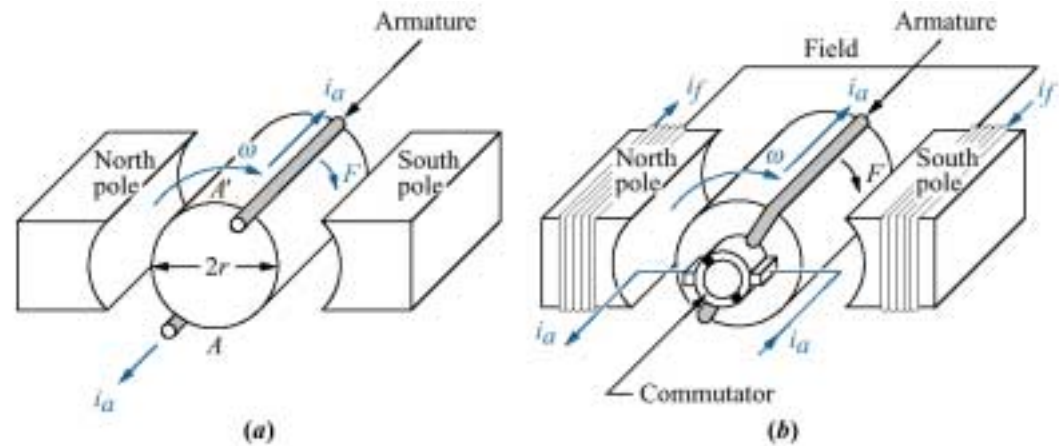
**Figure F.1**

Current-carrying wire  
in a magnetic field



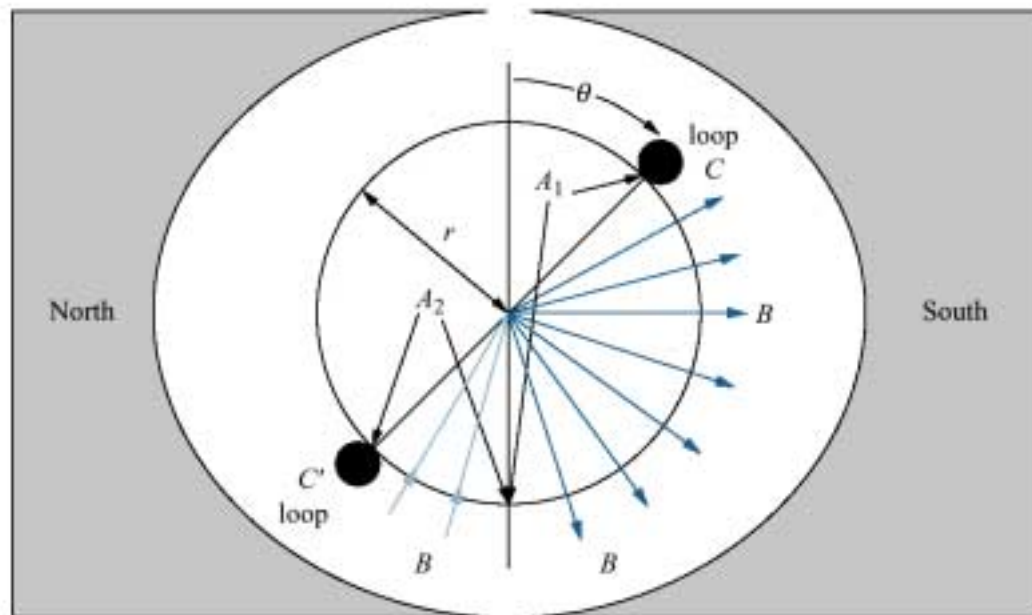
**Figure F.2**

- a. Current-carrying wire on a rotor;
- b. current-carrying wire on a rotor with commutation and coils added to the permanent magnets to increase magnetic field strength



**Figure F.3**

Magnetic flux density  
passing through a loop  
of wire on an armature



**Figure F.4**  
DC motor circuit  
diagram

