

CHAPTER 13

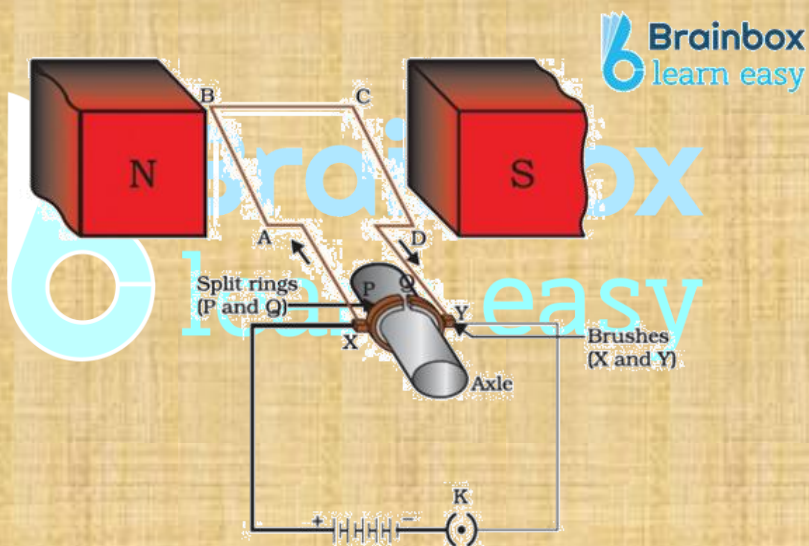
Electromagnetism

Electric Motor:

An electric motor is a rotating device that converts electrical energy into mechanical energy.

It is used in many devices like electric fans, mixers, computers etc.

How it works?



As shown in figure ABCD, A rectangular copper wire (Insulated) is taken between the polar.

Two ends of the copper wire are connected to two halved P, Q of split ring.

The inner sides of P, Q are connected to axle.

The external edges of P, Q touch two conducting stationary brushes X, Y.

Current enters from brush X and leaves out from brush Y.

The loop rotates such that AB downwards and CD upwards according to Fig.

After half rotation Q will be in touch with X and P will be with Y. Now current gets reversed, therefore AB moves upward and CD downwards completing the cycle. This process will get repeated. Therefore axle and coil gives continuous rotation.

