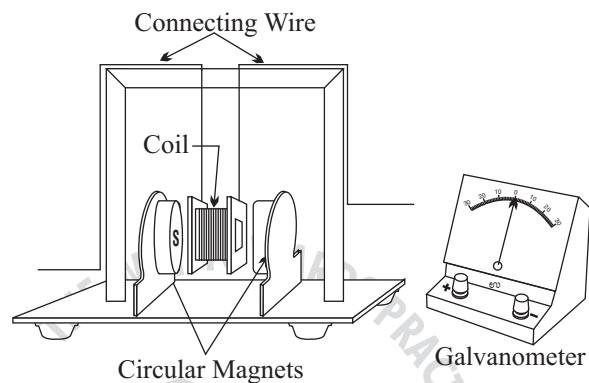


FLEMING'S RIGHT HAND RULE

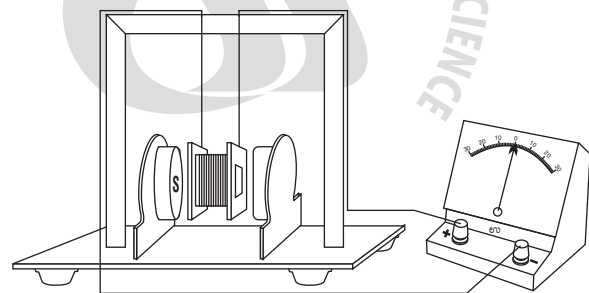
Generator Principle

Assembly : Consists of a rectangular coil made of insulated copper wire. The wire is wound on a plastic bobbin. This coil is suspended between the pole pieces of two circular magnets. These magnets are fixed on a clear plastic base. The ends of the coil are connected to Galvanometer.



To do and observe :

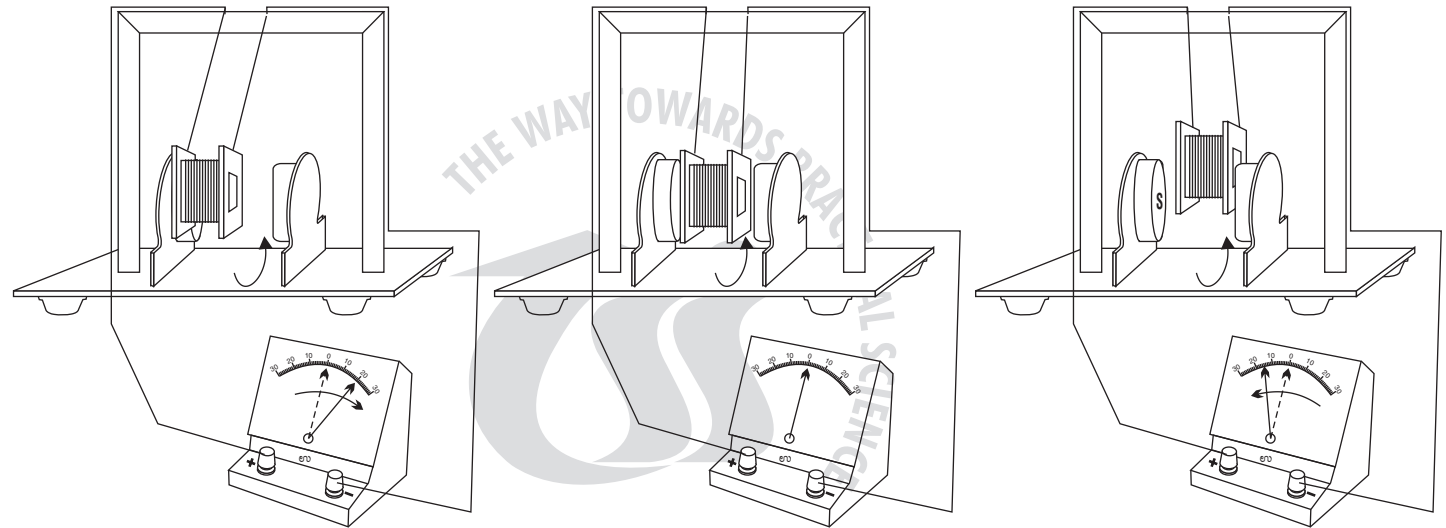
Step 1:



Connect the terminals of the coil to a sensitive Galvanometer



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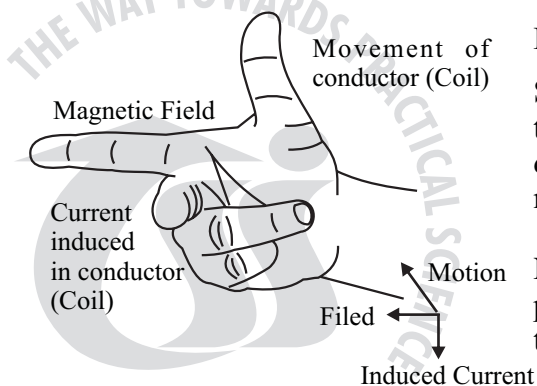


Step 2 :

Give a push to the coil and observe the movement of the Galvanometer pointer. The pointer oscillates about its '0' as the coil moves to and fro. When the coil moves away from the field, Galvanometer pointer deflects towards left and when the coil moves towards the field, the Galvanometer pointer moves towards right.

What is going on?

As the coil is suspended between two pole pieces of circular magnets, when push is given to it, it oscillates in the magnetic field. As it oscillates it cuts the magnetic lines of forces. Therefore an EMF is induced in the coil and thereby induced current flows in it.



The direction of the induced EMF in the coil is found by using Fleming's Right Hand Rule

Stretch fore finger, thumb and middle finger of your right hand so that they are mutually perpendicular to each other. Relate this to the direction of the field, motion of the coil and verify whether the middle finger indicates the direction of the induced current or not.

Note : Here it is not possible to see the induced current. But its presence can be detected by using Galvanometer. The deflection in the Galvanometer itself shows that current is induced in the coil.



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John Ambrose Fleming (1849-1945)

Born : November 29, 1849
Lancaster, Lancashire, England
Died : April 18, 1945
Sidmouth, Devon, England
Field : Electrical engineer and
Physicist
Known for : Fleming's left hand rule
Fleming's right hand rule



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FLEMING'S RIGHT HAND RULE

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