

Generation with flux cancelled

A wound wire circuit is represented in the diagram and connected to a sensitive analog voltmeter. Two magnets at right angles to the wire are aligned so that their flux cancels at the point of the wire. In this case, the magnets are glued on two small dowels so that they can be moved rapidly apart by hand.

When this is done, the meter deflects, detecting voltage across the circuit. This happens even though the flux is cancelled at the wire. If one magnet only is used, the deflection will be reduced by one half as I recall.

If the wire is enclosed by a steel pipe to ensure that there is no flux at the wire, the result is the same.

I used an HP 3400A on the .001V scale.

