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when a coil is rotated or turned under a magnetic field, there occurs a force on the electron. And each electron would force under the Newtons\'law. and theory is use in transformer

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ABSTRACT

Fleming\'s left hand rule and right hand rule, (dc generator how to part 2) is not satisfied at some point in you tube. but in this theory are all points satisfied. or clamp meter error or dc motor on the load, the coil is why the increase flow of current.

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I. INTRODUCTION

The magnet consist of two poles north & south. Let us consider these two as a positive and negative end. When a conductive metal is brought near negative end of magnet, with v velocity, the collision of electron and negative magnetic field creates a repulsive force & this repulsive force between magnet and present electron in the conductive material causes momentum in electron. Now the electron with that momentum starts.

Attraction force between present electron in conductive metal and (+ve) magnet = F

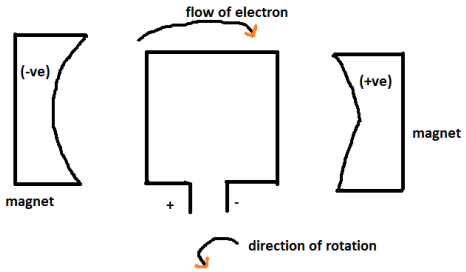
Repulsion force between present proton in conductive metal and (+ve) magnet = F'

The force applied on between the proton and electron due to rotation = f1

Acceleration of electron = (a+a1)

Acceleration of proton = (a1-a')

Where a1=acceleration of coil, a=acceleration of electron by attraction force and a'=acceleration of proton by repulsion force.

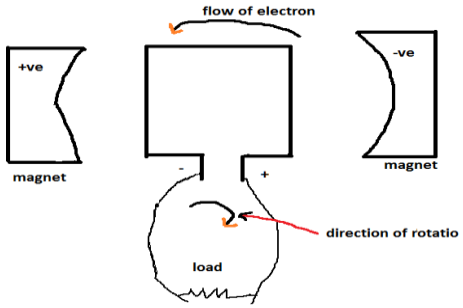


$$\text{force} = \frac{q_1 q_2}{d^2}$$

WHERE Q_1 AND Q_2 CHARGE
D = distance between q_1 and q_2

GENERATOR ON LOAD CONDIT ION :

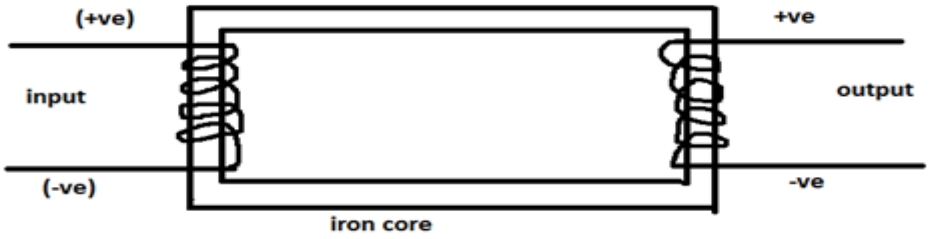
In this condition the electron goes from negative charge to positive charge. Due to this movement of electron on positive side, there is repulsion between this electron and the negative side of magnet. This repulsive force affects the rotation of coil. The movement of electron from negative side to positive side increases the electron density at positive side at the same time decreases the electron density at the negative side. This reduces the attraction force between the electron and the positive side of magnet. And thus the rotation of the generator is reduced.



Transformer: NOTE- (The total collision is driven by the repulsion force there is no collision on the surface area. All the collisions are carried due to magnetic field repulsion.)

$$\text{force} = \frac{q_1 q_2}{d^2}$$

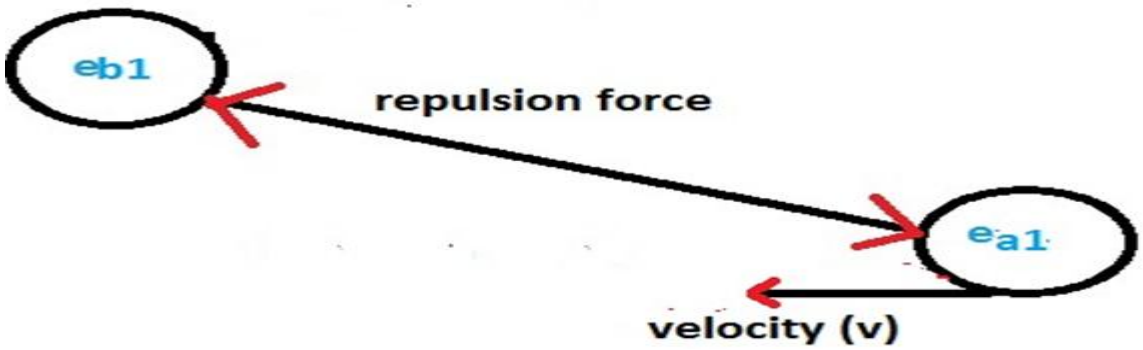
Let



Electron of input wire = ea = e_{a1}, e_{a2}, e_{a3}, ----------

Electron of iron core = eb = e_{b1}, e_{b2}, e_{b3}, ---------- &

Electron of output wire = eo = e_{o1}, e_{o2}, e_{o3}, ----------



If stat input current then
Flow ea (electron) (-) charge to (+) charge
So that
ea1 collides with eb1 then.
Velocity of e_{a1}=v-va1=v' (after collision)

And, velocity of e_{b1}=va1

If ea1 collides with e_{b2} then,

Velocity of e_{a1}=v'-va1'=v'' (after collision) &
Velocity of e_{b2}=v'a1

.....
.....
.....

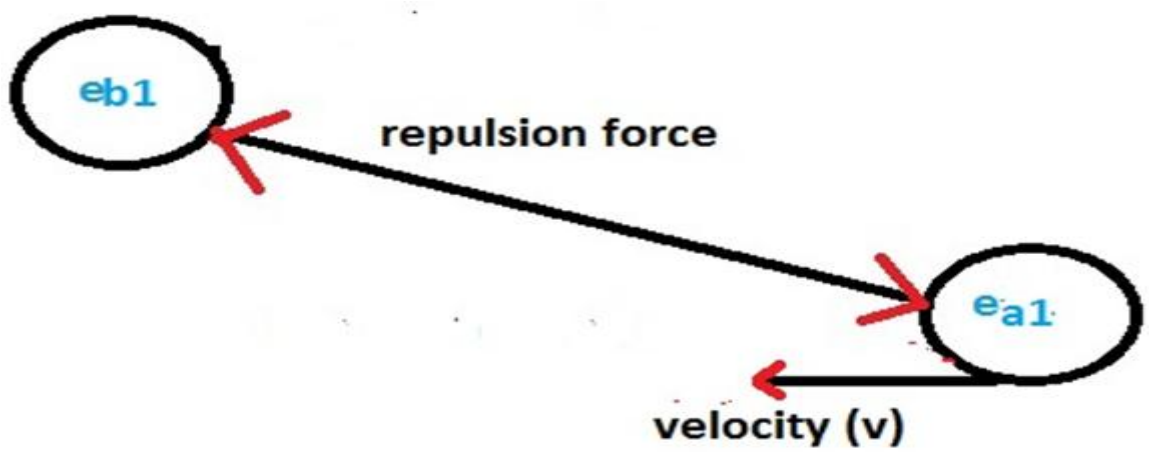
If ea1 collides with e_{bn+1} then,

Velocity of ea= $v^{''''\ldots.\text{ to n}} - va1^{''''\ldots\ldots\text{ to n}} = v^{''''\ldots.\text{ to n+1}}$

where n=infinite

then

$v^{''''\ldots.\text{ to n+1}} = 0$



Velocity of e_{a1} = v-v_1

Velocity of e_{b1} = v_1

If e_{a2} collides with e_{b1} then

Velocity of e_{b1}=v_1+v_2

If ea3 collide with eb1then

Velocity of e_{b1}=v_1+v_2+v_3

.....

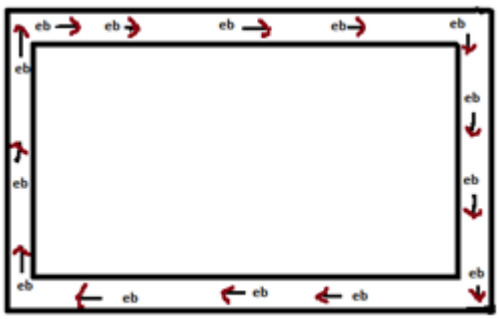
.....

.....

If e_{an} collides with eb1 then

Velocity of e_{b1}=v_1+v_2+v_3+v_4+..... +v_n = let v_c

In this way the electron on the iron core moves with vc velocity.



If eb1 collides with eo1 then

Velocity of e_{b1} (after collides) = vc-vc1 = v'c

Velocity of e_{o1}=vc1

if eb1 collides with e_{o2} then

Velocity of e_{b1}=v'c-v'c1=v''c

And velocity of e_{o2}=v''c1

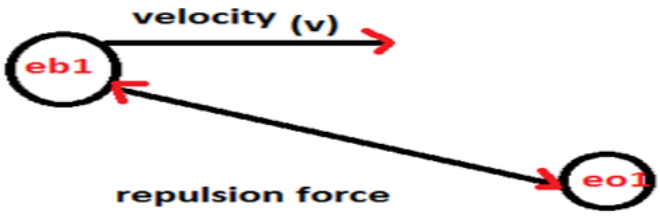
.....

.....

.....

if eb1 collides with eon+1 then

Velocity of = $v^{''''\ldots.\text{ to c}} - v^{''''\ldots.\text{ to c1}}$

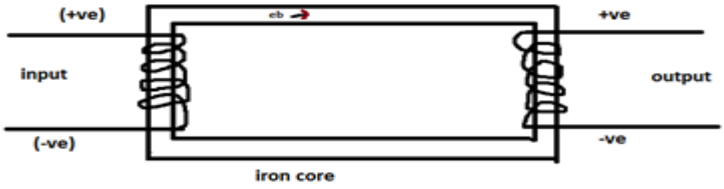


If eb1collides with eo1 then
Velocity of e_{o1}=vc1

If eb2 collides with eo1 then
Velocity of $e_{o1}=v_{c1}+v_{c2}$
.....
.....
.....

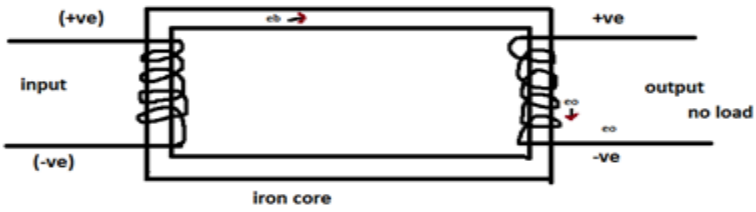
If e_{bn} (electron) collides with e_{o1} then
Velocity of $e_{o1}=v_{c1}+v_{c2}+v_{c3}+\ldots\ldots v_{cn}$

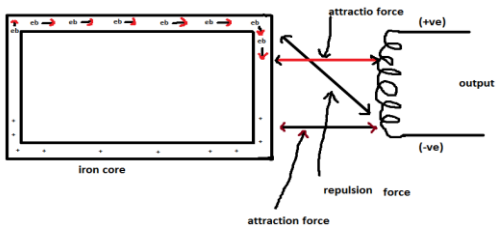
If we want to increase the output momentum of the electron then we should increase the no. Output turns of the wire on the iron core. Increasing the no of turns increases the increase in collision between the iron core and wire of electron



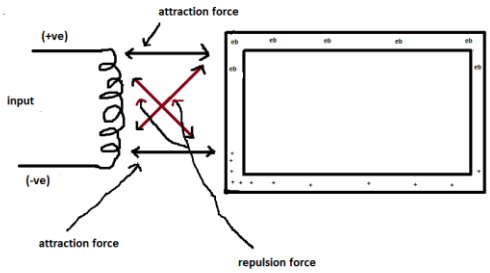
Transformer On No Load Condition -

If we are not using the output of the transformer then





Output wire's (-) charge has more electron ,it causes a repulsion between the iron core's and wire's electron and at the same time there is an attraction between the output positive charge(+) and iron core electron .the both attractive and repulsive forces balance each other and stops the iron core's electron motion. The effect on input flow of wire is shown in figure, causing a stop in input flow of electron.


attraction force
(+ve)
input
(-ve)
attraction force
repulsion force