

FIGUERA

GENERATOR

(REPULSION MODE)

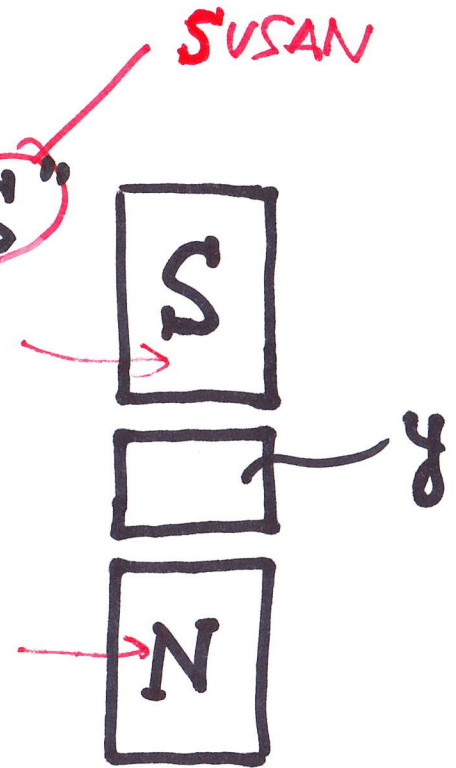
SPANISH PATENT

No. 44267

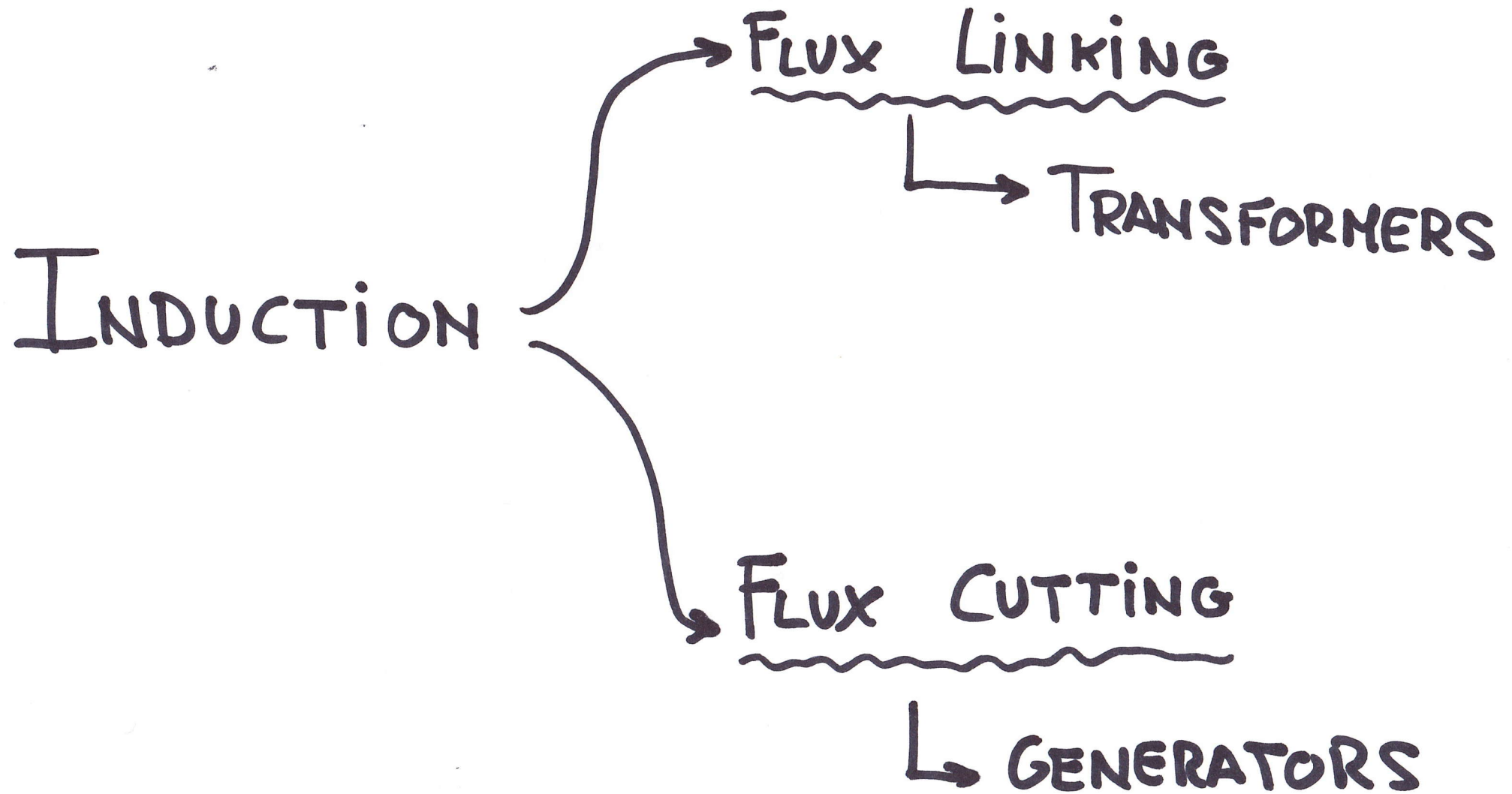
(year 1908)

DESCRIPTION: "SUPPOSE THAT ELECTROMAGNETS
ARE REPRESENTED BY RECTANGLES N AND S"

CLAIMS: "... CHARACTERIZED BY TWO SERIES
OF ELECTROMAGNETS WHICH FORM THE
INDUCTOR CIRCUIT ..."



¿ POLE ORIENTATION ?



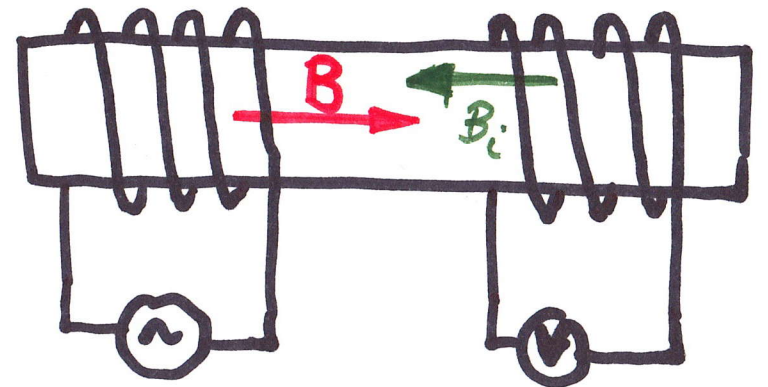
FLUX LINKING (TRANSFORMERS)

$$emf = -N \cdot A \cdot \frac{dB}{dt}$$

(FARADAY LAW)

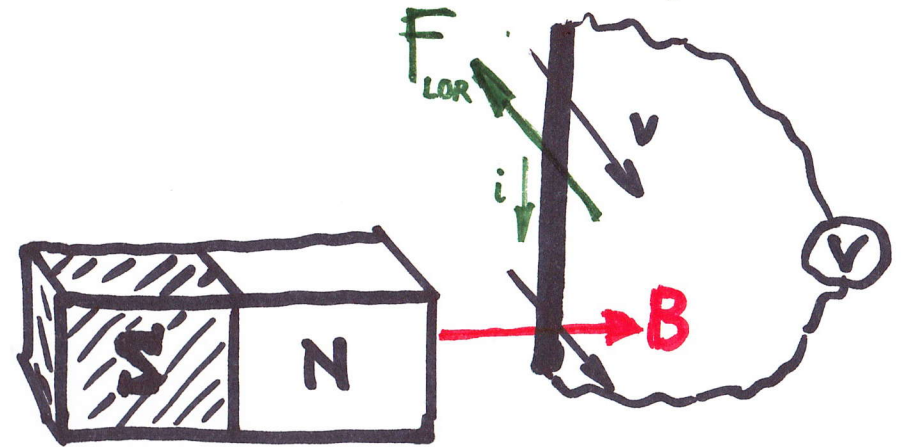
✓ • NO CONDUCTOR CUTTING

✓ • LENZ'S LAW



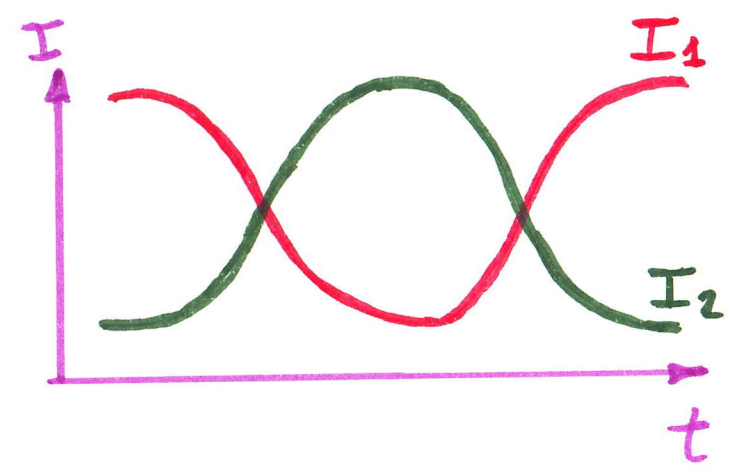
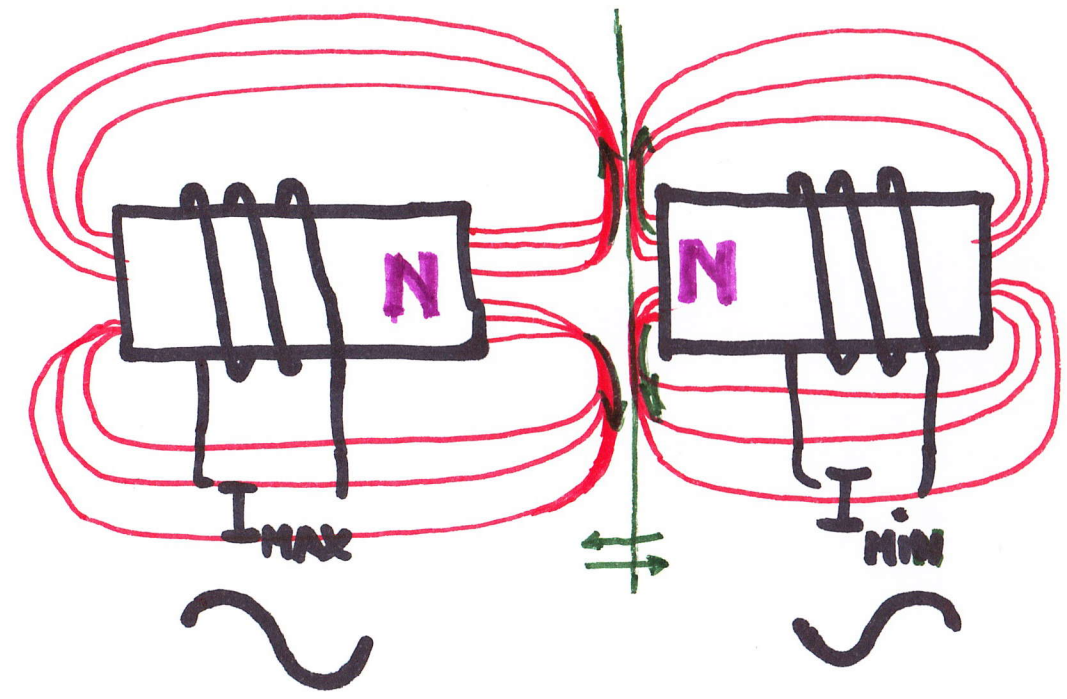
FLUX CUTTING (GENERATORS)

$$emf = v \cdot B \cdot \text{Length}$$



- ✓ • CONDUCTOR CUTTING
- ✓ • LORENTZ FORCE → DRAG
- ✓ • REQUIRE MOTION (v)

FIGUERA → REPULSION MODE $\begin{cases} SN & NS \\ NS & SN \end{cases}$

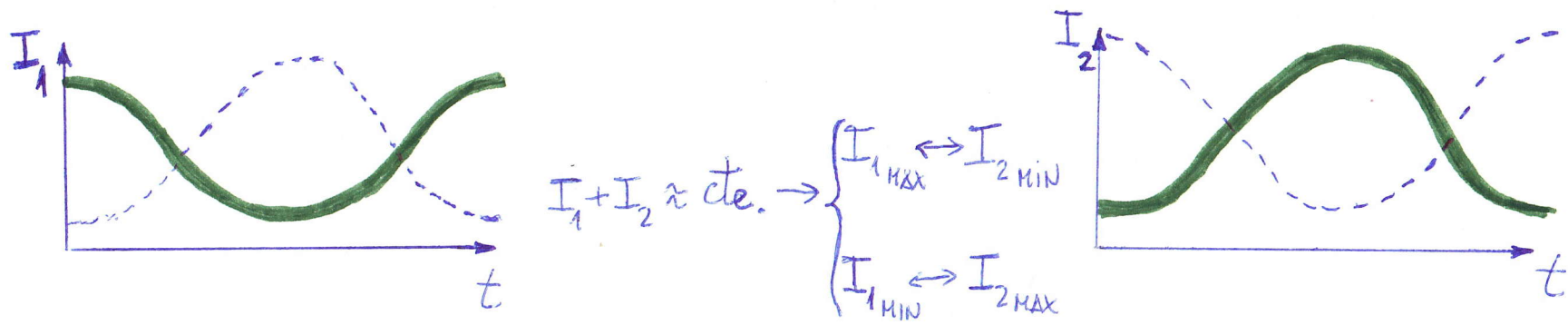
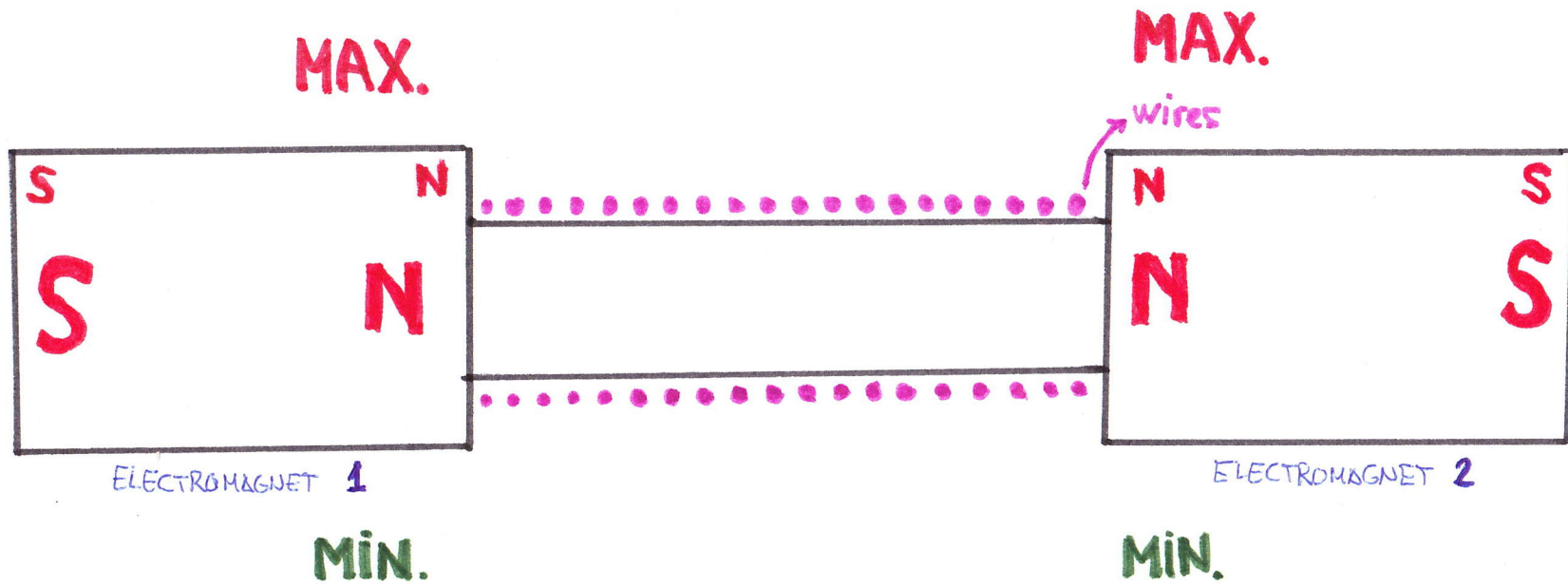


✓ • MOVING THE FIELDS

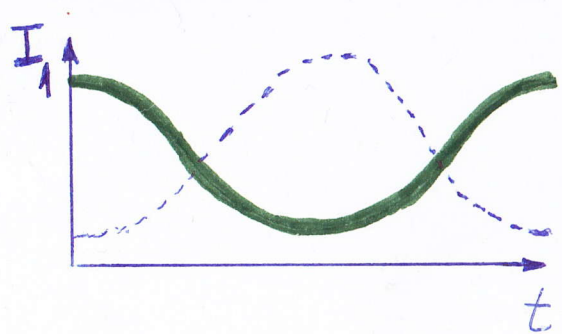
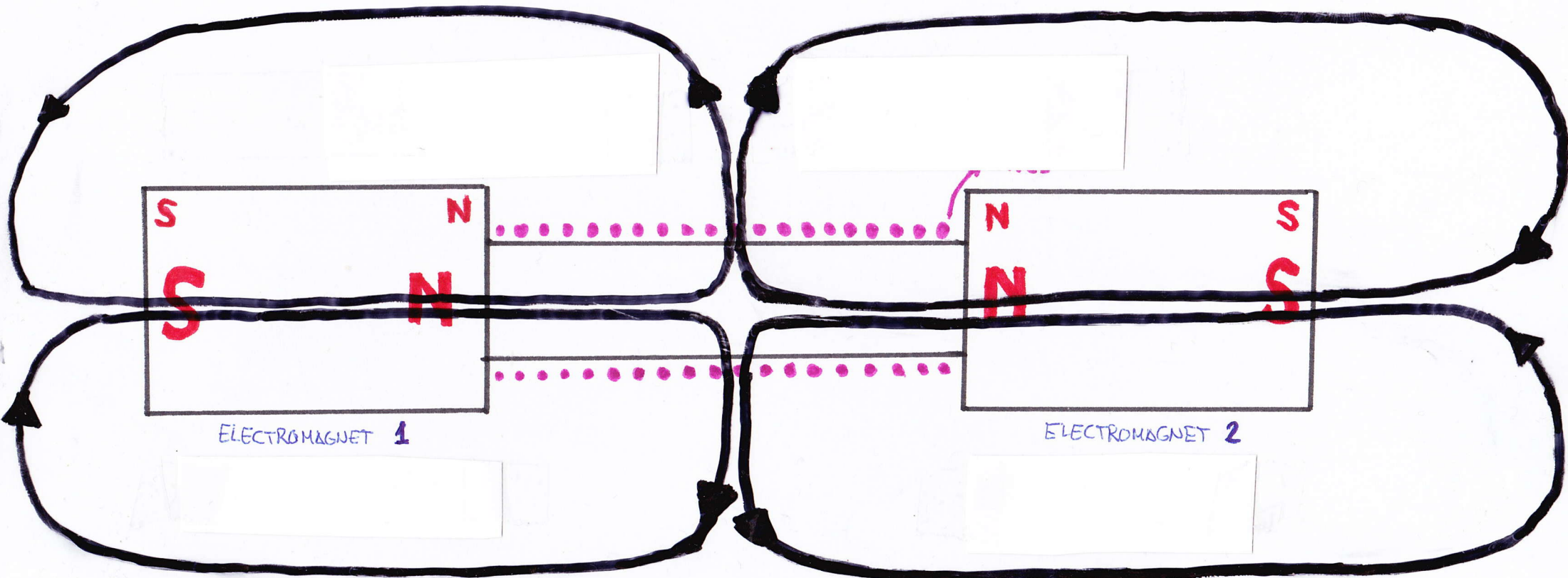
↳ "VIRTUAL MOTION" → NO DRAG

↳ FLUX CUTTING

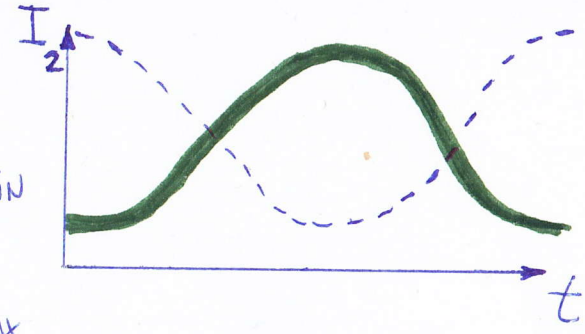
LIKE POLES FACING EACH OTHER (FIGUERA ??)
(FLUX CUTTING INDUCTION)



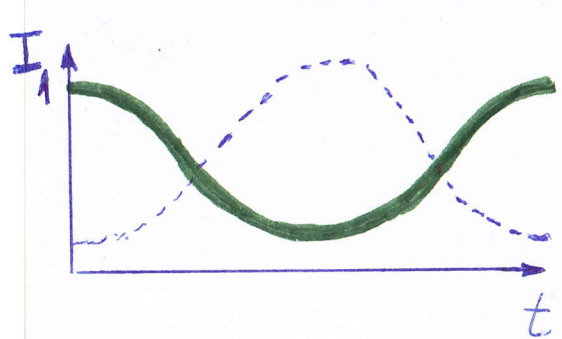
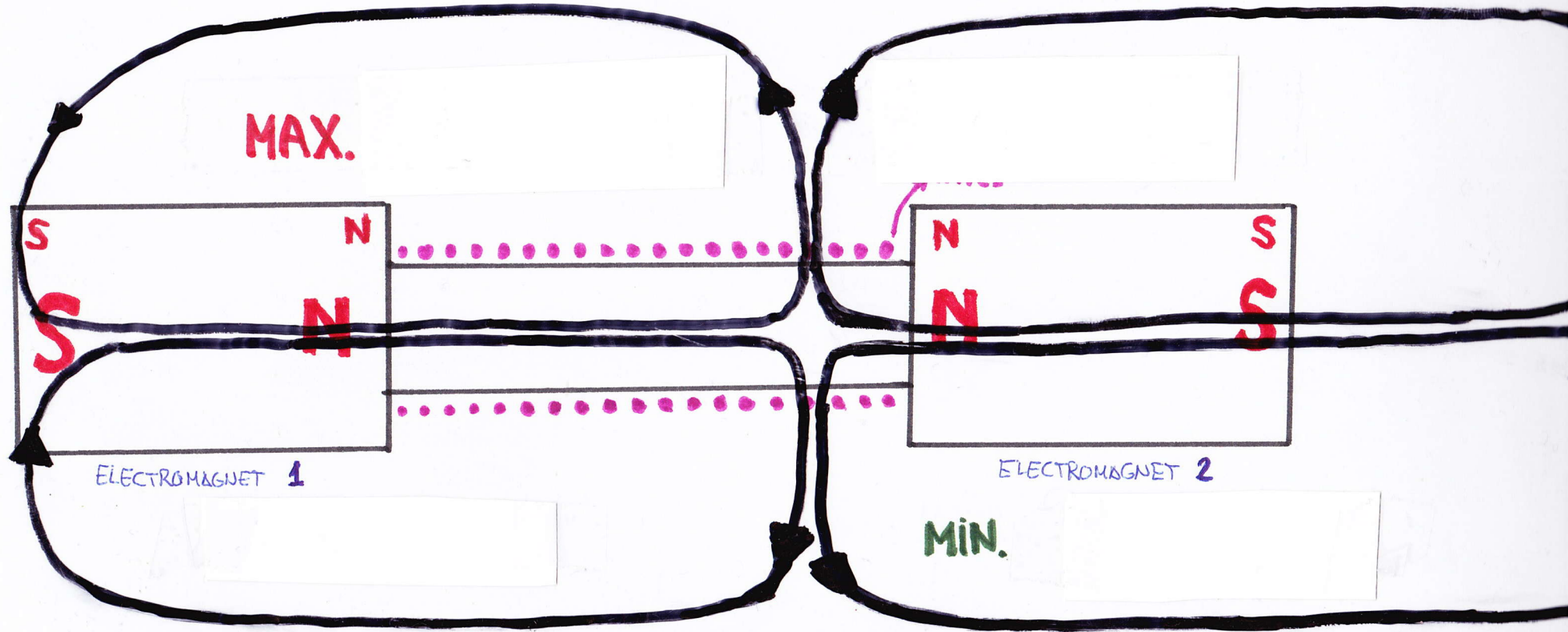
LIKE POLES FACING EACH OTHER (FIGUERA ??)
 (FLUX CUTTING INDUCTION)



$I_1 + I_2 \approx \text{cte.} \rightarrow \begin{cases} I_{1\text{MAX}} \leftrightarrow I_{2\text{MIN}} \\ I_{1\text{MIN}} \leftrightarrow I_{2\text{MAX}} \end{cases}$

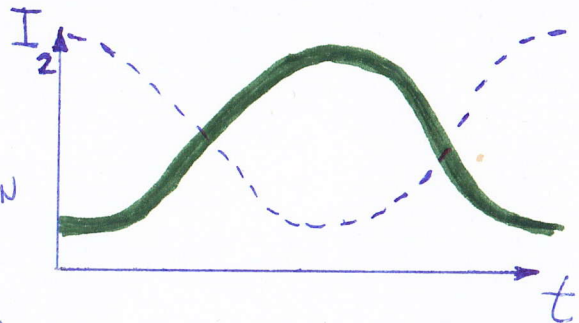


LIKE POLES FACING EACH OTHER (FIGUERA ??)
 (FLUX CUTTING INDUCTION)

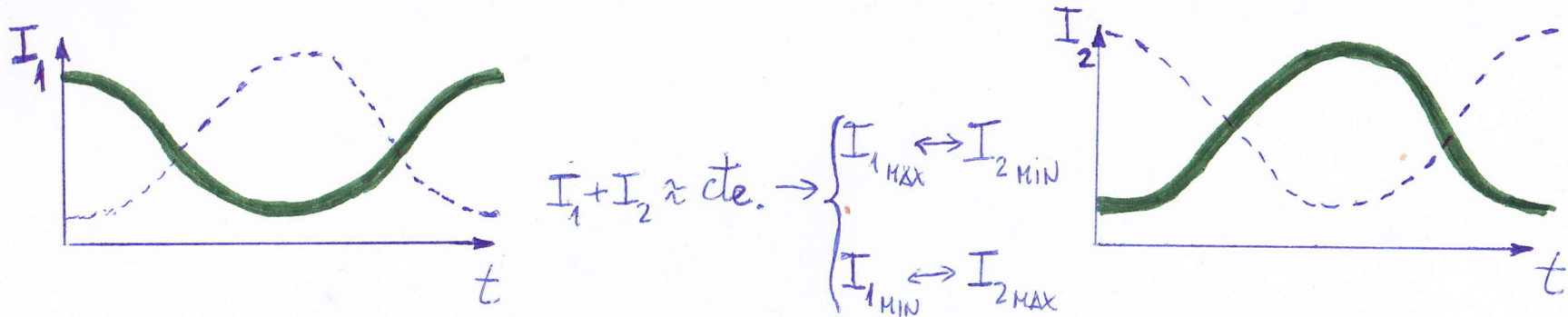
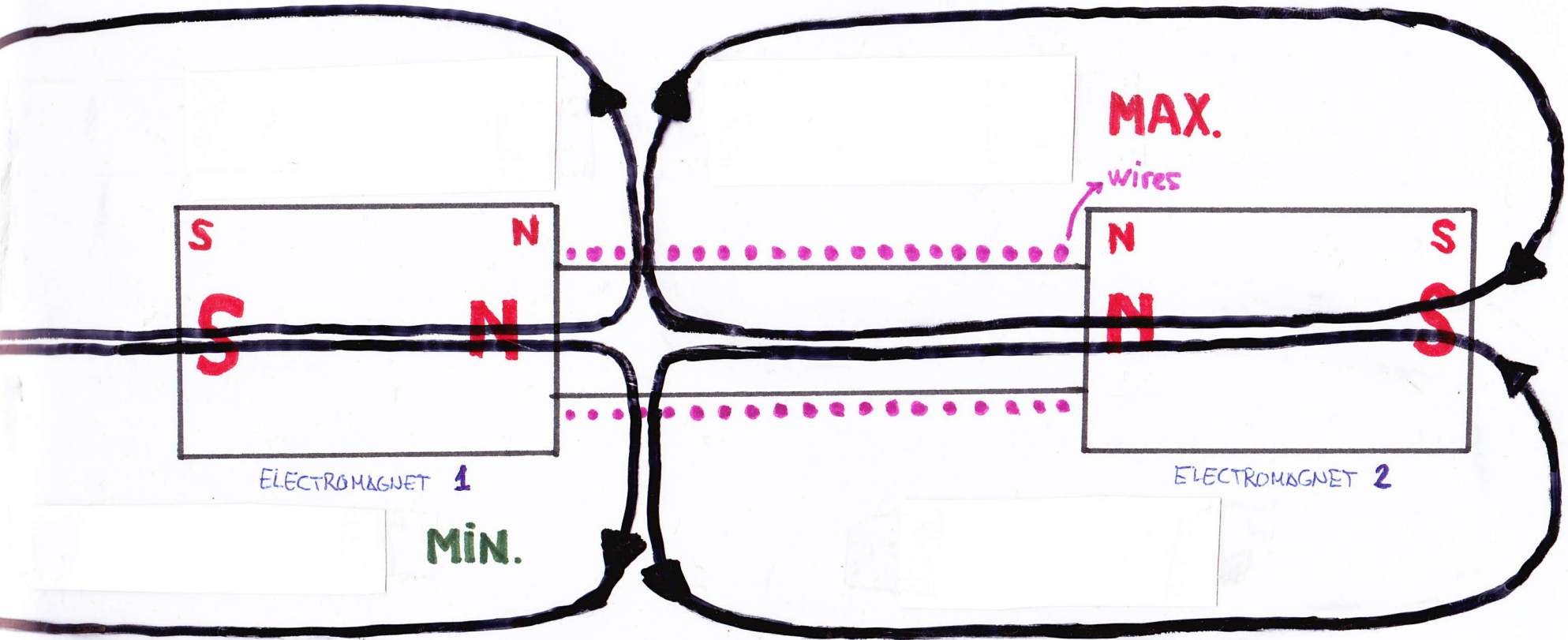


$I_1 + I_2 \approx cte. \rightarrow$

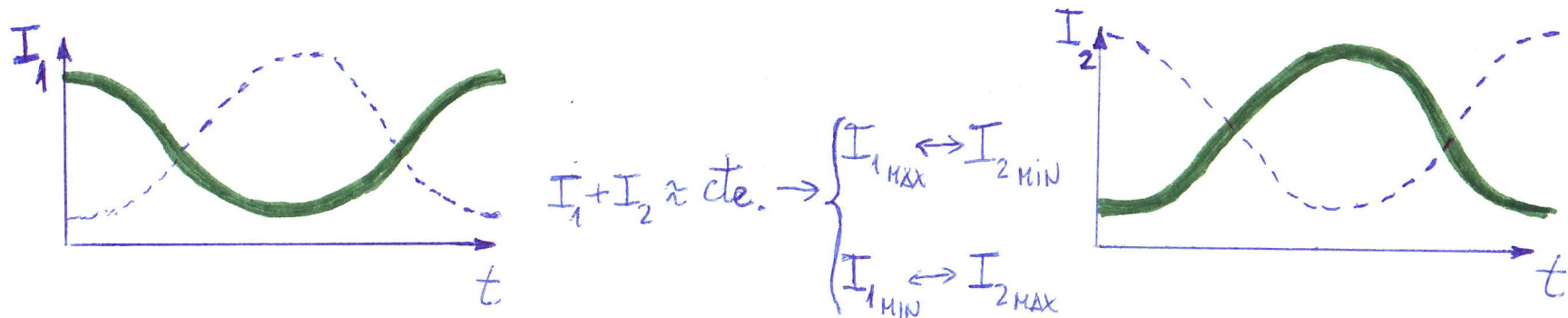
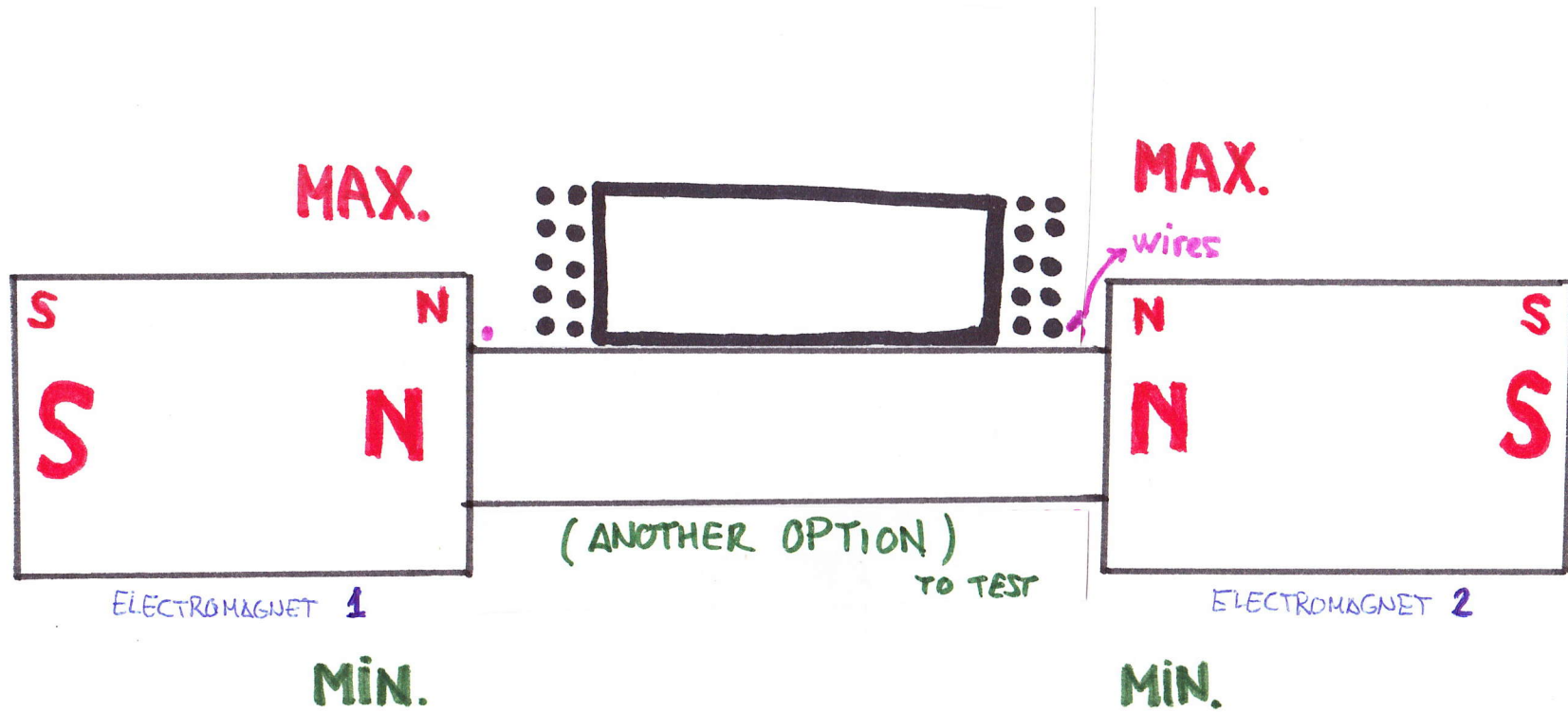
- $I_{1\text{MAX}} \leftrightarrow I_{2\text{MIN}}$
- $I_{1\text{MIN}} \leftrightarrow I_{2\text{MAX}}$



LIKE POLES FACING EACH OTHER (FIGUERA ??)
 (FLUX CUTTING INDUCTION)



LIKE POLES FACING EACH OTHER (FIGUERA ??)
(FLUX CUTTING INDUCTION)



CONCLUSIONS

COMMON GENERATOR ↔ MOTION

FIGUERA GENERATOR → "VIRTUAL MOTION"

⇓
MOTIONLESS

⇓
NO DRAG



CLEMENTE FIGUERA

1902 patents *
↔ 1908 patent * ← HERE