# INTRODUCTION
# TO

# MIRROR IMAGE SYMMETRY
# MAGNETICS

# 101

First Edition

CONTENTS

# DEFINITIONS

MIRROR IMAGE:

1. An object having a spatial arrangement that corresponds to that of another object except that the right-to-left sense on one object corresponds to the left-to-right sense on the other.
2. An image of an object, plan, person, etc. as it would appear if viewed in a mirror, with right and left reversed.

SYMMETRY:

1. Correspondence in size, shape and relative position of parts on opposite sides of a dividing line.

MIRROR IMAGE SYMMETRY:

1. Viewing earth's magnetic poles from the equator position in space, the north pole rotates clockwise while the south pole rotates counterclockwise.
2. A condition midway divided so that equal portions simultaneously separate in opposite directions as viewed from the neutral location between each half section.

NEUTRAL:

1. A position midway between.

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A magnetic conductor is - inductor, insulated wire or magnet wire.

Magnetic induction circuits are coiled, spiraled, helical.

Electromagnetism is developed by the process of magnetic induction.

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MIRROR IMAGE SYMMETRY CIRCUIT BENEFITS

1. Accomplish tasks that no other circuit can.
2. Lower cost and less time to produce.
3. Longer lasting.
4. More efficient.
5. Smaller in size.
6. Lighter in weight.
7. Lower in distortion.

# MIRROR IMAGE SYMMETRY MAGNETIC CONDUCTOR FORMING

and

# CROSS LAMINATED IRON MATERIAL

Conventional magnetic conductor forming architecture develops one magnetic pole first, and then, the second magnetic pole is developed at some later time. This sequential magnetic pole development process is not frequency synchronized, is not magnetically balanced, and is not efficient.

It has been observed that the north pole and south pole will become simultaneously developed, providing both pole locations are equally electrified at the same time.

With mirror imaging a magnetic conductor circuit, the conductor's skin surface area and eddy current energy increases together with the circuit's ability to accomplish more work. Iron material associated with electromagnetic circuits is influenced by these increases. Therefore, iron material geometry must be modified to utilize the increased eddy current energy.

Open iron paths created through laminating iron material, is the method which improves magnetic conductor eddy current energy utilization. When laminations are correctly positioned and directed, magnetic poles increase in number with each path. The magnetic poles divide so that one north pole becomes two north poles, one south pole becomes two south poles, and so on, with each lamination.

By cross laminating iron material associated with magnetic conductor circuits, additional eddy current paths are created so as to utilize any increase in eddy current energy produced by mirror imaging magnetic conductors.

Pole synchronicity and magnetic balance is not sacrificed by this cross laminated iron material geometry.

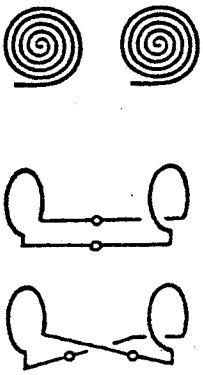
# EMF

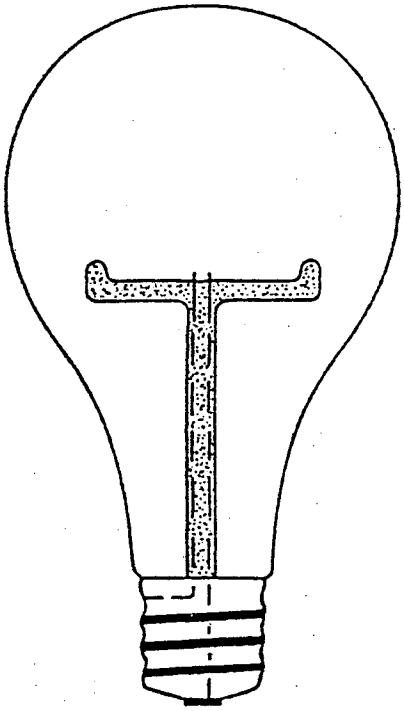
## combinations

mim

THIS CIRCUIT IS ABSENT OF NEUTRALITY

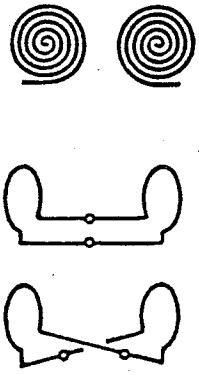
LEFT  .LEFT





THIS CIRCUIT CONTAINS NEUTRALITY

LEFT  RIGHT



A

B

DESCRIPTION

 LEFT DIRECTION CONDUCTOR

 RIGHT DIRECTION CONDUCTOR

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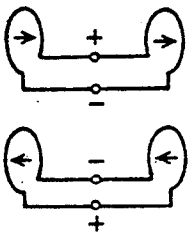
−
CONNECTION POLARITY

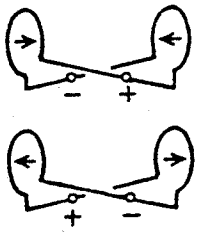
→ MAGNETIC DIRECTION

o CONNECTION

CONDUCTOR CONNECTIONS

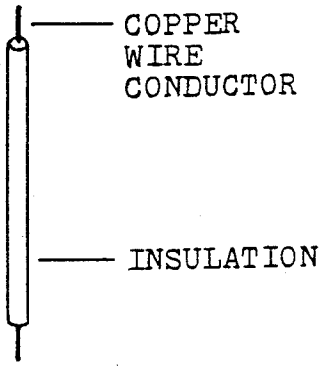


A



B

# BASIC ELECTROMAGNETIC POLARITY




WIRE CONDUCTORS ARE UTILIZED IN ELECTRO-MAGNETIC CIRCUITS AND ARE USUALLY MADE OF COPPER MATERIAL IN ROUND, SQUARE AND RECTANGULAR SHAPES. WIRE CONDUCTORS IN ANY SHAPE HAVE INSULATION SURROUNDING THE WIRE TO PREVENT ADJACENT AND LAYERED SURFACES FROM MAKING ELECTRICAL CONTACT WHEN FORMED IN A COIL. THE INSULATION THEREFORE, ALLOWS ELECTRIC ENERGY TO MOVE THROUGH THE WIRE CONDUCTOR AS FLUID WOULD MOVE THROUGH A WATER HOSE.

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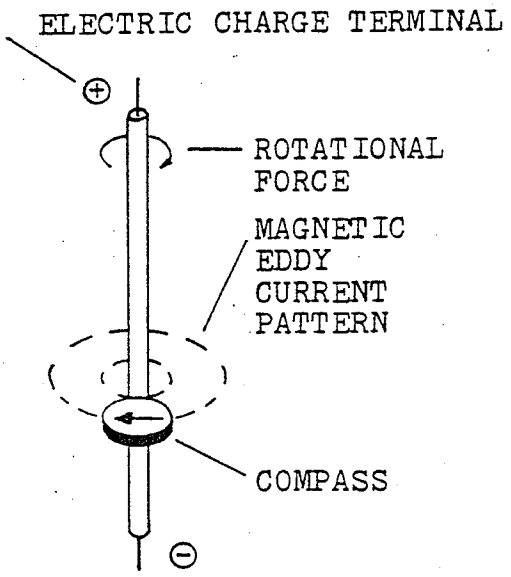


A STRAIGHT ELECTRIFIED WIRE CONDUCTOR'S SURFACE PRODUCES A ROTATIONAL MAGNETIC EDDY CURRENT FORCE PATTERN WHERE POLARITY LOCATION AND DIRECTION IS INDICATED BY A COMPASS NEEDLE. THERE IS NO MAGNETIC NORTH/SOUTH POLE TO THE WIRE'S SURFACE, ONLY THE PATTERN HAS MAGNETIC POLARITY DIRECTION. THE MAGNETIC PATTERN IS STRONGEST AT THE WIRE'S SURFACE AND BECOMES WEAKER AS DISTANCE INCREASES. THE MOTION ASSOCIATED WITH THIS ROTATING MAGNETIC EDDY CURRENT PATTERN IS THE FORCE WHICH PERFORMS WORK. FLUX IS THE TIME RATE CHANGE OF EDDY CURRENT ENERGY ACROSS THE WIRE CONDUCTOR'S SURFACE AND IS THE VALUE OR AMOUNT OF WORK PERFORMED.

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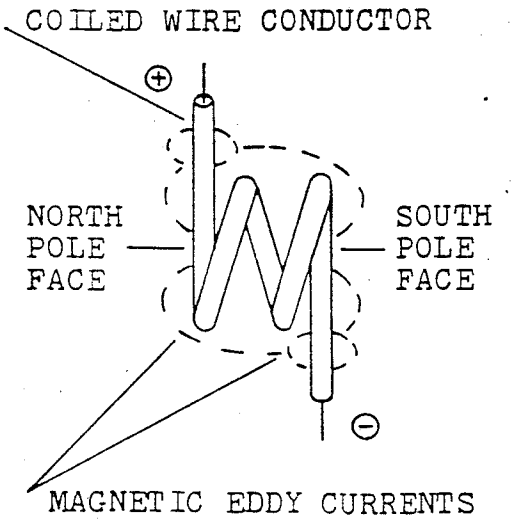


WHEN STRAIGHT WIRE CONDUCTOR'S ARE FORMED INTO A COIL OR MANY COILS, THE WIRE'S SURFACE BECOMES MAGNETICALLY POLARIZED. EACH SUCCESSIVE COIL INCREASES MAGNETIC EDDY CURRENTS AND MAGNETIC NORTH/SOUTH POLE FORCE. THE WIRE CONDUCTOR'S COIL OR COILS OUTSIDE END FACES NOW HAVE A NORTH POLE LOCATED AT ONE END AND A SOUTH POLE LOCATED AT THE OTHER END. DIRECT CURRENT (DC), LOCATES AND FIXES THE NORTH/SOUTH POLES SO THEY ARE STATIONARY. ALTERNATING CURRENT (AC), RECIPROCATES THE NORTH/SOUTH POLE LOCATION IN CORRESPONDENCE WITH FREQUENCY ALTERNATIONS.

ELECTRIC CURRENT DEVELOPS HIGHER MAGNETIC FORCE IN A COILED, SPIRALED OR HELICAL MAGNETIC CONDUCTOR CIRCUIT WHEN THE INNER ELECTRIC TERMINAL IS CHARGED POSITIVE AND THE OUTER ELECTRIC TERMINAL IS CHARGED NEGATIVE. LOWER MAGNETIC FORCE IS DEVELOPED WHEN THE MAGNETIC CONDUCTOR CIRCUIT'S OUTER TERMINAL IS CHARGED POSITIVE AND THE INNER TERMINAL IS CHARGED NEGATIVE.

A CIRCUIT'S NORTH AND SOUTH POLE FACES BECOME FREQUENCY SYNCHRONIZED AND MAGNETICALLY BALANCED WHEN THE TWO POLE FACES SIMULTANEOUSLY RECEIVE ELECTRIC CURRENT AT THEIR RESPECTIVE LOCATIONS FROM INDIVIDUAL MAGNETIC CONDUCTORS.

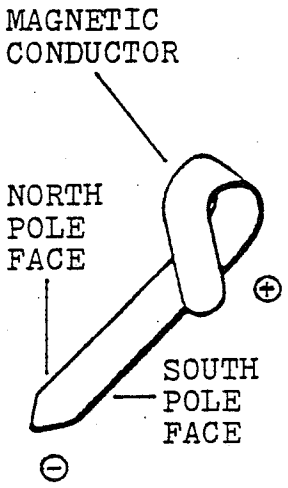


Fig. 1 ONE CONDUCTOR, CONVENTIONAL START

COILED, SPIRALED OR HELICAL MAGNETIC CONDUCTORS THAT START AT A NORTH POLE OR A SOUTH POLE FACE, WILL DEVELOP THE NORTH AND SOUTH POLES SEQUENTIALLY. WHEN A MAGNETIC CONDUCTOR STARTS AT THE NORTH POLE FACE, THE NORTH POLE BECOMES MAGNETICALLY DEVELOPED BEFORE THE SOUTH POLE BECOMES MAGNETICALLY DEVELOPED. WITH THIS MAGNETIC CONDUCTOR STARTING ARCHITECTURE, THE ELECTROMAGNETIC POLE DEVELOPMENT PROCESS IS NOT FREQUENCY SYNCHRONIZED, IS NOT MAGNETICALLY BALANCED AND IS NOT EFFICIENT.

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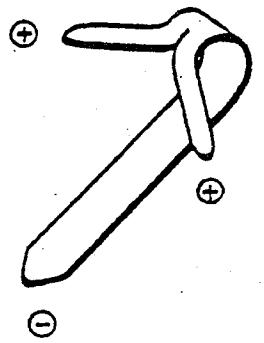


Fig. 2 ONE CONDUCTOR, MIRROR IMAGE START

ONE SPIRALED MAGNETIC CONDUCTOR WHICH IS MIDWAY DIVIDED SO THAT INDIVIDUAL EQUAL PORTIONS START AT THE NORTH POLE AND SOUTH POLE FACES, WILL DEVELOP BOTH MAGNETIC POLES SIMULTANEOUSLY. WITH THIS MAGNETIC CONDUCTOR STARTING ARCHITECTURE, THE ELECTRO-MAGNETIC POLE DEVELOPMENT PROCESS IS FREQUENCY SYNCHRONIZED, IS MAGNETICALLY BALANCED AND IS EFFICIENT.

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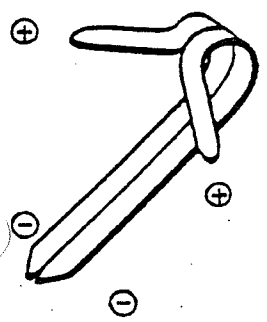



Fig. 3 TWO CONDUCTORS, MIRROR IMAGE START AND FINISH

ELECTRICALLY CONNECTING SEPARATE MAGNETIC CONDUCTORS IN PARALLEL, SO THAT THE FIRST MAGNETIC CONDUCTOR STARTS AT THE NORTH POLE FACE AT THE SAME TIME THE SECOND MAGNETIC CONDUCTOR STARTS AT THE SOUTH POLE FACE, DEVELOPS BOTH POLES SIMULTANEOUSLY. WHEN THE TWO MAGNETIC CONDUCTORS ARE EQUALLY ELECTRIFIED AT THE SAME TIME, CIRCUIT SYNCHRONICITY, MAGNETIC BALANCE AND EFFICIENCY RESULTS.

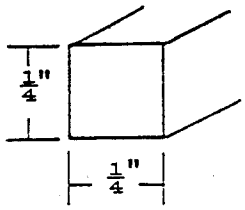
# ELECTROMAGNETIC POLARITY DEVELOPMENT

mim

ONE CONDUCTOR

CIRCUMFERENCE = 1"

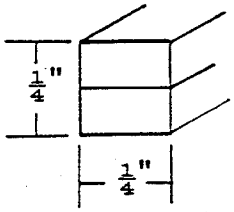
AREA = $\frac{1}{4}$" square



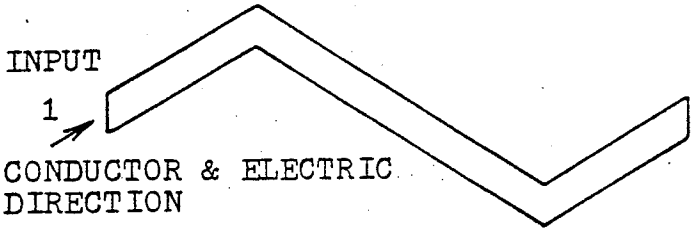

TWO CONDUCTORS

CIRCUMFERENCE = $1\frac{1}{2}$"

AREA = $\frac{1}{4}$" square




NORTH POLE LOCATION

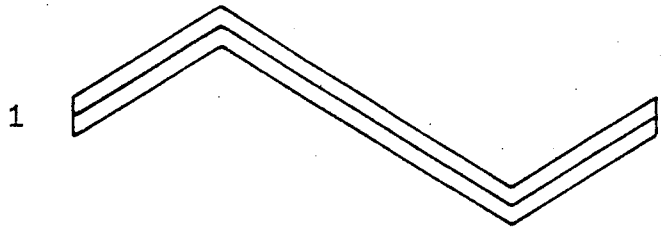



SOUTH POLE LOCATION

ONE CONDUCTOR ADVANCES ALTERNATLY, FIRST DEVELOPING THE NORTH POLE AND THEN DEVELOPING THE SOUTH POLE (SEQUENTIAL POLE DEVELOPMENT).

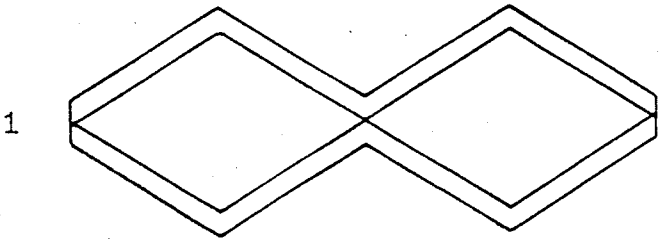
.7 RMS VALUE OUT

ROOT MEAN SQUARE or AVERAGE USABLE VALUE




TWO CONDUCTORS MIDWAY DIVIDED, ADVANCE MUTUALLY TOGETHER IN THE SAME DIRECTION AT THE SAME TIME, FIRST DEVELOPING THE NORTH POLE AND THEN DEVELOPING THE SOUTH POLE (SEQUENTIAL POLE DEVELOPMENT).

LESS THAN RMS OUT

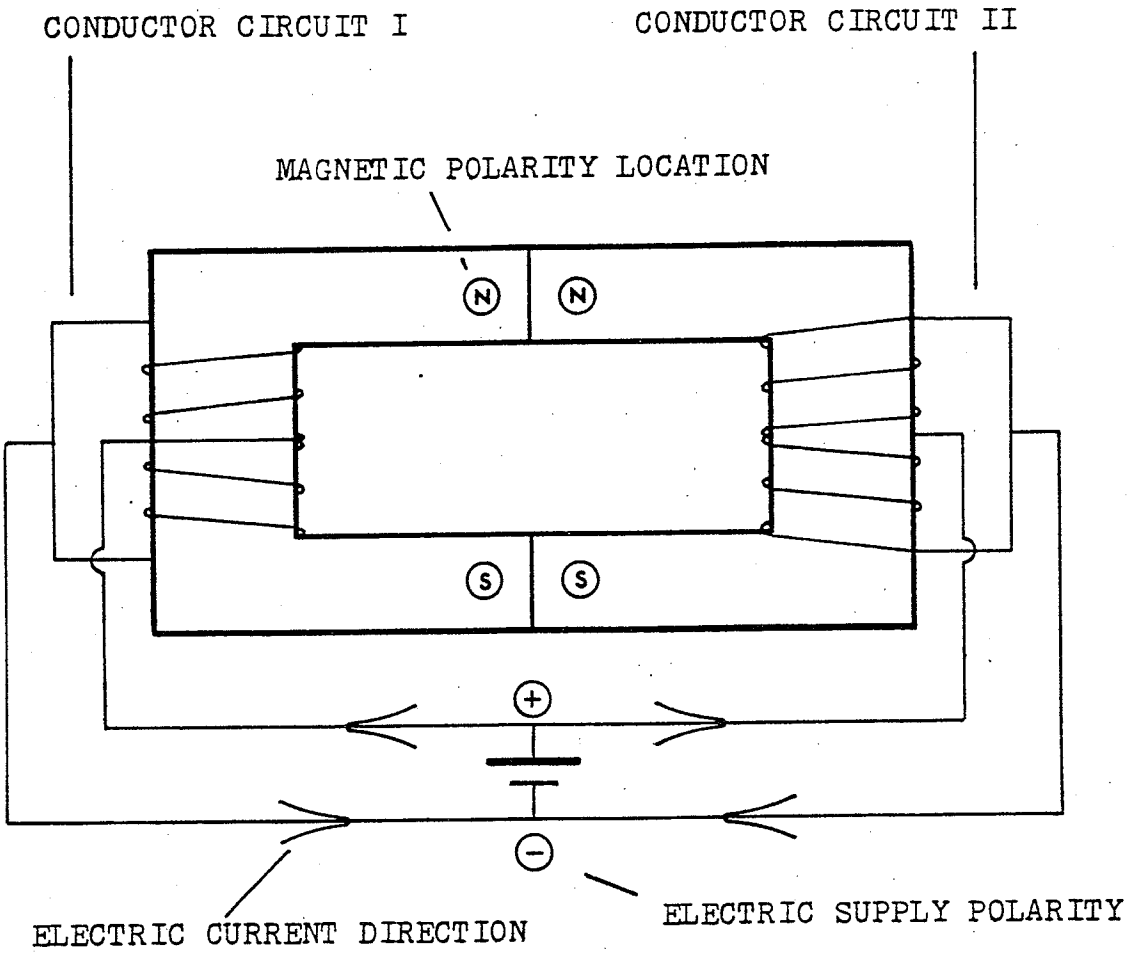



TWO CONDUCTORS MIDWAY DIVIDED, ADVANCE SEPARATLY IN EQUAL AND OPPOSITE DIRECTIONS CONCURRENTLY DEVELOPING BOTH POLES AT THE SAME TIME (SIMULTANEOUS POLE DEVELOPMENT).

MORE THAN RMS OUT

MIRROR IMAGE SYMMETRY ELECTRIC INDUCTION CIRCUIT WITH MAGNETIC NORTH POLE FACING MAGNETIC NORTH POLE

mim



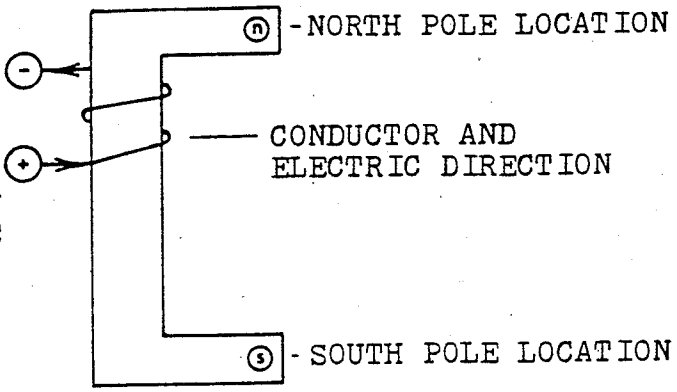

MAGNETISM EMERGES AROUND AN ELECTRIFIED CONDUCTOR AND IS DIRECTED AROUND THE CONDUCTOR SO THAT ONE MAGNETIC POLE LEADS THE OTHER MAGNETIC POLE.

ELECTRIC CURRENT DIRECTION IS FROM THE POSITIVE POLE TERMINAL TO THE NEGATIVE POLE TERMINAL.

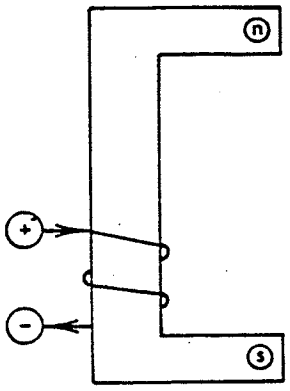
THE ELECTROMAGNETIC NORTH POLE LOCATION IS DETERMINED FROM THE RIGHT HAND THUMB POSITION AS IT IS GUIDED BY THE ELECTRIC CURRENT DIRECTION WHICH THE FINGERS REPRESENT.

# MAGNETIC POLARITY FOR CONDUCTORS IN MIRROR IMAGE SYMMETRY

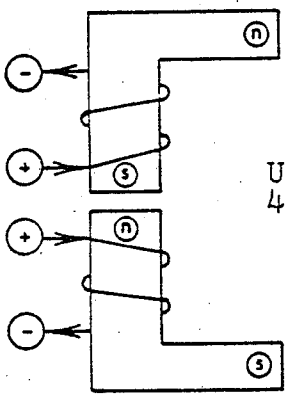
mim




ONE CORE
ONE CONDUCTOR
TWO POLES

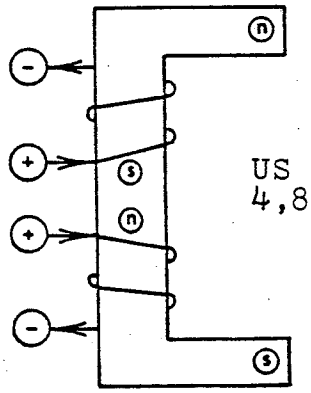


ONE CORE
ONE CONDUCTOR
TWO POLES



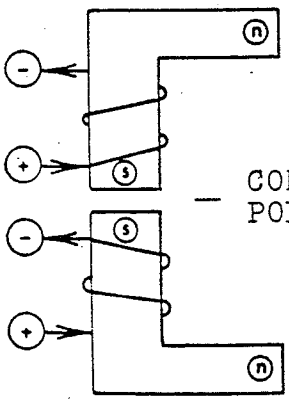
US PATENT
4,584,438

TWO CORES
TWO CONDUCTORS
FOUR POLES



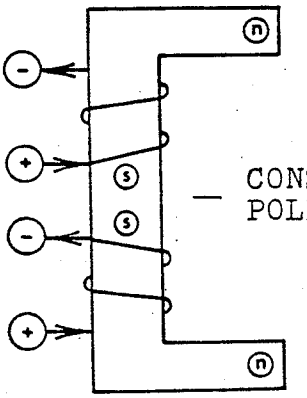
US PATENT
4,806,834

ONE CORE
TWO CONDUCTORS
FOUR POLES



CONSEQUENT
POLE

TWO CORES
TWO CONDUCTORS
THREE POLES



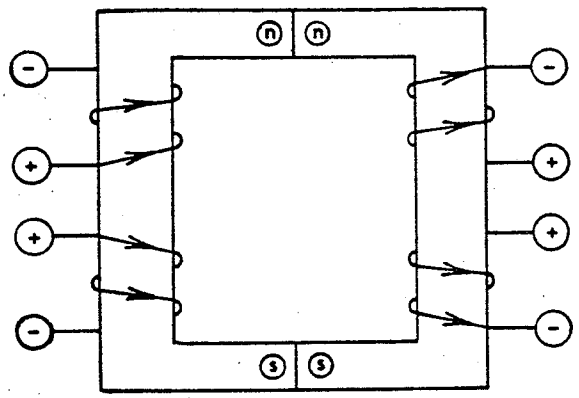
CONSEQUENT
POLE

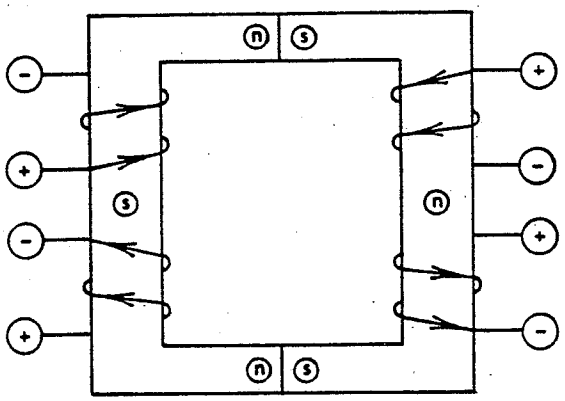
ONE CORE
TWO CONDUCTORS
THREE POLES

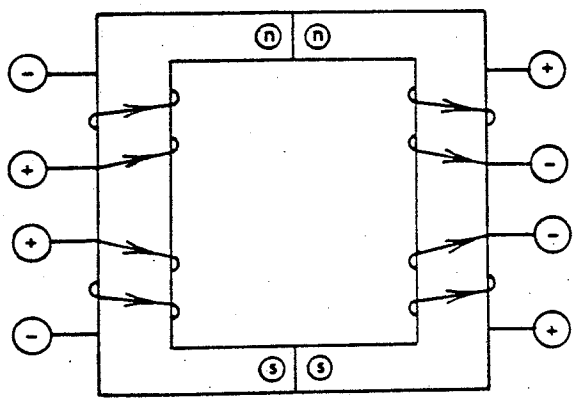
## ELECTRICALLY PARALLEL CONDUCTORS IN MIRROR IMAGE SYMMETRY

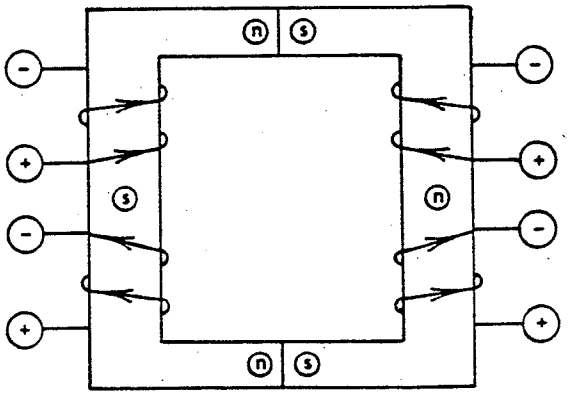
mim

DIRECTING A FIRST CONDUCTOR AND THEN CONNECTING THE CONDUCTOR ELECTRICALLY PARALLEL TO A SECOND OPPOSITE DIRECTED CONDUCTOR WILL ESTABLISH THE CIRCUIT FLUX AND MAGNETIC POLARITY.



# MIRROR IMAGE FOUR COIL ELECTRICAL CONNECTION OPTIONS

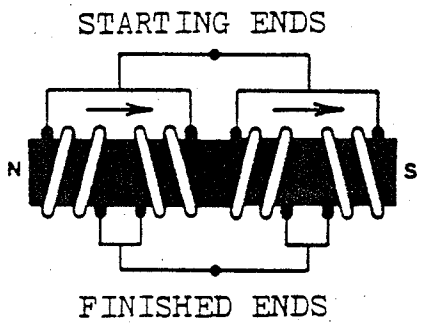
COILING FOUR MIRROR IMAGE WIRES PRESENTS TWO POSSIBLE WAYS THE ENDS OF THE FOUR WIRES CAN BE TERMINATED AND ELECTRICALLY CONNECTED.
NOTE: THE WIRES ARE COILED BEFORE THE CONNECTIONS ARE MADE.

Fig. "A"
THE STARTING ENDS OF THE FOUR WIRES ARE CONNECTED TOGETHER ESTABLISHING THE FIRST ELECTRICAL CONTACT. THE FINISHED ENDS OF THE FOUR WIRES ARE CONNECTED TOGETHER FOR THE SECOND CONTACT. THIS WIRE TERMINATION AND CONNECTION PRODUCES THE SAME MAGNETIC POLARITY DIRECTION FOR BOTH MIRRORED SECTIONS.

Fig. "B"
THE STARTING ENDS OF BOTH WIRES FOR MIRRORED SECTION 1 ARE CONNECTED TOGETHER AND THEN JOINED WITH THE FINISHED ENDS OF MIRRORED SECTION 2. THE STARTING ENDS OF BOTH WIRES FOR MIRRORED SECTION 2 ARE CONNECTED TOGETHER AND THEN JOINED WITH THE FINISHED ENDS OF MIRRORED SECTION 1. THIS WIRE TERMINATION AND CONNECTION REVERSES THE MAGNETIC POLARITY DIRECTION FOR ONE OF THE TWO MIRRORED SECTIONS.

DESIRED REQUIREMENTS WILL DETERMINE WHICH TYPE OF WIRE TERMINATION AND ELECTRICAL CONNECTION IS TO BE MADE.

Fig. "A"




ELECTRICAL CONNECTION FOR CONTINUOUS CORE WITH MIRRORED COIL SECTIONS IN PHASE WITH EACH OTHER

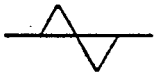
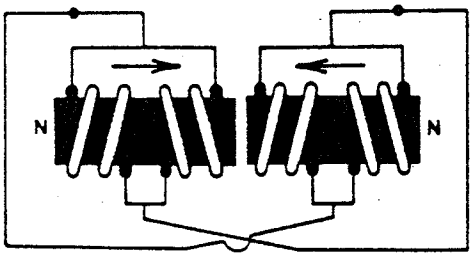


Fig. "B"




ELECTRICAL CONNECTION FOR SEPARATE CORES WITH MIRRORED COIL SECTIONS NOT IN PHASE WITH EACH OTHER



MOTION DIRECTION

MIRRORED SECTION COILED WIRE DIRECTIONS

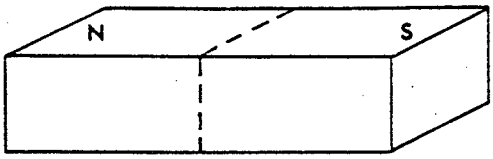
• ELECTRICAL CONTACTS

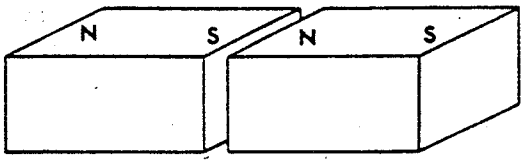
# MAGNETIC POLE DIVISION

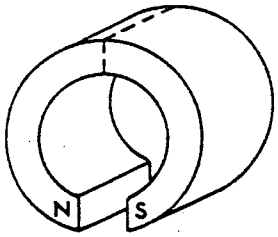
mim

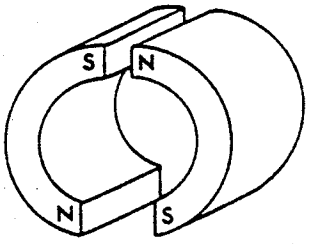
## (FUSION)

MIDWAY BETWEEN UNLIKE POLES



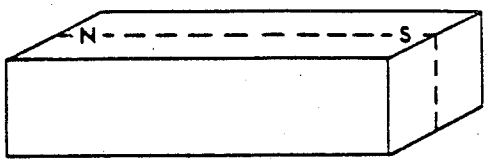



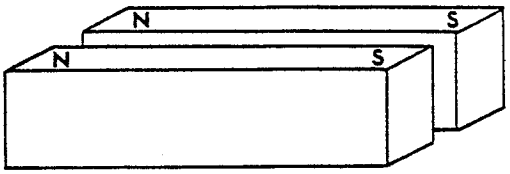



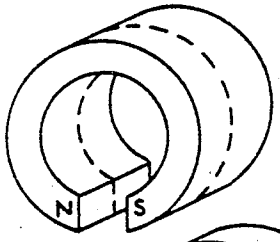



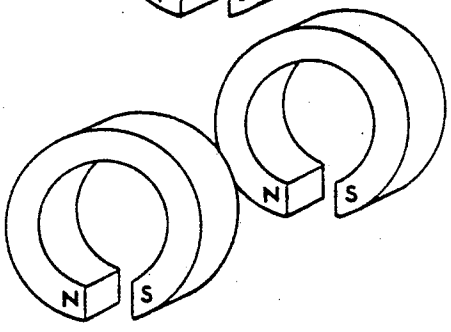

## (FISSION)

MIDWAY BETWEEN LIKE POLES
(MIRROR IMAGE SYMMETRY)



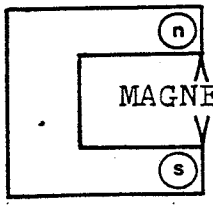



## CIRCUIT OPTIONS COMPARING TWO HORSESHOE MAGNETS FACE TO FACE

mim

A HORSESHOE MAGNET




NORTH POLE FACE

SOUTH POLE FACE

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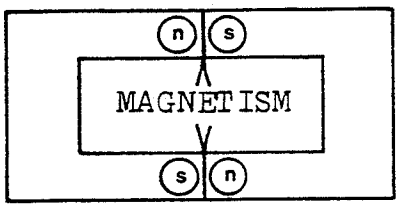
MUTUAL INDUCTION CIRCUIT WITH NORTH POLE FACING SOUTH POLE




MAGNET I MAGNET II

(FUSION)

THIS ARRANGEMENT ATTRACTS BOTH MAGNETS TO EACH OTHER AND CONTAINS "LOW" MAGNETISM BETWEEN POLES.

THE ADDITION OF MAGNET II WILL DECREASE NORTH POLE AND SOUTH POLE MAGNETISM OF MAGNET I.

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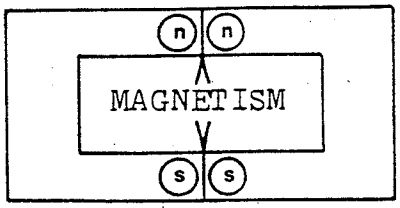
MIRROR IMAGE SYMMETRY INDUCTION CIRCUIT WITH NORTH POLE FACING NORTH POLE




MAGNET I MAGNET II

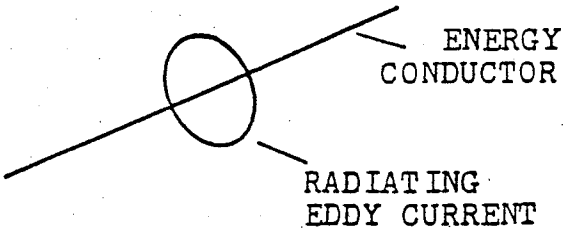
(FISSION)

THIS ARRANGEMENT REPELS BOTH MAGNETS FROM EACH OTHER AND CONTAINS "HIGH" MAGNETISM BETWEEN POLES.

THE ADDITION OF MAGNET II WILL INCREASE NORTH POLE AND SOUTH POLE MAGNETISM OF MAGNET I.

## EDDY CURRENT - OPEN IRON PATHS

mim

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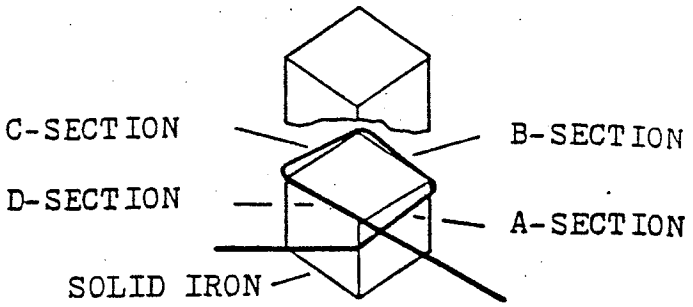


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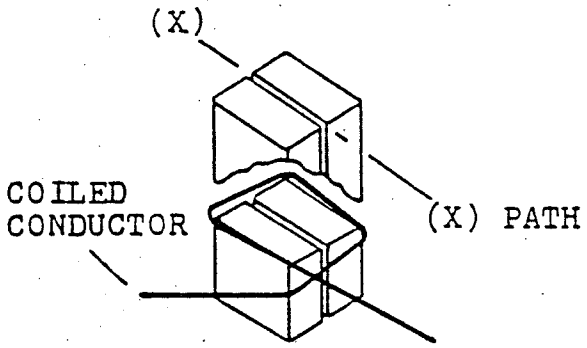
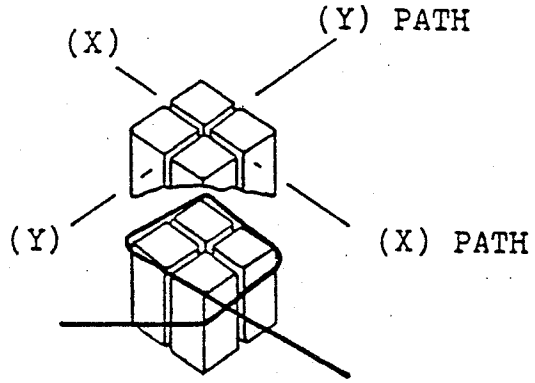



IRON CORE SANDWICH LAMINATIONS

4




IRON CORE CROSS LAMINATIONS

## IRON GEOMETRY INFLUENCES ELECTROMAGNETIC FORCE

EDDY CURRENT RADIATES PERPENDICULARLY FROM AN ELECTRIFIED CONDUCTOR'S SURFACE AND WILL TWIST ALONG THE CONDUCTOR'S SURFACE AS INPUT ENERGY ADVANCES OR RECIPROCATES THROUGH THE CONDUCTOR, AS SHOWN IN Fig. 1.

SOLID IRON ASSOCIATED WITH AN ELECTROMAGNETIC CIRCUIT AS SHOWN IN Fig. 2 WILL DEFLECT A CONDUCTOR'S RADIATING EDDY CURRENT ENERGY BECAUSE THERE IS NO OPEN PATHWAY IN THE IRON FOR THE EDDY CURRENT ENERGY TO ENTER. THEREFORE, MINIMUM MAGNETIC POLARIZATION OCCURS WHICH PRODUCES LOW MAGNETIC FORCE AND CONSUMES MAXIMUM INPUT ENERGY.

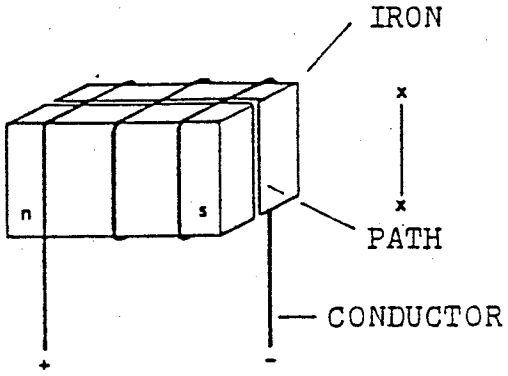
WHEN A-SECTION AND C-SECTION SOLID IRON SURFACES, AS SHOWN IN Fig. 2, ARE OPENED BY (X) PATH, AS SHOWN IN Fig. 3, EDDY CURRENT ENERGY WILL NOW ENTER THE IRON, WHICH INCREASES MAGNETIC POLARIZATION. THE (X) PATH CREATED BY SANDWICH LAMINATING THE IRON, INCREASES EDDY CURRENT RESISTANCE, INCREASES MAGNETIC FORCE AND DECREASES INPUT ENERGY CONSUMPTION.

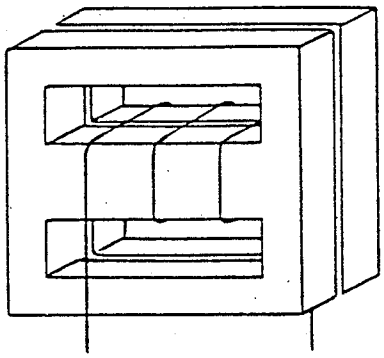
WHEN B-SECTION AND D-SECTION SOLID IRON SURFACES, AS SHOWN IN Fig. 2, ARE OPENED BY A CROSS LAMINATION PATH (Y), AS SHOWN IN Fig. 4, A FURTHER INCREASE IN MAGNETIC POLARIZATION, IN EDDY CURRENT RESISTANCE, IN MAGNETIC FORCE AND A FURTHER DECREASE IN INPUT ENERGY CONSUMPTION RESULTS.

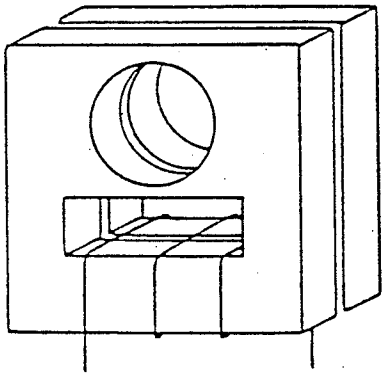
THE OPTIMUM NUMBER OF PATHS WILL BE ESTABLISHED FROM INPUT ENERGY REQUIREMENTS.

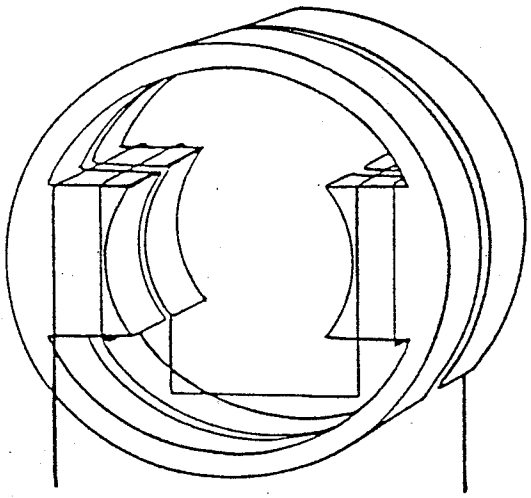
# TRANSDUCERS, CONDUCTORS AND EDDY CURRENT PATHS

## SANDWICH LAMINATIONS
SINGLE CONDUCTOR



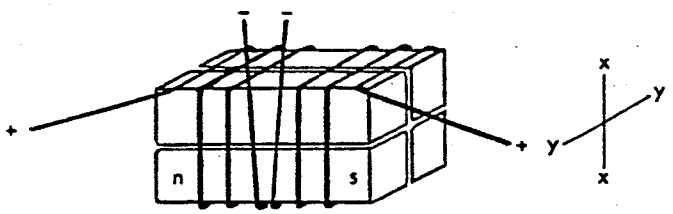



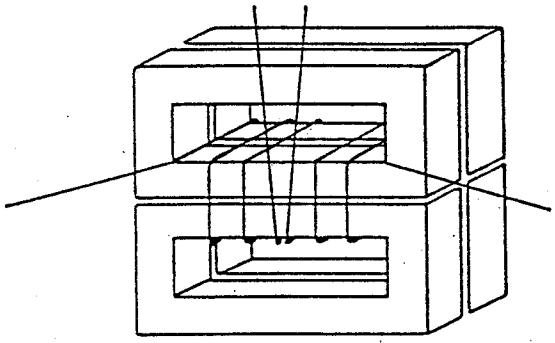


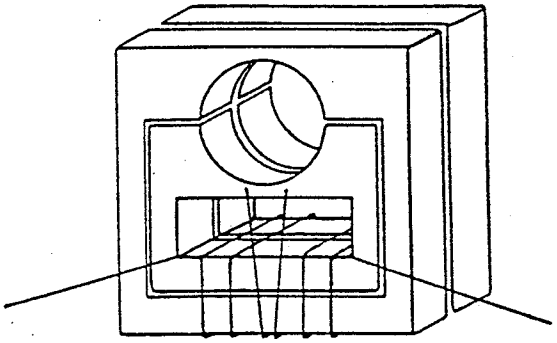


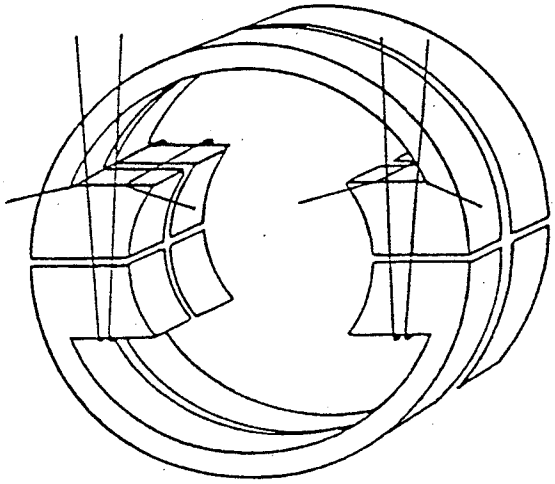
## CROSS LAMINATIONS
MIRROR IMAGE CONDUCTORS

mim



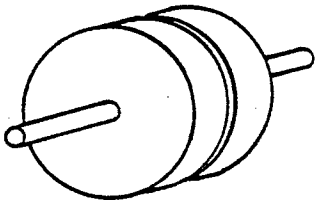


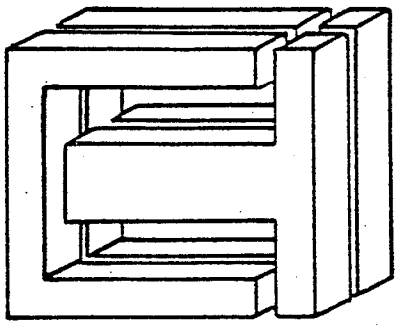


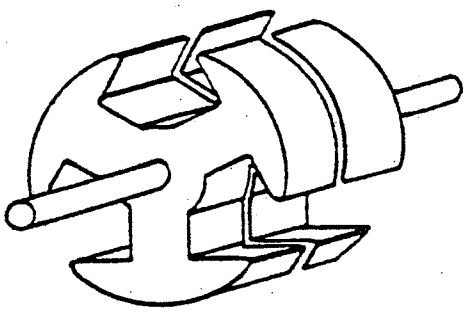
# FERROMAGNETIC GEOMETRY FOR ARMATURES AND STATORS

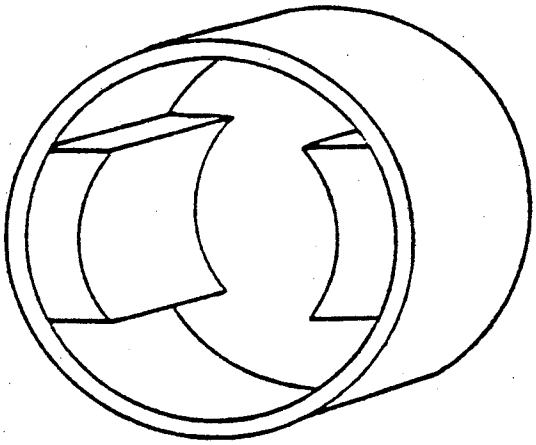
mim

SANDWICH LAMINATIONS

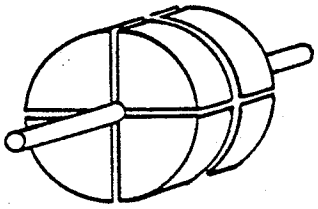


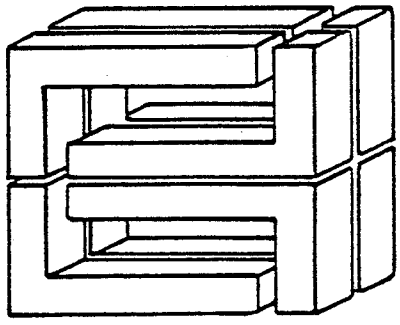


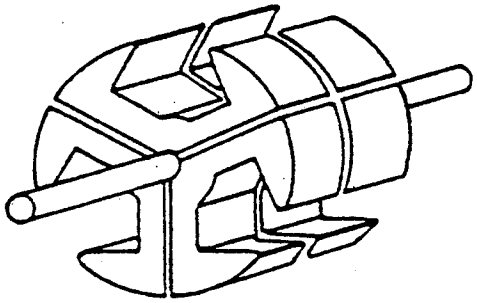


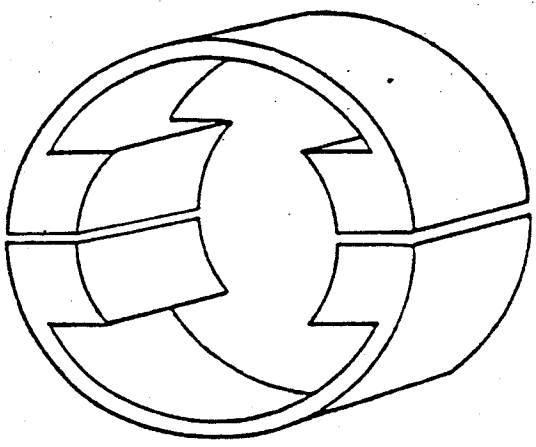


CROSS LAMINATIONS









# MIRROR IMAGE SYMMETERY INDUCTION APPLICATIONS

mlm

* ELECTRIC GENERATORS
  - HYDRO
  - STEAM
  - NUCLEAR
  - WIND
  - SOLAR
* MOTORS - ROTARY MOTION
  - ALTERNATING CURRENT
  - DIRECT CURRENT
* ELECTROMAGNETS
  - LIFTERS
  - SOLONOIDS
  - RELAYS
  - PUMPS
* LINEAR RECIPROCATING MOTION
  - LOUDSPEAKER
  - MICROPHONE
  - RADAR
  - SONAR
  - ANTENNAS
    - TRANSMIT
    - RECIEVE
* ELECTRIC INSTRUMENTS
  - VOLTAGE
  - CURRENT
  - WATT HOUR POWER METERS
  - STRAIN GAGES
  - SIGNAL GENERATORS
  - AMPLIFIERS
* COMMUNICATIONS
  - RADIO
  - TELEVISION
  - TELEPHONE
  - FACSIMILE
  - TELEGRAPH
* INDUCTION MEASURING
  - OMNISPHERICAL
* MEDICAL
  - HEART ASSISTANT
  - MAGNETIC RESONANCE IMAGING (MRI)
* POWER TRANSFORMERS
* MAGNETIC BATTERIES
* SONIC ORE SEPARATION
* ULTRASONIC GASOLINE ATOMIZING
* LAMP FILAMENTS
* INDUCTION HEATERS
* BALANCE WEIGHT SCALES
* TIME CLOCKS
* CHOKES
* BALLASTS
* LASERS
* RESISTORS
* CIRCUIT BREAKERS
* TRANSPORTATION
* COUNTER ROTATING UTILITY
* UNDERWATER PROJECTILES
* INDUCTION WELDERS
* MAGNETIC LEVITATION
* SUPER CONDUCTIVITY
* RECTIFIERS
* RIBBON WIRE TECHNOLOGY