Nagratium
and
E. 

L.
April 1776

Of Magnetism

All the following experiments have been conducted by mathematical demonstration, but we are now come to a study of phenomena which have no mathematical size for we must consider the whole of this method of proceeding —

Magnetism a temporary property; steady, permanent and slow to act. A line of iron, brought near a lodestone, will be attracted by it, if suspended on a fine thread etc.
The N. S. poles on account of its making me of Struvite Magnets

Genial Phenomenal

Opposite poles attract each other

11. Similar poles repel each other

N. Pole have been long in favour

02. Law of the Magnetic attraction - 1. 2.

03. Member of (u) to (v)

From which from 1. convert

the distance on which in its uniform of attract in - This

has gone into the December

away of squares of 1/2

Eph: the Medes remarkable since

add on by a greeen - attract

as to reflection - how to difficulty

of deturing the law of nature.
10 April 1796

A certain distance is at a certain time a constant power - the distance being a constant quantity. (Comes in of preserving the instrument.)  - Repulsions at all exceed Distant Distances.  - Occur for office, by changing to a higher power, with regard to the use of the earth, and determined in the 13th Century.  - Donato to be most useful in this work - Wang.

But the compass changes just obtained by Mr. Goldsmid—
Mountain & Boston's east—
— A partly variation of 10 degrees which in the coming—Scorce
Prants to have a side quarter to my Drees.
Dip in Jupiter of the North
To determine another 30°
of the Dip so to true variation
The needle would fall one itself
in every position this can handle
On my hypothesis Mr. goldsmid for the
From any position—The Mr.
One is found is 74 1/2
This Dip
Opposite to different Banks of Mr.
with part in general at the
Equator it stands to origin and
At the poles it stands a brand

\[
\begin{align*}
\text{Let } n &= \alpha \\
\phi &= \beta \\
\text{Then: } &A = 13 \\
&\text{and } c &= \text{by which } P \text{ for}
&\text{approached—11 April}
&\text{Magnet would end to coast by a}
&\text{which with a force that will cross}
&\text{the place I think being outward}
&\text{for the first 2000—The same}
&\text{with the reflections—longing}
&\text{to magnet the attractor of the}
&\text{als is increasing this with}
&\text{a 1/2 part of the curve—} \\
\end{align*}
\]
In this context, the forces between the magnets seem to be attracting each other.

The magnets are shown interacting with each other in such a way as to be in a straight line with the force
\[ a + b - c - d \]

Annotations:
1. Length of the Magnet
2. Distance
3. Length of the Magnet

In the last interaction of the magnets in all forms as we are seen
as it is demonstrated.
The more last enquired by what
I van said hong out at add a
and brought in to differ-
which written. It is impossible
to determine a precise what those
situation with we -- the
an and of the company of the matr
- distance. Winter was not split
in one hand. From his
opinion we may follow the law
of the magneto. Attention to
this way. MB: an might be
and the law of earth. To determine
as much as possible. MB: by
with at earth. And they
for globes or she might with
a small wire. And the very
wire could be divided two provide

a word at a time. Not feeling in
the feeling of earth. And their
is not possible. MB: Mr. or coach.
12th April 1776

A peculiar mystery of Mr. Pasteur’s. He wishes faster than
a Magnet, beat or revere in a north. Contrary to Mag’s
Position, they must not be weak in that sense. — A bar of iron
Head has been borrowed in an upright position acquiring a consid-
erable degree of Magnetism, that when swung to the South, &c. It
was conjecture of Dr. Cotta that
Natural Magnets might be
Minerals in various manors.
A bar of steel, struck a long
while with brass, a Magnet
in a bar of hard steel. — Dabel
touched with Magn. Direction
stead and could in water.
On examination of the Supposed
idea. It is not a true idea
Magnet - because it is truly
become a magnet. It is the idea
for the forces are at
some effort. The forces are
not united but the forces are
changed at very effort.
Then the attraction is certainly
unique of its becoming Magnets
but we can say it.
In any position the bowser is
always known in the North Pole
then brought in contact with
the needle remains on the magnet.
Over - then a few of Iron becomes
a Magnet & the known
attracted.
Saturday 13 April 1712

The length of \( AB \) is not exactly equal to \( BC \) but is very close. As it comes to such a conclusion as the two perpendicular lines must be vertical lines passing through the centre of the beam.
The example Galenians in figures of animals where they hang by strings and their own weight and their motion in an equable beam.

Catenarian curve in which a simple string, hanging from its own weight, describes a catenary curve.
15th April 1776

In the actual experiment, brought on the Magnet with Leaven and a piece of the Magnet as a double Metal. The lower way was found - If a sheet of Jelly or Thawed down a Magnet, the fluids mixed by long use with the course of itself and more on the same principle as a whole move among the Magnet for my Rattle by Bending becoming a metal. New in Town of Magnet: attraction may be taken as a decrease in the inverse proportion of the square of the Distances when two Magnets are first drawn together.
I think the notes to each other — as which is equal to the force of a force with which the earth is acted upon.

A number of bars may be arranged in a circle —

To make artificial magnets.

At first, observe carefully in advance. Bring two to make a magnet.

I think of what you brought in the center. And I

Either the name and succession. You do. In career for the star — thus both with one pole at the middle

And would be opposite. Half way through a long, middle to stay at between bars.
Magnets. By friction rest the bar one way if bar towards it will reverse it any motion of strokes will undo it but change none.

Build bar is to join two bars with piece of soft iron between two magnets with fine iron plate spots a little expansion these used for punch firmly along the bars. Ground in order for second bar in the cutting both ways always accumulate the magnets. Antoine method is to combine two bars magnets on each side towards the bars. This method is to be ordered in 10 to 12 or 14 i.e. reducing iron comm.

Lincoln’s method. In his way will carry in greater weight. Shall iron be near a magnet use the. The bars ultimately rule and sharpen each other.

Join a magnet placed in the meridian direction in line a magnet longest it follows next in the opposite direction. Never it sooner. To know its fate of a magnet present them to a magnetic needle for the same. The poles will reflect unlike attract each other.

McLinton made magnets with a brother and length bed hadlongdowel in a furnace. Quintin direction. Antoine joined the bars between two magnets large bars of iron in the formula.
At the Equ. the North is due to the horizon - at the north side of the world as the South to the Equator. The bias as dark sides indicate the middle of both climates.
Phenomena on such as would result from an ungraphed magnet with one weak and two strong notes. The center of which on the earth must be a point of such intensity as to be complex. Calculation of the points when it is no dipping—this gives us the Equator of this terrestrial magnet. That is, as a North or South, would tend to the north side of the basin. The Equator must be imagined. This would be quite immovable for a certain period—should be one end pointed to the north. The other end would attract one pole of it is suspended it will always face the pole. The position of the pole is agreeable to this Pole Magnet. —Noting, knowing, a line in the Earth Pole. Dependent on the neighborhood. South Pole of the great magnet is next to the N. Pole of the Earth. —The actual decision must be N. B. of the needle in northern. East should Dip —Position of the Great Magnet with N. Iron it with that magnet. Direction running to needle easily accounted for by the earth's rotation, but the change of plane. (Some think to equal magnets)
17th April 1796

All these phenomena are explained by two general facts, that a permanent force attracts, and two opposite forces repel each other.

11. That a bar of iron long joined to the neighborhood of a magnet becomes a magnet.

However, conversely, an iron magnet will repel another magnet.

Like as fire attracts, a magnet is only pulled by a magnet of the same kind.

Note: The handwriting is difficult to read, with some words and phrases obscured or unclear.
I. If a wall of iron is held between two magnets, 
the flux is reduced.

II. The internal resistance of a battery is increased by the flux.

III. Draw a graph of the flux.

11. Interaction of a free body.

Action of $F_1$ on $F_2 = -F_2$
Action of $F_2$ on $F_1 = +F_1$

$F = a + c - b - d = +c$

$+a - b - c + d$

$a + d - b - c$
After having subjected them in half and broken them on other faces and cut them by other instruments below a margin which each other—two being supported up to to the thickness of the magnets separately. An experiment made in a kind—Magnets from 10 in my case have stronger force, attracting at the same distance. To me it seems strange itself and the effect of the magnets. This makes more room for inference.
I cannot be sure that the words are correct, but I believe they are something like:

"If a weak magnet is placed near a strong magnet, the weak magnet will lose its magnetic properties and become a non-magnetic object."

This is based on the notes I have written down in my own handwriting. The diagram you see is a rough sketch of a magnetic field, but it is not very clear. I hope this helps.
Mr. Whence many of Mili. Magnets. Earth must men. A magnet hold not suit. All way to west destroys the magnetism. A magnet is more in rubidium than its magnetic is decreased. So then steel bars every magnet were lost a while in a porcelain vessel of water for 3/4 hour, but only cause it improve a great deal agree to contrary. So on who worked with a vessel under the sun. Who in the box that an sand was. Mr. wrote all internal in air a great degree of magnetism form my attention.
1. What is the best way of quenching a magnet by a piece of shoe magnet?

2. The above magnet should be placed in the direction of the magnetic field. If so, must the poles be opposite?
22 April 1776
Electricity

Charging done. The first 
insulator when it was blown back used to the body sometimes 
by induction - a neutral 
acts as a wheel between 
--This may be called a property 
of all bodies - yet this term only 
in certain modifications - that 
Ridsow Dutch State - Peru-
Metals Chemise or conductor 
water flows in them -
General note - Things body 
so brought into the neighborhood 
of an Electric fluid body comes 
charged - A conductor on 
a glass slab - conductor 

on base its rarely a conductor 
and Dr. Water - goes 
for a conductor or the most perfect 
conductor - Dr. Water goes 
for a conductor or the most perfect 
conductors - Dr. Water 
goes - goes a metal circuit the longer 
then a short which is a worn 
conductor - Dr. Water - states 
that a conductor or was removed 
then by electricity - Any body can 
communicaly with the ground 
that not be affected - Here 
the combination of electricity 
Machnes - Light body 

Wires is not the best way 
A conductor - Wires the opposite
in an electric plate must be perfectly dry - support of the metal must be perfectly dry - it is said to be saturated - it cannot be performed without it. In an earthy mixture no electricity can be observed; it is not until the air is removed. The next conductor - air - often becomes a good conductor.

1. An electric body attracts another?

2. Bodies in the same way repel each other.

The small box would conduct. in the approaching body. wouldn't a particle conduct? in the invisible body. in the air. in the body. in the metal. in the material. in the conductive. properties - ability to conduct. of an E. become conductive. by the conduction. Mrs. old in Johnson may be induced. In an iron the conduction is of a different kind.
In much as is of the same kind as the rest of the conductors. Every body may be in 3 sorts.

Notes with regard to each other.

It may refresh the mind.

Above, more in water than the body. - First, Neg. Elect.

Pendulum between Electricity and Magnetism - Opp. Fluids.

Magnetism - Magnets.

The Magnetism to stand 3 curves in soft iron - The

Moments con. a Chrome.

Electrical action of long as 16 times con. conductors or conductors of

Magnetism for several ages

In instant electricity. Let me take

An iron body bound by an electric oil - a small bit of 3 parts moist.

With the charge - bine chile.

On, April 6th.
23 April

In a common view it is also an electric. In a dry room it can
may be readily the electric. A

Machine a conversation of Electricity
sometimes it is necessary to
be warned of the aftermath of
Electricity by Balls. At

in one way. If a current
a body brought near can cause
has both the ends electrified,
into different kinds. A ball
within into little balls on
them. The above made with
now come the electricity.

a milk of snowing was relative
is a considerable time, and if it

of

2. Electr.-Phr. - Make
Part of the air in which

of the Salt. 3. 52

The fluid moves with facility
in the course of conduction. I
do it with great deftness in
heterocharged bodies.

the charged wire.

I chafed the charged wire.

Can not leave it charged?
Chap 1. Let the bodies be brought near each other, and attract—

11. Let the air communicate with the ground, and the moon

11. Give bodies, one over, another under, and all

12. The bodies upon the sand, and in one change with each other—

13. Bodies in a glass and sand, and on the under surface run on the outside.

14. An air in which an understanding containing all of the earth things with reverence or rest.

15. Bodies mutually changed may attract as much (demonstrate)
$\frac{CD}{EF} = \frac{CD}{BC} = \frac{1}{CD}$

1, AB :: CD :: 1 : 1

21st April 1726

Attraction or repulsion for bodies with non-flat surfaces. However, attraction alone is not sufficient to explain attraction. Between two spheres, one on a pedestal placed on the other, the force with which the spheres attract each other will be as their diameters. Should the distance between the two spheres be reduced, the attraction will be increased. Experiments with two bodies, one fixed and one mobile, show that the force of attraction is greater when the distance between the bodies is smaller. The force of attraction is inversely proportional to the square of the distance between the bodies. A perfect vacuum transmits electricity with great ease, as sparks are seen from the conductor. A body near which it
Move the fastest that is a beam from a second motion connected with the conductor or not.

Change of plate

- [Diagram]

Effi. - Sta. plate on both sides with communicating with the ground—then on side with the tablet—two balls rolling together the plate slowly. An appearance on the same with a jar—quantity whatever of matter on the outside something left.

Move the plate with the edge of the distance in the machine.

Two pieces of the plate was hanging on each side and fastened as either side is touched.

A plate with a square piece of cooling and communicating with each other. The case with each other...

The kind of starch.
In whole, redundant force is spreading along the metallic column.

Fat change both in size the outside with change another

Redundant fluid is mostly

Sucks all added to the surface of the glass, next in conductive surfaces.

Defects in first field with water than field in the degree

Lead in coating — sometimes

Ground is a vacuum which is a perfect conductor — quantity

Of accumulate fluid is equal to

Measurement of the glass — Batch

Electrometer is best placed

Near this machine — Nearly

Place it on the boiling this
26 April 1776

Phenomena

1. Electricity II. Conducting

The most common method of producing electricity is by friction. The cause is unknown. Some objects will give different results when rubbed with different substances—cork, silk, glass, leather—on the hand, finger... etc.

All bodies in their natural state may be made electric by friction. When two together—the former in the catalogue becomes +,

The same bodies become opposite by heating. The friction also produces electricity. The one will repel the other negative...

Some animals have a power to exclude electricity by using it in...