



Madras

th
24 March

1796

Thursday 24th March
For the 13th Section 2 -
on Astronomy -
much wind, and last
night - Dined with Mr
Spence - He has procured a
few Dozens of Glass Stopples
for Beaumont - can get
no account of the small
Gold chain said to be ma-
nufactured here by the Ma-
tion - recommends taking
home some Buffalo Horns
- This Day began packing
- Received from D. Berry some
Cochineal to make experiment
on -

Friday 25th March 96

Employed in packing
Major Hall brought me
a copy of Jones on Antip-
eas fine works - I aim to
return either it is a new
edition -

In a heavy gale the sand
on the beach is entirely washed
away, in easy weather it fills
up in part. The mowach-
ments on the land at Madras
are evident and rapid. The
fort must be destroyed in time
part of the works to the North
is in a ruinous situation the
foundation has given way -
The surf will continue to make
inroads on this coast -

Saturday 26th March 96

This day gave my Lt
and Capt. Keston 3 on the
ramp - Concluded the comm-
- with Major Hall -

Capt. Zeel's - Conversation
on Artillery - The range
of a 24 lb. with or without
a recoil is said to be nearly
the same - A cannon ball
killed the' it does not work
curious effects on the body
as if it had received 100
Lashes - current of air in
the opposite direction -

In India ^(Coast) barrels of 60 lb
The best size for Gun powder

a buffon can carry one
one each side -

- Coll. G. approves of Cannon
It was reported by an
officer present that a
preparan Artillerist

affirms that the wind has
no influence on the flight
of shells - This was contradicted
by Coll. G. and Major N.

who say they have always
observed deviation in a strong
wind - In firing against

a mud wall small
shells and shells of iron
are better than balls -
+ The mortar at Zanzibar

where the fuse was put
next the chamber burst
in the mortar and killed
six men - Count De Lappin's
experiments at La Fune

The French and Dutch
will certainly make
some cautions to retake
the Cape at least - It
is possible they may
send out privately a few
ships for that purpose

- The salt here is
made into a fine powder
by stirring it constantly
while boiling - It should
be crystallized first to
be it from common salt -

Sunday 27th August
- visit of Major Hall
and afterwards of Mr. Prop.
The natives have a green
fire for fire works - The
Major will make inquiry
respecting this business -
- Natives have a mode
of splitting stones by wedges
and water similar to the
Chinese - Mr. R. says he
remembers to have seen a
fracture many years ago
and thinks vinegar or some
other acid was mixed ^{with} the
water - The works in gold

and silver of the Natives
are said to be very ingeni-
ous - a visit is to be to the
Black town - much
- with Mr. Baker. Large
company - conversation
about the Chinese -
Cavalry - foot - force of the
country - Length of the
wall - It is a curious
circumstance that in so
arbitrary and despotic a
Government as China, there
should be so much tol-
eration respecting religion
- Rock wine is drunk in
coloured glasses, because the
best rock is that which

is the least clear, and the
residuum is a useful
part of the wine - but to
render the appearance less
disagreeable to the eye, the
wine is put into Coloured
Glasses -

- It was alleged that the
descriptions of the presents
tho' not so accurate might
be more adapted to the
Genius ^{and Comprehension} of the Chinese than
one more literal -

- arrived the Robertson
Commodore Rainier -
squadron - The Robert
is said to have left the

squadron in the straits
of Banca - an action
between their Squadron
and the enemy may be
daily expected - It is re-
ported that the two French
ships which made an
attack on Dec 10th in the
Malacca coast but two
ships sent by the French
as a Decoy, while their
Frigates have joined the
Dutch in the Straits of
Banca - This Day Mr
Chamier informed of the
death of Mr G. Pans Fleet
Shut on the 15 August - 95 -

Monday 28th March 1796

- Visit of Mr. Lawiner - Math-
ematical problems - Billiard
ball to be struck by reflecti-
stick against a wall -

- at 4 p.m. set out for the
mount, arrived at D. Fitzgou-
gh at 6 p.m. went to the parade
where I met with Col. Leitch
invited to breakfast with
him to morrow after the
practice -

Tuesday 29th March 1796

at 6 set out for the practice
ground

- A battery of 4 Guns -
- 1, 13 and 1, 10 Irish Moun-
t 2 Howitzers

- Mount distant from the
battery about 600 yards,
from the Howitzers and Moun-
tains there is a range 1300
yards -

Powder first proved by thro-
a 10 Inch Shell ^{2 lb of} - proof of
should throw a ten inch
shell loaded = 96 lbs 1000
yards. - Time measured by
a pendulum - leaden ball

- Form of the practice book.
- Epsom salts not used here.
- A 7 inch mortar with a brass
ball lately sent from Bengal.
- a few ounces of powder are
commonly put into the
shell to show the length of
the fire's burning, this seldom
succeeds, the shell lodges in the
sand and if the fire happens
to be down - and the powder
is not observed. - (A shell
has been known to burst in
the mortar, and yet the mortar
was not destroyed. Col. Pearce
has shown a shell without
the fire, burst in the mortar
with breaking the mortar -

- I proposed to Col. G. Feil's
to attain the circle described
by the fuse, for by this the
side of the muzzle of the mortar
is touched by the shell at
leaving the fire may be
known - In Bengal very
small of powder is tried, not
so in Madras - Howitzer
grooved and rounded to a
great ^{distance} - Improved carriages
travels on a swivel, by this
continuous the transoms is
not hurt on rough road -
- Col. G. proposes that the
practice should be continued
through the whole year, in
heavy rain as well as in fair

- with Mr. Ross - specimens
of cloth from the Philippine
Isles - gold rings so continued
as to make a ~~the~~ chain -

- Garnets found in great plenty
^{on} at the hills -

- Form of the miners' auger
got a shell cup in a pre-
sent from Mr. Ross -

Mr. Cupress's embroidered coat
in which he sometimes ap-
peared at the ballroom as the
workmanship of his lady.

- It is reported that Miss O'Donogh
is married to Capt. Gardiner
of the *Uroine* Frigate, son
to Admiral Gardiner -

xx Pondicherry -

Wednesday 30th March 1796

- Mr. G. called to enquire about
the problem -

- Sand and Chumour brought
for making plaster and
mortar - I propose to have
the whole projects gone thro'
before me -

Thursday 31st March
This day the Chinese
process commenced and
went thro' the first
stage (see the particular
description) -

Friday 1st April
Breakfasted with Major
Brown - Drawings of
all the parts of Malacca
views of the Place -
- Gilt paper twisted
round cotton thread -
with this the Malays
make a pretty em-
broidery -
- An American ship
from England - News
Regulation come out
perfectly agreeable to all
parties - Purch. sent over
this

Love for peace with
England - Great joy
gone to the west Indies
- King would going to
the house - War to be
continued - French con-
vention has carried the
point in electing $\frac{2}{3}$
of themselves -
Dined with Doctor Bell -
Now in a present for the
Doctor -
- Maj. Wall brought two
numbers of Salt Peter with
a letter addressed to Military
board signed W. Webb M. S. Nov 18

complaining of the badness
of the Salt Peter for Collette
and alleging that an expedient
refining will be necessary
but that the G. O. will cost
1 Regade more of Candy
I am requested to try it and
give a private report for
the information of the Board
- Name of the American Ship
is the John Capt. Folger -

Saturday 2^d April
- with Major Wall -
Mr. Kirkpatrick is Am-
bassador at the Court of the
Kojan - This Court was sent
to the Rajah of by
Lord Cornwallis to desire the
Rajah to pay the annual
tribute to the Emperor of
China. Cochin. The Com-
mander in Chief wrote to
Lord Cornwallis to com-
mand this Rajah to pay
the tribute. As the China Em-
peror was then on the Carpet his L.^{ty}
did not think to appear any else
empirely to Court of China -


Sunday 3^d April
B^d with Dr. Anderson
Colonel D. Moore with the
Colt. of the Regiment &c -
Employed during the
morning in selecting from
a collection of fossils - Took
a walk in the garden & took
up pieces of flint & other
This substance is thought
to be the Chinese Detonate
- Cachment. ~~Large~~ great qu.
Insects killed by putting
them into a tin vessel
in boiling water - Larvae
rubbed off with the brand

and separated by warming.
ing - Great Nopal is
Nopal of Castille - Red from
leaves good green - In No.
pat sent out by Sr Joseph
Banks middle size - Fruits
will not taste it - Sanded
tree - red - leaves, branches
and exterior part of the trunk
have a disagreeable smell
The interior part of the wood
near the heart is the only
part used for perfume -

- From Spain the great Nopal
- Seed of the Cedar cedar
The leaves of this tree are
the only leaves which horse

will eat, will follow a
person a great way for them
- Best kind of pump for
raising water in I. S. i.
London. - Rope - Centrifugal
I. S. has got a model of the
Chinese pump -

- Whether any advantage
could be derived from the
use of working a mill -
Drill plough used by the
natives - A wooden cup
is supported by 3 hollow
bamboos inserted at the
upper end into three holes
in the bottom of the cup
and at the lower part the

Three heads round on the
fore part with square iron
pieces. The cups and bamboos
are supported by ropes, like
stays - A woman feeds the
cups putting a grain alter-
nately into each hole. -
The plough has a long
pole or beam with two
side beams  drawn
by two bullocks, and sowing
three rows, but it has no
tarrow, this operation is
done afterwards as usual -
Rocks are blown and found
into very large heaps at
Dams bridge Ceylon, by

Insects killed by putting
them into a tin vessel
and the vessel in boiling
water - They are then
dried in the sun and
gently rubbed between the
hands to separate the
larvae, when they were
poured -
Whether any insects
could be gained
from the surf - Mill
might probably be con-
structed so as to go by
the surf -

Drill through of the
nation — a wooden
cup about 2 inches
in diam. — Three holes
in the bottom, three
bamboos to the holes
lower ends of the bam-
boos pass through three
heads with iron shares
The whole upright
part is made fast by
ropes, a kind of shrouds
drawn by two bullocks
a woman feeds the
plough with one hand
the cup —

Flowing water in the rocks
when much heated by the
sun the rock cracks and
falls down for the purpose
of clearing the side of the mesh.
In the way a cave is seen
very —

wrote to J. Hayne
enclosing Mr. K's
letter —

Monday 4 April 1796
— With Mr. Rep. —

Specimens of the Corundum
brought from the Bara mahl
country, in the territories
lately ceded by Tippoo to
the S. West. The Corundum
or Diamond Spar is found
in the middle of granite
rocks — A Mr. Garrow was
the first ^{English} that dug them
out on the spot — (see his
description abridged) —

— This day a Gazette of ex-
traordinary was published

announcing that an English
packet had arrived at the Cape
towards the end of January and
had communicated to Govern-
ment the following heads
of Intelligence

— That the Emperor has beat
the French, which defeat
together with a dreadful
convulsion in Paris had
induced the French Generals
to make a precipitate
retreat across the Rhine
and to order a direct and
an immediate march to
Paris — That the Stadthol-
der's party in Holland
had joined the Austrian forces

with 25,000 men - The
above intelligence is brought
by a Capt. Neale com-
manding a Swedish vessel
arrived at Tranquabar -

Whatever may be the
consequences of the present
war, immediate care should
be taken to have the Cinna-
mon and other spice trees
transplanted to the Company's

territories - It is reported
that Lord M. ^{soon} intends a visit
to Ceylon - Received this
from Mr. Baker

Monday 5th April
This morning returned the
paper on the manufacture
of saltpetre just into my
hands by order of the Hon.^{ble} the
President in Council - with
a letter containing my re-
port on the subject - (see
a copy in the Publick Service
book.)

-with Mr. Spence - Doctor
Thompson and Capt. Bask-
New of the Defeat of the French
by the Emperor is confirmed
20,000 of the French put to
the Bayonet. All the bag-
gage Cannon &c taken -

That the barricaders
of Paris were shot and
the bloody scene recom-
mended
- wrote to Dr. Hays
enclosing Mr. K's
letter -

12-94
Wednesday 6 April
- at home -
- paintings on glass
by a native of Genoa
- Mr. Proebuck called -
- mentioned pictures of all
the casts he had -
- lottery stick curved
and edged on the con-
vex side - The man
brought two paintings
on glass which he would
not sell under eight francs
each - Mr. K. wished to
have a copy of part of my
report but I - "Alteration!"

Outlook advanced two
Pagodas

Friday 8 April 44
- with Major Wall
Marhatta rocket
with some timber range
a mile - has been
known to kill two
men and wound a third
- composition driven over
head 100 strokes to
each Ladle full -
- conversation on Artillery
Length of piece, powder
throw, out un-fired -
- pendulum to measure
the time - In throwing
shells 14" = 1000 yards.

The Evening is visit of
two young Ladies —
Engage to call again on
Monday —

— Mantain forbid to be
carried into the Zena-
nah whole. They are
always cut. —

th
Saturday 9 April 94
— Let out for St Thom's
at 7 o'clock — B with
W. Mackay — visit to
W. Baker — examine
a three foot telescope
and a compass and
John's microscope in
our care — W. B. sent
them to the Fort —
Dined with W. Mackay
W. Stuart — Interest
of money is this year
higher than last — W.
F. A. is said her 17 ships

His presidency gives
higher interest than
Buzat, money more
scarce here -

+ Dr. Bell breakfasted
at Mr. Baber's - read
his mode of conducting
the Asylum school -

- Boys teach each other
- Letters traced on sand
Ancient custom of
this country - hence the
meaning of that phrase
in the New Testament
"He stooped down and
wrote with his finger

on the ground." The
youth of the Hindus, &c.
are taught to read and
write, at the same time
by tracing the letters
in sand either on the
ground or on a bench-
table - He made at the
Asylum - Chinese men
of learning to write is
to lay thin paper on
large black Chinese
characters - tracing
on the other side -
- Differs from us -
traced him with having

reduced by his rash-
ness the Kingdom to
the brink of ruin -
advised him to offer
terms to the English,
and send some of his best
men to treat with Lord
Cornwallis - It was not
till the third day of the
^{two} ~~and~~ ~~some~~ were demand-
ed as hostages, that
Tippoo consented to this
- Ceremony of recovery
the Boys on their return
- Boys fell on their
knees brought their

heads to the ground
Tippoo rose from his
cushion, touched the
head part of the neck
of each Boy, then retired
to his seat without
speaking one word.
The then descended Capt.
Dowdson to carry back
the Boys to his tent
and to wait on him
next day ^{at} an appoint-
ed hour -
- Asked whether Lord
Cornwallis ^{was any} obeyed the
commands of the King

on whether the King con-
sulted with and followed
the advice and plans of
his Lordship - as if Tippu
did not know the Power
of the King of England.

It was L. C. intention
to have scaled the walls
of Seringapatam before
day break, had General
Meadows come up in
time -

- Visit of a Lady at M.

Marthay's -

+ French account of Piche-
grais' defeat - Retrograde
movement

th
Sunday 10 April 96

- A number bought of
120 drawings of the dif-
ferent Casts - I asked 75
Pagodas for the whole -
- was engaged with Col.
Geils but sent an ap^{ly}

- Mr. Pitt told the Parlia!
that there would soon be
such a government in
France as his Majesty's
Ministers might deal
with

th
Monday 11 April 96
- at home - in the eve
a visit from the two young
ladies. Songs - junk x +
- The Native Children have
a great disposition to stud
If they are permitted to see
and handle things they
ask to train such articles
as strike their fancy -
- Mr. Nepe called to by
desire of Mr. Prop to look
at the benches and talk
to me about Ceylon Cu-
rionitis - only mention
the benches. +

th
Tuesday 12 April 96
- Row at Gun pier +
Kalampong - tea caddy
cover -
- In morning sailed the
Glasgow Capt. Latham with
with prisoners to the
Provincials, a Captal ship.
- Mr. Pitt has some good
friends in the French
conventions -
+ yesterday returned Mr.
F's Globes air gun &c.
- with Mr. Nepe - paintings
of the different castles cost
one pagoda &c. belong
to Mr. White Lawgee -

Handwritten Manuscript - Memoir
of the attack on Ceylon
- Bee - My report to Lord.
Robert has been copied by
the Board and sent to
Robert - Dr. Heyne - I
am informed that Mr.
Heyne has a number of
curiosities -

- after dinner took a walk
to the Black town - History
of Dr. M. - Black man
offered him something con-
siderable if he would over-
look a man shup now &
then -

- Spent the evening
at Mr. M. - Scots sent
- There is one gate to go
out and time to come in
into the fort - Black people
not allowed to bring their
carriages or palanquins
into the Fort -

~~Tuesday Nov, 13th~~

~~with~~

+ soon after Lord Howe's
arrival at Madras he
published an advertise-
ment insisting on all
the European inhabitants
to sign the covenants, —
at their peril to refuse —

12th May
Dear Sir
I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the purchase of the land for the proposed canal. I am glad to hear that you are so much interested in the project, and I am sure that the public will be benefited by its completion. I have already written to the Board of Directors, and I shall be glad to hear from you again in a few days.

13th May
Dear Sir
I have the honor to acknowledge the receipt of your letter of the 11th inst. in relation to the purchase of the land for the proposed canal. I am glad to hear that you are so much interested in the project, and I am sure that the public will be benefited by its completion. I have already written to the Board of Directors, and I shall be glad to hear from you again in a few days.

Thursday 14th April
Friday Capt Fager
called and informed me
that he would not sail
before Sunday -
- M.S. - in the evening
went to drink tea with
him -

Friday 15th April
waited in L^d Robert
invited to dine with
his Lord wife to morrow
- visited M. Gordon who
promised to return the
watches this day - after-
wards M. Winderse who
said Chairs and Couches
of Bengal Manufacture
would sell in Madras
The Lord Robert was said
in the papers to have
arrived at Madras in 16
Days from Trincomali
this 17 knots every hour -

Mr R - Spinning from

- M. S. in the evening -

- very small x 000 -

+ The natives soften it

up by annealing it in

the fire, hence the opinion

that the Indian Silver is

finer than the European -

this however is not the

case -

-

-

-

-

-

-

-

Th - 96
Saturday 14 - April -

Capt^m H informs me

that he cannot sail before

Tuesday - examined a col-

lection of shells from Ceylon

belonging to a Dutch officer

to be disposed of for 100

pages -

Conferred with Lord Robert

about paper - Charcoal -

ancient and modern. It

was reported by his L - t

that five men were killed

by the Bayonet - An ancient

pike prepared to the Bayonet.

The inquiry respecting Mr.

by the charming
Hastings fortune after a
vote had passed for paying
the expenses of his trial.
Before the vote it would have
been proper.

- Buck English who had
been tried for murder, hap-
pened to appear before Judge
Robison who ^{had} created his
abilities to get him hanged,
as an witness or some came
- this, said to the Judge
you have seen me before
my Lord, yes replied the
Judge, and I never expected
to see you again -

Sunday 17th April 96
This morning purchased
a small collection of Genloo
and ~~and~~ Malabar Gods
consisting of five single and
two pairs with three in each,
cost 8 pag^s

- with Mr. Spence -
- Mr. Morison and Lieut
Campbell -
- Mathew Miller - have
failed - is in London doing
little -

The following questions were handed to me by Major Malt, who requested that I would answer them

1. What effect ~~is~~ ^{is} on a projectile has the resistance of the air; and does it increase in a ratio or is it always equal?

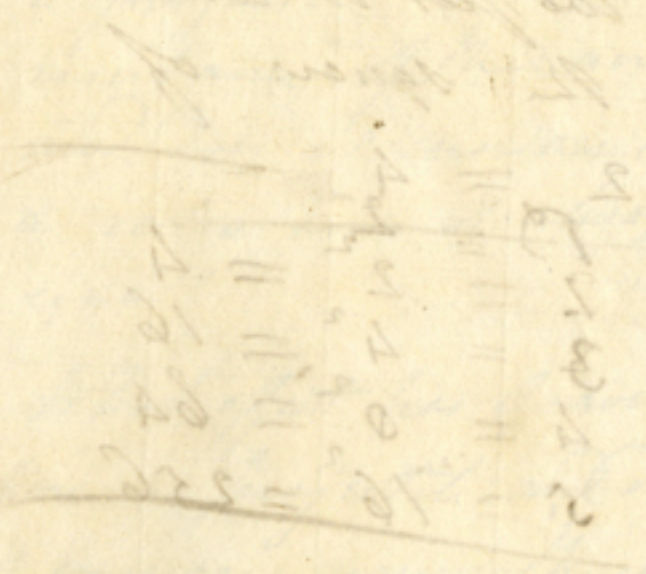
2. What effect has Gravity upon a projectile and does it increase near the earth if so, in what ratio? —

— Affected by a certain

person that the air acts on a shot in the following ratio. If the 1st 100 feet it acts as two it was wanted that the 2nd 100 feet it would act as the square of

$$\begin{array}{r} 2 = 4 \\ \hline 19 = 2^2 = 4 \\ 7 = 2^2 = 4 \\ 3 = 4^2 = 16 \\ 4 = 0^2 = 64 \\ 5 = 16^2 = 256 \\ \hline \end{array}$$

Send the following over
The resistance of the air
Does not make the motion &
consequently shorten the
range of any projectile -
See the Parkhurst paper



Main cut and cans cleaned
After sweeping out the wax
and turning a little ball
of cotton by way of sweeping
or brushing the passage,
The Dohr took on motion -
moved like a mouse fork
but longer and more slowly
 and setting it a tin
brating held it to the ear
this time. The head was
not turned as far about
as it went go. and sudden-
ly with a jerk brought to its
former position - with
them pushed below the
earth this time - Cars
pushed down this time -
The fingers pushed with each

cracked, beginning at the
throat - arm bent and
then blows given on the
elbow, the business then
concluded with pushing a kind
of ~~bag~~ ^{bag} the shoulders. This
is performed by a barber.

It is singular the two profes-
sions of Gun Doctor and
Surgeon should have been
united in all countries! -

+ The postage ^{in Bengal} is calculated
thus multiply by the no. of feet
the weight draws when loaded
by 20 gives the Rupees, but
is doubled to foreigners 20 of
of silver $\times 20 = 400$ for English
and $400 \times 2 = 800$ for foreigners.

~~Saturday~~ Monday 10th.
Went to visit the muns
Shast - ~~talked~~ with Mr.
Inflack Jun & Pruden -

This evening Mr Pruden
called with 20,000 pagas
to be delivered, - now a pro-
hibition of pagas - $\times \times \times$
chura -

- sent the appraiser on
board = 16 checks - The
Capt^m informs me that
he will not sail till Wed-
nesday - salt price from
Haje, Mrs. M. Pasi -