Hist 165

Hist

1793

Rio de Janeiro

Rio de Janeiro 16 Oct.

2252. The corn mills in the Brazils are like those in Cairn Porter only one perpendicular shaft the lower part cut into the form of a wheel with a kind of buckets the water falls on them at an angle of about 45° — The under millstone moves rather than the upper for instance the upper stone joins to the crosspiece under on the upper surface of the mill stone to feed —

Enlightenment

Navigation

2253. A negro rows one boat with a paddle on one side — much art of managing the paddle to prevent the boat turning round — In the Shoals turns the paddle —

Miscellaneous

2254. A few more manufactories established at Rio de Janeiro would soon render the country independant — Sugar at 4$ lb — The balt: of trade in favour of the Brazils — Soldiers always remain here. At end — Soldiers Coll.

N. Pilotory

2255 — The Trade winds in the harbour of Rio de Janeiro and along the coast set in very strong from about ten every day — The Rainy season commence about the Winter Solstice —

N. Pilotory

2256. The Tide in the harbour and along the coast of Brazil rises about four feet —

2257 A new edition of Jones fireworks with the philosophical fire works —

Mineralogy Chemistry

2258. The Chemist told Mr. Bell that they would not make so good Chemic now as formerly. This not

very likely — unless the old
materials are become scarce

2259. From India Westward bound, we 14° out
in their longitude — We were
astonished at daybreak to
see the high land on the
east coast of Africa, so long
before they expected it — This
only about 1786 —

Navigation

2260. The Diving bell may prob-
ably be acceptable to the Chi-
nese in their extensive pearl
fishery —

Eastl

2261. The Canshine tree was
Rabitts high, and so thick that
no man cannot fathom them
(Tchang) Trunks then old and
speaks of fire, flame or subtle that
it does not injure even the tree of

N. Nation

those who can make it — Common
Camphor costs only a penny
per lb at Retail — but refined
is that of Borneo —
Camphor does not dissolve like
other Gums, by menstrums & Fluids
Rectified oil — shews some bright
very small, black flakes in
Spring water for three days and
three nights, after having been
soaked in this manner, into
a kettle and boiled for a certain
time continually stirred with a
willow stick — when they per-
ceive that the soft adhesive to
the stick like white a hoar
frost — strain the whole through
a way the dregs and express —
the juice poured into a new
earthen bason well varnished,
in which it concretes one night

— must mud. found coagulated into
a solid mass — To expose this — some
earth from an old earthen well
pounded very fine — put to the bottom
of a red copper basin, then a thin
layer of Camphor, then of earth —
& of each alternate earth — covers
all with a few leaves of pro-ho-ca
funny royal — To this they lute
another basin and expose it to
a gradual heat to sublime the
pure Camphor is found sublimed
and sticking to the cover —
This operation is repeated two
or three times — When this is
to be used a quantity is first be-
tween lens leather Respirator formed
with bands of wet paper and with

2262. The Siang hee is used instead of the Salt nut — pendulous green is it more astringent — grows to the north of Pekin

N. Mark Chinese

2263 The Lo-ya Sang a kind of pine — Sap poisonous, raises blisters which are with difficulty cured — the root soon perishes in water — often used to charcoal the finest ~~tools~~ and best cabinet tools —

Ditto

2264 The Teha-ke has no bark burns when new cut as readily as the dried wood — when charred kindles easily produces a strong heat, without smell or smoke — lasts long

Ditto

on the northern coasts

2265. The Tshee-Kou - or pepper
hee-mien and furnishes the
Chinese with the greatest part
of the pepper which they consume
- A kind of Lycoone -

Do

2266. Bamboo - used for water
pipes - when split - woven into
mats - when bruised and steeped
in water a paste of which paper
is made - in every part of China

Do

2267. The Acacia - its flowers
bright yellow with three different
shades of yellow - much used
by the Chinese dyers

Do

2268 - Four kinds: Sonq-lo,
Tea Vou-q, Lou-ngan - Pou-ou
Songlo is our Green tea - ~~Tea~~
This shrub grows on rocks near
Mountains!! ——

Vide Hist of China

— Young Hyson — bohea — in the province of Fokien — most universally esteemed throughout the Empire — Differs from the green in the form and colour of the leaves which are shorter and broader and consequently communicate a yellow colour to water — the former renders water green and is of a corrosive nature — Of these two principal kinds of tea three others are produced — Difference arising from the choice of the leaves, and the time when they are gathered — Fresh and tender leaves Imperial tea — Emperor —

2 sort consist of older leaves constitute good Bohea, the remaining leaves, common tea sold

at a very low price —

3. Sort of Tea called Lou-ngan, like Pekoe from the Songo-lo only in having none of the noxious qualities

4 Sort from Dou-eul a village in the Province of Yu-nan — Tea left, leaves large rolled up like our Tobacco — has not so delicate a taste flavor — liquor pale reddish — Adulterated with Plums —

× When the leaves are collected they are exposed to the steam of boiling water, after which they are put on plates of copper and held over the fire till dry and shriveled

× In Japan — large buildings for preparing the tea — a number of small stoves raised about three feet in height, each has a broad plate of iron over its mouth.

The workmen are seated round a
large table covered with mats
and are employed in rolling the
tea leaves which are spread out
on the tables; when the pla[illegible]
are heated to a certain degree
they cover them with a few lb
of fresh gathered leaves, which
being green and full of sap crack
upon as they touch the plate
stir with the naked hands as
quickly as possible, until they
become so warm that he cannot
easily endure the heat, he then
takes off the leaves with a kind of
shovel and lays them upon
mats, the people employed in
mixing them take a small
quantity at a time roll them
up in their hands always in
the same direction, while others

Keep constantly stirring them. that
the may cool sooner, and preserve their
strength from the longer —
- This process repeated —
+ The people in the country dry
the leaves in earthen vessels placed
over the fire — Chinese and
Japanese generally keep their
tea a year before it is used
- Show new they prepared it prof-
ession a Mercator generally chuse
such the brassie —
- Hem-long's poem on tea
" Put on a moderate fire a China cup
" respect, the form and colour of which
" bespeak long service, fill it with
" tempered water procured from melted
" snow, boil it to that degree which
" is necessary to shelter fish or tender
" crabs, and immediately put into
" the tender leaves of Chou tea just
" enough to cover the earth yet

" leave it at last until the vapour
" which at first was in abundance
" form thick clouds, afterwards
" gradually dispersed, at length
" vanish, and leave only some
" light white clouds floating on
" the surface; ~~then~~ at leisure
" sip this delicious liquor. It
" will dispell effectually those 5
" causes of inquietude that generally
" assail us, & intent our repose:
" we may taste, we may feel but
" we cannot express the soft tran-
" quillity overcomed by a liquor
" prepared in this manner —

+ In Japan the first crop is
about 1st March in the unpol-
lenty the Jap: and very dear —
2d crop about 1st August — good
3d Sort about end of June — Coarse
— manner of importing the tea plant —

2269. Cotton Tree — This forms one of the most considerable branches of commerce in Chine —

— The very day the labourers cut their corn, they sow the cotton seed in the same field after have burned up the earth slightly with a rake when the rain or dew has moistened the ground & shrub is seen to sensibly springing up, which rises to the height of two feet — flowers in middle of August — generally yellow — sometimes red — a button succeeds, increases in form of a pod to the size of a walnut, 40 day after the flower has appeared, the pod bursts, divides itself into three parts and discovers three or four small cotton balls of a bright white colour in figure like those produced by silk worms. These small downy balls adhere to the bottom of the

Cotton

pod which is half open, and which contains seeds for the following year — As the small grains or seeds are strongly attached to the filaments of the cotton, the Chinese use a machine to separate them — Two cylinders highly polished one of wood the other of iron one foot in length and 1 inch Diameter so as to touch each other are set in motion by one hand the other by the foot, the cotton is applied with the other hand between the cylinder and passed thro' the seeds are left behind — It is afterwards carded, spun and woven into cloth —

2270. The Milky Juice of the Kou-cha forms an excellent size for Gold leaf — it never comes off —

Otto

2271. The Tong-Tsao Tree
a kind of wild or bamboo the
pith furnishes the Chinese with
a material for artificial flowers
for superior to silk feathers &c
To this tree the Chinese credit
all other notions in their idolatry
the pith cut ~~into~~ exactly
thin — painted with colours which
have neither gum nor varnish
come in their composition —
with this they perfectly imitate
fruits — Decorated — Skeleton of
a peach made of small bits of com-
ing thin, filled hollow with a
paste composed of the sawdust
of an old peach tree, thin gives
the smell and flavour — afterward
gave it the proper — shape and
covered with two or three leaves
of the Tong. Tsao and painted
— and decorated —

Pitho

2272. Tobacco — great abundance in China, but not much used as in Europe — never made into snuff — only use it as smoking — Cured the leaves and afterwards squeeze them below a press

Ditto

2273. Mug wort — medicinal qualities — worth no[illegible]

Ditto

2274 The Chinese Gardeners have the art of educating the roots of every kind — Cedars and pines only two feet in height, tho' forty years old — Dwarfs branches and leaves well proportioned

Ditto

2275 A list of the best Rhubarb in China with only two pence

2276 Ginseng — found only below
Lat 39.–47. and Long 10. 20 E of
Detroit in Eastern Tartary Grows
on highest mountains —
— no private person allowed to gather
— Emperor sent 10000 Soldiers on
purpose into Tartary to gather it

The Juice of the Plantain

Ditto

Physician —
1 oz at Retail costs 7 or 8 oz
of Silver — Ginseng found al-
so in Canada —
— Mandragora or Mandrake
by Theophrastus — "when
pricked with meat heals when
its root roasted and scalded in
vinegar is good for the crysipelas
for pleurisy of the Gout and to pro-
cure sleep — administered either
in vinegar or wine —

2277. No Rhinos venison
Ditto in China. —

2278. Lindenfelds — wild animals
of every kind — Rhinoceros,
Elephant — Leopard, Tyger,
Bear. Wolf. Fox, Buffalo,
Camels, Stone — Mule &c —

Ditto — Game plenty in China
Species of Pheasants filled with
Game pepper —

— Stories neither the strength
nor fleetness nor beauty of our
horses the art of breeding them
never thought of by the military
of the Tartar horse

— Tyger — Tree — underwood —
— Muskrat — Kiang — Tchang — &c,
in every province almost —
— much too —

and to have an Infants
mouth shewing Infants
best way to guard against suffocation
is to carry Mouth about with an
Flying Fox — Remember this a
rat as big as an Elephant!!

N.B. The last 18 articles
are extracted from the Mbe
Grosier's General Description
of China

2279. What is the best method
of rendering frozen Cloth or
wood inconsumable?

Brick Dust, coal ashes, an
filings of each an equal quantity
wrought up with double size warm
hot, forms a Stucco very good for
the wheels, stands fire of outlasting
fire works

Edward

Marsh

2200. Images of all the Chinese idol Gods are made very large — 30 to 40 feet in height —

Gnomon & Horis

2201. Octagon the favorite figure of the Chinese Temples Towns &c of this figure —

Navigation

2202. Goods brought by water within 4 miles of Peking

Interpretation Chinese

2203. In learning the Mandarin language it would probably exist in ascertaining the precise interval of tone among the five different significations of the same word —

Navigation

2204 If the ship rolls or there is a swell it is better to take altitudes on the poop than on the deck — the lower the better

2285 Whence arose the Term
Mathr Arithmetical and Geometrical progressions —
2286. Stars in the Indian Ocean;
Literal signifies a region —
2287. The Chinese are a wanter
Manufr Chinese make very clear glass of
zinc but it is thick and not
to be compared to our
— Dutch Ambs —
2288. The Chinese were taught
Dito the method of mixing their
colours with oil by the Jesuits
2289. In China no post office
Mineral Chinese established for the conveyance
of private letters —
2290. Inflammable Substances
Sophist refract the rays of light
more, than uninflammable
Diam: more than glass

2285. Whence arose the Term
Arithmetical and Geometrical Progressions —
Mathe

2286. Han in the Indian Lan;
signifies a region —
Extend

2287. The Chinese are acute
make very clear Strokes of
Manufac Chinese
ziu but it is thick and not
to be compared to our
— Dutch Ink —

2288. The Chinese were taught
the method of mixing their
colour with oil by the Jesuits
Do

2289. In China no post office
established for the conveyance
Nauch Chinese
of private letters —

2290. Insperm. Substances
refract the rays of light
Phlet
more, than uninsperm.
Diam: more that Strokes

out of Ignorance more than
wilful or even out of Vi-
Sense Newton conjectured
that the Diam.° was insufficient
time has proved the truth
of this

Optics

2291. A ray of light in
moving towards a fe
refracting plane is acce
rated till it reaches the
plane, then retarded till
it reaches a distance
equal to that of the first
attraction, afterwards it goes
on equally

Literature

2292. What was the Roman name
for commander of a Ship?
Nauc-Magister-Patronus

#

2293. In the ancient mathema-
Mathe # tical works did the figures com
down from the Ancients or were
they contrived by the moderns

2294 Mathematical writings are
Mathes more easily understood when im-
perfect than any other —

2295 The eye tube of a Refracting
Optics Telescope makes a good
Microscope

2296. In the Camera obscura
if the object without be placed
at Double the focal distance
Optics the Image within will be
formed at the same distance
and equal in size to the ob-
ject —

2297 The fewer the Ballasts
Gravity. stand in the Ship, the more
the roll — centre of gravity

Pneumatics

2298. If the bottom of a common bottle is wetted round the outside inside and then held over a candle for some time when filled with wine and corked afterwards the bottom will fly out + +

Pneumatics

2299. A small quantity of rum left in a bottle and set on fire, and the neck of the bottle plunged into water the bottle will almost fill with water —

Astronomy

2300. The Diameter of the earth is larger than that of its shadow at the place where the moon crosses it therefore there are more eclipses of the sun than of the moon — more lunar in any particular place

2301 In finding the time at the Ship the nearer the sun is to the east or west points so much the better but as the Rat: of the Ship cannot be one of the Data and as this must be taken from the log, the nearer to noon the more accurate

Astronomy

In general from 9 to 10 o'clock will be found the best time

2302. Is not the sun upon at altered by clouds? — If so ~~should~~ not an observation be less correct when he is in a cloud

Astronomy

2303 — At Sea on the Polar Dist. I find the sun of $4^{m}\frac{1}{4}$ in time and 10 o'clock $= 3^{m}\frac{1}{2}$

Diff

2304 To reduce the Obs at L
Atkins to Atkins add or subtract
1/3 the Daily Difference

2305. At Atkins 1° Lat = 3.″2

2306. Many report that the
Isthmus of Suez was not
cut through. It is alledged by
Capt. M. that voyages to the
East Indies could not be perfor
in less time down the Red sea
than round the Cape of Good
hope — Winds in the Red sea
blow for at least six months
from the Northward

Observations

2307 Java head land down
by Robison 6.° 48′ Lat
105.° 29 Long.°

2308, Altho' the use of Gunpowder is very old in China and probably that of Artillery yet Makers Artillery seems to have been totally lost about the beginn.^g of the 17.th Century There is some Cannon at the Gates of Nankin but no body knows how to use them In 1621 when the City of Macao made a present of three pieces of Artillery to the Emperor, it was found necessary also to send three men to load and fire them

Artillery Chinese

Experiment

2309. Gun powder may be fired with a smart blow of a hammer, will not this account for the explosion of a powder magazine by a bullet passing thro' it?

Metallurgy

2310. Mortars are not made of cast iron sufficiently tenacious, much cheaper and better bored and finished than brass

Fortification

2311. Arguments for and against the interior works being raised higher than the ext. works

Ordnance

2312. Works at Batavia consist of Bastions and curtains the cannon mostly brass and small - The Flanks of the

contains very short — 250
broad and filled with stag-
nant putrid offensive water.
— The road thro' the pass rude
would be dangerous for a flee
Landing might be rendered
extremely difficult, this with
the unhealthiness of the climate
will induce the Jealousy
of the capitans too dear for
an European ~~Army~~ Army
— The Amphibious Dutch should
would have built a city in
this place the most un-
healthy in the Island — The
mountainous parts at 30 miles dist
are acknowledged by all to be healthy
— most of the Dolens have little
or three country houses, they live
in the highest style, 50 to a 100

Slaves. Generally die in Debt
great respect shown them,
carriage must stop, - sometimes
get out - this not brooked by
some English Capt. - Admiral
Shot a footman
who would not Decent on —
— This place seems to resemble
the customs of China and India
— Slaves all born footed, do not
sleep in the house — Dutch
drink to excess - frequently a
bottle or two of wine, with
half or a whole pint of Gin
before dinner — The lower
people drink smack. Our
Physicians allege that the
great mortality is occasioned
here particularly by Foreigners

it more wrong to this case circumstance than any thing fortuitously occurs in the climate —

2313. At Mr. Wiggerman's Table the Shebander or head office of the Customs, assured that there were monkeies in Java which shot small darts thro a tube by the breath as boys do, and killed their prey in this manner, he added too that they poisoned their darts

Natural History

2314. The Coffee which the Island of Java pays in Tribute to the Dutch East India Company is delivered at one Silver Florin — The trade in this article alone is said to be worth half a million annually —

Miscellaneous

2315. At the General the earthworks of the Chain had each a name — Precedency —

Mint

Miscellaneous

2316. There is a yellowish substance in great quantity floating on the surface of the water in Batavia road which probably contributes the luminous appearance in this Bay, the strongest I have ever met with — Examined some water with the microscope found a great number of thin transparent animalcula —

Miscellaneous

2317. Carriages have four wheels — Ends of the axles covered with a Cap as in England — Horses little but very fleet — No door — space open to the bottom —

2318. Among other questions which the Queen of Sheba is said to have put to Solomon, there was according to a story in the Talmud the following. The queen held in her hands two bunches of flowers, one natural, the other artificial, the latter so constructed with such art that it was impossible to distinguish it at the distance she then held it from the natural. Solomon looked at the flowers, and was at first doubtful. The Rabbins say - The son of David to be overcome by

Ditto

a woman and the subject only probably Father, was provokes
At last a circumstance occurred a Chuse of bees was observed on the outside of the window the King desired the window to be opened, the bees rushed in and a lighted on the rod but none touched the Artificial flowers

2319. The King and other Freemen at Bantam buy their Crisis in the following manner, they call in a Slave and after shewing wounding him, if he dies not in half an hour they reckon the Crisis good for nothing — Jervison —

Miscellaneous

2320. The Story of G. 13

in conversation with a French
nobleman asked how many
times they could fire a
gun in a minute the
answer was about 14 time
the King replied "we can
fire much quicker 30
times — This had never been
done — The experiment was
made and 29 Shots from
a six pounder were fired
in one minute — Shot stuck
in the breech of the gun —
Cartridge thrown down with a
handle and Sling —

Additional

2321. The best method of cast-
ing a boom with gun-
powder and a pair of shears
The force of gunpowder is ex-
ploded under water
is prodigiously aug-
mented —

+ Query how is this proved

2322. The point blank of any gun does not exceed 500 yards — M.O.H.

Inhalt

2323. A rifled gun was tried by putting a steam bullet into a wooden cup. It was approved that the cup would recover a shooting motion from the rifles and communicate it to the piece — The experiment proved the good effect — But trying the same with a steam piece the shot went as straight as with the rifled piece

Same wounded. Dr. Hutchins Esq

2324. A field piece can be fired 14 or 15 times in a minute in the usual way. —

Ditto

2325. A Cask at Bantam said to be 80 years old and upwards, two spurs on each leg —

Mr. Hunter

2326. The principal advantages of wooden cups for shot are that by diminishing the windage, and preventing the rolling under the shot more true also by means of wooden cups smaller shot may be used in larger Calibre in mortars & howitzers in an action —

Artillery

2327. The Governor of Bantam has only ~~[illegible]~~ L 6
Com. Dutary — he is Dutch
there is a kind of fort or
citadel — Place extremely unhealthy —

2328. The tides on the coast
of France are much higher
than on the English side
of the Channel — This
it has been alleged has
never yet been accounted
for — Havre — Chirbourgh —
St. Ge. —

No Theory

2329. In the Bay of Fundy
the tide rises [illegible] feet
and makes a Cataract
over a bar of 15 one way

Dillo

and 15 feet on the opposite side and direction —

2330. Why not several circumstances relative to the trade winds be accounted for from the unequal velocity of different parallels of lat.? —

Mr. Pratt

2331. Suppose a man could jump from any part of lat 60° to the Equator in one hour what would happen? —

Mathematics

2332. When a heavy shower moves from the coast of Sumatra across the

Mr. Pratt

Mouth of Sandy & also has
obtained a Grant of beau-
tiful green to feed it. This
formed the boundary bet-
ween part of the water on the
Sea side & where not
the rains fell and where not

Miscellaneous

2333. It is somewhat sin-
gular that the Ancestors
of Mr. Pitt and Mr. Fox in
the time of Charles 1st were
the first a Saddler in Co-
ventry, the latter a Butcher
in Chichester — Sir G. S

Extraordinary

2334. It is alledged that a
large quantity of wood
land on walls and set
on fire may destroy them
hence it is attempted to

explain the phenomena of the Bell: fort in Scotland given in what part of the country are these forts situated, and can a free, pneumatic, as above, be sufficiently intense to produce the effect?

2335. The principal cause of the dogs coming upon the ship is before the wind and when there is a swell in the line getting below the wave. —

Nicuts other

2336. Man can live in a state of nature only in the Torrid Zone. There he wants neither fire nor clothes, and the earth brings forth spontaneously his food. Out of the tropics art must be used — In England except the Acorn, nothing is original every article of vegetable food has been introduced and we know the time of the introduction of many of them — Slavery In the Torrid Zone, less tyrannical than in colder climates — The Slave's case is principally concerned

Miscellaneous

about his food — water satisfies his thirst. —

Manufactures

2337. Several specimens of Glass tastefully coloured have been dug up at Pompeii, — a composition has also been found harder than the Diamond —

Miscellaneous

2338. In the infancy of the arts few tools are made use of, the fingers tools are invented and the work becomes proportionably improved.

the last stage to produce
the same perfect work
with very few tools —

2339. In India the arts
seem to have been carried
to a higher degree of per-
fection than in Europe.
The ancients still astonish
for simplicity and neatness
of the work — Loom —
Glass beads — Gold melted
with borax &c — India
has been in prosperitied
convulsions for a thousand
years — Saracens, Mahomedans
Portuguese — Dutch, English

Miscellaneous

Two or three hundred years were sufficient to plunge Europe into almost total darkness — The Arts and perhaps the Sciences must have been more universally cultivated more generally understood since a thousand years has not been able totally to obliterate them —

× This reasoning is far more specious than solid. The Mahometans who were the chief conquerors of India introduced the Sciences into India — Astronomy for example

2340. It is alledged that the mode made use of to pay off the National debt is disgraceful to the country — Suppose Mr. Fox was a great deal of money, and his bonds were down at 50 ℘ Cent, that he had won at play 10,000 he says to his agent, go take this ten thousand pounds and buy with 20,000 £ worth of my bonds. This would be considered as a disgraceful transaction. But such is still more disgraceful in a nation, which may be pleaded for an end or de at but there is no apology

Miscellaneous

for a nation — The consequence
would be if we this country
plunged into a war and want
money; she will not so easily
get it. Lord North would easi-
ly borrow money because

2341. And hot iron will
not it is said light spirit
from non-flame [illegible]
yes will not the iron fire
the vapour of the spirit?
some affirm that flame
will fire gun powder

Experiment

2342. The cones of Cha-
lings or some of them
30 feet in C. greater than
St Pauls, are totally
useless, but by the wall
made of 100 stones which
is five or six times
thicker than the cones
an excellent harbour
may be made which
would be of infinite benefit
to England

Engineering

2343. This day 10 May 93

at 10 a.M. saw a water

spout nearly on the south

point of the horizon —

It was formed at one end

of a black cloud ~~of~~ from

which a heavy shower fell

and which extended about

20°, along the horizon.

The spout was a little

curved conical and toward

the East — upper part

black — inclined to the

horizon at an angle of about

70° to 75 degrees — the dimeter

the lower part gave way

N. Shelton

first it seemed to expand
into a dense shower, ~~it~~
which gradually ascended
to the cloud — Water spouts
are frequently seen here.

2344. A snake 7 feet long
was caught on a tree
near the watering place
in the straits of Banca
— most beautifully spotted
general figure — Diamond
colour most vivid —
— Qu. what is the proba-
ble intention of nature in
lavishing so many orna-
ments on these reptiles?

Are the Pleiades with and do they admire one another & does their beauty serve to the outspread Firmament of Scripture

2345. Phenomena of ~~Earth~~ Hurricanes in the west Indies —

1 Hurricane in the Atlantic ocean is local, irregular in its periods, and peculiar to the west India Islands and the sea that surrounds them

2. It usually happens in the months of August and Sept when those Islands are most

N. Hurlbert

heated, and their soil is opened by frequent showers, and where the exhalations are in the greatest abundance

3. It is preceded by an extraordinary appearance or bubbling of the sea which rises higher than usual on the shore — Dead calms prevail — Heavy black clouds are formed, and the atmosphere is obscured with black vapours smelling Mephitic

4. In the Gulph of Mexico commonly begins in the eastern quarter but in the windward islands at N.E. or

N. N. E. It rages for some hours with incredible violence, and near the centre of its apparitions is accompanied with a deluge of rain and sometimes with glimmering of lightning — It shifts calm, when the wind changes to the opposite points, and blows for a less time but with like violence; it then gradually abates and at length terminates by varying all round the horizon —

5. That those islands were in early times violently agitated by volcanic explosions is evident from this present

spotted slate and singular
form; from the vestiges re-
maining of ancient volcanic
still smoking; the nume-
rous hot springs; and the
abundance of brown lava
native sulphur &c found
every where on their surface
6. That from their appearance
and the remarkable position
of those islands it seems
highly probable that the
sea intruded between them
and terra firma when the
crater of a gigantic volca-
cano long since extinct;
or perhaps is rather the
abyss into which a large
tract of land undermined

by subterranean fire, is
merely -
Lastly that the Elements
of these fires seem now recently
exhausted and only to
retain sufficient force to
produce irregular irruption
of inflam.d air, at such
times as circumstances
favour its generation and
the earth is left prepared
to facilitate its escape
— To account for the
Phenomena —
Inflam.d air joined with
the fire heat of Atmosph.
re air — rain — wind entering
into the earth from —

accumulating in that point for a time, then flowing down and occasioning a change of direction

Col. Ellis thinks the above with account of all the phenomena of Hurricanes —

The Typhons in the East Indian Seas which resemble the Hurricanes in the dreadful effects take place principally in the Japanese seas where there are many burning or Volcanos

2346. All the manuscripts found in Herculaneum are in Greek, Was the fashionable language in the time of the Emperors — They have not been able to make any thing out — Machine for stamping the characters — Should send them to the different universities —

2347 What are the principal circumstances to be attended to in finding the time from the Sun's altitude? — Ans. Zenith Dist. — Error —

2348. It is alledged that Tallow candle moulds are heated a little before the candle is prepared out. Query what is then the use of cooling the frames? and does not the tallow contract by cold sufficient to loosen it in the mould

2349. Astronomical Refraction greater in the horizon, decreases as the altitude increases — Increases as the Bar.t increases and as the Thermometer decreases — Greater in the winter than summer in the night than in the day, in high lat.s than in the torrid zone. In general in cold than in hot weather — Considerable increase of refraction in Nova Zembla —

— no great difference between
the polar circle and Paris
+ Best method of determining
the refraction by observation
— Noise of Demons — Atmosphere
at particular times refracts
prodigiously — Islands appear
distinct and much raised —
— Particular wind produces
this effect at Gibraltar — from
the African coast —

2350. Tiron May 26th

Salt peter and Saltpetre
are here articles of commerce
a portuguese ship now lies
in this bay, is taking part
of his loading for Macao
in these articles —

× Salt peter imported by the Dutch

2351. Cables might probably be made of the ~~sea~~ Indian weed as it is called in England, which is much stronger than hemp — This vegetable is a native of China and from thence imported into Europe —

— A good material for the Ancient Engines of war their bondage —

— Cayan Cable might also be tried —

2352. Is the word pier when applied to a quay or harbour proper.

2353. The evening twilight is said to be more luminous than the morning at equal distances from the horizon — The cause assigned is that the Earth continues to give out the light absorbed during the day — Paper — stand in a dark room visible —

2354. To measure the height of a cloud from one station

xxxx 2355. Took 100 grains measure of oil. vitr. of the usual density at which it is prepared in England that is whose specific gravity is to that of water as 18.44 to 10

Mr. Thos Cole's patent Pan

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2356. In the concentrated
there is a particular phe-
nomenon which I have
found from experiment
which indicates the ~~acid~~
specific gravity of the acid
when this takes place I have
to be to water as 10.7 to 10
I am seldom out $\frac{1}{10}$ of an
10.7 is the standard of all my
Vitr: the same as at Newton
pans, ~~and these all England~~

2357. The E India company
have only two ships of their
own, and they lose by these
- All the others to the W.

of about 90 they Charter
Freight differs every year being
determined by contract in
consequence of advertisements
Proposals given in said.
This year (1793) freight to
China 23 £ p. Ton, to Bengal
26 £ – The reason of the differ
is the greater expence, Pilotage
Cables &c in the Coast than
at China — Port Dues at China
very great, Underwriters pays
about 1500 £ – Insurance
to China about 7 p Cent.
but the Company never
insure – So many months
are allowed for the passage
Demurrage is paid for the

voyage. Hindostan 5 months and
about 27 to 30 ℔ ⅌ day —
— 30 Ships are generally taken
up every year.

2358. The Shields of the Cochin Chinese are about 3½ long by 18 Inches broad pointed at the ends, a ridge runs along the middle, & round black ornamented with gold — beautiful Japanned —

2359. Saddles in Co C. China consist of separate pieces which yield to the figure of the horse back — good contrivance & pretty strong very swift — C. C. 4th June 1790

2360. Stirrups very bad, little compass, many hard shakes, with a drawling cadence or finish always

the same make shaken.
Like to sailor songs —
Most of the Comedians like
the ancient Cathemans — black
cloth — Sets prosperity flat. —
Gentlemen awkward — Two en
gaging with their Lemon com-
mental — Female performer
a queen, handsome — Amenda
ime made signals to one of
our Gentlemen that she would
oblige him in a certain way —
We were doomed to hear with
music and a wretched Comedy
for 1½ H at least — Accompani-
ments worse than the serio
Drum — small cymbals bass
quartet flutes — small kind
of Hautboy — 3 or 400 Spectators

Gong spun on both sides
Singers many motions with
their hands and fans —
The finale was a nasal song
Story of the play was about
two brothers &c — Money
thrown them during the performa-
no stage, no scenes, a curtain
drawn acrs the bottom of the ro
performance began about 11½
During the performance
the Kings Anthem was
played by Lord M.c Lean
the audience seemed quite
insensible to its beauties
the Chinese performers looked
at one another and attempted
to accompany it with their
harsh instruments —

— Dr. Ch. Ware upright by
times were then attempted
but with no better effect
— for shout the C. Chinese —
have not the smallest
taste for our music —
a taste for music is pro-
— bably acquired and hence
natural — If Christian
minded the Oath, it must
be remembered that they
have Chinese oaths —
and he has a quick
imagination —

4 " 34 " 19
7 " 25 " 39

7 " 25 " 39

7 " 25 " 38

12 . 25 . 12
9 . 50 . 57 + 51

12 . 31 . 10
" 5 " 49
1

12 " 41 " 44
8 " 7 " 20

12 " 53 " 44
0 " 19 " 18

1 " 5 " 47
0 " 32 " 19

0 . 35 " 3