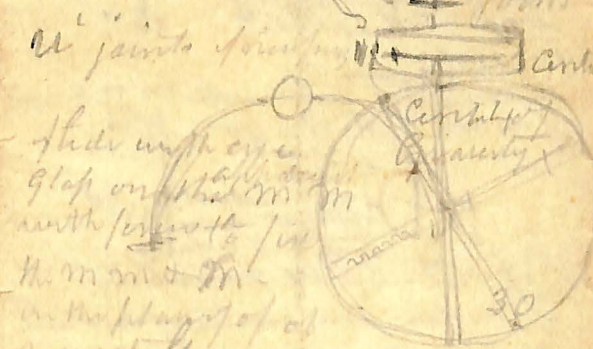
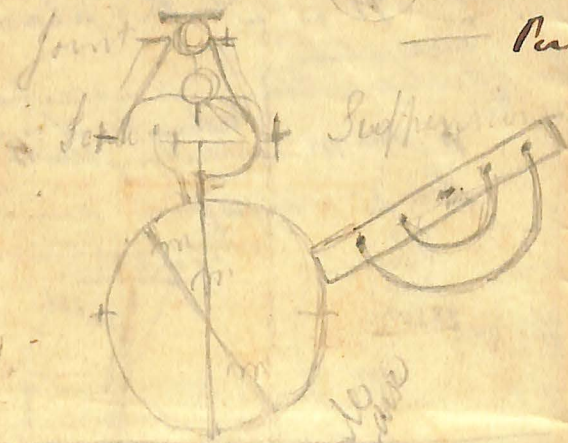


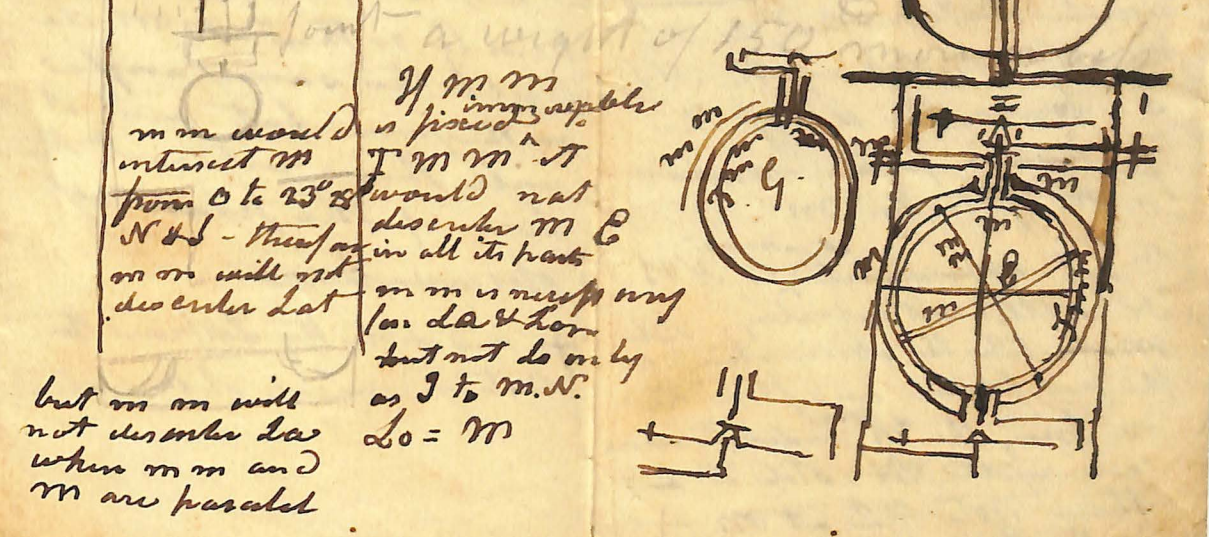
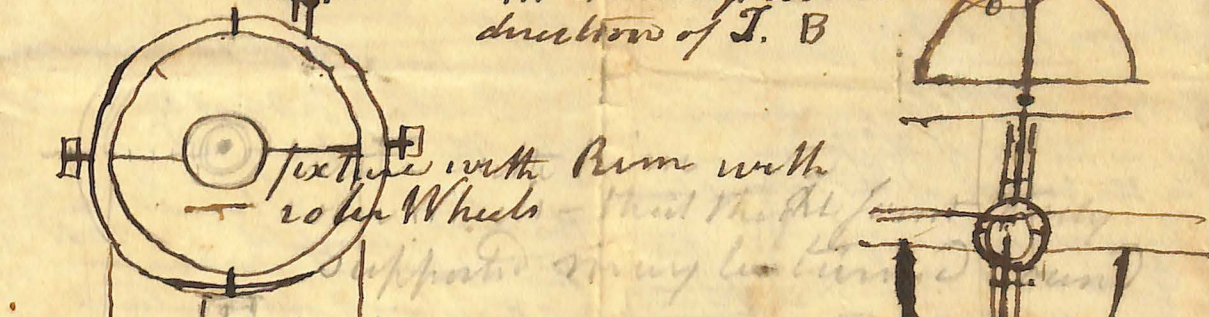
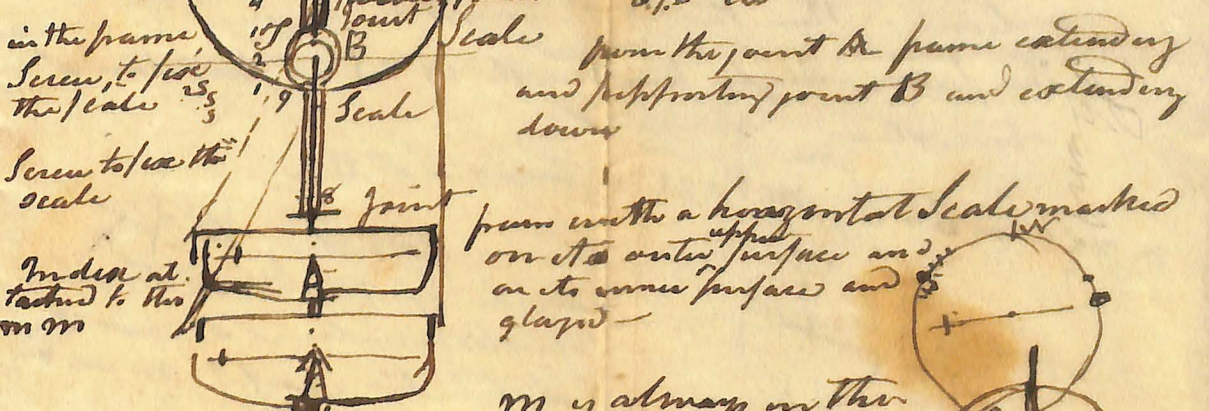
for here Purse near Potosi Hall Livingston and differently capitol

Alogah Inc 2 1/2 Mile north of front Ash. Purse
 looking and looking at 3 tents for Bushes



the time machine to be
 hang 15 1/2 mile by service to
 the place of observation
 the time machine to be
 on the line and central
 extend to an edge near the
 globe

degree of elevation of a
 on a point to an object
 celestial object to show the
 Latitude of point the upper vertical scale must be two plates
 one on each side of the frame so as to form
 a complete and proper
 67.5° ea



But the Index of $M M$ extends from E and forms a certain angle, whereas the true angle of the $M N$ is from the plane of observation is not the direction of $M N$ taken at the plane of observation, then the $M P$ must be moved to describe the same angle from with $N + S$ at the plane of observation

$m m + m e + e + m p = 23, 28$ Angle Lat O



Dec 15 1839

The plane of observation is in the M of the place and in the $M M$ of the plane plane therefore turning the E so that the M Index describes the same angle that the N describes with $N + S$. keep the E of the E to the plane marked on the E to the M

Tel approximately to $N + S$. settled not vibrating, stop watch take the observation on the pen scale and stop the watch bring the M Index to coincide with N stop it and then note 2 at $M +$ on the E

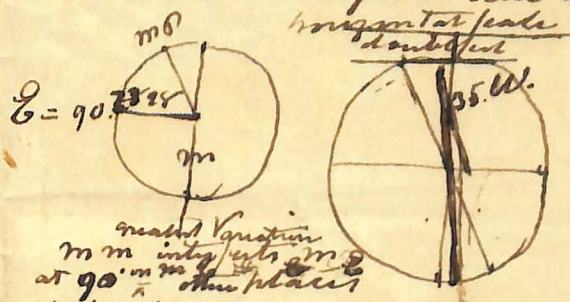
$m m$ descending the angle of M, N at the plane of observation shows the latitude except $m m$ & m are parallel. The long would be shown and what side of the earth by the dipping N

the lat when found and the angle of M, N the apparent declination. at the plane of observation turn E so that $m m$ describes the same angle as on the same date and it will then intersect the L of the plane of observation

and note the lat from the custom made observation

When is the difference in effect if the apparent declination is described at the plane of observation - or is otherwise described by turning the E -

It is at the plane of observation that the variation (declination is ascertained of the same plane) the $M M$ coinciding with the N when the N varies from due $N + S$



Let the angle of $m m$ with $m +$ angle of $m m$ with $E = 90$ we must not be distant from motion of globe

at $N.Y.$ 3.5° W variation of Index from center of motion is turned west about to coincide with N the $m m$ will intersect P and of prop 3.5 east of M

But if $M.P$ Index is turned east so that $M P$ lies at 3.5 from plane of observation $M M$ intersects M at the plane of observation but it is the $M P$ that is to be observed the angle from P to $M P$ may differ from the angle of P to the plane of observation from 60

(the M Index coinciding with N at its point shows when the true M is located and from the $M P$ not to)

Ascertain due $N + S$ and the variation of N then turn E so that $M P$ is in range with N - a $m m$ arch from $M.P.$ to $m P$ intersect the plane and is parallel in line to N true

For circumstances must be truly described by Ast. how light contains the angle of $m m$ with m a peak with a counter part, to front & move on a given in $m m$ or m double as distance of $M P$ may vary but little may be used to take the O, I, II of the circle

1834
 Dec 15

If the Ne should be on the E or above it and where
 settled and stopped and one M^o with rod blades
 should should be brought in range of sight glass or
 apertures adjusted to range the Ne & the M^oM



then m m would intersect M at the plane of observation
 rods unless outside of M might be stopped thereby
 two rods would rods do long radius at opposite points
 one with joint might be imperfect in the joint
 If in P in design ^{it be} brought to describe the degrees

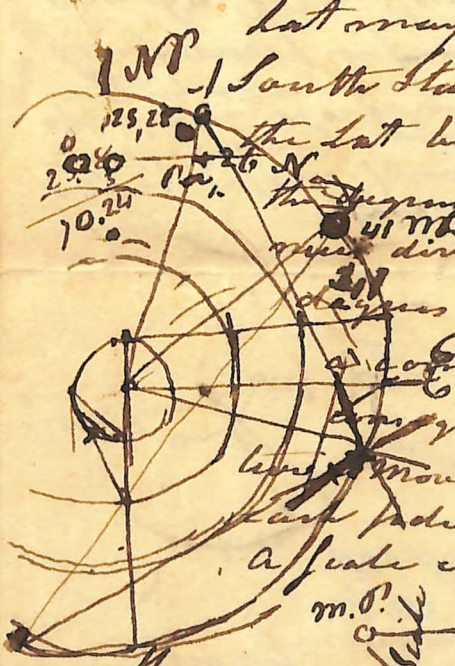
as a line intersecting of variation from the plane of observation
 the side of a wheel ^{off} must be at a point the N of stationary could only describe a plane
 at right angles taking of variations to which m m must be made par
 center of the wheel ^{the} the angle formed ^{all} is to describe the same angle with N & S must
 by the lines a b c ^{the} intersecting at B that N described at the last
 is contained but the if last is found N might be moved over the same
 angle varies very little settled N & S as contained & N stopped, m m brought
 or removing a one two or three degrees to range parallel to N - M would then
 further from or nearer to B, and as moving ^{the} degrees of the way the angle decreases ^{by} it would
 be difficult to determine ^{by the angle} which way a has been moved, ~~the~~

Lat found and noted due N & S found & noted
 M. P. variation found & noted,
 bring M P to represent the same variation, and
 the same ^{degrees} of L will be at M represented on G as is at

the plane of observation, therefore L is so found
 lat may be found by the altitude of the North or
 South star at any any time when present & determine
 the lat being = to its Altitude

the degree of d should correctly marked on E_r and a non
 must division on E attached to M permanently
 degrees I II III should also be ^{correctly} marked on E
 a corresponding movement may be applied to move G and
 consequently M P to the respective positions, and
 length movable m m be applied to M P. M P. one on
 each side of P.

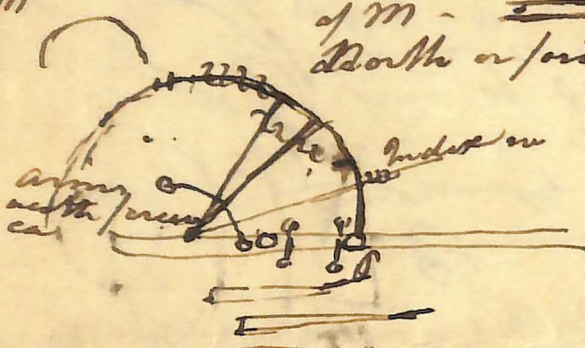
A scale can to in M P may be applied ^{of} the scale would vary in its position
 to m m & m
 But a scale at right angles or curved and
 applied to M? would hardly do at lat
 of observation would vary in almost every
 case,



1839.
Decr. 16

and of being used
on each side of
M

the centre of movement of the scale must be in
the centre of the plate or between the two plates / or
any M, and the / and scale must be capable of being
moved lengthways of M, and of being ^{stopped} at any point
of M - North or South and of turning any angle of
its centre of Motion



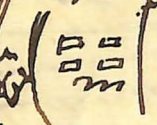
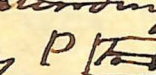
Index with ^{curved to point} front to stop
it at any part of the / scale
Plane of scale curved
to point

Suppose a / scale semicircle
= half circumference of G
applied to N or S hemispheres
moving on M
There may be four
one on each side
Scales, to wit
one on each side
of M, each side P
on each hemisphere

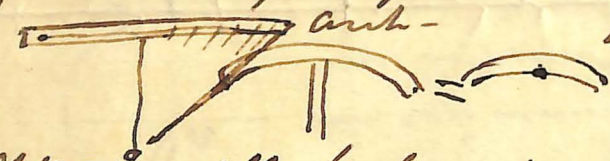
If the scale is to be parallel with
M - allowance must be made if the
end side of the or Arch of the scale should
not come to the centre of M
a / screw to stop scale in proper position

M may be composed of 4 pieces
be a little apart, to permit the
centre of Motion of the scale to be
moved in, and to suffer the Arc of
the scale to come to the centre of
M and to be stopped by a / screw to
its proper position

The scale to have a / screw with
screw to stop it. but as this screw
could not be used at P the / screw
of the scale may have curved ways
way, or a / screw with / screw
to stop the scale

If M is / made that
a scale may / pass E
and the / scale of
plate to N or
S / screw  well be
easily / different -
there must be Indexes
capable of extending
from E  by P 
to 25° or 30° from P
beyond P

Index should / slide in
groove on between plates
of the Arc of the scale



If the Arc of the scale
is the segment of a circle
described from its centre
of Motion and of the
segment of a circle described
from the centre of G the point
of the index may require to be
globular or conical

If the / scale is curved two ways when
is the necessity of a / screw to its attachment
ing to M as moved on M it would
describe a curve. the / screw point
may be necessary in changing it to
another hemisphere

The Index must have a globular
point

If the Index extend from the plane
of observation past P and
M P. to the plane E the degrees
might be noted on the E making
due allowance, or the Arc of the
scale may be beyond MP and
conform to G - and due allowance
made in marking the degrees ac-
cording to the curve (double) for
the centre of Motion changes in different observations