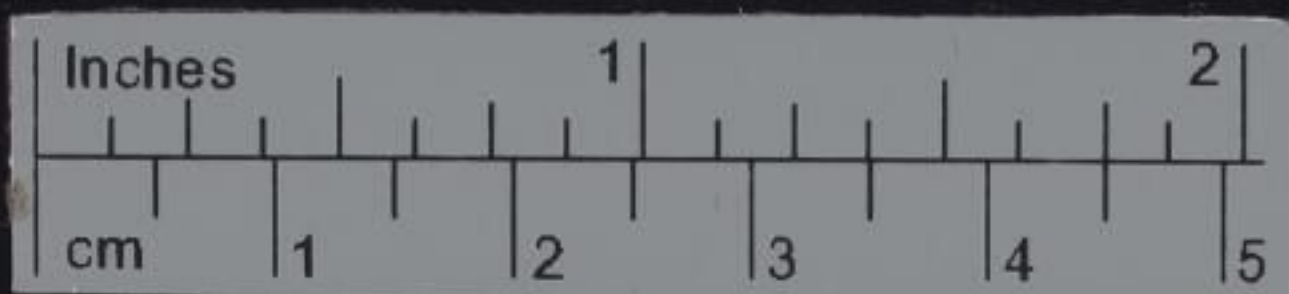


Geological Specimens

8743



DAR 236:4

C. Darwin

MS. DAR. 236.4: ff. 1-47 + covers

f. 1. gummed to f. 2.

ff. 1-2 loose

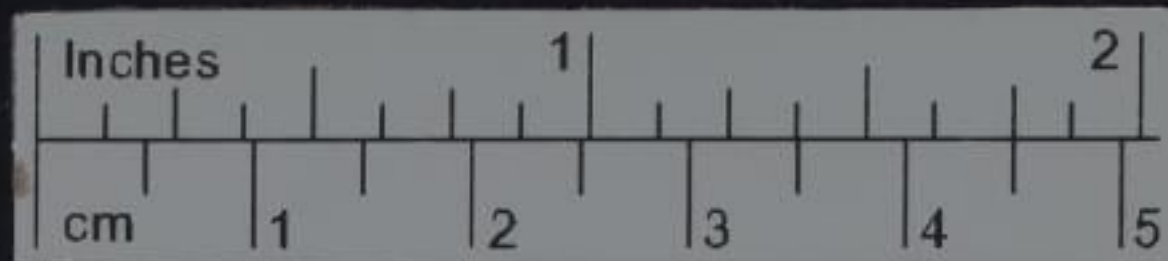
f. 9 gummed to
f. 8v

Covers nearly separated

ff. 21-44 blank

Front cover

Religated 2015 November 17
ASP.



744. ^{not stops.} red, ^{numerous small rather good} cyst felspar (some larger)
mangled with ^{fine} of white quartz. (not fossils)
with brown black patches in white mass
of black micaceous mineral can be
observed when brown dust magnetite
after having been heated —
and these micaceous patches the color is often
brown. either darker or if mineral ^{had been} ~~was~~
heated ^{to decomposition} —

— Hornblende + true felspar

743. Labrador felspar, with altered
Hornblende. a good deal of mica.

White granular felspar. & I believe
no quartz. —

all very little hard feeling

MS. B. 1. 236. 4.

[17]



742) Mass of confused crystal. Snow white
not platy felspar; with patches & streaks of the
dark brownish black - at first appearing
like cysts ^{no disease} - then patches of a green white
halftone. The mineral has a metallic sheen
where broken & the grain when large
enough to be seen are rounded
externally - Very little fine hornblende
Black mineral cleavage quite destroyed
Some Feldspar

745. Feldspar ^{not measured} some good crystals
of hornblende - some grain of quartz.
Red patches & streaks, not very to hornblende



MS. DAR 236.4:

2

with
can
up
Growth
white



1757. which. if the central parts
were removed. would form the
little cases as in Coprinus.
branch

3749. Not. Carb. of some mem.
Abolhos Islets. —

50 with a jasper appearance

51. excepting in some most rare particles:—
rounded grains. appear even with them all
loose are only attached just at the
point of contact. — colour of pink grain
shows there is no envelope to each grain

V. App. p. 17

(d. scrap of paper
at beginning of this
Book)

3745. Black Crystals good Hornblende. $2^{\circ} 35' 25''$ &
left perfect one. $123^{\circ} 51'$

3744 $90^{\circ} 30'$ } two angles going round circle
 $89^{\circ} 30'$ } very good. — fels par.
& spectra of Hornblende. 125° — 125° —

3743. angle $93^{\circ} 20'$. near & several
crystals much striated. —



Different angles

86° 30' pretty good

3

84° 30'

93° 30' good measurement

~~Ascension~~

Made 8°

3743x granitic rock. nature unknown to me.

expected with last.

3744x Red. (brick) granite, mica. altered. -

3745x Pale reddish dr. (granite reddish) with
jet-black augitic like crystals: these
two latter from part of garden house.

3746: 3747: 3748: Laminated guano
in large cavities in lava

3749 Stalactiform. mass. in close neighbour-

x = head & effect of guano? -

3750x Seam of Clay Iron stone, amidst volcanic
sandstone. & other stratified ejections; cause
of the Springs & hence of the colony a 2^d
of Ascension. -

3751 Rounded particles. white & few pink,
x (with no trace of organic structures)
of shells or corals, cemented into a
fine pebbles. -

3752. Dr. with considerable sprinkling of
x volcanic particles; then shells, cemented
into a fine pebbles; DAR 236/4



3768. Curious concentric. & ordinary structure. —

55 rather more than $\frac{1}{2}$ an inch thick.
bored by worms.

3758 The Blanket Rock under blow pipe
evidently ^{always} instantly becoming white, in case of deep heat
~~strong smell~~ I trace. & stems deep pale purple.
like bone ^{with more difficulty.}
horn with salt of phosphorus. Dr. pale color =

The greater part deep blue of muscated air. —

leaving white appears flocculent. consists of thin
plates of white transparent mineral, which
as far as could be told. I preparing a glass
is not hard. — easily fuses into opaque
white enamel. ? — breaks any clear to the
edge. as if tendency to cyst structure. —

White rock harder than pure Calc matter.

Scratched cyst of Calc matter with ease. —

We may conclude colour of manganese. —

contains iron. As told of Blue from Hydrocyanic acid &

from Hydro. Sulph of Ammonia. — white crystalline
specks show themselves.

3753 }
3754 } hard
in T

3755 }
hard as
any other
in C
m C
mo

3756 }
to
strip
an

3768 }
3770 }
for
La

res
its

3771 }
Bl

3772 }
purple
fracture
form



4

Ascension

37537 Is. pure cemented into an extremely
3754 } hard. sonorous rock. occurring
in thin strata. - with small ^{shells} straight

3755 A venous hole. white compact calc.
hard as any shell cementat: (like shell) which occurred
in certain gear. or lava rocks
on coast. - Lava. Black, basaltic
modern stream. ^{small cemented. low cyp.}

3756 to 3767. A black very
irregular calcareous. pumiceous
in cementation on tidal rocks

3768. 3769. Stalactite of Selenite
from a cavern in the lava. -

3770 Lava. assuming a form precisely
resembling piece of wood, without
its bark. -

3771. Black. finely irregular vesicular. Perforated lava

3772. Gray. with brown patches. compact. ^{dark}
~~homogeneous~~ slightly cyst. Feld. rock. -
forming mere point under a basaltic
lava



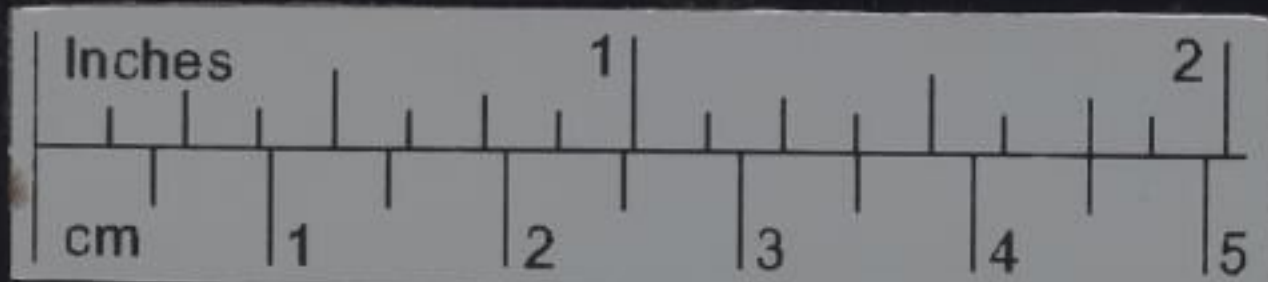
3776. is owing to microscopic points?
specks; + hard nature to siliceous
in pitiation.

74 The ferrug. rock is some greenish rock.
This to the shales. partially
decomposed. - the sh. is greenish
black. a concret. - percolitic
structure.

76 Is certainly rather less ferr. than
the simple softest.

773. L 90 :: In the dark point
speaking iron. magnetic by re-
sulting tests. - I did not
examine any other tests, but
there can be no doubt. They
are all so similar. They are all
In the same.

3773. Space
base
large
3774. 3775.
X consists
of
white
of
certain
3776. Thin
X appears
either
nature
3777. Do.
3778. Do.
3779. Do.
powder



5

Ascension

3773x Trachyte. pale brownish sandy looking
base of base, with blackish points. & many
large of broken glassy Feldspar
Garden Hill

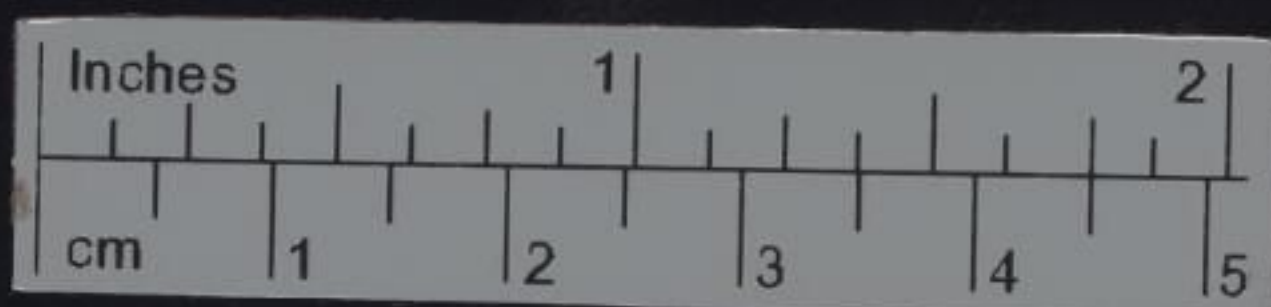
3774: 3775. A most remarkable conglomerate
consisting of rounded bits of ^{trachyte} ~~granite~~
fossils. & volcanic rocks partly imbedded
in a ferruginous base. but the
whole mixed with patches ^{than} of
of pitchstone, passing into the texture
of Obsidian. - I should think have
certainly flowed as a lava with Obsidian

3776 Vein of pinkish agate in vein. which
appears like sandstone. but is really
either of a tuffaceous or trachytic
nature ^{cont. of st. f.} will be described. -

3777. Do. Do. also from Riding school.

3778. Do. from Do. snow white. passing into
a more ferruginous texture

3779. Do. pale yellowish, with small conchoidal
fragments with ochrey aluminous
powder: in masses further on. & vein? -



80. some of cavities lined with yellow substance
similar to that in trap rocks at H. Hart

83. Under high power decidedly has not
aspect of cryst. rocks

84. same as 90. only. opt. of pl. 7.
latter more common in this one

3780. x Scori
cavities
white
with
3781. Do.
3782. yell
map
3783. Wh
x finger
with
with
high
rock
fragm
appea
3784. Is
1 in c
Ischy
2
p



6

Ascension

3780 x Scoriaceous. Abundant lacinated neph.
cavities thickly coated with red &
Pikmy white chalcedony, & intimately connected
School with some Jasper masses. —

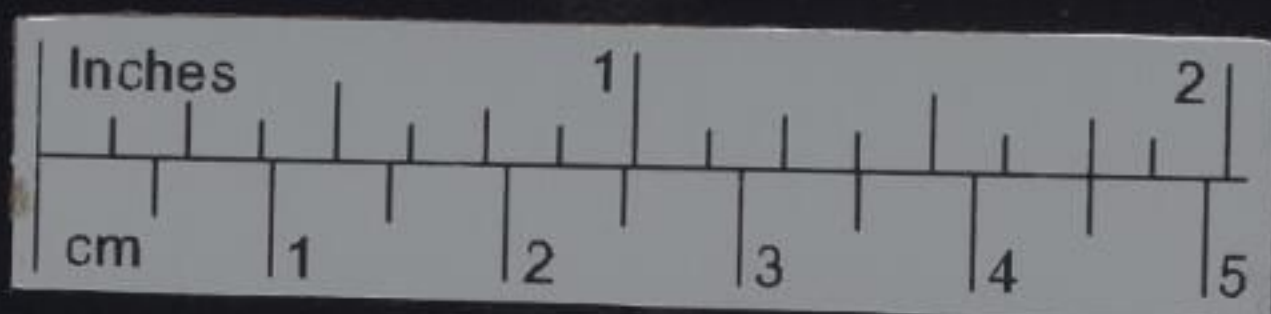
3781. Do. with red Jasper. from do

3782. Yellow Jasper. from do. in large
masses. —

3783. White, dense. yet friable under

x finger. felsparitic base, (domite)
with microscopic black specks,
with cyst. of feldspar: under
high power has aspect of Cryst.
rock: but it contains small
fragments of dark scoria, & hence
appears like ~~an~~ tuff: White-Hills

3784. Is traversed by plates, often $\frac{1}{10}$ " to
1 inch thick. which appear like
Ischyr. with rather a pearly base
& spots of purplish colour. —
from do



87 - Unquestionably same as 86. excepting
after a more early. = the broken
cyst of *Leleupia* help description,
non. verrucular, a non stratified. -

88. a compact strong stone

8785

Horae
in part
very fine
Dome

8786

Track
with

stone
not distinct
with high
area

porous
slip.
from
stone

8787

Ague
small
but a

8788

Ague
cyst
harder
a dark
apex



7

Ascension

3785

~~Homogeneous~~ ^{pale} grey & white ^{Trachyte} ~~feldspathic~~ R.
~~in parts slightly cryst. & containing~~
~~very few crystals~~ ^{of feldspar} laminated: & ~~irregular~~
~~irregular vesicular~~; base of ^{feldspar} ~~granite~~

3786

Native
not distinguished
with high
power

Trachyte. heavy. white, harsh base
with numerous small black. cryst
points. with numerous cryst of
glasp. feld. & horn patches. ^{as in} ~~usually~~
^{cryst of feldspar} ~~from half decomposed~~ ^{Trachyte} ~~in~~
close connection with last

3787

Agree closely with (83) excepting
more grey; few cryst. of glasp felds.
but angular small horn patches
as in above Trachyte; contains
but not in this specimen, imbedded
fragments: Riding school crater

3788

Agree with last. except: more
cryst of glasp. feldspar; considerably
harder, more cryst. struct; & of
a darker grey; from Is:
agree in all other respects

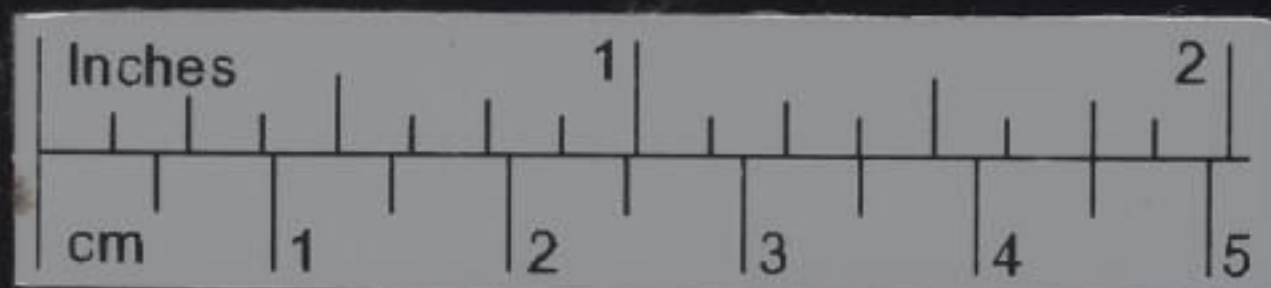


and also with the paleo-porosity, but being
slightly better - chemical union has not
gone so far.

Rank point: generally  6 or 7 layers
all of same nature, central. Rank
forming cavities. Smooth, even fracture.
angular. adheres to tongue. very
tough. pale brown. - kind of *clapton*
in one of the largest central parts
soft. like the outbedding matter.
which is ^{contains} decomposed ^{+ pumice} a ^{long} even
with trace of bits of pumice.
light. soft. not compact very
pale brown. -

90. base sometimes shows tendency to become *crystalline*.
brown streaks. decomp. *cryst.* nature. just as
before. compactness & hardness of apparent
difference. - fusible. Though certainly with
rather more difficulty than specimen
such as 3783. -

Largely
3789. Fine
appears
dne
last
iron
3790. to
some
with
cyst
3796. 97.
with
cyst
cyst
with
3799. 3800
X 3 inch
com



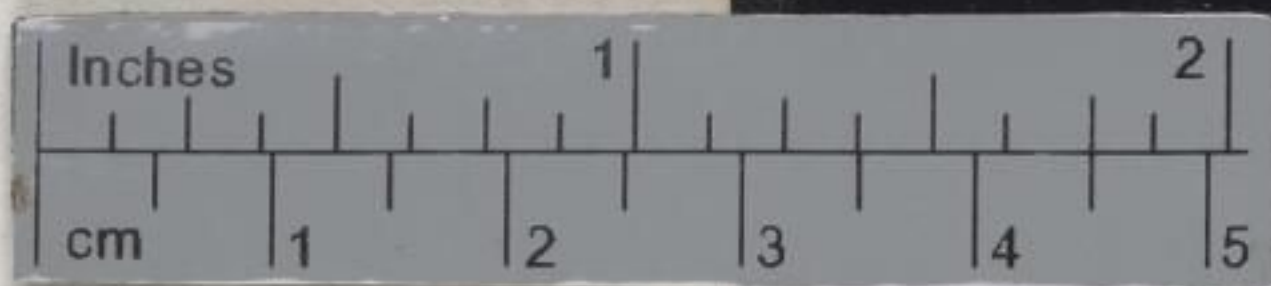
Lately Ascension

3789 Honey combed, ferruginous. Stone
appears like sandstone but on
close examination appears like
limestone impregnated with
iron. — Bidin, school

3790. to 3795. Plates of hard
spongy mtk. compact. large
~~some~~ ^{some} ~~base~~ ^{Cyst} base. grey. a brown
with numerous. Black cyst. points
~~sometimes~~ aggregated. with few.
crystals. of glass. splinter. —

3796: 97: 98. Purplest Black. fine. path
with numerous. fractured. semicircular.
Cyst of pld. spec. & some pmy. max.
cyst: . semicircular. cavities lined
with irregular, hair like cysts. of
some mineral: fragment
intended in rocks (87: 88)

3799. 3800. Concretionary balls from $\frac{1}{2}$ to nearly
X 3 inches in diameter. about 1. mil
common. — some strobiliform tube



5. Lamina. Lk paper between
 $\frac{1}{100}$ & $\frac{1}{200}$.

3804. ^{retrograding} Like petrified ^{decayed} wood on
siliceous aspect, angles very sharp

801. Conchoidal part. most extra ordinary perfect
with perfectly part about hinge

804 ^{very irregular} ^{vesicular}; many of the linear cavities, are crossed
by transverse threads, which have rather
a puffy appearance. - base ^{possibly} really

05 ^{millian in layers} All the Obsidian has a nodular structure consisting
concentric laminae, as big as peas or "shots", very large sometimes
in irregular half rounded pebbles, interiors filled of friable
or indurated mass a bit decomposed ferrug. Lk pith
harsh stone without ext a puffy fracture; the
dull. stone is often laminated & resembles paper & is slightly
translucent. is cavernous in parts in lines; many
of the layers closely resemble rock 804.

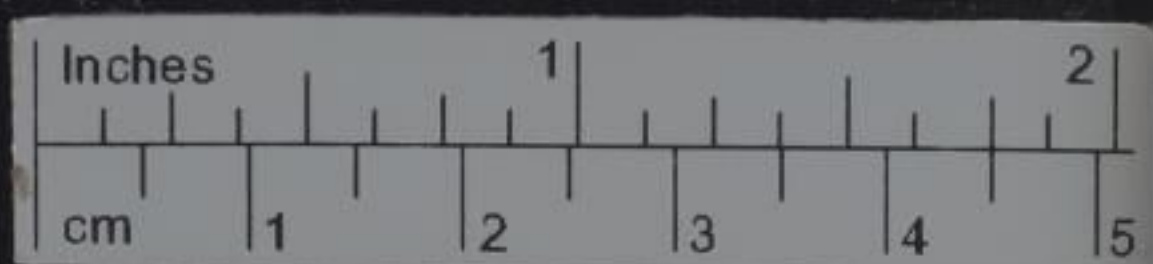
807. Is more large ^{blackish imperfect} masses of ^{angular lumps & fragments} obsidian, ^{thin} layers of
pisolitic obsidian. interiors white rather
friable pithy stone: obsidian with ^{very scattered} white points radiating
from centre ^{crystallites} instead of laminae

806. papyrus effect of nodules instead of laminae

807. Laminated structure visible in obsidian with difficulty



There are white crystallites in these layers
3803. layer of nodules [9]
irregular of green fibrous
other nodules. of brown compact
felspathic stone. fine white
sp. not magnetic. Brown
radial structure 3803. More
than one centre. — There
balls seem to unite & to form
the stone. in detail just
like other fine pumice
layers dark brown appear as if
containing much iron, action
known seen as crystallites.
— perfect ending connections with
with striae. — fibrous
bubbles not lined — interesting
layers appear like pale gray
flinty slate. — are in their
nature felspathic. marked with
thin layers of rapier
thinness like ^{the point} a feather. —
perfectly straight and parallel.
Several layers crowded
like tin in mica slate



Lamina. like for

$\frac{1}{100} \cdot \frac{1}{200}$

extrigineous
like petrified

3804.



with parallel streaks ^{more transparent} ^{more} ^{Cloud}
analogue 803 ^{Ascension}

3801 Splendid jet Black Obsidian [10]

3802 ^{fine lined crystalline white part} ^{greyish green} ^{irregular part}

3803 Thin layers of dark greyish green
^{lost} rock intermediate between compact

^{nodules lined like conglomerate} fels: & Obsidian; alternating with a
white powdery substance: containing
minute nodules of green Obsidian
& fragments of little bales. -

^{angular sharp harsh feel like some other jaspery stones}
3804 Laminated. compact. grey. fels. rock.

X ~~Canis~~ ^{Canis} o. fragment in parts

3805 X Like (03) thinner laminae
nodular ^{small holes} ~~mass~~ of green Obsi: in some
parts embedded in white fels. or

^{granular} ^{porous} powder
3806 X White ^{granular} ^{pearl} nodular ds. fels.

^{with few brown decomposing laminae} rock. containing opening with
irregular nodules of Obsidian

3807. ^X Lg. Obsidia. peeping by nodular
layers - into a matrix imperfect
Obsidia - fels. rather rock

^{in the dark obsidian, & case with good lens.}
^{the faint shades of color might be due to the thin, absolutely straight}
^{parallel to layers of or as 03. These lines with the crystalline indifferently.}

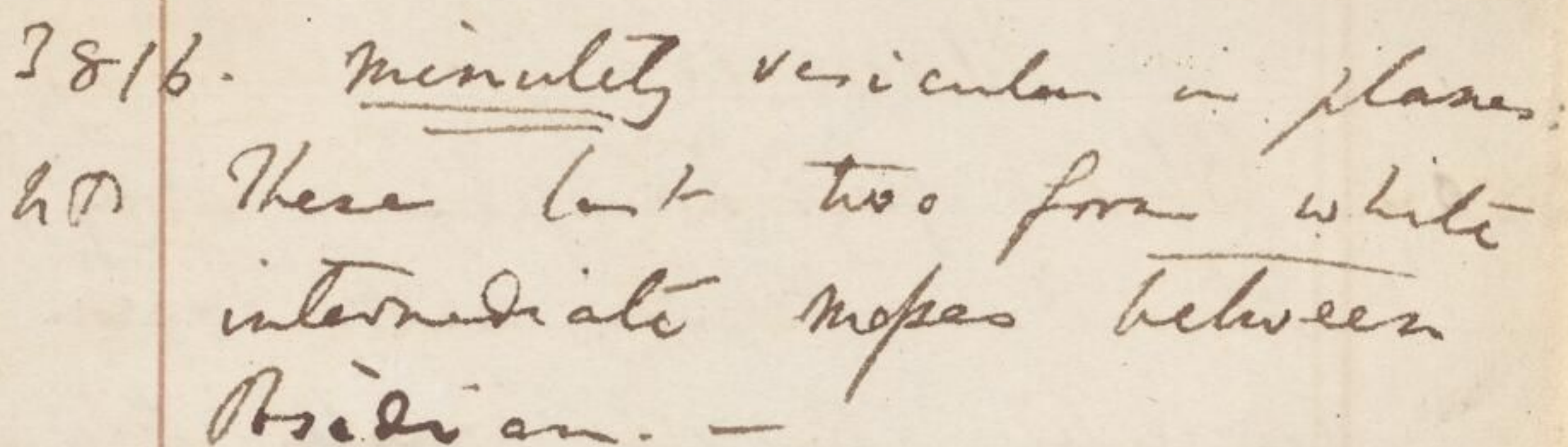


89. the thin white line appear to be dependent
on linear cavities, or slight variations.
the rock is full of cavities, and the
white line bend concentrically round
them - not very clearly

810. The ^{subtle hornblende} feldspar appear xide of iron, are of a
peltitic banded rock dark brown. Most ^{of} show traces of ^{crystalline}
are placed in lines & often united to form
occupying fine layers. - These give rock
laminated appearance & show it in
bands. -

811 Dark parting scarcely trace of ^{crystalline} structure.
12 appears joined to rock such as 802
only with very strong lens. a trace
at most of ^{crystalline} structure can be
discovered - leaf compact,
cently parting

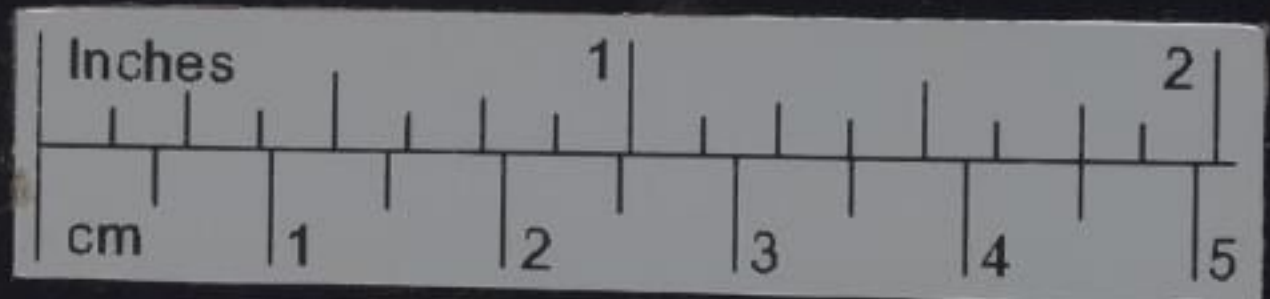
809 Blue
X Feld.
Cord
amund
3810 Har
X alter
X fine
X projected
grey
shin
linear
with
811 Hm
X brown
Mont
3812 Bl
X rather
angular fracture
cavities cent
hor.
with



16. Pale grey. Strongly laminated. of white layers. which contain some cysts in minute cavities - (S15) - - fracture to naked eye appear dull & earthy also feels like a fine sandstone with a lens however appears to have a somewhat ~~of~~ crystalline structure.

13 - Same as 10, no Cyathene
Dark points - no laminae -

813	black Park. ^{negative} milliard black. ^{positive}	La
814	intermediate in character black prints to form homologous?	La
815	with minute crystals	La
816	X X	La



few distinct layers - cryst. of gl. f. the black mineral

Black Park. magnesian after occasion is not in large enough

3813 ^{black} ^{cryst. to distinguish} ^{but is crystalline} Quite black. ^{but is crystalline} compact. hard. heavy [12]

but ^{some rather larger than perovskite} rock. like a primitive greenstone
felspar. rather too glassy; distinctly
granular, separation of the minerals
a fragment picked up in
same vicinity & numerous

3814 same as (810). laminae not

quite so even: is allied to
^{between 3810 & 3816} last rock? picked up with
last. - sand & soil

3815, allied to (812), but laminated
with few white, slightly tortuous
lines, rather softer. & much
more earthy fracture

3816. ^X ^X Chiefly allied to do. but thin
laminated. by scarcely perceptible white
planes; is allied to (14 & 10) differs
in not possessing black cryst. specks.
Also chiefly allied to (85), especially
in general aspect. -



3832 - Are there black shining Cysts
3833 Hornblende & Quartzite. -

31. with very irregular angular fracture,
small qtz. which appear glassy felspar. &
then so minute no character can be
seen. -

^{numerous}
32 Hornblende. L. $55^{\circ}45'$. - with scale of
mica embedded in pale green decomposed
f. base with Cysts of do. -

3830 Hornblende L 54° . Black glittering
rock. with small quantity of felspar

3831 L $55^{\circ}30'$ - Hornblende

3817. Slate

(376)

3830 Rather

X cyst.

fine me

3831 Situation

scale of

3832. Sit. &

X f. Horn

rock

high

mount

3833. Black

X qtz.

part of

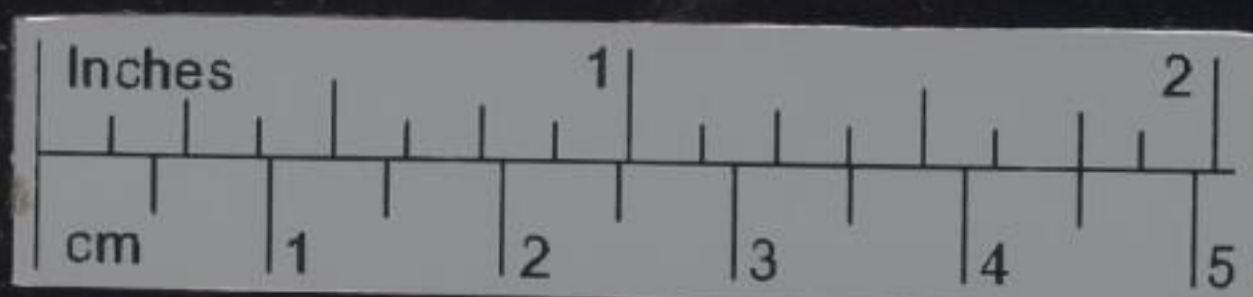
3834 Sit. &

probably

glassy

3835 a do

greenish



3817 . Slatellite of Selenite part of specimen
(3768. / or (3769) . -

Bahia . Brazil

3830 X Rather coarse granular mixture of
cyst. of Hornblende & felspar; embedded
fragments in granite

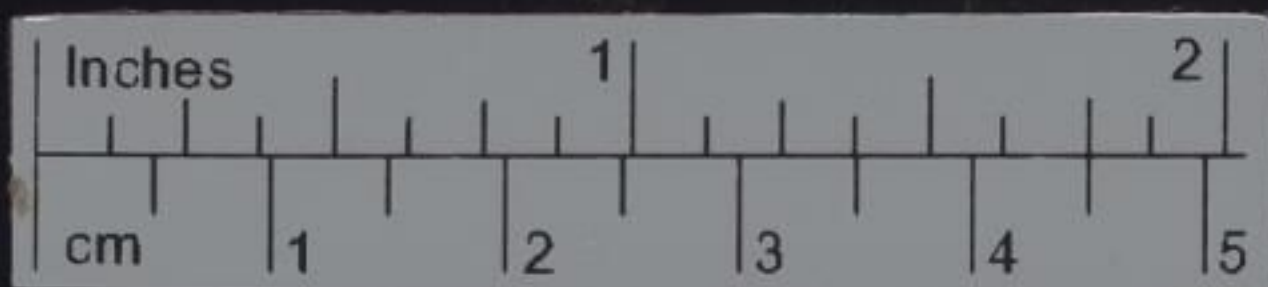
3831 Situation. Do. constituent: Do. with few
scale of mica. -

3832. XX Sit. Do.: decomposed felspar, with cyst
of Hornblende. mica. & green crystals ::
rock forming irregular. dike-like
mass. but the cleavage folding
round one extreme mass. -

3833. X Black basaltic base. with few
cyst. of small glassy felspar
part of true looking dike

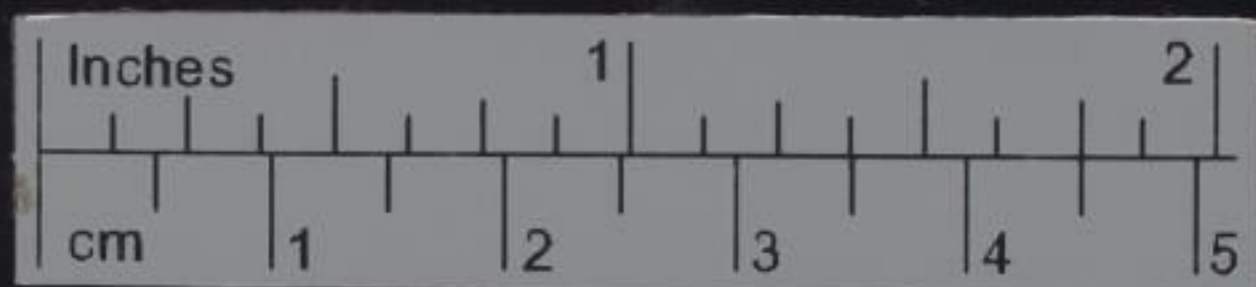
3834 Sit. Do. base more evidently cyst;
(probably black greenstone) with crystals of
glassy felspar. -

3835 a coarser cyst. black base: felspar
greenish. - part of true dike. -



- A common variety
3836. Like under singular circumstances. apparently granite soft.
3838. A very common variety with Hordallite + a little mica + a very few grains of quartz. felspar stained yellow
3844. a broken pent likewise recentered
41. felspar pale green
47. feldspar yellow. feldspar of little specific gravity. rock longcrystalline. - much of the injudicious having been displaced
away
48. red like saddle. impossible to say for this specimen. whether decomposed in situ or not.
841. Conting under Mouspipe stained brown yellow whilst hot. afterwards became transparent.

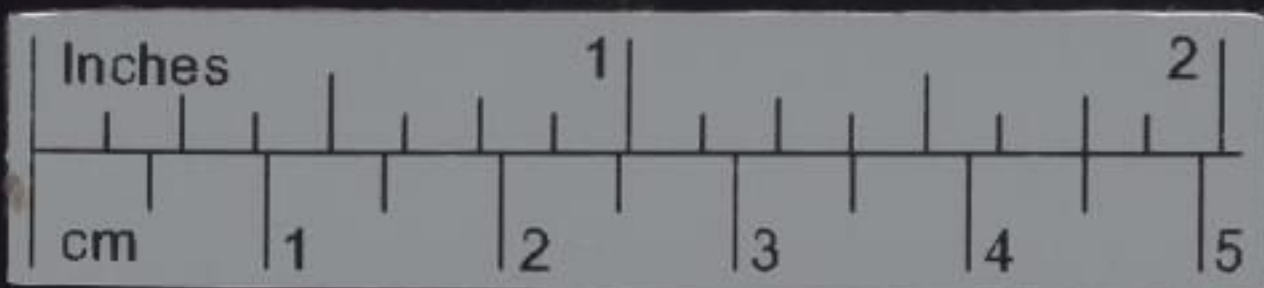
3836. Hard
3837. Large
3838. Grip
3839. Fine
3840. Highly
3841: 42: 4
3845. Decm
3846. Do
3847. Temp
3848. Super
X



14

Bahia. Brazil

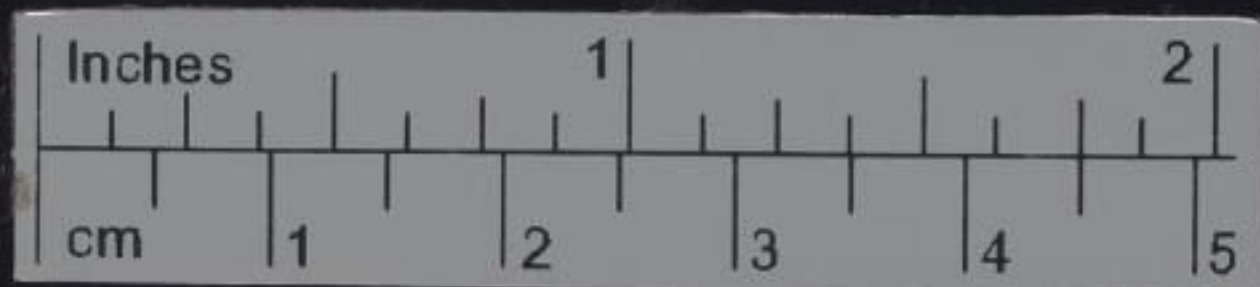
- 3836 Black compact base. with minute elongated cryst. of felspar: dike.
- 3837 Large. true dike, ^{rather} coarse granular close to last & perhaps connected with it: felspar & Hornblende. easily distinguished. —
- 3838 Gneiss: very little mica or quartz. —
3839. Fine grained gneiss. showing feldspar lines a tendency to an orbicular structure: corroded into cylindrical ^{orifices}.
- 3840 Highly micaceous gneiss. with concentric ^{or} layers of garnets. with scales of mica. —
3/4 of mile in diam.
- 3841: 42: 43: 44. Green. lay. cryst. of felspar. with few of Hornblende & mica (primitive granitoid) polished by a feldspar coating in thickest parts about $\frac{1}{250}$ inch thick.
- 3845 Decomposing granitic gneiss in situ
- 3846 Do Do Do
- 3847 Decomposing granitic mass. C. situ?
3848. Superficial red covering of whole country.



8872 *Beloni* & the shells. Minute
Cralline cemented together. &
cements with Alga. - The
latter specimens. have become
petrified with whitish brown
Calcaren Stone. which although
not hard. is very tough & difficult
to break from mass. - Part of
Specimen (3874) shows in some
cases, that layers of a dark
reddish Crallina have considerably
helped to form this deposit. -
70 junction most intimate

Serpula mass agents

in grain. 4.
3849:50.
with
distin
3851 J.W.
3852 Large
colour
unif
inter
3853 Red
parts
suc
3868 69. G
consist
of Wh
of the
ferr
3870:71.
X compr
3872: 5 78
X



fine grained. ~~sp. col. grey~~
Bahia Brazil

15

3849:50. Concretionary masses of sandstone
with crinoid. and with small
distinct roots of Carb. of lime.

3851 F.W. Shells in similar concretions

3852 Large univalve shell. in pale
coloured limestone (not of very
uniform texture) from far in
interior on the R. San Francisco.

3853 Red superficial covering. upper
parts. connected with beds
such as (3848) ^{quite friable} not very broken up to

Pernambuco

3868. 69. Compact, hard. ^{even fracture} pale ^{brown} yellow sandstone
consisting of smaller or larger grains
of white transparent quartz. cemented
by small quantity of white Calc. matter.
Generally fine grained

3870:71. Do, encrusted with thick layers
composed of Serpula, & bits of broken
^{shells}

3872: to 78. Do Serpula. with pieces of



3877: 78: 7

lines

and

centa

very

sand

mat

some

of the

3880: 81: 1

min. each foot in dur.

gras

of

gras

Alum

to the

thin



Pernambuco

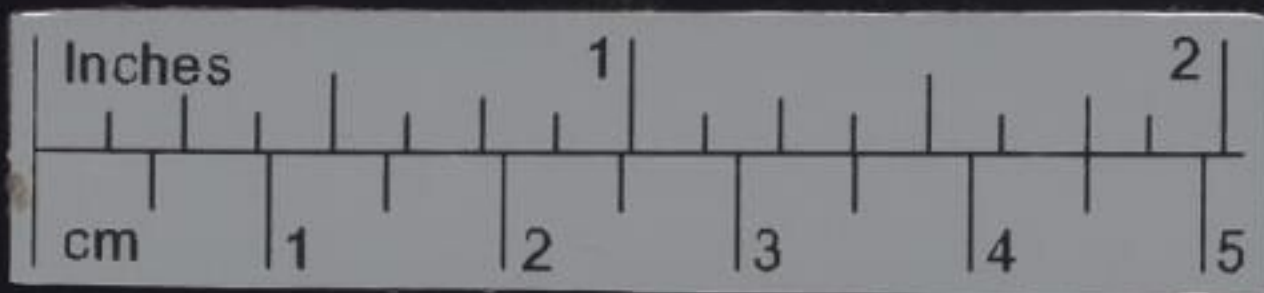
16

3877: 78: 79. A yellow fine grained limestone, effervesces slowly with acids. Tensely hard & compact; contains a considerable but varying quantity of Siliceous sandy. aluminous & ochreous matter: cavities in some parts, somewhat like casts & bits of vegetable matter. —

3880: 81. White, or purplish. aluminous indurated matter: firm, soft, greasy. — contains minute scales of mica & of atoms of quartz: in mouth soft: strong Aluminous smell: adhesive to the tongue. —

Pin-da

semin.
crack flat
pitted
surface
when cut
pitted
indurated
pipe clay



85. clay perilla. dark glass
greenish grey

8836 Pato

8883 Many

decaying

in the

in p.

main

8884.

great

clay

amorph

lowest

hard,

8885

peper

white

amorph

lava,

with

8886.

not so

hair

divis

fractur

in la

into



1836

Pato Piza. — St Jago

17

3883

Many small crystals of Augite, a decomposing olivine, black mica, in blackish grey base, — latter little in proportion; lowest series on mainland. front of Quail Is^d

3884.

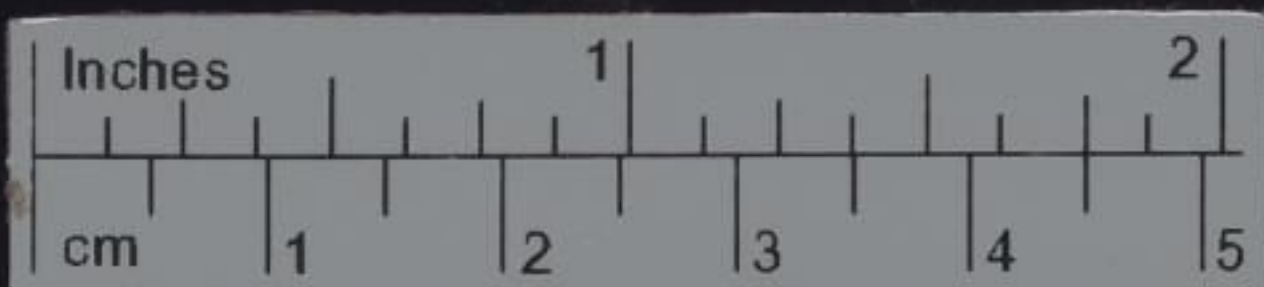
greasy, pale brown. ^{greenish} ~~packed with green~~ closed, decomposed felspar with iron. — amygdaloid with yellow ^{earthy} balls lowest series. Quail Is^d —

3885

Hard, brittle, very irregular fracture, frequently decomposing fernuginous. Mass white amorphous felspar with iron; with high power, traces of crystallization, threads with hair lines fernuginous. —

3886.

Not so compact, similar, ^{but harder} ~~decomposed~~; the hair-like fernuginous forming lines of division, not so cryst. struct: irregular fracture as before; lowest series. in land under Flat Hill. & South Hill. —



3887. With latter rocks. but only in
one place. — ~~get~~ white & ~~feather~~
with latter. get when first some patches
are ~~py.~~ ^{all the present black metallic} ~~py.~~ but ~~py.~~ ^{black} ~~py.~~ ^{metallic} ~~py.~~
also does the green. Mineral. (the
green mineral only appear the present & forms
very ~~crystalline~~ mineral of white mass)
edges of green. soft. min. translucent. —
Olivine?

92 full of minute acicular vacuities;
at first appear a hecua of minute
red, ^{cauchy} fragments. carefully examining some
of them show tendency to assume a ^{elongated like felspar} ~~terrace~~
form of ~~cryst.~~ — This red matter is
highly magnetic. both before & after ~~blowing~~
with latter fine with different int-
quite well enamel. —
Is I suppose specular iron in decomposed
state. — no bright facets

little
3887. yellow
X rock
large.
green
3888. black
compact full
very crystalline Olivine
latter
3889. Crystalline
of black
arranged
rock
3890. 91.
part
3892. 93.
full
which
show
very
in col
from



little near the terra blanda
Pinto Praga

18

3887. yellowish. greenish green. clays
X rock. decomposed felspar. with few
large. cryst of Augite. & others of
green soft mineral.

3888. black-grey. basalt. conch. fracture
compact full of small irregular ^{gran} cryst. of ~~blackish~~
near summit of Divine: Summit of Flat Hill. above
latter three rocks. -

3889. Conglomerate, irregular small fragments
of brown scoria, with snow white
amethyst (?) base. with last
rock. -

3890. 91. Similar to (3888); from upper
part of same land. (M. Kent)

3892. 93. greenish brown base, cryst = ~~exposed~~
full of bright red specks. some of
which appear like jasper, some
show brown traces of crystallization.
vesicular specks; (filled with quartz
& calcareous matter, sometimes)
from summit of Flagstaff hill. -



3894. - no trace of sandstone structure. -

3897. May be called truncated botryoidal.

95. highly crystalline. got trace of mechanical structure ^(one bit perhaps shell?) discernible; the black points

look glass as if they had been

fused? - Calc. spar angle 105. Therefore

lime. - with careful scrutiny Calc. spar

gives out a good deal more vapour

than Calc. spar. - slight bluish of

first. by heat = Vide Hydro Carbonate

of lime in Phillips - Howson says this

latter. when basalt has passed over chalk. One

compact. - This glitters most brilliantly when turned

before light from distinct points; the minute

rounded particles. Some look like olivine; some

magnetic even after B. P. -

Surfaces red as if
may have been

3894

X

Iron
partly
fracture
nearly
matter

3895

X

Brittle
white
structure

3896

has
compact
rock

Complex
structure
of the
arrangement
Cavities

3897

X

98. V.
layers.
fracture
of
Calc.
Beds.



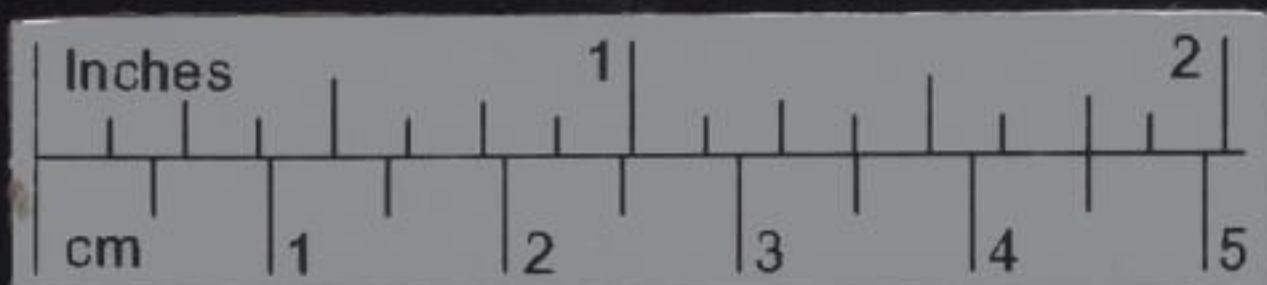
Porto Praya

3894 Snow white. Flake, ~~earthly~~ ~~compact~~
X partly smooth compact, partly earthy
fracture with rounded. cavities,
nearly filled with friable ochry
matter; beneath lava Lucail L.P.

3895 Brittle. semi-compact. fracture, nearly
X white limestone; both cryst. & mechanical
structure evident; with lines of
black particles of volcanic origin.
beneath lava. near landing place

3896 Conglomerate, of small fragments of glass
X (such as here from superficies
of streams) united by snow white
arenaceous, of which the irregular
cavities are lined with ^{thinly beaded} crystals.

3897: 98. Balt² conglomerate, incrusts with brown cal.
X layer, sometimes smooth, but generally
frondulent, minutely, yet like that
of Ascension. - Is it purely
calcareous? Blow pipe in ad
yes. all similar



908. characters all nearly perfect. base
become opaque. altered & white

09. base softer more earthy

10. Is. with crevices for time with a yellow
or transparent siliceous matter like
gum. (name?)

911 quite ~~finer~~ the finest powder

3899. In
hard
old
mfr
mettle
churn
also
fome

3908 x 09X
soft
Inm

3911 x Inm

3912
L
Blau
of
mon

3913. 14.
the
Blau



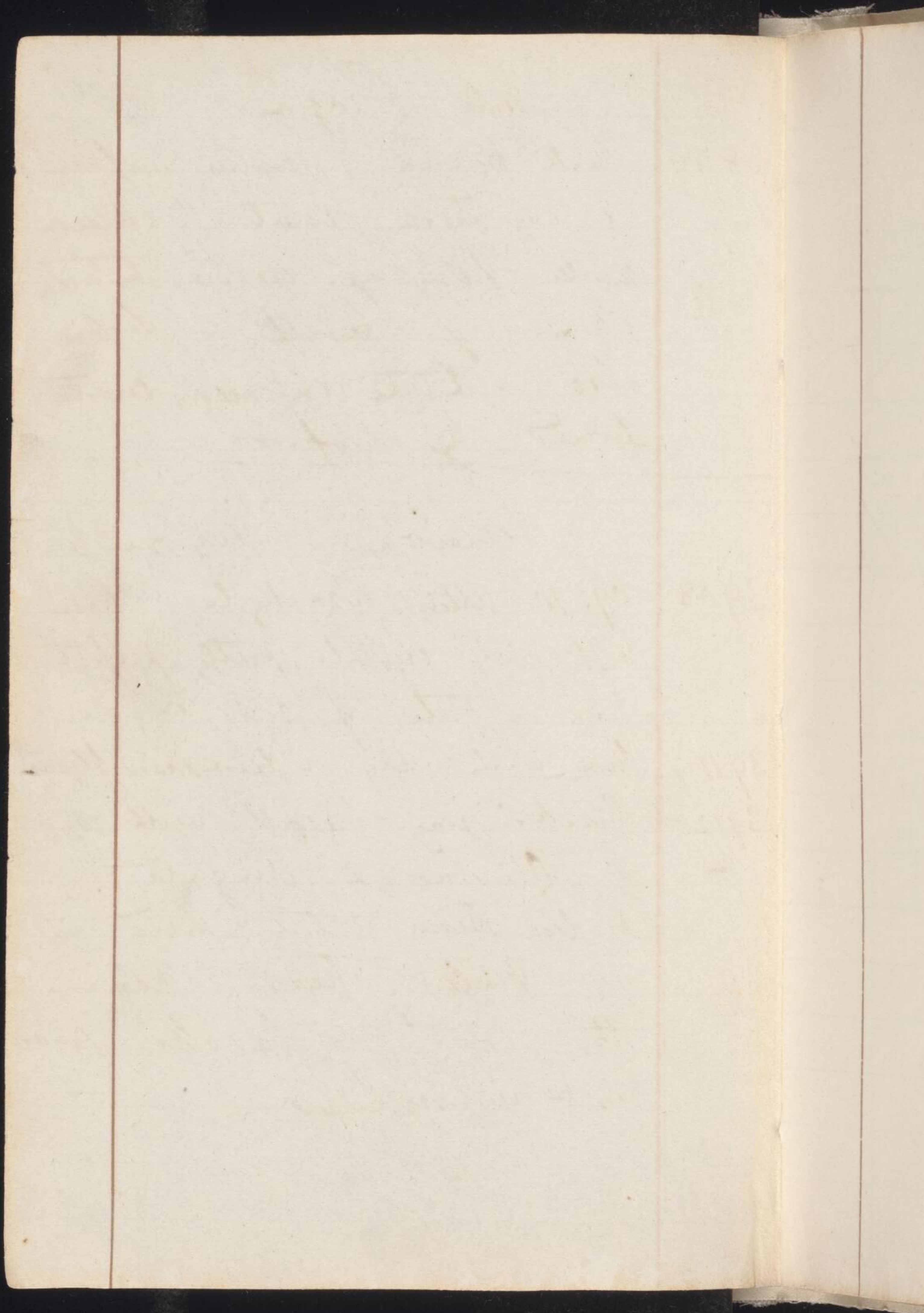
Pate Praga

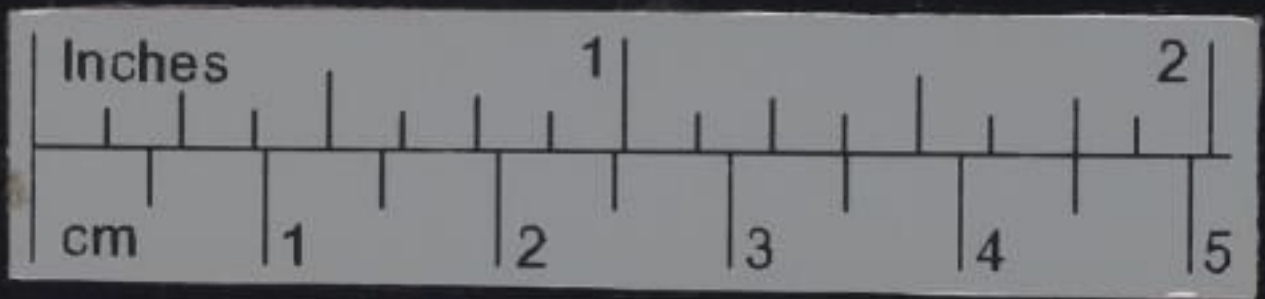
70

3899. Small beccia. of crumbling surface
of lava stream. cemented of calcareous
matter filling up crevices between
columns of basalt. — Surface
also with the calcareous crust
formed by surf. —

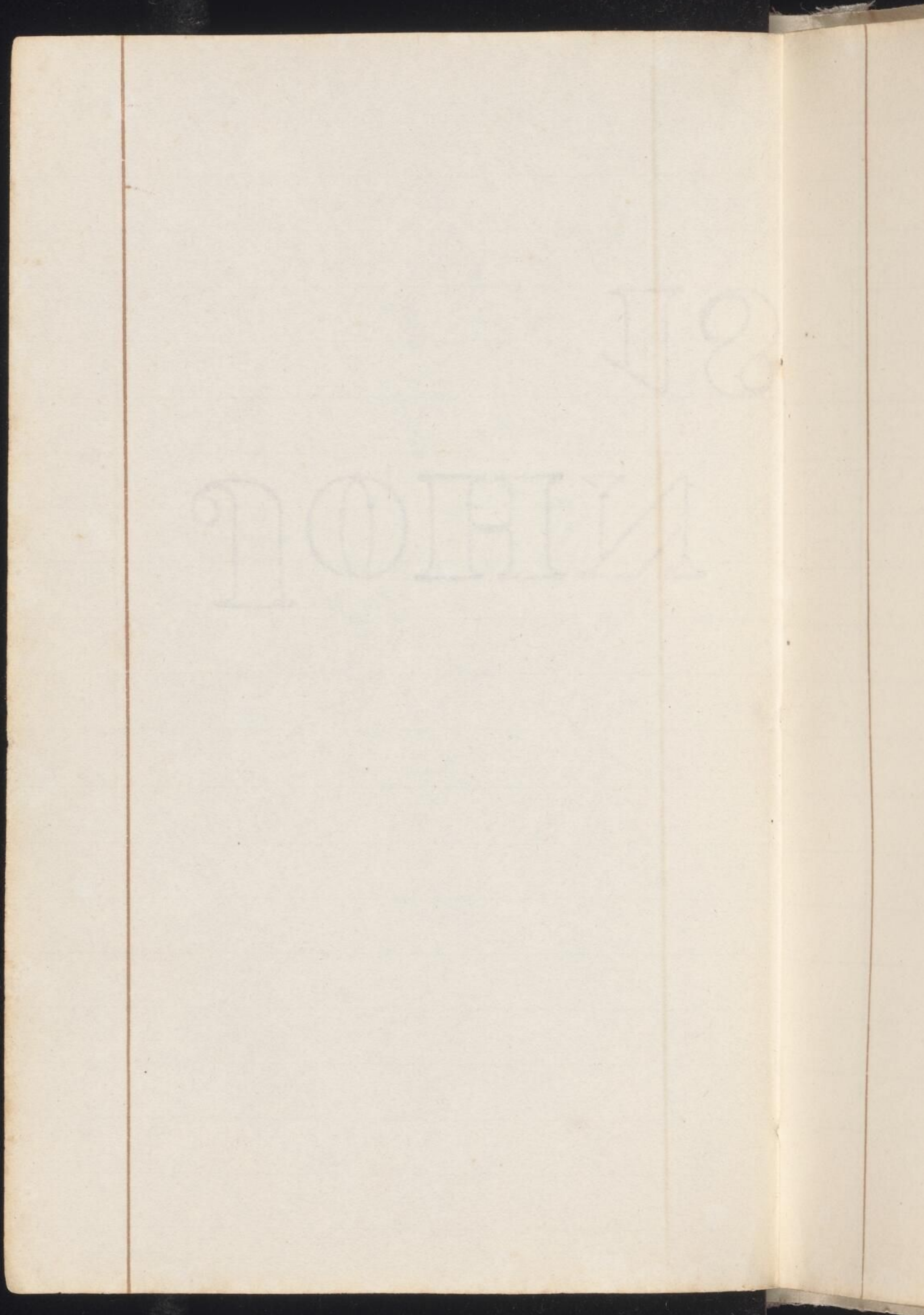
Terceira — Azores

- 3908 x 09x10x Altered Trachyte; base
soft white, crystals pretty perfect.
Iron in state of red oxide
- 3911 x Iron white clay. or decomposed felspar
- 3912 L Blackish-gray. basalt. with cryst.
of Olivine & Augite
Modern stream enters land
3913. 14. Modern stream near
the coast of basaltic lavas.
Plants very vesicular



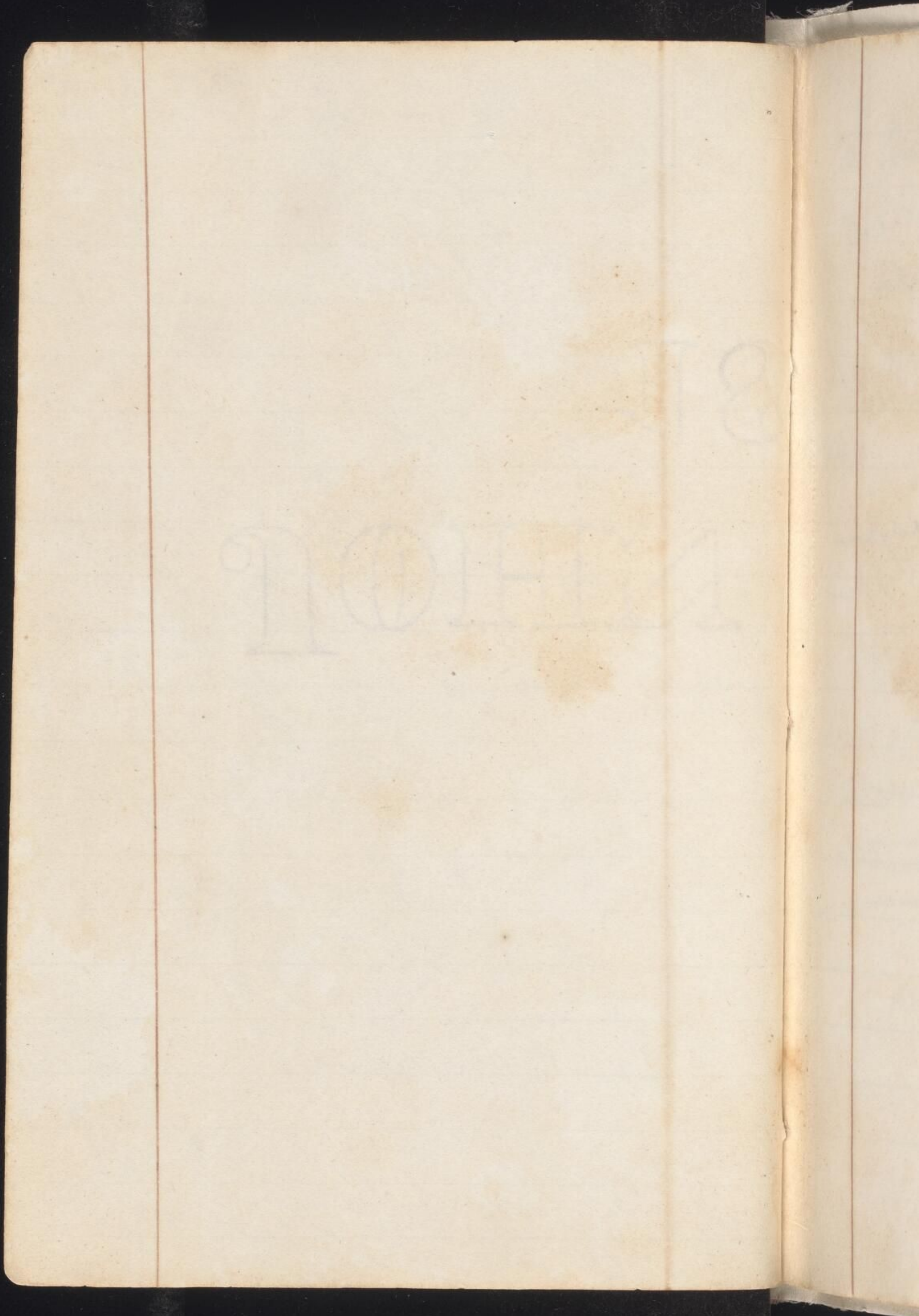


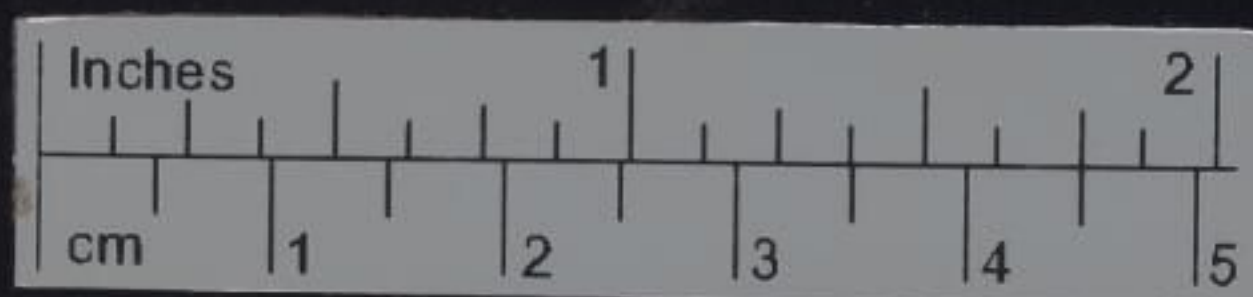
21



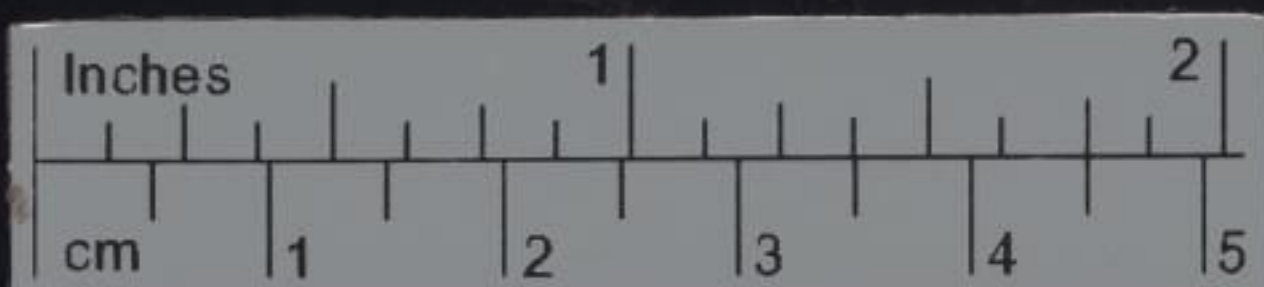


44





45



Feb 1888

Mr Brown has the
Brown stone with
cylinder to them

Went from Hornillos
to ascertain whether
like Jew. Asian
with white spots

Went from Chiloe
~~to~~ ^{to} find Asian as
structure to ascertain whether
Jew-like structure

Have I got stone from
bark of tree?



Mr Brown says ^{brown} lump with
internal cylinders is
perhaps wood very much
decayed. from Parana

2227 perforated of worm-like
cavities filled with stone
wood like substance

Wood from Iquique not
coniferous: soft & light colored



some of the

The leaves ~~do not~~ resemble

the more usual form ~~of~~ ^{no that class of vegetation which is found}

Eucalyptus.

in Van
Diemen
land

Do not Resemble the leaves

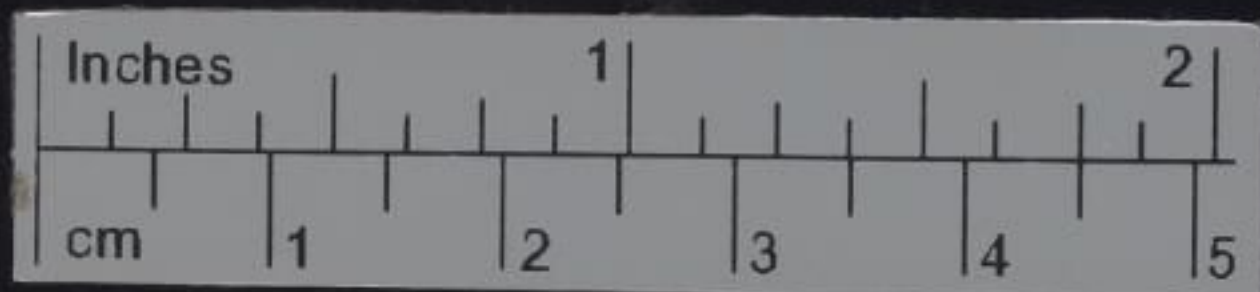
of any plant known now
to exist. in Van Diemen's land.

are palmate like the
Fan Palm.

Four kinds, or more

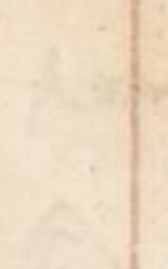
Van Diemen land leaves.

Figure ??



[47]

In Agate - Jasper of h. Borneo
rings of pure quartz
matter. O / generally 

* o agate structure
like in paper in hollows
the  word -

agate structure in hollows made
intercept & as well as
in large vessels - -



M^r Brown.

2348. Common wood (Lening)

not coniferous - dicotyledons

{ Specimen for Coniferi conglomerates
coniferous, but no structure like
that of ^{as with the Upallata wood} ~~few~~ vertical trees

1572. not coniferous. = (Parana)

831. not coniferous. — (Uruguay)

1978. do — (S. Cruz)

1975 Specimen taken seeds (S. Cruz). not coniferous

2579. { M^r Brown was not sure but thinks
apparently coniferous (Cape Horn)

1473. do — do. same ^{fully good} evidence
^{Parana}

not known at all, whether wood or not

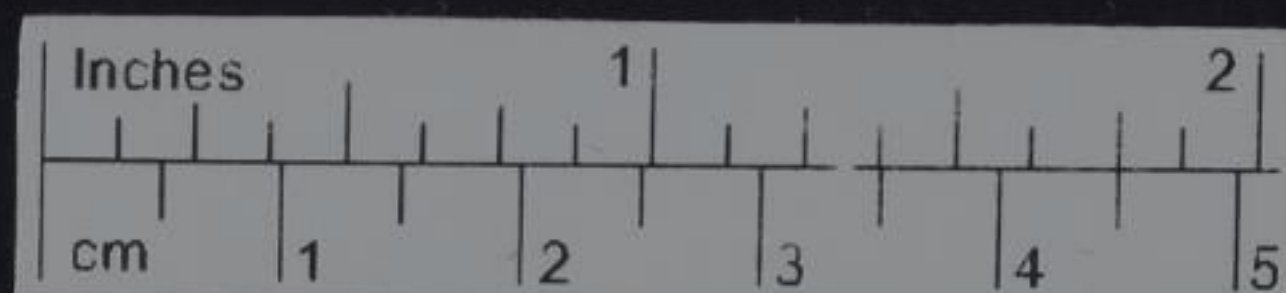
1720. 21. [^] Curious. will tell me
when possible. — (Port St. Julian. +

2518. Coniferous. (Chiloé)

2887. Coniferous (Los Hornillos) *

3091. Coniferous | 3092. Coniferous. ^{young-like}
^{structure not visible}

No Palms



Nov. 1843

Albion Rocks measured
in separate Bag.

Rocks to be further examined
2095.
2635 in sep. Bag

962
994 3067
995 3080
2079 3081
2238
2912 2906
2933

Albion Rocks partly measured
in separate Bag

2663
2932
3112

Feldspathic rocks

could not

measure angles

in sep. Bag

2248
2255
2909
3090
3116
3118
3125

3205
3208
3739
3534
— 35
— 37

Curious rocks

chuff from Anderson

Metamorph. Sediment

More examination

[MS. BAR. 236.4

Back cover]

1812
2682
2700
2874
2937
— 38
— 39

2940
— 47
2988
2995
3016
3089

