



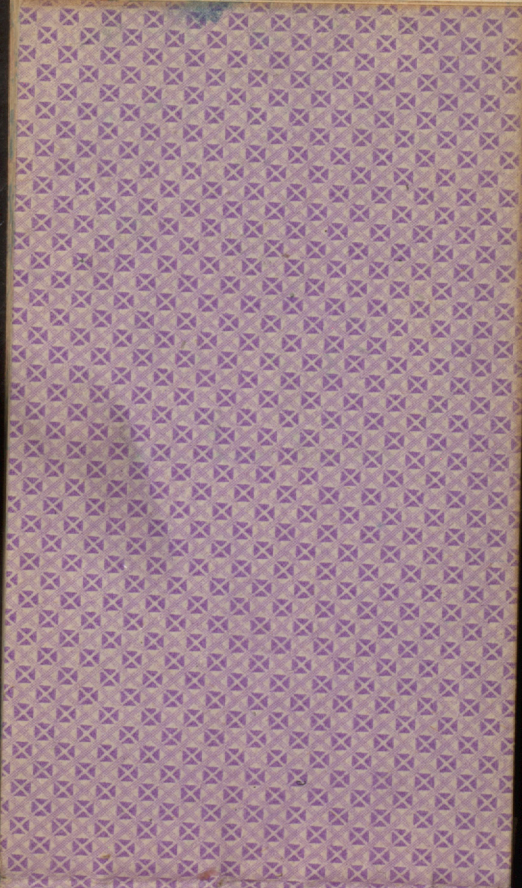
No 4

*They will be found of great advantage
to travelers and all persons who wish
to preserve their Writing.*



 WARRANTED IF
 WRITTEN ON WITH HIS
 PATENT
 PENCILS
 TO BE AS PLAIN &
 DURABLE AS INK.

BEST PREPARED PAPER
Improved Metallic
PATENT
STATIONERS



Frank R. Frost

Dress	Swan Sheds
food	Nature of food
Chummen	Heavy beds etc.

~~So~~ basal beds to Summit
then cut.

Then watch again
in Echo Canyon etc.

Break between Red &
Cross beds in Weber Canyon.

Exposures of lower beds,
General similarity to 490

L.D. to near pediment then
but did not observe about
Aspen or on Summit.

Find L.D. abundant
westward typical of region
conformable

R/W

Hayden thinks *Corylops* extracted
to W of *Aspersted*.

? younger of 2 D. etc. ^{absence} of all
character? ^{but hardly} if all from

Corylops. Certainly not on 190.

If here all from *Corylops*. Simplify
no submergence needed. If not 2

C. 711. ^{suppositions} *Edith* ^{deduced}

by the Anderson

in sea. ^{Appearance} *Edith* ^{both sheds gives}
important *C. 712*. *Victoria*. ^{probability.}

Mr Marcus Smith

San Francisco

Shipton?

John Henderson

George H. Grant
Foot. Survey.

Act: of expenditure

July 19. Changed \$100 for
newly \$114.⁰⁰
Cur. in.

1395-
ppc 8
taken 25-50
2 or 4 ft \$2.
taken nearly
all

Same, but changed
strong
fruit - several not
yellow
Character of them

Acc: of expenditure

Party 1920
Ticket number 6

See franchise \$ 122.60

Pullman + Chicago 5.00

Extra baggage to Chicago 2.50

Breakfast at Ft. Myer .50

St. Louis 2.00

Breakfast Chicago .50

St. Louis + Omaha 3.00

Dinner O.B. & Ry .75

Supper " " .75

Breakfast " " .75

Extra baggage Omaha +
S. Francisco 25.50

Pullman + Ogdun 8.00

Dinner W.P.R.R. 1.00

Supper " " 1.00

23
Sidney
Bantgat W.P.R.R. 1.00

Turner 1.00
Supt 1.00

24. 3 meals 3.00
Pittman to Francisco 6.00

25-
3 meals 3.00

26 Bantgat sp. 0.75
Dinner 0.50

Religion to San Francisco

u. current to on hand 2.00

Tricket & Pickens by S.S. Schroeder 25.00

Hotel Ball 5 days with change in currency 19.50

1.50
1.50

Cat & wharf | 1.50
 Seymourville - 6 pedana .75
 Ingepichun stamun & Hite .75
 Aug 9
 Hite & @ (Tanda) 23.50
 Bone Sep Man &
 Hite & Seda (R) 90.00
 Hite balay 2 (R) 12.00

the first

26. Boulder clay.

~~glaciated rock surfaces.
slates on edge. Gold
washings at bottom
flat. Underlying rocks
source of gold. Quartz
veins seen. Stratification
in drift.~~

~~open granite or syenite
coarse & Cryst. cones in
the face near Newcastle.
often decomposed to great
depth.~~

+ one shirt

one sock.

~~1~~ 1 soap

1 green shirt.

+ 1 dress shirt

1 single shirt

+ 1 rubber key for key

+ 1 soap in the die

1 one racing linen

+ 1 soap can

1 shirt - gum.

+ 1 package paper clips

+ 1 bag

9 paper clips.

1 thermos

+ 1 type line

1 ink

1 white ink

1 ac. + 2 banner boards
2 axes.

1 Shige hammer.
1 leather shaver leg.

90 pattern lead line

1 ship lantern.

1 Stone oil jar.

1 oil can

1 long black lat.

4 pencils

1 nut bark.

1 book of pins

paper & envelopes

1 magnet

1 case bottle

2 small bottles

2 letters from Copps

Adams

Henry G. Hawks
619 Montgomery St.
San Francisco.
(Keeper of Museum)
Collections (Museum)

Mrs Pennie
Santa Cruz Cal.

Caruso the canon
of gold

R. E. C. Stearns
Seely Museum of Ge.
Berkeley Cal.

1st kind
1 camp chair
1 best cushion
hops
1 pan many knobs
Staph
~~1st kind~~
1 ducye
1 shoe
1 pair
1 eye felt
3 long hammers
3 needles
3 small (2 with handles)
1 Jack plane
1 draw knife
Razors
Sht
1 Sht Plane

sun seeds.

2 lbs harden.

1 pint lime

1 half lime

1 hard hammer.

4 dolls

5 seeds.

1 car head

1 tire line.

8 latex cups.

25 iron nails.

1 pro fit plank.

~~1 pro fit~~

1 pro m

1 5000 davis.

1 milk bottle

2 gal. tanks.

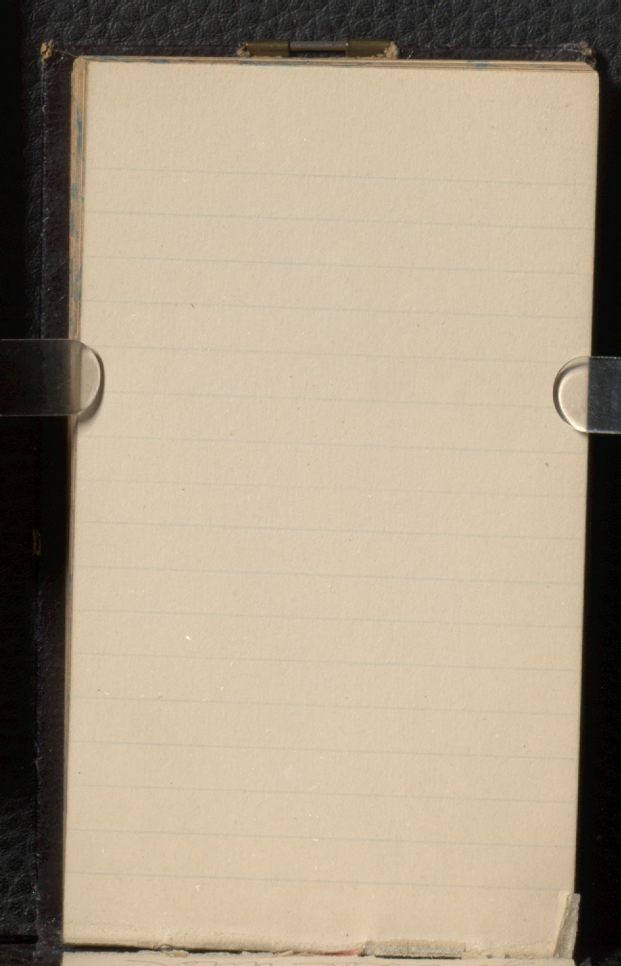
1 maple wheel

most traps for cat.

Carter, Williams
3 - Camp Hill, with Green
1 unident.
1 tea white
1 tea part
1 drying pan
1 tea part
1 drying pan
1 tea part
2 iron pots
1 brass pan
1 flat pottery dish
2 pottery pans
1 pitcher
1 tea bowl
8 tea plates
6 cups
3 stone plates
5 " saucers
5 " cups

Number one when this
you do and

4 large spoons
3 small "
5 - butter
5 - yolks
2 in lard
1 Shapland etc.



Dear Mr. H. Austin

I suppose you

will not remember

me - but - I will

remember - I will always

remember - I will always

Come the tide

is falling
O G G y

Navarino to go over
the ground there with
Mr R.

see small Note Book
of 75 - numbered II.
begins Aug 10th

of got arrangement
made for transport.
3 pack horses & 2
riding horses to be
furnished at Soda Cr
to go westward.

Went with Mr Richardson
to see collection of
man for who has
got together a number
of native ~~seed~~ seeds &
plants besides shells
&c. Name forgotten.

Start tomorrow
morning at 7 Am. for

Barward's Express
I paid fare up the
Country to Soda Creek.
Arranged to get
note agents there
from the credit for
passage down & c
thus avoiding the
Carriage of money.
Saw Mr Smith at
C.R.R. offices &
got from him
tramp route to
Saw Mr Robson
Commissariat Officer

The Hammond &
friends held a
meeting in the Street
this evening.

Aug 9. Soc-packing
Completed. Collected road
at various places.

Payed tent \$2.

Finally arranged
Camp fixtures. Soc-
introduced at Bank

Made out draft for
\$500 & drew \$200
for current expenses.

Saw Stag, spent at

Got most of my own
things packed & in
order, & finding I needed
some extra room for
specimens collected & I
ordered a Kit-bag.
Got paper for pressing
plants. Paid fare
7⁰⁰.

Aug 8, Sunday,

Warm reading.
Afternoon took a
walk. Collected
some plants & I

any mention of them

Mr R. has seen them
far up the coast, & has
many interesting facts
connected with them,
Especially some which
tend to show that
the coast has been
raised since some
of the burials were
made.

Aug 7. Went over
all Mr Richardson's
Stores & material
making an inventory
system, & selecting those
useful for my trip

interest, also the
curious Indian burial
mounds upon it, & the
intrenchments on the
Coast near by. The
latter apparently connected
with extensive Shell
mounds. These works
deserve looking into &
excavation, & especially
that search should be
made in early
voyages & travels for
any mention of them.

comparatively small
expense, & would thus
accommodate much
Shipping.

Aug 6. Same as

Richardson also favors
points. Ordered an
additional tent, ~~and~~
& freight was explicit
breach loading fee —
Cost complete \$53⁰⁰

— not being able to
get a Remington.

Afternoon went with
Mr R. t. Beacon Hill

& saw some
points of geological

There are several nice
churches & other buildings,
& the government
buildings though in a
peweehan style are also
great. The harbours of
Esquimault & Victoria
are both swell, & the
letter has a bar with
~~not to~~ rather shallow
water in it. Both can get
the vessel, however, into
perfect docks at a
comparatively small

between as profitable
as possible.

Victoria is a pretty
little town about
~~half~~ twice the size
of Pictou N.S. It
covers much ground
very loosely built &
the houses not generally
large, & stretches across
several little inlets
which run up from the
harbour. The people
have in general a
contented & happy
look, & rather an
English appearance
on the whole.

wait a week as the
Tuesday boat to New
Wentminster does not
connect with the
stages on the Fraser
R. Might get an extra
stage on Tuesday but the
expense would be great,
& it would not
connect with the
steamer on the upper
Fraser. Must therefore
make arrangements
for spending the time
between as profitably

Called on Mr. Marcus
Smith at the C.P.R.

Mr. S found him
very willing to do all
in his power to forward
me. Proposes to let me
draw supplies from
their depôts & get a
Small pack train

ready organized. also
to give me tracings of
maps & all information
And I cannot get ready
to leave by tomorrow
morning's boat to
New Westminster
& must therefore

Caused by the
arrival of the steamer
Selvador as it is the
largest that has ever
come into this harbour.
Her being very light
enables her to do so.

Aug. 5. Met Mr Richardson
& went with him to
several places about
town & saw survey
material & some of
the specimens he has in
preparation for the
Centennial. ps

Victoria in Bass
which waiting for
rooms to find the
steamer had eventually
come round here

arriving after dark.

Found Mr Richardson
here,

Esquimaux - looks
very pretty, but small.

Victoria Harbour also
small, & has a
bar & other disadvantages.
Great excitement

Great white dome
among horizontal bands
of siltstone layers. Pilot
at Race Rocks Light-
house steamed into Esquimaux
Harbour. Found no
arrangements made for
taking passengers to
Victoria. Told of my
coming round & so
thought but - however
set off at once & so
landed with some
others, & went over to

The mts. far northward
on Vancouver Isd
which appear to be very
high & with some
snow on them still.

In the Straits, wooded
to the top part of
the island & the bath
Olympic & coast-
ward axis to the
south. Very fine &
high. In the afternoon
We Baker appeared
in front. Very distant
& standing up like a

distant
Cold blue-grey mountains
were swathed in fog
& the sea almost
perfectly calm. Fog
partly lifted somewhat &
disclosed entrance to
Zuica Straits. Passed
through several fogbanks
but finally cleared, & steamed
E. up the Straits. Most
magnificent scenery.
Before entering the
Straits saw some of
the Mts. far northward

Aug 4. Fog came
on last evening &
continued all night.
Sailed northward,
but with constant
stoppages & not very
fast. Morning, land
in sight - but half
covered with fog &
Captain did not
see exactly & know
where he was. Neither
he nor other of the
officers having been
here before. High

Crest whitish, upper
greenish or bluish.
Also tangle, bladder
weed & other curious
forms floating past



Also



over large areas
almost in contact -
When in large masses
appears to have a
general greenish
hue. Tried with pail
but could not fish
any up, appeared
from duck to be from
very small size up to
nearly 3 inches.

An oval disc or float
on the surface of the
water surmounted
with a somewhat
oblique crust. The
disc nearly colourless,
the lower part of the

overcast. Has been thick
overhead ever since leaving
San Francisco. Seems like
a fog & now & then breaks
away letting an glimpse of
sun. Does not descend
on the water, however, but
hangs overhead. Perhaps
on account of the warm
current running along
this coast. Sea yesterday
& today has been covered
with a small porpoise
man of war, porpita
or scilla. Generally
scattered over the water
but in some places

the afternoon. Saw
a number of vessels, &
some whales.

Aug 1. Swell very heavy
in the night & the steamer
being quite lilt-bobbed
about a good deal.
nearly everybody sick.
weather overcast,

Aug 2. Running up the
coast out of sight of
land though it might be
visible if the weather a
little clearer. Sea much
calmer. passed one
schooner only.

Aug 3. Sea almost
calm & weather warm
& pleasant, but still

number of interesting
minerals in his
collection.

July 31. Packed up, made
final arrangements.
Paid hotel bill & took
cab down to steamer
Solvador. Steamer
sailed between noon &

1 P.M. Accompanied by
a tug through the shipping
& to the Golden Gate.

On coming out of the
harbour got into a
swell from the NW.

which continued
increasing during

the afternoon. Saw

& slickensided,
with some flesh
chloritic or talcose
matter abundant,

30. Walked about town
called on Hankes & made
appointment to see
him in the evening,
called at Acad Nat,
Sci, but found it closed
& could not find anyone
in charge. Inquired
at several places about
gun but could not
get the kind wanted.

Evening saw Hankes
& went over a

"Volume & the Bible"
& mailed it to her
with my compliments.

walked out of the
end of Market Street
& examined sections
near the Mission
dolares, of our site.
Feels on which the city
built. Appears to be
a volcanic breccia.
Very rough & the
whole ranch composed

& slickensided

Soon found the place, &
on comparison of notes
discovered that Mrs
Rennie his mother
had been a Dawson
was from Bamfshire
& claimed to be a cousin
of Fatters. Asked to
pay her a visit at
Santa Cruz about 70
miles from here, but
led to plead want of
time. Afterwards bought
a copy of Fatters book

Fondal- Told a
note from a Mr Rennie
Saying that a lady had
written to him from the
country that she thought
I must be a cousin of
hers. Having seen my
name as arrival in
the paper. Note said
he had called & found
we out, but that he
would be glad if I
could call on him.
Decided to do so, &

soon found the place &

additional work now
thrown on him by the
resignation of the former
president Mr. Selman
who has gone to take
charge of the new
Baltimore University.

29. Went over ground
& factory propagating
houses which are already
extensive & saw many
other things. Returned
to lunch with Mr.
Stearns & then set out
again for San Francisco.

Insisted on my going
to dine with him &
stay up all night.

The University has two
five buildings & grounds
which are now being
laid out & will be
very handsome. Good
class rooms, laboratories,
& appliances & a
growing library.
Mr Stearns says

University at Berkeley
which reached by ferry to
Oakland by boat &
train & then 5 miles
in the street cars,
changing once. The students
very polite. Showed me
over all the buildings.

Introduced me to Prof
Eugene Hilgard Prof of
Agriculture & to Joseph
Scante Prof. of Geology
& Natural History

Victoria. Walked about
the city. Wrote to
Anna & William.

July 28. Called at
Alta California office &
see Mr McCullish who
I had spoken to on the train.
Found him out. Set out
for the University of
California & see
Mr Stearns the
Secretary & whom
Dr Carpenter had
given me a letter.

Further East - at
Carlin str. Quartzite
drift with some black
softish shaly rock.

July 27. Breakfasted late.
Called at R.O. & found
a telegram from Richardson
saying that all necessary
material at Victoria.
Inquired as to passage to
Victoria & find that first
boat leaves on Saturday
31st at noon. Took
out ticket. Telegraphed
to Richardson on chance
of his still being at

Considerable depth.
Being then soft & reddish
with rounded undecamp.
masses like nodules in
it.

Material of drift pebbles
becomes more various &
confused & appears to be
derived from rocks of
vicinity. Near

Winnemucca Sh. Spaly
blackish & together with
some quartzite.

measure by drainage

workings in some
places, especially at
Dutch Flat & vicinity.

The gold must be
derived from the waste
gate sub-facient strata,
which often show

strips & thin layers of quartz.
Stratification often
appears more or less
perfectly in the drift.
Grey granite or syenite
comes in in force near
Newcastle station, & is
often decomposed to a

Many cuttings on the
Ry through this material
It is seen to rest on
a rounded & smoothed
rock surfaces. The rock
generally slates on edge
or at very high angles.
Often much decomposed
even below the drift-

& easily picked away.
The alluvium contains
the gold which has
given rise to very
extensive hydraulic

Then down through

the foot hills & across
a great dry looking
plain, from which the
crops already reaped.
San Francisco 5.30

Put up at Occidental
Hotel. Dinner & Bed.

While descending the
Sierra into noticed
great quantities of drift-
& alluvial deposits
covering the surface. of the
nature of boulder-clay
or working matter of
pale white & reddish

26. Descending from the
Summit of the Sierra
Nevada mts at daylight
this morning. passing through
lay snow - sleds + down
heavy grades by cuts, falls,
obstacles. Scenery fine
Cañons + gorges opening
in all directions. Character
of country quite changed.
Though still apparently
dry, covered pretty
generally with woods
usually pines.
Then down through

passing the Lake with
which the Humboldt R
runs, or 'Sink of the
Humboldt' enters the
So called desert of
Nevada, which however
is only slightly worse
than the country before
seen. Many mines
& mineral locations all
through this country,
Much volcanic rock,
also hot-springs &
some sedimentary
rocks observed but
could make nothing of
them.

25- Passing all day
down the valley of the
Humboldt River. It is
generally wide & flat-
bottomed, with hills at
the sides which sometimes
rise to the dignity of
Mountains. Both valley
& hills sparingly covered
with tufts of Sage &
grease wood, separated by
bare sand or clay. A
dry hot dusty region
with only here & there
patches of bottom land
with grass. After

Absence of limestone
& of all rocks but the
hardest & most-
silicious.

Chinese now appear
in force. They keep this
part of the road in
repair, & also serve as
waiters & in other capacities.
One often sees signs
at little towns by the
way, such as "Loo Che"
washing & ironing".

The road in passing
the second Summit shows
heavy work, with steep
grades & sharp turns,
also many snow sheds.

line rather resembles
that of the plains, than
that of the immediate
vicinity of the mountains
on the 4th go. It is
more entirely composed of
silicious rocks & quartzites,
& does not show the
great mingling of slate, dark-
coloured & green rocks, which
is seen near the mountains
northward. The beds C
of my section may be the
wanting or not exposed,
one of the most curious
features is the

Appear the most
probable view of the
absence of 2D. on the
Summit of the Second
Range & also its absence
on ~~some~~ great part
East of the Larance
Summit would tend to
confirm & to show that
at no time did the
water reach a sufficient
elevation to pass these
heights. If the apparent
absence of 2D. on both
heights of land should prove
true this theory would be
materially strengthened.
The 2D. all along this

plains. Then that the
vertical has subsequently
fallen with the general
surface of the country
as it was wasted away.
This theory would not
require any subsidence.
2. The 2D. is due for
transport to its present
positions to drift ice
or ice floe. during a
glacial subsidence
which must have been
very great. This would

The Q.D. is essentially
a water formation, & not
directly glacial. It would
appear possible on the
Saramine plains to
account for its occurrence
in two different ways.

1. It may be supposed to
represent the Shingle
deposits of old rivers,
which flowed from the
higher parts of the mountains
in different courses from
those of today; but
carrying debris slowly
out over the Tertiary

Unusually spread over
all formations. This
supposition, taken in
its entirety, may then be
dismissed, though it
may be allowed perhaps
that a certain proportion
of the CO_2 was derived
from conglomerates of the
Waseca, or other recent
conglomerates which must all
have lain near the
mountains or occupied
valleys in them, & may
have entirely disappeared
in some places.

distribution of the material
was entirely due to action
at this time. This cannot

be the case however on the
forty-mile parallel, where
the Wasatch group does not
appear at all. Nor does
it appear to be a likely
explanation here. Hayden
thinks Wasatch Condors
not to extend westward
beyond the edge of the old
basin near Aspen Stn.

But if 20. Shows
the Wasatch then must
have at one time covered
all Laramie plains.
20. found also pretty

impossible to distinguish
pebbles from corals
down or conglomerate,
from those which may
have been derived from
the same parent rocks
at a later date.

2.D. well seen in
Salt Lake Valley.
It ~~may~~ ^{may} then ~~also~~ be
supposed that the Wasatch
conglomerate extended
wherever 2D is now
found, & that the

Observed typical 2-D.
forms from Laraine
plains westward to
Piedmont Station, &
possibly somewhat
further, but did not
observe it - at Aspen
or near the Summit.

On descending Coatsburg
again becomes very
abundant - & typical
though ipil - has a
separate entity it
is lost - where the
Wasatch conglomerate
came in, it being

is very great
It is worthy of remark
that the *Schistus* & *barrens*
referred to are also seen
in some pebbles in the
Wasatch conglomerates
& also in the Siliceous
drift of the surface.

The existence of these
Great Wasatch Conglomerates
of materials similar to the
Quartzitic drift, opens
new questions with
regard to the origin of the
latter.

for some distance &
according to Hayden
go from Jurassic (I
think) to hard
sandstones or quartzites
below the Carboniferous,
which hold Palaeozoic-like
burrows. The Carb.
represented by a great-
thickness of whitish &
yellowish, glass-cherty
limestone. (See Hayden)
The general resemblance
of the beds here exposed
to those seen on the
Sierra, from the top to the
upper beds of Series C.

pebbles; chiefly silicious
& in fact of the character
of typical quartzite
drift.

Near the Patisso Gorge
of Weber Cañon the
Wasatch red beds
suddenly come to an
end & appear to put
up at low angles
against older beds
nearly vertical. Must
be an extensive fault
or break.

The lower beds which
here appear, continue

in some distance &

the basins to the S. & W.
Red beds ~~again~~ soon
again come in in force
& according to Hayden
belong like the others to
the Wasatch group.

They are well shown in
Seb's + part of the
Canyons, forming the
fine scenery of the former.
They appear to differ
somewhat however from
the Wasatch to the east
being redder, & largely
composed of conglomerates.

The conglomerates of
well rounded
apparently unglaciated

Constitute Hayden's Wasatch
Group & according to him
come up from under the
Bridger beds.

These red beds extend
to the Summit-gate
Second Range where or
to Aspen Station (Elevation
?) (ft) where white beds

Cretaceous according to Hayden
come up unconformably.
Hayden says have stood
above water in which
later beds laid down &
formed part of an
imperfect divide between

the basin to the S.W.

over Bridger beds &

7 Green R. Many bluffs
or thorough bed land

Character: Surface covered
with Sage & Sarcobatus

forming a tuft growth.

Near Green River Station
the Green R. beds form a
steep cliffs, capped by

Castellated rusty Sandstone
in a very picturesque

manner. Near Carter

Station beds of sandstone

& arenaceous clay

of several patches

but appear. These

allow Rocky Mt.
Material to pass over
the Saramie Range.

24, Morning at Rock
Springs Station. Breakfast
at Sun. River. Dinner at
Evansston. Supper at
Ogden. Day fine & not too
warm. At Ogden change
to Central Pacific line &
get berths in new Pullman
of lighter construction but
apparently equally com-
fortable.

See Hayden for description
of geology, while passing

At Wyoming Station
however observed change
in the drift which
now assumes the true
Quartzite drift character

with pebbles indistinguishable
from those of that drift
on Sat 490, with little
granitic material.

Quartzite probably from
~~not~~ true Rocky Mt Range
to the west.

Maybe that Quartzite
drift goes east of Laramie
Range, but masked by
preponderating of granitic

Maybe that submergence
not great enough +

reddish gravel. This
evidently the great source of
supply to the drift westward.
Subaerial denudation has
evidently been going on here
for a great time, perhaps
not interfered with by
glacial submergence,
Passing down onto Laramie
plains with average
elevation of 6000 to 7000
feet. disrupted granitic
material continues to be
scattered westward over
the sedimentary formations
for some distance.

in wall & castle-like forms
very irregular in shape &
size, & unacted on by
weather. Weather has acted
on crack lines & jointage
structure in many
directions, giving rise to
rounded & pillow-like
shapes separated by cracks
& fissures. Also to cone
looking piles of rounded
& often insecurely posed
blocks. The soil between
them is almost entirely
composed of decomposed
granite. Not kaolinized,
but broken up into sand
fine grained uniform

the various Sedimentary
formations from Sub-Carb-
oniferous Sandstones to
Cretaceous being tilted up
against the Granite nucleus
on both sides. White R.
Tertiary beds + East-
unconformable to older
sedimentaries.

Sherman the highest point
on the R.R. + Summit of the
range based on Granite.
The Summit like a broad
rolling + broken plain
underlaid by decomposed
Granite. The Granite is in
many places projecting

Surface become scarcer
toward the Summit.

Appears from Accts of Hayden
to be that N + S of the point
crossed by the Ry the
plateau nearly lost, &
does not form a good
approach to the Summit.

The Serrame Range at same
time showing more want-
onous.

~~That~~ The Serrame Range
or Black Hills forms a
regular anticlinal (See
Hayden -) centre &
highest part being
occupied by granite &
syenite of different varieties

of granitic fragments.
The granite is probably
derived from the west - &
disintegrated matter from
the Saramie Range. Even
under supposition of
partial derivation from the
north the Black Hills
(proper) introduce complications
additional to those on 49.

On gradually ascending
toward the Summit of the
Saramie Mts, country
becomes more broken.
Has appearance of
old cut-up plateau, but
remnants of plateau

Soft deposits wherever seen

brownish or brownish-red
homogeneous material like
arenaceous clay & sometimes
showing a tendency to vertical
weathering.

Soft gravel near the
line between Wyoming &
Nebraska, is mostly of
reddish granite with
a few pebbles of darker -
coloured slaty & rocks.

On the 49th parallel would
call Laurentian with
~~see~~ some Huronian or
slaty pebbles from the
Mts. Unlike true Laurentian
drift however from
general ~~is~~ similarity.

Change may perhaps
be on leaving the Plette
for its tributary the Lodge
Pole. Soil now scantily
covered with short growth
of grass. Cactus appears
abundantly. Exposure
of horizontal beds of white
River tertiary. Harder
beds (Sandstones?) Cropping
out on hillsides + bluffs.
General whitish appearance
differing from general aspect
of Sig. Tert. Said to extend
to base of Saranne into
westward.
Soft deposits wherever seen.

covered by alluvium in
their vicinity. The water
forming the alluvium would
appear to have stood a long
time at one level & may
probably have aided in
giving form to the bluffs
at the sides.

A comparison of levels of
the Missouri, Platte, &
Red River would be interesting

July 23. Breakfast at
Sydney on Lodge Pole Cr.
Dinner at Cheyenne & Supper
at Saranac City.
Country much changed in
appearance this morning
as compared with yesterday

There is a remarkable absence
through all this country of
boulders, superficial or
otherwise.

Valleys like those of the
Platte & the Missouri are
not like the great courses
of former streams, however
vast. They exactly resemble
the Red River valley though on
a smaller scale, & would
appear to be floored with
level alluvial material,
which has not only filled
the valley of great former
rivers, but the whole region
lowered by denudation in

on a day, or at the rate
of \$15 per acre. Left
Omaha at 11:30. On leaving
Omaha drift still reddish, but
becomes yellowish-white
before reaching the Platte.
Platte Valley ~~is~~ in some
places many miles wide
perfectly flat bottomed &
fertile with tall fine growth
of grass. A good many
settlements & small towns &
though very little natural
wood, even along the river, some
fine healthy groves of young
trees planted out. Platte
Valley includes a great area
of fine fertile land

7 p.m., not being &
so much gravel as hard
arenaceous clay. ~~Friday~~
July 22. Arrived at Omaha
about 9:30 Change cars at
Council Bluffs, opposite
Omaha & pass by cars of a
Transport Co' across the
Missouri bridge. Which
about 3/4 mile long & supported
on hollow cast iron piers.
Omaha pop. probably about
12,000 though stated at 18,000

Got Pullman ticket &
After long waiting ~~for~~
got baggage rechecked to
San Francisco paying 25.50 c.

See many cuttings in
drifts which very stony &
Gravelly with much white
material resembling limestone,
(from white ~~part~~ ^{limestones} underlying)
but also large boulders of
metamorphic rocks from
the north. The whole more
or less perfectly stratified &
the pebbles apparently rounded
& not of the nature of true
boulder-clay. Much resembles
deposits of Second prairie
steppe on the line & support
a fine fertile soil. General
surface of country undulating
before Drift before reaching
the Mississippi becomes
more reddish in colour

walking on the line run
over & instantly killed.
Did not see Burgess at
Toronto though had telegraphed
asking him to meet me at
the Station. Arrived at
Soma on time & got baggage
through Customs without
difficulty.

July 21. Arrive at Chicago
8 am, & started again at
10 oc after having breakfast
& taking a short walk for
some post cards. Got out
by ~~Burlington~~ Chicago
Burlington & Quincy Ry.
Passing across Southern Illinois

July 19. 1873. Left
Montreal for British
Columbia by West-train
starting at 9.30. Train
about an hour late. Father
& Anna at home & ready
to start next morning for
Vetic.

July 20 Arrived at Toronto
about 12 A.M. or an hour
late, having been delayed by
three accidents. A brakeman
hurt early in the morning
while coupling cars. A child
thrown from the tracks by
the Cow Catcher & miraculously
appearing not to much
injured, & lastly a man

Chen County
Lodge No. 12
Supt. - Wm. A. B. Story

Barat-Chyenne 24.05
2 P.M. Aug 23 5940'





