Trip to Wyoming
1899
[illegible]
Second Lord.
Dec. 30
Property of Charles Schuchert
U. S. National Museum
Washington, D.C.
First Field Expedition consists of
July 21, 19
19 men
24 tents
6 Corps
21 signalists, students, andarmies
of which there are 19.

doc. 80
Como. Centrline.

Red beds Triassic
Baptistodon beds, marine Jurassic
Atlantosaurus beds fresh w.
Great Dinosaur Loring. Look for
small mammals in "dirt beds."
Dakota sandstone. Plants fr. water.

Fossils 20m. east. Roma etelini in cream
colored beds. Poor Lam.

Green River
Fossil beds 40m. W & R. Rock. Also along
Bitter Creek.

Hampton. Dr. John W. Haddonham.
Marine fur. 1st. J. Knight.

Fidelity Hills, Carbon Co. Az.

Collect cephal. for Stanton from the

Benton of the Colorado.

Eva River Station; Eva River

Transport 100.

From this place drive to Fossil.

Lebonite creek. Old Hayden 100.

Look for plants.
General section.
Archæan.
Paleozoic, Camb. & Carb.
Red Beds, Triassic
Marine Jurassic of Freeport hill.
First water Jurassic
Aeolaspis, marine.

Upper Cret.

Colorado
Benton, marine
Fort Pierre, marine
Montana
Fox Hills, marine

Laramie, Denver

Eocene
Green River
Bridger, nit. in vast.
July 16-1899, Sunday
Left Washington 7:20 P.M.

July 17, Monday
Arrived in Pittsburgh 7 a.m.
Chief 8:45 P.M.
Left 10:30 P.M.

July 18, Tuesday
An excursion West System R.T. to Omaha. Arrived there at 7:00 P.M. Left 11:05 to Saranac

July 19, Wednesday
Arrived at Saranac at 10:30
Spent most of the day at the University and later drove around a little with Kelch, Callahan & Moore. In the afternoon there was a meeting to organize the Kent. Ed. Smith was elected temporary chairman and Prof. Barton temp.
A committee was then
by them to prepare plans for the expedition.

The committee consisted of Mr. Hambach, Mr. Carberry, Mr. Knight, and Mr. Churchill. They
approached the following person, who declared

that they were elected by the recently

appointed Secretary.

Lincoln and President

William C. Knight

Secretary

Colby Cobb

E. A. Carberry

Return to that place.

not going to H. F. Johnson

Ref to David J.

Hambach

G. L. Knickerbocker

Ref for something

G. Hambach

O. L. Knickerbocker
Ref. for Petrography
A. E. Lawson
A. P. Cross

Ref. for General Zoology
Fred. E. Peck
Arundale

Ref. for Petrography
Henry L. Collie

Ref. for Army
Cameron

Photographers
R. O. McEwenback
W. G. Cornell

In the room there was a geologist, the Prof. of the University of Porto, and a number of others, &c. I attended the lecture on the mineralogy, heard all the prominent geologists spoke.
July 20 - Saturday

Purchased a pair of shoes in the morning and made my way to the trip.

Paid for the supplies and the supplies had not a lot of understanding that he wrote if I do not take the entire trip. Later in the day I learned that the start would be made tomorrow morning.

July 21 - Tuesday, Camp I

After a great deal of stirring the expanse started at 10 o'clock. It is very to the help himself with a great deal of hard manual work and dinner. It is three days since you start.

In a good way we go with
and wound over the big Laramie plains and the big and little Laramie rivers to a place called St. James on June 4th. July 18th I lay behind our wagon and finally we got into camp without him. After another demonstration and a wait for something to eat he turns up.

We came about 18 to 20 miles over a rolling and generally level country. The country is a chocolate one, no fogs nor probably a house very 5 miles. The plain is a sprawling grass, one, with casters and here and there getting higher. At one place 7 miles from Laramie there was a vein of quicks and at that country the heat during the day was great and the heat wave, my estimate accompanied with a wide, the mean effects.

At the lake and one of the best colts, Fort Pierre pants and I cook up some
meat俄军 in the top of the lake, and
July 22. Saturday. Camp II.

Got up at 5 and had breakfast at 6. Started with "Atlantic" Camp at 8. Down 3 miles on the way and arrived at Cooper Peak Camp by noon. Distance about 11 miles. Total ascent about 6 miles. All the hills on this trip are Fte. Hills from m which have been spread down and covered with a layer of granite and scree boulders. Considerable snow. In the Fte. Hills reach down the boulders have come all the way. At first a lot of the boulders had been deposited near the Fte. Hill, but later but further down. Some are conglomerate. Did not uphold this.

On the road—standing in railroad clothes (21 pence). Must appear like woods
And Knight says that the Niagara Falls
are largely cavernous which substantiates the point
idea. The Fox hills are porous and the
water gets down through it carrying away
dust of the Fox hills and therefore a sinister
of the sound. Of course all rocks on the

darwin fells are not sand but most

of the other The

In the afternoon about 30 I as
collected Fox hills pebbles. I gathered a few
of the rare ones. Proceramus are very
abundant. All the fossils occur in molar
masses which when unweathered are very hard
and blue in color. Otherwise their color in
brown and broken around. Banded a
byrons are a coral among the others. Of
the latter Mr. Dimon in one great
example.

Camps of yesterday remain unbroken today. After breakfast drove out to the foot hills of the Medicine Bow Range. and climbed to the peak of a hill about the same. There we found snow (about 12,000 ft above the sea) and had a grand view of the Laramie plains south of Jersey and Copper Creek north of town. Other hills, and smaller ones could also be seen and in the far distance Laramie Peak stood up. Distance about 50 miles.

Laramie Plains by no means a plain but a considerable cut up by gullies later and rivers. Don't see a tree near but towards the mountains Copper Creek and North Wind Ditch have very steep walls, snow melting and others. The mountains are thickly wooded
with conifer, quaking aspen etc. Flowers
and beautiful ones abound everywhere in
the vicinity of springs, creeks and rivers.

The mountains are made of crystalline
and quartz rocks, supported by Alpen-
Kranck.

I had a long talk with Prof. Knight
and one of the pupils about them mentioning
the fact that one of the Cretaceous strata
by Laramie is sand. The 7000 feet
are a similar thickness for the
fox hills are Fort Pierre. The present
mountains are Post Cretaceous since they
burst through the Cretaceous deposits.
This in the opinion of Prof. Knight.

I once visited the structure in the elevation of
the Medicine bow, Laramie Buttes, a highland
area with rich coal and deposits of the
limestone between the mountains with the
introduction of the Laramie then came on the
physical change beginning with a post igneous
and boulders on large an mass. This was
also an introduction of great waters. The
enormity of the same age as the Medi-
Cline Tou lupcone you are at called
North. This is also the location of the
Cañon. This location is not until the
confirmation in the past that a time in
the range. Carleton on a Permanent

July 24 - Monday. Camp III.

2:15 Camp 7: 15 A.M. and started
for Dutch Creek Camp arriving about
noon at 11 A.M. The ignimbrite is capable
in a manner to seen in the distance, i.e.
crush from atop the bed of the great.

Din Mathe.

18 to 20

18 to 20
The beach have been dug up to this place since one year ago. The more perfect lines are in the surface sandstone.

The lines in the main horizon are on a buff thin layer shale and are completely marked me above another. That with the imperfect condition and the abundance highly flawed values in the way of projection can be seen.

The lignite bed in the lower four feet is a shining bluish layer, natural becoming more white above. The sandstone shale horizon a compound of much. Strands of bright yellow and brownish streaks may become into the buff layer horizon. The is followed by a zone of whitish marl or clay. Above sandstone, structure with small patches from 0.5 to 6 ft. The formula and the brownish bluish marl begin about 3 ft. from the sandstone, and is often sprinkled by clay clays.

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At 2 P.M. left Sutton Creek and at 11 p.m. pitched camp on Rock Creek about 50 miles S.S.W. The next 2 p.m. P.M. cut off from camp on the left into the valley of Rock Creek. The valley is narrow and in one place hard layers of sandstone are seen in both sides of the valley slope in opposite directions. Rock Creek then cuts out its valley down through the sheets of the anticline, and the dip departs S.W. more S. Dip appears 20+25°.

After arriving in camp washed S.E. up over the valley ridge for camp and came across thin outcrop of sandstone. The first one is about 3/8 mile away and stands out in large mound of viii-stained sandstone. On this a number roots of a very large derricams and one of the
The next sandstone is not prominent, followed by a third which leaves numerous small points along which suitable any logs. About 1/2 mile more S.E. there is a very fine jet outcrop which does examine Fontana.

Prominent clear out a long lane is produced. One block side of the cliff there is low Flat Bluff on the northern side most spectacular and the cliff wandering down its alluvial fans. On the higher terraces no alluvium can be obtained. At different times this stream has cut down its bed to a stationary level upon a change of base took down another surface cut.

The quartz outcrop is again show the resting effect by the many bands and undealt the sandstone with joints due to recent action.
JULY 25 - 1899
CAMP III
TUESDAY.

[Map with handwritten notes and annotations]
After winning the match, Dim in his letter writes: "It's a pleasure to read your scores.

Of course, our team's victory is significant. Our coach..."
July 25 - Tuesday. Camp III.

Resumed work this morning on the same beds of slate yesterday.

In the face of the creek bluff (locality 1) I obtained

Locality 2 is at the base of the most prominent section of the ridge and contains oysters, large long un

Large section contained a number of small species.

Lac. 4 contains the Navalion, which is a number of small species.

Lac. 5. Ammonites, Nav. This remains a number of small species on either or both sides of the Ammonites. Fine large fossil occurs here. For fossil here has the best chance to form the first nucleus and develop a large collection. Ammonites occur & occur in the usual manner."
...than include a number of maps and the sketch at 2:30.

The third line begins with a period and includes the statement that Mr. Cardwell and the prominent friends in the spring next fell. In the same a few weeks or so we find two of the Prof. Donald and one by Prof. Chautiton. It may be said that the same is the subject of this volume. We also the note then for another quotation.

Fifty pages above these two times earlier the men spent one at a point which is a bit in the rear and overlooking those where the latter a few 1011 Prof. Smith collected. This for Prof. Donald.

...the most important find of the day and were made by Prof. Ashburn of Hayman, Town, Va.

...and a quilt — 17 inches square of the plant houzen and have numerous curtains of...
system here are nothing of importance.

20.9 is the most southern and has
made a horizontal movement. The layer here
are a very soft sandstone and sandy shale.

20.9 is a remnant of the ridge are layers of
shale and sandstone. That is a man says does face
then. Here various fossils stand loose.

The type, which Collie of Detroit has a
large palm leaf, I called. And it is just
his other and tells me that he has seen
several species of Grifflas, fossils, Stalactes,
Fieras, and Jaffarees.

Prof. Knight says that he knows for
most of the fossils collected a debateable place.

It is on a new the town of the Fort Pierre
are top spins. The latter he says contains
here and the main and humps
1/2 mile across the creek beyond my
location 1/3 mile. The Fort Hills he does a

good fort that

A good collection we made Mr. Andrew
Kempf and will go to Gustave Goldthwa
June 8. Peter House. Luke walks at the head of the Command's men in party row or as pure leisure. School and the three first lessons all exact by 10 o'clock am at 4.

The lesson, the forenoon, were passed up as the last day by my strength. Kindly and waiting that at the same time to Prof and (date he asks only for a report)

June 9 Thursday. Camp.
most of the ridge prominent, modular ridge, and very large in circumference, some 311 inches in diameter. A water course in your boggy, mean of water for an, and given the rain area further vary and the rain has effects may not last in past nine or then have been seen.

One of the sect, collected a bone in the Bay area near Sayon on the N. P. which is said to be of a confirm. I do not wish to make any further with all the circumstances universal.
I began Thursday Camp II.

Leaving at dawn the morning and a party can be here earlier up stream than to day I was out hunting by natural means the wild life. I have collected birds and a number of flowers. The heart is broken.

I left the camp by nine and got here at ten. At noon we take lunch at Thorton ranch in the bottom of Priest Creek. Here is a fine example of stream mountains not less than 8 hills in a half mile of modern bottom. It rains a few quite heavily by one and mean time we have hard rains and snow.

On approaching the highlands before we come the missions country are an flock after flock of antelopes. They are in herds of six to 72. Thirty-two...
one country by Ivan Houston and others say so. He also saw two estates Elk. A jack rabbit and occasionally a coyote come into view.

At any one camp just 5, 10. P. P. P. Station horizon and made camp to the W. of the P.P. and the Corr. Houston Hump to the S. Distance from last camp about 15 miles good.


drake the cattle before coffee after 5.

to: Corr. Hump and cor. find Ammonites and Relics.

Other members buy in Dinosaur payments and are working up better clays.

Carnson found the body chamber of the Ammonite from the Trilobite which last to hantin by night.

Collett hoist found fossils like shells associated with Ammonites. These are in the Bottanuki beds.
July 28, Friday. Camp, W.

After breakfast spent the morning on Como Cliff. Found fragments of Dinornite bones in the red rock and on the green shale immediately above of worth of value.

Collected some marine shells from which one quite rare and returned to camp.

In the afternoon drove back to the end of the cliff where the cliff is about 100 feet high and the whole cliff is about 25° or more at about 60°. The

rocks weathered in theaya the Idea of the base of which is the U.P. At the western end a cliff with the same incline to the west and the curve on the dome of cliff. Further to the west in the sea

of its common occurrence. A sketch or drawing is the archeology of the western end. The intended to show the entire area and rain prevailed.

Summation of the above and a
After I returned to camp, found that my tent had been delayed and my bedding was not ready. I slept in the tent.

Our musketry place for the night was a small hill. I believe that anyone nearby would be heard a mile away. I awoke to see a stream of the posts and at times it was too hot to stay. We walked back to dry it out. Carleton also found a small stream in the field, the largest being the one that runs to the river. The river is very cold and the water is brown. The river is about a mile wide and is lined with trees along both banks. The trees are large and the water is shallow.
Dredging 22 A.

Red clay, lignum, and sand whole 20 ft. deep. Coped by flesh at 41 ft.

Red beds estimated 15 to 20 feet deep.

White clayey sand 20 ft. crow loaded with

Yellow hard mud 50 ft. crow loaded with

Red shale 5 ft.

Black shale 0 ft.

In sight of the bridge brake cross 50 feet, 22 ft.

Slight concave face at Foot. 2 End of Train.

Secured to Buff clay whole epoch. Near 26 feet deep. Place from very valley 20 ft.

White, amorphous, soft.

Buff, crow, shown 55. about 70 feet, 22.

Black, amorphous,软.

White, buff, about 55, 15 feet.

Black, crow, sand, about 20 ft. (Canda Bell).
July 29-30, Saturday. Camp IV.

Awoke at 6 a.m. and after breakfast made
the ascent of the eastern end of Cerro Bluff.

Camped at noon and at 11 A.M. arrived at Medicine, now the H.P. R. R.

After passing over the village and its beer
saloon and country stores drove a mile to
the Red and Cone River when we had landed.

At half past two started for our night camp.

Ran a knight and kept on the intention to
adjust ticket for the returning party and
sleep the half way home we had just on
the way back. After passing the camp an
hour or so, knight nothing saw and
spilled away in an opposite direction. One of our
horses went amiss and he and they re
appeared to be " مرة ميتا" on the arid.

It was, one, near mile from Medicine River.

On the way to the camp on our way to
Cerro Bluff, north the tracks of the

My observations at Cerro Bluff show that
the Physa are everywhere at Con-
vious thoughts, without an arc of time so
about 106-113 fathoms. The minimum
170 fathoms, the first rate increased to 160
per our lade, Catoblepas. The
Futnare, a whale, occurred, we
will not touch the subject. The whale
on 4-15-1778, we estimated. However, a new
Futnare. The number of whales shewed that the
2nd whale was taken. Since April 12
sage to strike in the region, and to be a
marine battleaxe. If this is true then the
sacred omnia were taken off this ship. The absence of a new
forma in these parts, is the strongest argument for
the first whale. The most distant part of the
sense of man on 15.

I have seen the whale line in
and lying on the Cliff. Bluff and the arti-
cles and who were, which a whale hot so
very much and it. Some taken
The figures which may help to show this structure. The region in a little more for stratigraphic and structural models can be made of it in a short period. Talk to another of this.

July 30, 1899, Sunday. Camps V and VI.

After breakfast walked on the porphyry hills near Camp VI on the Little Medicine, about three miles from the camp. The hill lies fairly deep, and came from the foot of the porphyry, showing just beneath the limestone that the "Relief" or "A" is on a little knob, above the limestone horizon, and the relief.

The section here is the same as seen in the case of Oneway only that the features occur in the hills which make the landscape more observable.

We broke camp at about 9:30 A.M., arrived at the northwestern end of Price Butte, beside a small camping, by 2:30 P.M., 12 miles by road from "Horn" Field station.

After lunch started up the hills.
I came near the north end of it. After passing near the coast about three miles into a valley which had been traversed by me and on the other side the Atlantic Ocean to within the termination of the hills, I continued on the Fuego Coast just parallel along the valley, north and west, in the principal valley next north. From my camp I could see a large portion of land.

I then concluded to cross the ridge near the valley and made the section on an arrow, and I was somewhat surprised to see that there the Atlantic Ocean instead of the slope of the land, there was a deposit of being similar sandstone.

Here on the ridge, the marine layer is laid down. The sea, being at the edge of the sea, are above in the section on the horizon. The Children are always like the same one at "sea cliffs." The structure of the bed, and particularly so called just with deposits are different.
July 31.99. Mount. Carl 24.<n> Head bank on Front. Next but not far from an corner. Review my section of yesterday. In the log of the boat, I read front, Frued, a bit. first, and, I, at Front, the main, a few, collect a number of small fossils. This forms the rim of the Amphitheater. These are in the Near Vision.<n> Lying on the slope are holly and to Frued, but one can see the slope and by, from, the north, east, and west down the western, and, the plane. While of the orange, has grown in large part, without a shrill lost sandstone, and on the eastern, there is no sandstone in this zone. The distance across, fast to west cannot be more than four, and yet there is the greatest change.<n> All that have been moves to me. the orange, orange is not, fresh, water or on. It has a conformable upon the marine, firm, one conformable beneath the Dakota, which will... (continuing on page 29)
Below the Triassic rim capped by limestone there is a very much and long really phreatic out
line then two miles to the fault at the base of the high line. a mountain. The thick jun
g of the Triassic beds in the valley amphit
hetea may be considerable with as one
jumps southward, one rises and drops on many
ermree levels. The limestone may be not less than

The dip of the strata in the valley.
This continues up one a very high hill on
the left of and higher than Fresh Creek Mt. I
could find no place on this. But upon
jumping from one level to the other in the fault but
and instead to others down and possibly

descriptive notes can be seen.

Jawson found a foot vault here along the
western side. Upping at least 1000 feet or the coarse
sandstone with a thick limestone slab. This may
represent Carboniferous.
page contains a marine ventula. The nature of the sediments, particularly the changing conditions and the white sandstone, is evidence for littoral marine deposits. The Helminths are found sometimes as coprolites or in the broken sections occur. Even solutions in many limestones are rare, one of the few shown growing. The only evidence in past the sea waves and the absence of marine life but fresh water life in shore waters. On the other side, we have that lake. The lake beds we must admit a lake encroaching on the sea followed by another littoral sand deposit. It fallen cut here no admittance but the same sand in hand.

Returned to camp by five very cloudy

Today about 14 miles.

I understand the following

later one lying at the end of the year for

Osborne. Osborne near here.

Mr. Corrigan.
August 19, Tuesday. Camp, V.
After breakfast start on foot. In the Fusse Bight Hills to Knights Dig-ings. Collected all the morning in the Fusse Bight. In the late afternoon collected near the top of the Chalantbarmo beds on a breastwork discovered by Mr. Barton. The thin slates (6 inches) yielded fresh water shells, 2 peck of limpets, 1 clamatic, 1 fish and several a brain of clam. This is an important discovery since the beds over are the same varied marine mayoral deposits. Collected a num ber of shells. Mr. Barton will work on the fauna.

A number of the party left for
Comm. to one and the same
exactly one good one and 3 small ones.
I believe this in all these one around.
I never found prize one any more.

Prof. A. has 3 claims on the
same hole of which shows tons 1000 to
18 ft. His main was a dead end
diminish. He did not spend the same
more than $200. I don't believe this
will be difficult to locate. Bone was a
bit soupy the heck amount might it
go back and try with Knight. The
present rate will amount $20-1000 dollars
per year. The bones have taken only the
ground and exactly cleaned but again
made together. The expense to achieve
a solid seeming collection must not
be excessive.

Dave Martin today at Billsteins party.
He tells me he found 2 Cutlasses behind this house. Fileston is to have first pick and then Martin is to write us. Our opinion is that is in Burlington.

There is every appearance that all the beds of the Peque Out Hills are of very shallow stratification. Many of them are just masses of rock having been blown many in the P. Out hills where the limestone is also surface. Some have been seen in the Illinois domain.

The transition from the marine was to fresh water from a gradual one and a most disguised one from below. There was the sea a lake but within a part of the sea that was filled up and became a fresh water mass due to streams that flowed from a higher place. With the introduction of the Dakota there was a physical change also, introducing a marine coming in which covered the top of a granitic mass when it was cleared out of this region.
August 7. 1855.

Foggy. Cut out Mt. Wellington. 400 feet above the water. 2 pools of water. The drift is 30 feet.
Aug 2-94 between Camps VI & VII

Small camp and left there about 10 by 9.30.

Stopped to examine traces of fossils.

Pangell, Todd, Marlow and Culliton left for home.

During the afternoon we sent another uplift of team-trips in which the Triassic rocks formed cliffs some 1000' opposite high. The structure here is about as at Trieg but not.

200' or 250' above Trieg. We are 600' from

10.30, at Sullivans Ranch

Thirty to forty here high beds of granite

and palaeozoic. 11.00.

As soon as camp a bit had started

on the hills and found them farther away than

expected. The structure is the clear.

A rapid run of 1/2 hour revealed a number of strata which strike to

be Cenomanian and the Palaeozoic shale, at a fault, cutting off the Triassic.
It rained a little during our exposure at my camp and also during the night.

Aug 3-9th Thursday, Camp VII & VIII.
It rains again this morning and we cannot get away before afternoon. It rains most of the morning so I start out to see the scenery. The thunder in the rain is a thrill to the succession here in the colonie so that of the Tregge Cut hills only. The plateaus are more abruptly continued and the system somewhat lower.

Collecting many fossils from the impure limestone which may be called the Tregge Cut Limestone.
At dinner one of the men new shows me Cork fruits which must be some unusual tropical tree. We have a continual large rain, I don't know what are
Our camp is pitched near the base of thirty four foot at Sullivan's Ranch, just past of and about 1/2 mile in saw-tooth form it takes its name from the mountain having a sandstone ridge which gives it a saw-tooth edge or serrated. Thirty four includes one of the lines between the San Tomas Mt. on the one side and Tintaglie on the other. Above the Tintaglie plane one sees a flat topped Mt. locally known as Chalk Mt.

Mr. Sullivan says Tintaglie Mt. takes its name from the time when Sullivan crossed through here. He camped during the winter in this flat and then lost sight of his men by freezing. Therefore the Tintaglie Mt. was here Sullivan's by 2 o'clock and arrived at the end of the calm plains by 7 o'clock.

This afternoon we traveled along the Thirty four into passing the last of the Tim казино, the Madison limestone, and then the granite. After many foot of thirty four we came on
This morning by 8.30 after a heavy dew and fog we leave today. We reach 8 at about 10 miles. All of these bushes are very abundant and all very high and will be good for cordwood. They are very tame and all the boys say white will be quite a few and before it is over.

We then cross the higher land and by noon we reach granite Dikes, the dikes which are often we have lunch. Here another heavy rain makes us wet and by 2 P.M. we start for the Hole Canyon. While we arrive by 5.30.

After having our noon day lunch at 12 we saw around the granite hills and up a ridge into the highest T'fay, strotas. Here I have a grand view of the granite hills and in the distance we see the Ferris Mt. passing which is a fact and one constantly.

I near and we are near the Hole Canyon and our thoughts turn to the rocks they were cut and are now from the schools. We have a picturesque and romantic.
Tuesday, Camp IX.

Prof. Knight led the party from the camp, a few hundred yards distance, to the left camp over the Tenterden and from thence on the right svmid-way of the Kwon Trinui of which I took a specimen. I have ever today, passing over a 35 small hill, one other a dry and

shaded valley, terminated into a canyon and grew to our own & extensive one of the narrow canyon of the Platte about 1000 feet deep. One portion a above the Campion on edges of Aulicidae were

described.

The granite in the bottom of the canyon is a continuous mass of a red granite. The

other in the center of thin granite and, in

red, Cumbrian shales. One this are several

for a hole in a little one of yellowness and with

in the one dilute with smoke of other. Towards

the top the beds of light bluish limestones

appear by which many collectors has given no

more. I went the face in the yellowish older.
Over the Cataract and possibly unoccupied lies the Canadapin rapids of the main line.

This can be seen at Cannon (Can.)

On the way back I ascended one of the few Tertiary hills and looked back towards Cannon. This view from the rock appears to the left with the granite and running to the right through Cambria, Cambrian, Camb., Tois, and... and some Canon. All of these strata have a very uniform brick to the right and are outlined on the map where in the distance by Tertiary Lake abutments,... the Canon...
...and for the more modest quantities and rods, etc., mentioned.

All members of the so-called Trenching Board were here.

I understand there is a large group of terrestrial and sub-aqueous rocks which are only on the lives, but apparently on the continent of which they are.

To perform in order the Cahnian the question is I don't see one that's with the only would seem made around.

On 6-29 Sunday, Camp XX.

The best part of the company took us to the little town of the North 8 miles by road from the camp. From a high lookout high a thousand of miles the strike certain course. The rim has an open marine geyser 7 miles and about 200 feet deep and to the North, one only about 400 feet of water to pull and with all appear, other than the Camp.
The chin bridge is short & flat.

The rhino don't have a M. & is small in height & neck.

The rhino don't have a M. & is small in height & neck.

Chin 11 fall

Frank New

415415

Cantor

Frank New
The general structure of the region is shown in the two colored sketches. Near the middle of the Can. on this is a hot spring in which a very few algae grow.

Aug. 9th, 1859. Camp IX.

Diagram:

Entrance of Will Crows.

To show wind displacement. [Drawing]
Distance from hill 2 to 3 about half mile.

Down much of the distance in along the dip of the T.O. level. A little to the N.E. of hill 2 & 3 the T.O. level, rises about 200 feet higher. A small forest is here.

Here is the following sketch of this.
Aug 7-94.

Along the eastern end of the hills there were

the red beds and from near here the

stones were. Passing on to the Little Cones beds

are seen to dip 70° N. 80° E. and in the

Little Cones bed is seen dipping about 20° 70° N.

The northeast part is most northern at the

Little Cones.

In the year beneath the trees, close by the

there was be at least 400 feet long bed. Towards

the south a number of slickensides can

be seen and near the center—when the

slopes have been very steep.

In the year three beds lying the thickest

lay at the side, which it does in the

Funnel Lake. Now, here laying next

are, on the dip, dipping to this dip,

about 10° N. towards the end.

Twenty five miles of a line today.
Aug 5-99 Tuesday, Camp 14.

We left early the morning of this date. Our camp was reduced to nine.

We crossed a river the morning (duly known as) Swan River this All.

At 9:30 A.M., started out with a trip for the
head of Brown Creek. It was a Battles.

Here is can on the white sand in large masses
on the sand. Far, 15.75 all right. Combination. Beautiful
there is a large sand body forming upward. Not
a course so. We settle at noon. At a variety
of places. Deserts and hot. They are back. Last.

Start, Camp. Oct 59. In
day a course so. Thought we could see the trip and
we friends and with plenty fine. We can do them.

We are yellowish and green. So much as
there. Our Camp. Friends. Young.

All above the sand of ours. We can.

Here with be in the 6100

one descries one. A bed of about foot thick of

aromatic linden.

A very deep yellowish and in place porous. Others.
apparently completes on CAMBRIC as on the next bias to the east on Carr. Near S.E. of rest is the granite. To the W.N.W. of Carr is turn on the Tor's quarry and Bavington.

The White Print is very plain on depression on the red Carr, and is often strongly cross-bedded. The facades on the so-called Cambridges are very prominent usually in lengths of about four weeks and one and a half to two. They vary thick in the Creek.

I am estimating the thickness of the beds above. CAMBRIC are 217 feet the present CAMBRIC is 47 feet above the sandstones. The faces remain much of the Precambrian. Another one had an even stratum. The red bed is only 2 but thick and later is at least 10 feet. This agrees with belief that while stratums introduce the Times.
My 29 February, Camp IX.

Sent the men out after rain-collecting and it enabled me to dress in the fields about and marched to Little Canada. Found two good inducts loaded with vegetables.

The Animosas came near the top of the mountain along with the great majority of Toras. They came at noon. As usual there drifted over the other river.
On 10-90 Thursday, Page 19 8X

December 9, our camp at 1200, to the field at 6600. Our gun platoon to the 9th from 6400 to 6300. Near our camp, we took a lead from back at the Grand Campaun County Filter. They were the lead and some behind it. They were hit by the fuse, and an 8.75 mm was fired. The Telephone Hill and some were not down in the valley, one to 1000, others on the other crater.

When I ran on the hill, I gave the shot in the mountain, and the first to 1000, and then lead another row of the field artillery. All the men were set in a hill, the trees of various kinds were using and rain in a bike, handshake, and an other camp.

To the fiery hero and sacrificer, the memory: Adam S. Green of Philadelphia, Penna. Born Dec. 12, 1851, Minnetonka. He was killed on 23, 1888, on a granite corn to Cuba, who was murder.
hers, he with a touch, as he expected in France, he lettered him to secure this out; but two months later the man was discovered and late at a point he was discovered in the vicinity of the town. The man was to become a sheriff in the town, and in the mean time enjoyed this

manure, 1860. The town is in the distance four miles or four miles away at a little stream. He was a son of one from camp with this, the Indian four miles away at a little stream.

June 1874. Today, Complex.

It was a cold night. The cold ground ice in her water bucket this morning. As we all start for the Spanish Hills I see morning.

Some go; some don't. Some wear clothes. Some wear none. Some wear none. Some wear none. Some wear none. Some wear none. The next day long enough of this leather
of the great classics the usual treatments, but the author concluded me to be duly
the myth of Plato: whether or perhaps the birds
of the sacred run a team game. Then the
power had been signed and when the sur-
prise of the surprise the spirit of the tem-
porary in the wood and when secured with the means that day.

A group of the Tithy hills we
are on the him. Plato's voice when in one
and just after it is
an island said remaining one of the litter.
also six miles in a line. Could it be
in fact, if we begun to sit down in a curve
around Clorine surrounding a temple like structure.
In a line a row led, there exiled out
of one splendid day and surrounded by a hill of
of satisfy days and one month. I am a
truly say of this. It much called Knights
temples. I am at say Dm: the one with
by position, and we saw a wonderful sea
of Span. It looks like a terminal snow
July 12th Saturday, Camp X, 81st.

I arose about 6 a.m., the morningelaying one start a little. We start at 9.30.

Paul a little under 8300 animals. Some 100 to 14000 wheels own, the Lloura’s hiney. July 13th. Start to send the spirit. In his addres

way book.

Inf., to Mrs. Johnson. Box in.

I am secured a song on the antiquing, at a distance of 100 yards. The animal did not at once, it was escaped from it, and came to the

When we have sent the oxen. 2 a.m., we looked

directly west. Soon, a few fire and wild animals.

Of all the animals in the country place in the

The blood was one, ivory

The devil is in the

Shall we be left without. The fire enough to put

The boots to the

and other horn. Tomorrow time with a certainty.
For detail as to the Cannin & Bales Hole, county quite to Boney Ernest Fertizze, Jr. He
in the county since 1800 and in one about
60 year old. Pray it to and him quietly.
In the patches along the inner side of the new
pine beautifully same with Red. Pinus (Picea
douglasii) 157, 60 feet tall in 34' thick, A pine
also abundant, Pines, murraya. The common
"goe bush" in Artemisia frigida. The Cottin-
woods in man in the brand Cannin county are
Peklaus eugeniata, P. angustifolia. Arkansas
used in a manner as shade trees. The common
Peklaus on saw or used in the Cannin county is
Lupinus communis alpina & Virginia.
The red berry's little bush among the saw bush
in the pullis here in Abies triellata. The quaking
asp we saw at Bellows in Peklaus tremuloides
and the willow belish rotator. Along the mountain
streams alder is common (Alnus viridis, pendra,
and the mountain birch (Betula
semplins). A tree from more west of the w
...
In the little 40-28,000 year.

Aug. 14, 1914. Camp X.
Top White S.E. height 7,000 feet. Titan, 6th, 2800 feet, slope from 450 mts. to 200 mts. 3 mile to the center.

At alluvial shore 300-400 feet thick. Trenching 460 feet and Pigeon about 10 feet thick and then more.
Sparta sand a large 300 feet to 400 feet deep.
At the mouth of the river 2300 feet up.

Collect. Colteryeh 10 miles.

Date Stille.
The few that sheep are a hind of level, in mead and crossing, we learned that the entire not had a height of 1700 paras.

Then, I very much. It was once our my task, because we thought it was too much. The team are today in many, far. I think there are indeed roosters the range with another. Torrey above to be the from 400 to an of part. These between the cattle on the finish, to white tails, some studied with sermon in points many of which have the sort to prove a pangs or if standing or stills. Selected the stumplin covered me. Give some Physi Limited.

June 5, Tuesday. am. XI x XI.

At 9:20 I am dark the evening. We had some from were 42 miles evening. In any near with the end of the last up. Our is all well, with

The Laramie range.

For hours can scare us from the others, and he is still under. At them in the camp around the day we used to flowers, may wonder the shops are.

Some little distance from the pop on a stick with a pop in short and which leaves away are gales for

sliding lands. The platform very is too dangerous...
a thing for a captive, the herdmen come along doing this.

Coming on the Fortney Plains today, one another man secured by one. A few more very fine. The men in many cases.

Ang 16; Tuesday, Jan. 21st. 8 A.M. [illegible]

That little below the rest of us and all out. We camp. After lying out we start at 9.30. A.M. to Boy Eldon on the north end of Laramie State. We arrive at our camp at 12.30 P.M. behind a branch of the Boy Eldon. We pitch our tent on granite hills and an abundance of wood. Distance covered about 10 miles.

The fort is this morning was seen on our way down the granite hills. One camp the fort a short distance on the range and before from above. Above are on the south side, granite are about us.

The country between this morning is almost infallible and yet there is an abundance of game in cattle. As we approach our camp, we see remnants of extensive ranges mainly owned by the Douglas, Miller, Antrosa company. On this run we also the Brown ranch. Both of these outfits once owned a few thousand head of horses and so many cattle.
In the spring, about in the States, Mr. Johnson the late of Parmus came over, a kind of a convivial fellow. He procured the re-
namal, and if he had had the assistance of the
letter the entire bunch could have been completed. As it
was one of the roughest kind and not run on past, the
others showed off to which made the horse run doing a little speed with that the horse which we arrived
the girl.

It rained as usual in the afternoon.

April 17. Thursday. 1853. [XIII]

Myself absent among the prairie grasses. I
found running a roach besides a few clusters of
chamomile in quantity. These collected fags
made theمال of the close. Found an old child.
The hills above here are in close, almost im-
possible for folk to climb. A few fences were
some so close to the young timber a shaking from
sudden by anything unless an ostrich.

Rainy weather in the country.
Aug 18 Friday. Camp. X111 & X1IV.
Started in the Little Bag Saginaw River soon
we arrived about 10 M. on the old Saginaw Ranch.
As we arrived in the afternoon.
The hills around our camp have a very curious
form of granite having been cut from the granite
hills very short distance away. In this camp are
found broken pieces of Titaunithem. The old
Cherokees who live in this region make granite
pots, and a large piece of metal against which I worked.

Aug 19 Saturday. Camp. X1IV.
This morning we started out for "Specimen Pice" about 2 miles E. of camp. In some places these hills
are very small and some granite which the old man
used to obtain his flints, and flats numerous
standing on the river a mile or more. Here on
these hills are found numerous beautiful calcedonite
or quartz porphyro or rhyolite, along with much
magnetite and more gneiss. All of our undisturbed Specimens are from this hill.
On these hills oeremic dominus phaeus
Eusebius, Mieginia, cone
In a few days more, and the future will be 
expected. The age of these leads in 
theory, from Carminius's,

these leads lie at the face of the Parmance 
granite rock and both may be crossed by the 
tunnel. There are no doubts that the former stage 
of flame made in the tunnel can have an older 
more deeper in the Carminius.

In the afternoon went to the Red Hills, a hilly 
about 8 miles of this camp. Here we also found 
calcicolic stalactites but more figures shaped 
the sun's rays, but I have no doubts that 
their top and hills lie above the Upper Carbon 
form and may be either Permian or Triassic. 
This inference is based on the dip of the Car 
seen in the morning.

Collected about 400 pounds of minerals today.
Aug 20 Sunday. Camp XIX.

Packed the Brazil collected yesterday into four packs.

Both letter to Mrs. Mrs. Stanton, Newies Hills and which.

Duncan brought in a safe trunk, about 3in.
in diameter, about 18 ft. 6in. These by no
means the largest examples. Another ordinary sized
back had 18 ft. 6in, having a diameter of 18 ft.

From our camp on the back sand of John
Burnett ranch. can see in the southwest
the thirty miles and distant the San Fort Worth
near Sullivan. Ranch.

Aug 21 Monday Camp XIV & XV

Everyone in busy packing a march collected.

About noon we dep. from John Burnett to the
North Porto, 10 miles north.

At 30 M. sea dinner at Shu Pah
by 130. Start again at 2:45 and camp in the next
country Toltie near Mrs. Elliott's Ranch.
We saw one time on the west and south of the Laramie range hills either on the Tuley, or, the Piceance, or near the Triassic. At times both the Triassic and hills are present in low winds on the same hills around. The hills are covered in all directions by gypsum as secondary deposits. An ore vein again the granite hills the Tuley plains.

Aug 22—23 Tuesday Camp XV & XVI.
As we retired last night the atmosphere was warm but the wind in the wood began to howl and the morning it is cool and windy. We leave camp 8:30 and reach Jim Park near people and a score of 2 by 12:30. Our camp is a small dry wash in a narrow valley down the hill and an abundance of grass. A brand house now once situated here but now wood and an abandoned.

Though over 80° in the Tuley Company nearby plants first won the highest dryer
prond on this edge they rare streams. Would
late being left.
All the rocks of the region in a granite like
that of the Elder Range Hts. A red granite
was encountered. The granite is cut by numerous
dikes of dark gneiss. Of the Elder Range varieties.

Aug 23rd Wednesday Camp XV.
The night was a mild one and this morning
our watches were broken far and thin.
At 8 A.M. we all start out to climb Carmen Peak. The elevation of our camp coming out poor in
697 ft. at 8 A.M. At the 2nd claim are the base of
Carmen Peak in the next stream. An elevation of
7300. We select a place on the west side of the peak
from a clump has been worked out with great
3
walk
in.
June 29th. was
of
I

f

S

explained

and

write.


1907."

Can sym what was odd one according to 867.
Cameno who was with one ascended to 907.
On our return to camp I learned that no one of
us had been near the bear. Prof. Pom and
Treaty did it or that it was about one
made a tercer where we stopped according the night up a hill in a mountain that about 10000 feet. From there we ascended to a peak about 12000 above the

On the notched places on the way the Mr. Jones found inscribed in the rock the name
of Charles Byrd 1839. The name of R. Ham-

tin was found which I note to refer to the
name of the long ago used by the Mohawks
of the New York. Other names were

Some ten minutes, the came
down to the river to the Site which lead us
to a great stone work and one much older than
This stone had little lines on it and it was
also in part polished much as the rock study
among the people at the Beaufort and one

And we continued on for though the village, his
new was coming to living. Then we had
from mile to mile to camp.

Every one reached camp safely but very

tired.

I did not intend to climb the entire peak
as by an accident I had Pat lunch which
consisted of briquets and two Pruss Ash. We
then were not eating in the morning. We breech in our
fats but otherwise the meat in midwinter.

Aug 24 thursday, Camp

The night was a very cold and one p.m. the
morning wore ice for cool weather.

Immediately after breakfast I go down the
little stream from camp about half mile to
the edge of the briers. There remains
some trees. The stream more and more
down stream to find just a very small tree and
down to the edge of the stream. They cut down the
tree from an end to three or four inch in diameter.
They are pruned about 18 inch the pruned on all
sides of the branch and the tree used in any
direction. They are now of the same size as
the snails we saw in these same woods, and are cut
even to the bone. They are left in future years, and these animals appear
but slugs and snails. The same being large, but
the kind is better seen simply by the vision.
When they are usually less than 1 foot
long, they are now more chalky leading to
true trees. I came out of the frost woods consid-
erably in a hurry. These they have wrapped
before the skin being wet, and beside the
then just kept. One of the largest are
in the close a storm. When the other
the earth is up and 4,300. That day I
met Mr. Frank Cooper (James P. C. by sign of
Pompeii). This farm is a rising farm
— N. man 158, 158 and settler of
towards another, there with the French.
The town of Faroomin, county in Maine. The town of Laramie, Park about 1870 and not remaining encounters with the Sioux during a number of them to kill. He also met new friends and was the occasion. He bought him to hunt and went on a skin of the. He met him in a canoe. The Indians came and him. Nothing new. There was an abrupt where he must have left. To be always fishing. If I went with a friend a few miles took it will be nice to get up this time in the
expected.

The camp on the North Fork. The town of Laramie Park was running away about 12 miles from Laramie Park. The arrows flew about 12 from.

In the afternoon we go to camp near a mile west of where we were last night. We put up and have a few high places. In these hills collect asters and fruits.

Our collection for tomes.

Near this town is a little log school house the second one we have seen on our trip. It is
August 29th. Camp XVI or XVII.
Left the Head Quarters at 9 A.M. and had lunch before I made the march at 12 on the edge of the forests. After leaving camp we passed a spot where the old Indians and the can to make a camp. After burying the dead and making fires I made our way among the forests.

The miles fine and agreeable from the camp (XIII) to the camp (XVI). The botany and scenery were fine. We crossed the river and made camp on the hill. The next morning we also saw a very large and well-built house. The castle was...
kept together in two large bunches into which the one horse side are driven out the desired cattle and driven off to a bunch forming between the other two bunches.

Our camp is at the World's Kota by the Laramie. It is true in winter and very little to distinguish the expedition; the Laramie prairie is an 8-mile wide and has few trees on the river banks for the U.P.R.R.

Aug 26-99 Saturday Camp XVIII & XVIII.

This camp and by 9 A.M. the post is up.

- One of our horses talked all night last to start, and we had to roll our horses this far.

- Our last report was favorable, and we can be pulled rear. This ought to be fine, and the river banks did the going into the river.

About noon Mr. Morton stops to get in and ride back to their one of his men.
Our camp is pitched on the east side of a large
lake common to the ranch of Mr. Euloges.
On the first of our farm encampment in the
granite hill where I collected graphite, iron and
granite. The graphite with the iron is intermixed
with the granite. This granite is also not by separable.

A collection mouth of the said lake house about
half mile. Here we obtained a granite like white marble.
References on one day against a granite gate with other
fine marble and one granite stone in granite. The marble has
colored, colors. To the north
the marble occurs an amphibolite schist. Saffir
also occurs here. The grade of the rocks
are not known but the occurrence of the rocks
are not mixed with the above landslide. Pail is
intermixed with the granite schist.
The grade
are a flat, granite, This may also
within the occurrence of granite in granite.
below a number of shown here.
Aug 27-99 Sunday, Camp XVIII.

We made our last camp and git away by 8 A.M. had lunch on the Laramie Plateau and arrived at Laramie by 3 P.M.

In coming down the Laramie hills it seems that to me that it is higher than the medals to the north west of Laramie and Laramie. The structure seems like a mountain pellon.

Save specimens of the mink rich deposit are done of Laramie that I was to furnish the

Hotel a party that I was at Knick's house and made to wash for a clean cloth and a shoe. Spent the night at Knick's house.
1. Locate the direct shore on the 7th of the chart
due North; look for the shore and the
main feature in the foreground
2. On the western extremity, pink bluff
3. On the 70.80, look for the bluffs of the beach
4. In the center looking back, the
5. Easter Bluff F.O.M. shows the eastern
8.30 and of Truzy East Not shown the bluffs.

Paddle Illustrated
Ed Harper.