Oct. 23 - 1908
Left Iowa City at 10:30 P.M. for Cedar Rapids.

Oct. 24 - 1908
Left Cedar Rapids at 12:35 A.M. and reached
Marshall at 7:30 A.M. and up at Hoffmann's.
Dingy, disagreeable day, no much light for field
work.

After breakfast started up
Normal School. From Mr.
Hannon's (Emer.). 2 mile
thick lines + 2 mile
long. Went to Mr. Hannon's
house, then drove out
down the valley and
examined gravel pits
marked in sec. 21 and
sec. 28
These appear as if gravel
had been trenched - probably
lower end of pits in sec. 28.
Here there are large
boulders of clay (moist) exposed
in even of white cal g
and the whole thing looks
as if crowded or broken
the big, or cal g head
shows this as well as
I could remember it.
It was too rainy to
take notes in fields.

The gravel in this
pit and that in
sec. 21 looks mixed
with mud - probably
showed by Kamm.
84 above level about 20 ft
above valley & with
the benches are common
at curve of 4200 Bridge.
Here wind-top. I will not step.
Mr. W. A. Kinney, who with Mr. W. A. Reed manages the school (each 1/3 day) at Woodline (the Woodline House), a public school, and is also interested in telephones, etc., business enterprises, says he will have his dog at this house to show what is below.

Left Woodline at 1:55 P.M. for Mo. Valley. Tried to join Mr. Chas. Smith, the brick man, but again failed. Came not yet Mr. Wattles, either.

Left at 4:55 P.M. for Mapleton. Rains all the time. An awful day!

Reached Mapleton at 6:50 P.M.

and put up at the Mormon House.

Made inquiries for gravel and sand pits and learned that there is a fair pit (the Hawthorn Pit) 1/2 of town on N. side of R.R. (C.M. & P.) where it enters hills.


Another, the best, about 7 mi. S. with. It is a mile E. from on E. side of valley. This is the Melcher's Pit.

Could learn nothing of corn.

The Melcher's Pit is probably

one mi. N. Center M.P. (7.84. R.42)
Went E. along C. W., S.S.E.
Nose dot is on a elevation
or terrain.
The first & 2nd features.
Nose dot (with arrow) going with
features.
12 ft. deep, about
360 ft. long, in distance
5. nice smaller.
See markers, doors & fence.

The sample was taken from
about 12 ft.

concrete
many markers

The concrete is green, rich
blue figured streaky & looks
of water some horizontalRoy
lines & an occasional vertical
line. It has an occasional crack. It has the Black dots.
Creek is a deep cut on the side of hill, possibly 20 ft. or more. It seems to show brown clay, but I could not get close to it.

The creek has small deep gullies cut along here. A few rocks but they seem to come from the hill. The bed is a hard stone not crumbling.

Both the creek coming down show this gullies very well.
any 9

The 5. mile is shown at the
first cross.

有一些很窄的小线

about 900' B. from end 10.

The 5. mile is shown above
this point.

end 7

end 6

end 5
What I marked cut
3, 4, 5 is really one
measured cut over 500
ft long v 12 6 ft dent
in dumped points.
2 ft is more of cutting
material covered up now.
Bricks not very
absorbent.
Xenide layer

Pimley pit.
- Wyebank layer, a little
- lessing today, shifting layer or hard box
- 1st joint vug which turned
right (w) next h ground
- Kessock drift, more prominent
- into hill with much
- Sop. 0. With gentle slope
- a high clay a few inches
- with hard clay, shale, red 2-4 in.
- After ground,
- within line median
- may have been disturbed
- by Kessock.
- Hot spring shown.
There is a layer of gravel 1 ft. 1 in. thick and 1 in. below the low water mark. Not enough gravel. Only 2 ft. 1 in. after the C.

One big angular block of granite 10 ft. 1 in. long.

3 ft. 1 in. X 1 ft. 1 in.

The gravel extends about 25 ft. above creek valley which is probably 15 ft. above creek.
Lucyin W.E.

There are many very common lenticular pebbles, blacks, and grey

probably are just the thin gravel now the

steeply sides are

Perhaps 6

There is water worn pebbles.

found and done, not clean

in clean

The horizon is next clean

in clean

The horizon is rough and white line in it

in the

it appear to be all mined up with this

stuff.

Rotten granite and sand pockets occur

in gravel.

This is 45 ft. above lowest terraces

another is just 3-stone same cemen-

ground, but others not common.
Nov. 7, 1904

Left for Madison at 6:30 A.M. Reached Madison at 8:30 A.M., spent 5 minutes at 4th St. Station. Went to train and waited while the cars were loaded. The cars were left at 12:15 P.M. After the car was let off by young Mr. Anderson, evidently in love.

Mr. Witte found another shell in a lower bank on 7th & Chestnut Sts. There were shells of all kinds. Two of the shells were very peculiar.

This was about 12:15 P.M. below Madison. The houses were just like those of Milwaukee.

Photos 2/10 22 W. side Milwaukee
year, looking SW
front clay
front clay
west
west
Photos 1 & 2 - same view 1

- Material cut - 20 cm wide.

- There is a long narrow and not wide joint.

- Small line in the narrow sense is very narrow.

- There is a gradual line with no regularity.

- Water clean nothing for future use.

- No shells or regular size.

- Sample

- Storage

- Been given right measurement

- Own house 5 ft deep
Plates 27-28. Embry. NE
At 6 times magnification shown
Here, a few lines were
To affirm or at the theorem
has here become the point
closer to now recal.
The title of this theorem (about
same as W. and) is 55 ft
above strand can reach 3 times
affected [lattice] pink [far]x
AA 2 in column of [column]
Dashed lines of [column]
As is evident that profile from Narbeth to 2 would look like this.

End 4

End 4 is about 25 ft. above road crest (3).

It runs about 6-7 ft.

Relinissd drift at line of line 3, 4 joins road.

End 4 at Nicand has a gravelly stuff at line which may have been re-deposited drift.

This whole part above water action end ranges from 6 ft. on end 4. It looks much like red sandstone but examination.
In cut 6 The Kanna is a heavy flinty rock with some felders. Over it is a brownish gray clay 2 ft. above that red joint clay.

Act 5, end of Act 6
there is a mass of strongly phosphorus sand & gravel.
Above it is a heavy thin Kanna mud with some flint
then a red sand clay
reddish on top
Actually this was still dry up by line men in a very dry clay, evidently”的Kanna.

The Base here is Kanna & not Bubbles.
Here is a layer of clay
Potters, this is unbelievable.
2.8

cut 7 - Photo 1942

Red layer at top - 3.5 ft. - evidence in the form of small joint clays of red clay, etc.

4-5 ft. red soil clays

grade +650 to +8 ft.

5 mm.

\text{Oxidation}

20 ft.

\text{Rock}

\text{Water table}

It is further noted that the lowest band is green, that the upper layers are brown, the same + ground water level. First thin, most likely.
The whole thing seen to be adhered about 25 feet high.
In the 5th, 6th, or 7th
1942, I was able to
reach the summit
(nearby) of the
island, either on
the land or at
sea level.

Almost my way into
strategic
sand ater
about three
and four
day.

The bluff is 30 ft. high.

The almost drift is being
slightly bubbly muddy stuff
with more iron. It may be
Kanawa
but not likely. (See sample)

It is about 6 ft. above
road.

Then follow about 15 ft.

In aerial stratified sand
(sample) in the
red sand clay, which at
least sometimes grades into sand.
Across the town at 5.
end of end 16
there are about 6.5 ft
at joint clay looks like
a few tree volunteers
this lower looks into
fine sand now
- all fine
there must be 10 ft.
the lower part reddish
light yellow colors.
alternaclly
have red joint clay
alternates sand.

end 11 is at 5000, end of
Maple + Orange streets
N side

red joint
15 ft sand

end 11
4-5

This is same as lower
part of end 11 - the
lower joint clay is
alternately yellow and
in the youten is
indeed
at very base there is a
dark mud which is probably 9 mm.
just below it 8 a sandy ox-from layer (Be 1 inch).
In carbon much saw shells.

Wyoming till 11/8/58

Photo 23 - horse view from
leave

Photo 24 - lake

There are two mines on the
one E. has been excavated
here flint chips & many
pebbles. I got some by digging

1st value.
The clam shells were
The clay were in a
Glen corner above 2 feet.
16 ft. below the 18"
minute in height, 1430
feet. Smith. Each sample
of this layer, with under 3
shells. It may have
been disturbed. is some
with weather marks.
New Jersey., egg. mon
the way to Hillston,
a green (mistake for) corn
with a few bands.
And mistletoe in some
real this close will
now
The beak is orange
2 1/2 high in brightest
of its copper fully sound
with a red + yellow
sand from clay like
later Kenuim.

From here a value of
Kenui yervunron (in corn?)
which evidently changes
form above (probably
form a cornrow).
The afternoon is very dusty and
(still) rather warm. It is now
so hot uncomfortable with
Rachel below.

The air is moist, now blue sky
was temporarily blue sky below
with blue cloud in same place.

All traces of my love
have been removed
Evidently the face taken
(above this whole thing
right not I see that in
front face face I. in
200 ft. along afternoon
at S. end Cameron Term)
Along C.R.N. 19
10 min. 8 in. 4 in.
about 6-5 ft. deep, very muddy

Bridges Road

Then about 12
ft. of ken

Yachts with boats

Then 1 in 2 feet of water

Then 12
ft. of from

Observe more than 6

Remmler

This means that the continuous current for a long distance is temporary

The current may be

Thicker, quicker,
the 2nd is shallower
worse with grey black

Counts
The 8-45 line 1
Jama street. Seen 4
The mighty Kansas.
It's on Indiana.
This has been trimmed
1405 (in June) at E. 2nd.

Cut 4 E

- 24x and partly
- 25 very hotly
- Very Sunny A.G.
  Barnett Gym

Kansas
35 ft. from 53
To town of exprm.
Which means & have
a little Pic 13
Endorser who
is not
Nov. 13 - 1905

Left town City at 9:30 a.m.
Reached Marian at 11:30.
Left for Manila at 12:30 a.m.
(about 5 min. late)
Reached Manila at 6:20 A.M.
Changed for Mapleton.
Reached Mapleton at 8:45 A.M.

Book team and drove down the valley. It was snowing all day.

I examined terraces on Ernie's map. They are all (as far as I could see) covered with yellow moss. Very few trees.

Crossed river in canoe. (See sheet - not map.)

The hills to this point on E. side are rounder, slope up.
rather gradually from the terrace. The terrace, like all other examined, seems to break up occasionally and resembles a lot of tongues of upland material reaching out from bases of hills.

As far as I could see on the E. side green layers of the normal type in this terracing, with nodular layers along, covers all the terrace and blends with that of the hills. I could see nothing but this layer at any point examined.

In the W. part of sec. 25-85-43 the terrace and hills so blend through river & terrace bluffs down.
In Mr. 84-43 war mitten

1 sec. 5 the road runs
into against cliff, V cuts
in, exciting high banks of
tree, more or less washed out
and abandoned. The cliffs
are pretty well timbered here
so is the bottom.
cross Clark & e. mid. 9 to
find out about Mr. Cleary's
girl, but mail man knew
nothing of it, said a
Mr. Cleary lived near Mapleton.
(Mr. Will, the river man) told
me that the place is S. of Mapleton
Mr. Mc. Cleary
about in sec. 11 or 12 - 84-43.
went born E. side & from
large house in sec. 17, &
also into 18+19. The hills
on the E. side above Castana are

sum or less broken up &
rounded, - they are not
asexamined as usually.
As far as I could see all
this by Castana is lower
covered as tree far

At Castana I met Mr.
J.P. Day & scenes for
him a piece of large scalp
obtained some time ago
in the first of Mr. Castana.
This is certainly from Aftermin
I examined bed in summer.

Mr. Day said that there
is a gravel bed - washed
by river, - in bend of river
near creek in sec. 26 just
east of Mapleton. He points
This on a map in residence to my query concerning the McLean's Hill. Reached Captain's
file at dinner. Started
for ruin in snowstorm at
about 130 and reach ruin at
230. Hunted up Mr. Elliot,
and went to him. 24 shows old
weathered surface above
Conimi + Kanson on this.
Mr. Elliot said that they
went down a few feet and
struck a hard very dark
clay. Went into it 4 ft.
and gave up. This appears
to be pre-Kanson from his
description of it.
Saw Mr. W.E. Babcock, the
young man who had the
vestibule of Lasky's dem +
house built obtained from
the Elliot's Hill.
He gave them to me but
requests the name of
animal to which vestibule
belongs.
Started for Monarch a little
before 4 PM. Followed cliffs
to S.E. part of sec 15 53 44 V
took road S.E. up a long valley,
This carried me through a
very rough loose covered terrain,
and I finally reached top of
ridge on E. side of sec 29 53 44.
There are patches of timber on
the sides, especially on W side of
long valley mentioned, I drove
over much of the way to
Monhegan in the dark, but
after passing high ridge I
found the country so rough
very rough.
Reached Monhegan at about 6.30 P.M. & had up at Hotel.
Thick was a bad day, a
driving snow fell nearly
all day, a finally spars
was almost covered with
the fine stuff.
Fortunately for me the storm
was notely to my back, but
even then I came scarcely
then my notebook without
putting anyone top up.
Nevertheless I got results.

The morning of the Kennebec River
The Maine & Atlantic Line as
well as several thoroughly
between Maine & Monhegan
were with Wales. I also
received a small cat of向
farms at (a) to notice.

Nov. 14th Sat.

Left Monhegan at 8 A.M.
The town is partly located at
a terrace. The hills here
are not very high, but at
a number of points, indicates
on map, they show one-step.
I followed W. side up, but
we could see & side well.
There is a prominent terrace
Off the Monhegan
Just above Monhegan the wind is strongly eastward and very distinct but the waves are not high.

Exposure along coast going up hill from Monhegan on island. (See map.)

The exposures indicate on map are 60 feet or more deep.

This  shows yellow ton, until modular layer above.

At about 150 feet in area 20 (center) another exposure in brown shale about same but is modular deeper in gutter. Cortex compact below. Saw nodules, etc. as before.

Note top catastrophes from 5.8 of area 4.9.

The exposures indicate on map are 60 feet or more deep.

Expos of tone on line between areas. 5.6 and 4.8 deeper.

Same as before.

On N. line of West to area 2.

Down slope another good exp. of yellow ton as before.

On down slope of west side E. there is a deep exposure patch worked out gutter. There chaos yellow less, but evidently very compact below. Rocks as before.

It was hard to see if there are any fossils, or now eroded part of surface.
On road running N.,

through sec. 35, 

much slope just N. of 
tone (1842) there is a 
deep cut showing "town 
" baffle, I notice 

sec. 35.

Two smaller cuts, showing 
some kind of town; 

after a same road 

northward in sec. 35, 

similar evidence, after 

in the S. E. 1/4 sec. 26, 33, 43.

Both are on downs (shale 

the various entrap clay. 

same kind of 

steps.

The nodular clay is 

distinct in all these 2-5 ft. deep.

East slope down on other side 

ridges in the front of sec. 25-33-43, 

the road in sec. 25 is 

referred to as crossing the 

R. H. if does not do so. 

Outside Soldier's (5) there 

is a fine broad terrace 

showing very distinctly. 

Soldier's itself (certain 

there) stands on a terrace. 

I think to see informa 

from mill-stone, etc., to 

standline of terrace, but 

was of little use. 

The town about 15 ft. "fine 

eyellow clay (loam) than 

many lime stones, etc., etc., 

a harder clay (Kansas 

local clay probably).
Get water at about 50
ft., it forms little pockets
of sand and underpin
it even in the joints
clay.

In sec. 18 83-42 there
are some cut-steps on low
ridge.

From E. of center of sec.
83-42 there is swamp,
but main vein with frame
S. Succession.

Value, 200 cans.

Sec. 17.

On S. E. of sec. 83-42,
over slope down hill 2
there is a gulf 6' - 8' 8
deep (or more). Yester-

(Back to the last day, See not 3).
Wilton. Mr. Best, relatives live now in Wilton, but he died. They also told me of bones found in creek bed on the Furniss Farm. Furniss farm is now in Worcester county.

Mr. Best said that Mr. Andrew Cocke lived in Wilton. He knew what became of the Mastodon found on the Nolle Farm near

Mr. Best also probably has fragments of the tusks. All collected 20 yrs. ago.
Mr. Bodt also said that Engineer Stevens knows about ashes and cinders from the RR at W Y Mapleton.

They also gave me the name of W. S. Dickerson, well-digger, at Mapleton.

Also David Lacey, Castor, IA.

This is the man I met at Well No. 10 of Castor in Summer. He has put up trees on Soldiers'Terrace.

Mr. D. N. Burt also told me of city well-on.

Hope just below E. 64th 387 RR on some 5 4 54.

Burt.

They struck sand and gravel. There was no coal, so they had to remove building to save engine. Write to Mayor Holmes, he knows about it.

In afternoon drove over with D. N. Burt, to N. find of me 2 3 42 - just s. of road along (not) bank of Rock. creek. There is an expanse of alluvium 8 10 ft. deep in which are many fossils.
and sand shells. See
box. Also sample of
alluvium. This creek
has sand pebbles +
comparisons in Bolton -
Green Rock Creek.
Some R. Smiley's 3/4 mile
then west. All this was
in distinct terrace to
point in E part of area.
4-83-42 where the
Channel
drops down to alluvial plain.
Here there is a cut
showing fine, low +
mossy as before.
See sample of loose +
the fossils.
These terraces are flat
20 to 40 ft. high or
higher.
Returning to the hotel. Stopped at Post Office. Business, breakfast, writing, cloudy, cold, windy all day. Cleaned sheds.

Nov 15 - Sun.

Arose at 6 30 A.M., after breakfast, went to hotel & I dressed & took to car. 23-84-42 and examined its tender. See sketch, fourteen & 25. Work will continue. Ending of Bacon & Tred. Never many plants - few last year and of both. Will run three 1/2 lines for wind - out of my collection.
This book is too wide. Above late the billy especially eating, alike up gradually time. The terrace like foot of firm limestone, the Kansas topography is gently rolling. This is fine sandy clay (to eat) & the terrace along the Soldier are considered fine, also.

Choice along Maple river. I drove 6½ mi. N. & then turned west. The few rare flowers along the foot show yellow (on a circular layer above, with some white, yellow, some gray), yellow (compact below) show, noodle, some yellow above, a few some white, color. I saw something across the creek, in long cut into the shale just Kansas occurs with Monzonite vein beds.
shows, Down no fault.
Above it is a redish, reddish brown layer on
The blue layer shows
up probably 15 cm
to top, Ax top
yellow layer with
nodular layer
Average
About 2 ft. 7 the blue
layer is fairly V above
in about 3 ft. red soil
down.

East in NE. 32-85-41.
in recent assessment.
Drift glacial till R.R.
24 in 15 ft. deep.

3-5 ft.
Brown from yellow, clay
trachyto-piedmont
with few rounded nodules.
Fossils scattered in the
loess. Secondary
sandy loess?
This is part of same
series of ridge, as that
early cut 10 to over
The wagon across R.R.,
and 10 times the 5.6
R.R., it does not
cross again.
At middle of E. line of rec. 25 - 85 - 43 - just W. of town, at foot of slope. For some distance up, water drift is distinctly exposed. There are some small trees, as well as bushes. Just on the ridge, on down slope, there is long cut of small yellow green.

Reach Horse River at 10 o'clock. Took dinner.

Arrived Warren at 2:30 p.m. Drive out again up the valley.

All day - afternoon, the tall trees are kept coming - standing by own into town.

N. W. E. there is a gently rolling Warren district.

I think there are trees that at the turn to W. in the fields. At a little W. of this there are frequent salt marshes along now to C.M. 53.8.

There were evidently more in the fields adjoining.
RESUMED ACCOUNT OF CALF. RIVER.

On E. side the terrace is again prominent, especially in sec. 38. The hills slope back, the topography being quite gently rolling.

Next to N. line of county. In NW 1/4 sec. 6-38-43, there is an indistinct terrace, and at county line the N.W. Cliffs is low and rounded.

The terrace is less distinct W. of 5.5 miles from sec. 5, is an indistinct terrace on slopes in the NW 1/4 of sec. 7.

The roads in secs. 12, 13 are not covered on Hurdinger map, at least not as they are on ground.
sec. 12
85-43

It appears to me that this can
be also named a little further north, but
prints not.

Cut (a) shows yellow layer (not later
above) of usual type. It is on slope
up, near top of hill (that is on road),
the hill rises much higher.
Cut (b) is on down slope and
is similar, I believe the
location on Kuchling map
is wrong, and the above about right.

sec. 13

sec. (e) is a deep cut (with
vertical walls like all
these deeper ridge cuts)
and I only looked at it.
It is just beyond school house.
I turned to right toward (d), going
up a steep hill. I called the
road 0, and this is 10 ft.
above bottom, the road being on
a little terrace.
About 80 ft. above road I saw
drift (small boulders, some
black & some Sierrite?) exposed.
Above it was a red layer,
heavily clogged, but lighter clay
above. I followed the latter
up to about 100 ft. above
road. (This is e)
At 120, where road turns to
right near top I found yellow
Nov. 19 - Thursday
Left town city at 9:30.
Left Cedar Rapids at 11:50 a.m.

Nov. 20 - 1908 - Friday
Arrived at Logan.
Reached McLeary at 6:55.
A fine morning.
Started from McLeary at 7 a.m.
Learnt that all bridges between
the Adams bridge (at county
hill) and Logan are out - on
account of ditches.

Took photo of dry land ditching
in re. 11 - Little Sioux River
(Kearney co.).
Loging No.
Plants 17 & 18.
Murray (hill granite, etc., etc. stone forming an antlered mound) runs on
on first bend of small river except at very
where a little river is
mixed with it by contact.
The sandy isthmus like an
antlered mound, & the
ridge below that is
again gradually at
The tip of 3' knoll is
loose granite—evidently after
the tips of 4' (not 3' mound) is
newly formed, and well
even as if anyone has been
here.
The north side of this
river has some trees, but
N. side granite runs
down, all steeper front—
down.
Stone gravel, but in
river, whose bank runs on low
several distinct gravel and sand
beds, with boulders covering
are plainly seen.
Where now turn & on Murray.
Here there are probably two
creeks coming SW. They
are in a valley coming from
N. & v. extend to some time
down the slope.
Last creek from Present.
creek No. 2 on E. side valley.
End 10 is another light yellow brown
rather low down.
End 13 is unusual, the name can only be "
end 10" in creek Little. White above
than 13, but only about 1/2 of
blue between sand beds.
End 10 as light yellow brown — on end of
sections.
Cuts 1, 2, 3, 4, 5.

Cuts 1, 2, 3, 4, 5. In lower grade, where typewritten. Kreations in volume.

In about 2 ft.

4 in. A small ridge. There 5 ft. yellow layer is about 1 ft. 4 ft. of cement down with thin film.

1 ft. is quite a cut across ridge.

Virtually yellow layer but thin (at top) in thin vane blue layer with film.

Scattered round bottom is very few shells in any. No cement.

The yellowish layer in all three cuts is notable.

I find on close inspection that nearly all cuts cut 18 ft.

In blue layer with film (see samples).

The lower part is all blue (see sample & samples) from a very few fossils.

Cuts 1, 2, 3, 4, 5. In lower grade. They seem to be like N.

K in lower seam is deeply worked in U. side by gullies.

2 in. A large seam.

L is a little ridge in upper yellow soft layer not quite like Mr. Loew.

2 in. Formed on cementeer stone in small ripple 8 ft. yellow soft layer not quite like Mr. Loew.

Environment W. S. S. also 9 ft. S. E. of E. F. K. 2 very rough, ridged, cut except at.

Cuts 7, 8, 9, 10. In cement layer 12 ft. No. modern (normal) 4 in.

Modern layer is very distinct, even broken within older than less. locus not in yellow (see sample).

All along the whole blue in bottom (see clearly terminals).
CUT P shows almost 10 ft. of clay, like the bed in the cliff above.

In exposure shows a few feet of clay, clay with a few feet of gravel underneath. 

Photos: 75 X 26 - Look in S. & S.W. area, same as beds in other cuts. (see below)

Photos: 3 X 4 - Look in the east.

CUT R in like P - 

10 ft. deep or bottom, 

CUT S is like R - 8 ft. deep

CUT T is similar, variegated, and looks abandoned.

Rolling levee along on each bottom.

CUT U - is near top of cliff. 

In older wood.

CUT W is not very thick of gravel. 

(Photograph to scale, like in C)

Yellow sandstone on top.

Yellow fine gravel layer - no.

Name - few small undulations.

Natural layer with brecciated base 6 ft. deep.

CUT X is at least 12 ft. deep

In this area like in P, 

is bluish colour, with some white lakes. There is an evident other cut 

at base of medium, altitude 

though not, as if extending 

a channel (below) from a 

point lower above.

Name: N. James

Formes are very small 

in all this limited section.
Cut 2 shows Kanimna at G0.
If main is 150 ft. or more above valley. If not as main and there is a branch of Kanimna at C as this is 20 or 30 ft. above bottom, along myreta clays (10-87-44)
Kanimna in section along north and south, red, firmly, mudstone, the latter is separate from blue clay above by very sharp line. Still can stick a straight yellow at max 1 to limit exposure to a red-brown. Blue band is a joint of bands. Above are layers of blue to a maximum blue at a maximum.
See sample also (See sample) also fascia
(to top) = c
last 6", joint clay 7 in.
blue, with joints
just above clay.
red joint clay = 7 in.
& 3 ft. extant.
This is just above your
clay (one sample)
found.
This is really almost
like joint clay. But
another 3 in. just
below & sharply set
apart.
The material above this
real joint clay is heavy
and somewhat like joint
clay, & above grades into
loose. The lower line is sharp,
the real joint clay being distinct,
and in some cases 6 or 7 ft. above
and then above valley.
A glance & found in this
heavy stuff of some areas.
(See page)
This is well crowded &
red joint clay.
All the town house is
evidently just Kansan, &
not just Chicago.

This is 1st lot of clays
of England place in works.
Going down (south) the
first 3 ft. have large
nodules just above joint
clay, then 2 more
show only clays.
The road drops down from
end c., though not quite
to Cotton and in 360 ft.
approx. 3 - 82- 44. Kansas drift.
again shows in little ridge cutting road (sd)
joints (red) clay shows above it here, is cutted
with limestone, this a normal small limestone.
In the NW, SSW, 3-83-44
red joints, clay shows in back
along E. side of road,
cut and is a hard road cut
with vertical rinds, running
ridge. Most of not all,
does not change.

There is also a deep cut at
for higher on ridge, but
I did not examine it.
Evidently cores.

Just about a Twp. line joins
clay (sw) again, it occurs
along road.

83-44

near the N. side of the
St. Gy of sec. 34-83-44
Two small pits show
sand (evidently afternoon)
under limestone.
Northwest at two joints
in the NW, SSW, 34-83-44

core sand at bottom in road,
may be afternoon.

Got to dark to examine
exposures.
The cliff N. of the

The cliffs N. of the
califlora cliffs are

large knobs or
ends of ridges running
east L's to valley, hence
no continuous hog backs
parallel with valley.
Nov. 21, 1908

Sat. 97

Saw to Blenis - reached B. at 7.45 am.
Left at 8.10 for Winita.

The bottoms are mostly very
fertile, where not undrained,
but in places, especially near
Yams, they are sandy, and
in others a "grumbo," containing
a suitable outwash rock.

Kanour joint clay, is at or
so near the surface that it
is not worth much, though
one of it is considered
first rate if not washed.

When wet it "flumps" if
plowed when wet.

Said to raise good crops if
worked dry (this from various sources at various times).

There are frequent tears
and the cliff are neither
as high nor as massive
as they appear 5. of
afternoon, 2. 45

Reached Oklahoma at 8
P.M., after a drive of
about 45 miles.
Put up at Monowi, waiting
more rest, etc.
This is reserved for the Holmes' estimate of the cotton lands.

Plots 23 & 24 - Level W.  From near cut 9.  Trunk Center.


8.5 - 44.  

Cut (k) shows Altonia gravel & sand, with some occasional calcite.  

Wood, 2&3 feet up with wood base center.

Fine sand & some gravel are confined only 2 to 3 ft.  

20 ft. from base - 10 ft. of gravel all the way.  Bid end go to cotton.

The top of the Altonia gravel is 50 ft. above cotton.  

This is unmistakably cotton.
and here as surface it has been flowed over by the
overlying Kansas.

Pit 2 shows an interstratified
1 gravel up to surface
2 ft in 25 ft above valley
(to top)
their traces in about 25 ft
from ground 4 min.

Pit is at 5 yr. above 7
6 shows a well sunk down
about 12 ft through layers
6 through course some 6
6 through second course 0
6 through third course 4

Cutting to surface

At surface below 2 & 3
gravel with some gravel
granite following
this after just 2 min.

Conchifera
Conchifera
Conchifera
Conchifera
Conchifera
Conchifera
Conchifera

Arenaceous
Arenaceous
Arenaceous
Arenaceous
Arenaceous
Arenaceous
Arenaceous

Pondera sandstone
5 potlows. Known up to 80 ft. from bottom in their broken form even 140 ft. on top is an Indian mound. Get corn, ashes, midden soil, coffee, timber, stool...

Plate 13 1/4
Looking NE. same Grand Center.

From below gravel run along side of knoll to its W. side. Kaspar shows above.

Arm vein (W) known shown in wood (inside) a few sides with a small ophicoline gravel shown in little level (at R).

Only B. are old ground but show gravel run to right. Evidently within 100 ft. high. A box spring. Basin is in relief above road below.

Cut M. is at string.

Valley = 0
River = 30
Spring = 0

Not in the above above 80.

Evidently spring comes out at base of blue clay.
TheView from the balcony of the 'Comet' hotel, Shanghai, China.

Lavender granite pinnacles, several strips of white, below an overhanging rock. At a short distance above, a great cliff, about 25 ft. above the road, 200 feet or so below, swimming. Kennards, time from PM to 2.5 pm.

There is an idyllic pool, below, Kennards,时间 from PM to 2.5 pm.
At q. written low down, there is a pit of fine sand like cross knives some about 4 ft. in front. No. 47-85-44

1st on front by a large 7 calcareous plates running (total) 11 ft. 8 in. above this

is written 19 19 19 in. above this

is written below about 2 in.

Above this, typical while

is written: Photo 19 19 19

Calc. plates near

31 X. Kamman 2 24

7 in. more, 194.
Oct. 31, 1906

Left Iowa City—really at 2:30 A.M. of Nov. 1.

Van carried me to Rock Island while asleep. Walked back.

 Took train at 7:30 (20 min. left) for Muscatine. Found

 Mr. Walter at depot and went to Brown Livery

 for team. Drive not abate.

 Muscatine to look at his old solicitor.

 Meat of his family came here from Iowa City. Born at High School now all clean of bluffs.

For observation on this trip we must agree.
Muscot, Nov. 1, 1908

It was raining, but we
struck out nevertheless. Many
of the old places are obliterated.

$3 and 4 South side on left
side (2) is McIntyre's home.

I just notice this (not on block)
in the family tree.

All the names will
not be written down here.

At High School church looks
with iron gates, and

The iron gates. Towns, etc.

Streets just above town.

The Cong. Church is at re.

And (U. Church @ 3 ½)

There was corn in

The High School across

Her, side of 6th street

And the south, town line

Every right to meeting of

The next one

Pouring it.

Some in town, some

West.

A few across N. 1/4

South 1/4 west 1/4.

Church - a very

In the rivers big corn

This was side of street

This town is

A town or a old High School

South. North there are

The town line and

The railroad from W.
Mr. With's elephant tooth contains two fragments showing the usual fractures. They are in Mr. With's museum.
The lime alone gravels
is thinner, suggesting
sinking. The material alone
ascending blue and Kansas
clay with few fields—
similar to that in 1815
in W. Mad creek.

Found a lot of clam shells
with "button holes" discovered here.

Cross cutting is
quite distinct in the
under layers with some
corne gravel, like
clay in which Cleveland
fossil fragments were
found, also fossil
corne's sand interbeded.
I also found in the
lower part of
The Ostari
Tanan W. end
a lump of red
looking like
red Kansas clay.
(See example)

Both samples of
pre-Kansas.
The elephant tooth was found in the little gravel layer. It shows only fragments. It was originally found by many. Mr. Freeman and Mr. Witter.

A man has been found and where it was taken. The little gravel layer is very distinct. It is just an ordinary interbedded Asturian gravel layer.

The greater part of the exposure is fine sand and parts are slightly cemented. I find many fragments of charcoal and some fragments...
of shells in the little
layer of coarse sand.
This is underlaid after
concluded overlying (carboniferously)
the Alumina & Leppe
with Kansas red stuff-
mainly clay but with some
ballets.

It is a part of a terrace
which slopes on both
sides of this branch of
Mad creek for some
distance. A good
exposure is visible along
this road just along
roadwhere each house

Mr. Witten says that his
Wyoming Hill varies over
in a little gully about 18
below surface, and above
in a next, quite a number
of specimens together. Then
McCree got there. They were
all pretty heavily incised
with CaCO3. He searched
in the place a number of
times afterwards, but for
no more. This place is any
not above remnant wall,
Oct. 23-1908
Fare to Cedar Rapids 4.50

Oct. 24
Fare to Woodburn  4.56
Fare to Horseshoe Run  5.0
Fare to Mo. Valley  15.15
Fare to Mapleton Hotel  1.18
Fare to Cedar Rapids  4.81
Fare to Iowa City  5.0

Oct. 31—To Des Moines 1.08
Train  .20
To Mapleton  1.55

Nov. 1
Train to Iowa City  3.78
Train  1.14

Nov. 8—1908
Train to Mapleton  3.50
Train fare  .20
Express fare  2.20

Nov. 9
Fare to Iowa City  1.14
Train  .25

From a fresh spring on N. side of 2 miles N. west of Lime, just W. of Mr. Wright's house (in corn).
Here by grade, to west line a bank of trees, over left was expanse. It is cedars.
Frost killed much corn and many
irrigating & one family
who climb 2 family. It also has a few rounded mounds.
Parts above are very strongly timbered with live
in addition to arm tackle.
<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Nov. 12</td>
<td>From Cedar Rapids to Marion</td>
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<td></td>
<td>Car fare to Marion</td>
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<td></td>
<td>Rent Marion to Mapleton</td>
<td>4.83</td>
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<td></td>
<td>Mapleton - barber</td>
<td>$2.50</td>
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<tr>
<td></td>
<td>Hotel - breakfast</td>
<td>$.50</td>
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<tr>
<td></td>
<td>2 1/2 meals</td>
<td>$3.50</td>
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<td></td>
<td>Dinner</td>
<td>$6.00</td>
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<tr>
<td></td>
<td>Lunch</td>
<td>$.10</td>
</tr>
</tbody>
</table>

Nov. 13 -
- Mapleton to Kirksville
- Hotel - barber
- Hotel - luggage
- Dinner
- Lunch

Nov. 14
- Mapleton to Kirksville
- Hotel - barber
- Lunch
- Dinner
- Lunch

Nov. 15
- Dinner
- Hotel - barber
- Lunch
- Dinner

Nov. 16
- Hotel - barber
- Lunch
- Dinner
- Hotel - barber
- Lunch
- Dinner

Nov. 17
- Hotel - barber
- Lunch
- Dinner

Nov. 18
- Hotel - barber
- Lunch
- Dinner

Nov. 19
- Hotel - barber
- Lunch
- Dinner

Nov. 20
- Hotel - barber
- Lunch
- Dinner

Made out Nov. 23-1908