Minnesota – Wisconsin

~~1894.~~ 1891

7762 ✓

Also 1898

Phila.

doc. 72

Charles Schuchert

coll. at
Nuuah
Oskosh
Iron Ridge, Wis
Beloit
Janesville
Monroe
Mineral Point
Debugue, Iowa
Graf
McGregor
Decorah
Granger, Minn.
Preston
Wykoff
Spring Valley
Stewartsville
Kasson
Cannon Falls
Aspelund
Rockton

Appleton
Clifton

Rockton

O. Hamsey's farm
Fountain
Big Springs

Chic. 72

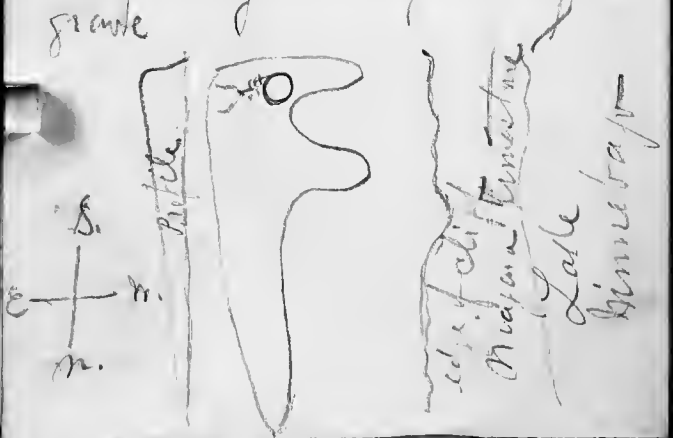
doc. 72

C. R. Fare from Albany
to Minneapolis 30.00
Sleeper to Chicago 4.00
Lunch 1.00
Dinner 1.00
Sleeper to Minneapolis 2.00
Breakfast .75
39.25

Paid July 10-91.

O D. Mansfield
Removed Mound

Mr. Bishop the
man that did the
mound builds skeleton
Manuscripts over the one to find
it.
The following is a diagram of the
grave



Jens. Jorgensen

Richard ~~Hoare~~
Hoare
Admiral Point Wis.

Wm Dwyer
Decorah Iowa
The quarry man that has
the Rays Orthoceras

From Fork

Beloit. Wis.

Cincinnati group 165' — 240'

Galena 125' — 200'

Upper Blue Beds 15'
Very fossiliferous

Upper Buff Beds 54'

Fossils in colonies near the center.

Lower Blue Beds 23'
Very Fossiliferous

Lower Buff Beds 23'
Fossils at very abundant except in the shaly portions.

Sandstone 2'

Impure limestone 4'

St. Peters

Trenton

Sections made from borings at Beloit Wis. by U. S. Geological Survey, plate III. Bulletin U. S. G. S.

St. Peter

Notes from Hall

Large quarry about 3 m. n. of Beloit near the C. N. W. R. R.

Another quarry on the same R. R. not so far north. See the ravine below this quarry in the "Lower Blue Beds".

Carpenter's quarry a mile or more to the S. W. of the last. See also the ravine below this quarry.

Hess' quarry and Hanchette quarry near by.

Smith's quarry: ½ mile N. W. of the last quarry is the one owned by Mr. Smith. The Galena comes in in this quarry.

The quarries at Rockton Ill. present a magnificent section of the Niagara beds to the lower portion of the Upper Blue Beds.

100 species are known from these loc.

Galena beds cap the hills. The lower portion only is to be found. See cut on Western Union R. R. in the town of Turtle between Beloit and Clinton Junction.

miles from book

Janesville

A number of extensive quarries and natural exposures are to be found here.

At a quarry 1½ miles west of the city is a large quarry. The basal layers are not very fossiliferous. Above these lie layers "eminently fossiliferous".

At the lower R. R. bridge at Janesville the whole of the Lower Bluff is shown, resting on the St. Peter, and overlaid by 30' of the higher beds. These beds are less fossiliferous than usual.

About two miles above the city Rock river cuts through the lower part of the formation and into the St. Peter, and a ravine coming in on the east, through which the road

east, thence [illegible] the road.

ascends from the river, exposes a large part of the higher strata. Fossil abundant in the usual layers.

Farther up the river above Fulton Center the lower strata crown the bluffs with weather-worn outlines. Near the water edge the St Peter comes in.

Neenah

Thompson's quarry and others extending north to the county line. This is in the Trenton horizon.

About one mile N. E. the Galena comes to the surface and is quarried to the depth of a few feet. The shale layers are quite fossiliferous.

Hartford

The Cincinnati group underlies the iron ore bed of this region. It is usually penetrated in excavations for cellars, wells etc. The upper portion is quite fossiliferous.

Menasha

In the vicinity of Mr. Verbeck's residence are several small quarries

Galena. Two quarries only a short distance apart in or near the city of Menasha.

Oshkosh

Two miles S. W. are quarries in the Galena. The lower portion 15½ feet is heavy bedded and has but few fossils. The upper portion consists of alternating beds of limestone and shale with a greenish-gray color. Quite fossiliferous.

Flintville or Big Suamico.

The change of the typical dolomitic Galena into the shaly beds is best illustrated in this vicinity on the Big Suamico.

These same beds can also be seen along the shore of Green Bay as far north as Pensaukee. Beyond this it is more or less drift covered.

Pewaukee.

R Sterle quarry on the south side of Pewaukee Lake there has been a shaft dug into the Cincinnati group some 50 feet for coal. The debris thrown out is full of fossils.

Notes made on trips

[7762]

7762

Tuesday July 14-91

Left Minneapolis Minn for Neenah Wis. 6.35 P. M.
Arrived in Neenah 4 A. M.

Wednesday July 15-91

Spent the day in our quarries about one mile to the south east of Neenah in the upper member of the Galena formation. The country is almost flat in this region and therefore the quarries are below the general surface of the surrounding land. The beds seen cannot exceed ten feet. The upper most layers are very shaly, somewhat sandy, rapidly disintegrating when exposed and of a light yellow color, with greenish spots. Fossils rather common but not well preserved, owing to the

soft and sandy nature of the shales. The most abundant fossil is a sp. of Rhasopora. Other species are Orthis testudinaria, O. bellarugosa, O. sp. similar or like the one occuring at Cannon Falls (ribely striated), O. Iowaensis, Platystrophia biforata, Leptaena sericea, several species of gasteropods and one specie of Illaenus. Also one specimen of Lingulagma Schucherti and an Orbiculoidea sp?.

Neenah Thursday July 16-90

Neenah Thursday July 16-91

Had a buggy and drove over to the east side of Lake Winnebago for the purpose of collecting in the Trenton Upper Silurian. About two miles south of Clifton I found an exposure near the water edge. The shales at this locality are exposed about fifteen feet, weather to a blue color but are chocolate tint upon fresh fracture. The basal layers are a mass of Leptobolus occidentalis. Some thin layers of limestone have bryozoans but their preservation is so poor that it is impossible to determine them. These layers seem to be directly equivalent with the Maquoketa shales of Iowa.

Near the village of Clifton and north of lime kilns, about thirty feet above the lake level I picked up

several specimens of Rhynchonella cafax.

The Hudson River shales in this region is about 75 feet thick above the lake level. Above this comes the Niagara limestone forming the cliff the lower layers of which are very clean. Nowhere are there any good exposures the whole being covered by the Niagara talus.

Passed Friday July 17-96

Neenah Friday July 17-91.

Yesterday in going over to Clifton I saw great piles of rock in the city of Menasha which I thought would prove to be Galena. Upon investigation this morning I learned that it was taken out of the river by the dredge and proves to be the lower Cherty layers of the Niagara. If I remember the State Geological map correctly the Niagara is not plated as coming this far east.

In a small quarry on the road to Appleton belonging to Jens Jorgensen and about one mile and one-half east of Menasha the Niagara is again exposed on each side of the power house. There is a distinct anticlinal to be observed in these two quarries. No fossils to day.

Left for Oshkosh 2.05 P.M.

Oshkosh, Friday July 17-91.

Arrived at 2.37 P.M. Started out at once for the quarries 2 miles to the south ~~west~~ east of the City. Four large quarries were visited and found to be in the Salina. The horizon is the same as those at Neenah. Fossils are more numerous and of a greater variety. Found some fragments of Lirgulasma Schuchuri and four specimens of Clitambonites americana. The other fossils are about the same as those collected at Neenah.

Oshkosh Saturday July 18-91

Finished collecting in the quarries visited yesterday afternoon. Left for Fond du Lac at 2.37 P. M. Made direct connections here for Iron Ridge which place I reached at 5.05 P. M. After supper walked to Iron Mountain and examined the extensive diggings for the Clinton iron ore. This band of ore is at least ten (15-18) feet thick. The upper surface is uneven and directly overlain by the Niagara dolomite. To the south of the diggings in the road to Iron Ridge the Hudson River shales are somewhat exposed. Picked up a few fossils and returned to the hotel.

Iron Ridge Wis.

Sunday July 19-91.

Started out early for the exposure discovered last night. Picked up quite a number of fossils. Was directed to a place near by back of an abandoned house to the debris taken from a well. The amount of material in investigation was small but very prolific in Brozoans. The other classes of fossils are rather rare at this locality.

In the afternoon the Hotel Keeper Mr. P. H. Rhodinger drove me over in his wagon to a quarry in the Rig drift about 3 miles to the North of Iron Ridge. He said I would find "petrified hickory nuts" here.

petrified hickory nuts of here.

After considerable searching we found them and they proved to be a specie of Pentamerus.

Saw no other Hudson River exposure on the way other than that looked over in the morning.

Beloit Wis.
Monday July 20-91.

Raining at Iron Ridge this morning. Not wishing to loose any time packed up and started for Beloit via Milwaukee at 8.45 A.M. Beloit was reached without delay at 2 P.M. Started out at once for the quarries on the Chicago and North-western R.R. Found two of them about 2½ miles north of Beloit. Fossils not numerous.

Beloit Wis.
Tuesday July 21-91.

Visited the same quarries

visited the same quarries

seen yesterday. The fossils from horizon ii Ft Atkinson in the Wis. reports as the "Lower blue beds" and are the top layers of these quarries.

Beloit Wis.
Wednesday July 22-91.

Looked over the largest quarries in this vicinity and known in the Wis. reports as Carpenter's quarries now owned by Mr. Camp. The horizon is the "upper buff beds". Fossils very poor and not abundant.

In the afternoon started for the quarries at Rockton Ill. This place is but four miles S. W. of Beloit yet the limestones is decidedly more compact than

in any exposure of the "upper buff" in the vicinity of Beloit. Fossils rather rare but fairly well preserved as casts. Bought one of the men in the quarry a few fossils for which I paid him 50¢. Stopped over night in Rockton at the New England House.

Beloit Wis. (Rockton Ill)
Thursday July 23-91.

Started for Beloit at 8.45 A.M. Reaching there packed my fossils and started for Portland five miles east on C. M. St. Paul R.R.

Found no fossils. The "upper buff" beds at this place are very sandy and friable. Got back to Beloit and started west on the Hanchett quarry and another one a short distance to the s.w. of it. The first has not been worked in years and is entirely overgrown with grass and weeds. The other one is a new quarry in the "upper buff" Fossils Rare. Returning I finished my packing box which I shipped by freight shortly before 6 P.M. At 7.33 I was on my way to Janesville.

Janesville Wis.
Friday July 24-91.

Collected to day in two quarries one on each side of the road just over the vehicle bridge below the C. M. & St. P. Ry bridge. The beds exposed are the "lower buff" and the "lower blue" Trenton beds. Fossils quite abundant and well preserved. Also looked over the rock thrown over the embankment of the canal to the woolen and cotton mills. Saw section of a small quarry to the east of the cotton mills.

Janesville Wis.
Saturday July 25-91.

Looked over a quarry about one mile from the depot on the

C. M. & St. Paul R.R. to the north ~~east~~ west. Here the "lower buff" is seen to rest on the St. Peter sandstone. Could not see it as the quarry in that part was filled with water but the quarry men said that "white sand rock" came in there "below the limestone". The entire "lower blue beds" and about 15 feet of the "upper buff beds" are also exposed in this quarry. Fossils not as numerous here as in the quarries to the south.

In the afternoon looked over the rocks thrown over the canal embankments near the woolen mills to the west of Janesville. Found the usual fossils. Gastropods and Pelecypoda most abundant.

Janesville Wis.
Sunday July 26-91

Spent the morning in writing letters, in the afternoon packed fossils for a time and then enjoyed a boat ride up the Rock River to the pic-nic grounds. At this place on both sides of the river are quarries in the "Lower Tuff" and "Lower Blue Beds" resting upon the St Peter sandstone.

Janesville Wis.
Monday July 27-91.

Packed two boxes of fossils and had them forwarded to Minneapolis. Took the

9.33 train for Dunmore.
Before noon visited a quarry in the town of Dunmore No fossils worth taking along. In the afternoon walked weston the C. M. & St. Paul R.R. about 2 miles. Several cuts and a quarry were examined all in the Galena horizon. Fossils very poor caused by the rough crystallization and the dolomitization of the rock. Receptaculites — abundant
1.03 P.M. started for Mineral Point Wis.

Mineral Point Wis.

Tuesday July 28- 91

Spent the morning in collecting in quarries in the rear of the woolen mills and the lime factory. The "lower tuff" and the "lower blue" beds are exposed. Fossils not numerous. Bought several Orthoceratites of one of the men in the quarry.

Since Sunday my throat has been very sore annoying me considerably. At noon a fever came over me, compeling me to remain in the hotel and attend to my throat. The fever left me late in the afternoon.

Rain after 3 o'clock.

Mineral Point Wis.

Wednesday July 29-91.

Drove over to Dodgeville eight miles to the south. Mr. Marsh the hotel keeper has quite a collection of minerals etc. but few Trenton fossils. Visited a few localities in the "lower blue" beds but found very little of interest.

A thunderstorm set in at 2 o'clock lasting until 3.30. Returned to Mineral Point at 4.30. After this visited a mine on the outskirts of the village. The crevice leads down to and through the lower blue beds into the lower buff where a horizontal deposit of lead, zinc and dolomite

of about two feet thickness has formed. I understand from miners that all the clevices form a horizontal deposit at this level. Lead is called by the miners mineral; zinc blende = black jack; Carbonate of zinc = dry bone. This dry bone is used exclusively at the zinc factory in making oxide of zinc for paint.

or smithsonite

Thursday July 30-91
Mineral Point Wis.

Collected in the surface
burrow on the farm of Richard
Hoare Esq at this place
only that I was able to collect
siliceous fossils. These diggings
are quite old and picked over
considerably. Still I got a number
of fossils mainly however
Streptelasma corniculum.
Visited other diggings in
the afternoon but found
nothing.

Mineral Point Wis.

Friday July 31-91.

Packed up a box and forwarded it to Minneapolis. Visited another surface digging in the fair grounds but found only a few fossils mainly S. corniculum.

2.05 P.M. started for Dubuque via Warren Illinois Arrived at Warren 3.25 and had to wait until 5.35 for the Ill. Cent. R.R. train for Dubuque. Visited a quarry in the Galena formation East of the town. Fossils few and poorly preserved. Arrived at Dubuque 7.15 P.M.

Dubuque Iowa
Sat August 1st 91 Saturday.

Rain until 9.30 A.M.
Visited a series of 9 quarries in the southern portion of the city. The Galena formation at this place, and in fact all the way east to Galena crops out in great bluffs and heavy bedded throughout. The fossils seen are usually casts, poor and not very numerous. Picked up a Chiotreta which seems to be identical with those found by Hardeman and Winchell. Also a few specimens of Asterocrinus and Dalmanites.
2.45 P.M. left for Strait on the Chicago St. Paul and Kansas City R.R. Arrived there at 3.40 P.M. in the afternoon in the R.R. cut just north of the station

fossils quite plentiful particularly the Orthoceras gregarium and Leptobolus occidentalis. Found accomodations at M. Breitbach in the village of Pattnersville about mile north of Graf.

Graf Iowa.
Sunday August 2-91

Spent the morning and afternoon in the R.R. cut and the Ledge in the warm road near by. At the latter place quite a number of Spring Valley Union Brachiopoda occur. Some of these are Leptaena sericea Rhynchonella capax, Strophodonta

Asaphus canalis & *Asaphus platycephalus*

Trinucleus concentricus, *Orthis testudinaria*
etc.

Grafton Iowa
Monday May 3d 91.

Collected in the morning in Maquoketa creek just opposite to Mr. Breitbach farm. Fossils about as in the R. R. cut. Higher layers are here to be seen which appear to contain the Buckhorn fauna of the wagon road cut. From 11 to 12 A.M. packed two boxes which were shipped for freight. Collected again in the R. R. cut and wagon road cut. Started for Dubuque at 3.45 P.M. Then wrote a letter to Winchell upon which to start. Left Dubuque for Mc Gregor at 5.05 P.M. reaching the latter place

at 10.40 P. M.

Mt. Forest Iowa
Tuesday Aug 4th 91

Visited a quarry just west of town and found it to be of very heavy bedded dolomitic limestone. No fossils visible. Face of quarry nearly 40 feet. Then followed the road out about ½ mile and came into some thin greyish limestone layers containing a fauna identical with the one occurring at Burial Point just above the town building stone. The exposures are very limited and therefore could

very limited and therefore copies

not get a large amount of fossils.

In the afternoon visited a quarry operated by the government about 2½ miles north of Spencer. Rock it all in the Lower dolomitic limestone and St Peter found no fossils.

Decorah Iowa
Wednesday Aug 5th 91

Started at 8.20 A.M. for Decorah Iowa via Calmar, Arriving there at 1 P.M. Received a card from Schmidt, stating that he had left for Granger.

Collected this afternoon at our old abandoned quarry in the bluff of the Upper Iowa River in quarrying the Lower Trenton limestone which is here very com-

and in layers from 8 to 10 inches
the overlying "green shales are
thrown out. In these dumps
the fossils are numerous and
the same species are found that occur at
St Paul and Minneapolis.

The limestone makes a good
marble but is poor color and
is cut into slabs in a small
mill run by operator by water power
derived from a large spring coming
out in the Galena limestone.

Above the green shales come
some limestones and shales of a
blue-white color and holding a
Galena fauna.

The green shales are not over
10 feet thick. Of this thickness
I saw eight feet.

Decorah Iowa.
Thursday Aug. 6-91.

Collected today in various quarries all in the lower Trenton limestone and green shales.

Packed up my fossils so that I can get away early to-morrow morning.

Made an agreement with Wm Dwyer a young quarryman for two dollars that he would pack and pack two very large specimens of Orthoceras to the Post Office.

See section in small book of this locality.

Decorah Iowa
Friday Dec. 7-91.

Shipped a box to Rochester. My kit was forwarded to Clifford at Clarion Falls. Got a wheel down in the way to Bruce. Minn.

Contracted a heavy cold while in Decorah, which became very alarming in its nature during the trip north. At Bluffton I purchased some quinine, and Aconite and arrested north progress enable to collect any water along the route because of my cold condition.

Arrived in Bruce at 7 o'clock P.M.

Met friends at 7:30 P.M. Had a fine and pleasant

Granger Minnesota,
Saturday Aug. 8-91.

Crossed track into Iowa about one mile south of Florence ville. On the road the Hudson River group is somewhat upraised. Found many specimens of C. Whitfieldi, Rhyn. Clinella, Ogleyi and Strophelasma Corniculum.

On coming through Granger I spoke to the daughter, a graduate of McGill College Montreal, directing me to Mr. Hazen as a Collector of fossils. Called on Mr. Hazen and found him to have many interesting specimens. He showed me a Calcite set filled with Cystiphyllum gregarium and identical with those collected by me at Stop 16 page 17 of our journal near Granger but the cavities

in a conglomerate the exposures seem to be part of a Chocolate colored but a Quartz white.

He also showed us several examples of Pentamerus Oblongus procured on the Eastern Coast of the Island. These were brought down during recent storms from the north or indicate the existence of Drift in the vicinity.

Of Trilobites he has quite a selection, among the larger collection, several fine examples. Two magnificent casts are to be returned from with Gothic perfection impressions of Trilobites are found in a quarry on the side of a Mt. about two miles of the Devonian Limestone and is located in Lorde. The associated

fossils are not indicative of the age of the deposits. They are either Upper Salina or Lower Hudson River. If the latter which is probably the case we found no Salina fossils there. The formation has here a thickness of at least 50 feet. On the way back to Stanley in the road and 1½ feet above the river, we found the same assemblage of species as found in the vicinity south of Elmira.

Hudson River shale fossils were again found in the valley at the base of a large bluff about one mile up the stream from Stanley. The entire bluff belongs to the formation & will give it a thickness of about 50 feet. The fossils collected are at least in part Hudson River fossils.

Granger Maine.
Sunday Aug. 9-91.

Started early for Preston. About one mile or more east of Granger the road rises out of the valley and runs [illegible] on each side. The soil weathers readily and has numerous [illegible] of various size giving a characteristic appearance. Fossils [illegible]. Horizon doubtful. Topographically they [illegible] about the same horizon as those to the N. W., Upper and doubtfully identified as Hudson River.

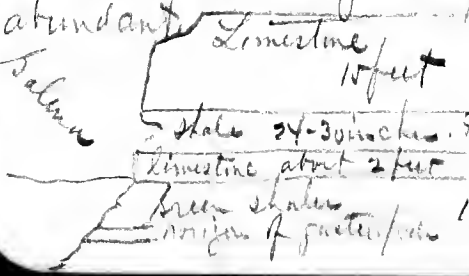
On coming into the valley in which Preston lies we [illegible] (about ten feet) [illegible] a small lot of fossils. Trenton limestone about 10 feet; St Peter sandstone ; Shakopee

and then the Lodge sandstone forming the [illegible] Bluff for about ten feet.

Preston Minn
Monday Aug. 10-91.

Packed two boxes and sent them on to Minn. Then drove through the valley towards Fountain near the village then through rich rolling prairie and later through the Trenton, green shales and Galena.

Then drove over to Ollie Stevens Place and collected in the Trenton shales. Found the fossils very abundant



After dinner drove to the Big Springs and then to Allen stunted growth. Thick horizon in Trenton limestone with some thin beds of shale. Measured the springs then the stunted growth in which I found that little species of Terebratulas and these one glass in the Trenton limestone.

The springs come out just above the green shales. From the level to the general level of the country we got least 125 feet, the thickness of the Galena.

About four o'clock started for Rockford.

Big Bluff Quinn
Tuesday Aug. 11-91.

Looked over the collection of Dr. Robbins. One Illaenus he showed us which appeared to be distinct from any seen before by me. He also presented me with a specimen of stinkstone calling Eupteine which appears to have been found in the drift. Also a specimen of Lecosphaera Corbalis? probably from the Galena limestone.

9.30 Started for Spring Valley. About four miles west of Big Bluff a cut occurs in the rail-road bed near the upper edge of the Quinnimont shale. About one mile farther still another cut occurs at a somewhat lower level in the formation. The large Strophomena alternata like var. rhomboidalis is common in the cut.

After dinner drove to Peisachdam about 4½ miles N.E. of Jiroft valley. The bluffs of this locality are about 125 feet high of a glacial white color and thin bedded. Near the base and in loose material dropped picked up two specimens of Lepidocyclina Verneuili while Orbitolites was a small slab with several specimens on it some 15 feet above the water. I am of the impression that this fauna comes from a still higher level. On the top of bluff I picked up Discocyclina Archiaci, Trichoconcha umbilicata, and Operculinoides major indicating that the entire Bluff is of Eocene limestone.

Spring Valley
Wednesday Aug. 12-91.

Visited a small quarry in the Devonian one mile east of the town and near the rail-road. Fossils fairly numerous and all about the Specie. Then visited a quarry about one mile west of town also in the Devonian. On the side of the road near the entrance to this quarry there is a small exposure of Devonian which appears to be the lowest beds of this formation. From the level to the top of the quarry mentioned above the thickness of the formation in this section must be not less than 25 feet in thickness. Fossils in the quarry are numerous. On our return to the town and near the station on the Winona R.R. at the base of the trestle there is an exposure of the Cincinnati group. A little

to the north of the latter in the quarry visited by Ulrich and myself four years ago. The fossils are few in number and indicate layers of the same horizon as the cobble cut on the rapid road visited yesterday on our way from Big Spring to the Central Tennessee Railroad. The Central thickness of the Cincinnati rocks can hardly be given 20-30 feet in thickness.

After dinner walked to the boundary cut east on the R.R. This locality once prolific in specimens is now nearly barren.

Rejoined Seffrid and then drove to Etna eight miles south to see if possible more of the Lebanon and Cincinnati groups. In this we were disappointed, seeing a few but very meagre exposures of Lebanon

As we could get no hotel accommodations we returned to Spring Valley.

Spring Valley.
Thurs Day Augast 13-91.

Started north from a cut about 2½ miles N.E. on the Kinona and South Western R.R. The cut proved to be Devonian about thy feet above Just a little north on the R.R. there is a borrowing pit in which thy lower layer of the Devonian and the upper layer of the Cincinnati group. Between the two formations there is a bed of a reddish clay about two feet thick in which are numerous nin nodules and corals in a silicious condition. There are about ten species and indicate a horizon lower than the superimposed

Upper Hennigan. At present, I shall correlate this horizon with the beds found at Bayley's Cove. About one mile north of this place three same bed were observed but much washed away and only one coral often observed. Between these two places there is one horizon fit in the Appleman's Group and Cut in the Hennigan.

After rejoining Canfield the drive to Stewartsville, on a stream a short distance to the south of Hamilton and just below the road bridge I found in a heavy rock of limestone a fine specimen of Zaphrentis Stokesi. This specimen was imbedded with the pedicle and down wards the original position of recent Zaphrentis. Above this bed

A limestone there is a series of very sandy shales of a yellowish colour and in thickness about 15-16 feet. The estimated three beds here are about 30 feet thick in going along the road. The observed fossils were Ostrea sinuaria C. (P.) crassa.

After supper in Stewartsville walked to the quarry in the Salina limestone. Easterbrook quite abundant such as Macrurea major, Munchisonia major, Turritella verticosa and Receptaculites Owenii.

Stewartsville Minn
August 14-91 Friday.

Finished the quarry section last evening. Saw good Endoceras five feet in length but rather poorly preserved. Also saw a fair specimen

of Semicircular arcade?
In it rained both last night the roads were in very bad condition, thus growing muddy. Travelling very slow. Reached High Forest at 9.30. Not pursuing camp, they drive north for Kasson which place was reached at 6.30 P.M. Passed over several rolling, rocky ridges of Galena age. Nothing worthy of mention.

Wassion Mine
Saturday August 15-91.

No quarries at this place.
Started out at once for Brantorville
2½ miles north of this place.
The Brantorville quarries are
Galena limestone and just above
the Galena shales. These
shales are shown in the stream
above the dam. See section
a few pages forward.
At these quarries we found
among other things the Lichizothe-
ca. sp. and Lingula Hurlburti.
3 P.M. Started northward
arriving 8.30 P.M. at Aeman
Hying House one mile north
of Aspelund. No exposures
seen along the route.

Cannon Falls
August 16 Sunday

Drove this morning from Mr. Osman Dimp house to Cannon Falls a distance of 12 miles. Rested during the balance of the day.

Cannon Falls
Monday August 17.

Packed two boxes of fossils in the morning.

Collected in the afternoon alongside of the road 2½ miles south of Cannon Falls in the Galena shales. This is the Orthisina horizon of Mr. Dodfield

Cannon Falls
Tuesday August 18.

Started out early and drove six miles S. E. & W. to Mr. Harris farm. Along the hills back of his house are several exposures in the Galena shales horizon. Fossils numerous and well preserved. Mr. Lofield found 229 specimens of a Camarella which may prove to be new. This species is restricted to a small area and came out of a pocket as none were found elsewhere. Picked up a very fine specimen of Illaenus.

Then collected at a place about 9 miles S. of Cannon Falls in the Galena shales at a somewhat higher horizon. Easterfoods attendants

7.20 P.M. we reached Asmans Dinge house where we stopped over night.

Near Asplund
Wednesday August 19.

Looked over a small quarry just north of Asmans Dinge farm in the Galena limestone horizon. Fossils not numerous. A very large Orthoceras was given me by the quarry-man.

Then drove 2 miles west to a large exposure in the Galena shale horizon.

After this on our way back to Dannon Falls we visited several small exposures

several small [illegible]

all in the Galena shale.
At one place we found the range of Orthiena americana to be nearly 50 feet.

Camm Falls
Thursday August 20-

Packed two boxes of fossils
Spent the balance of the day
in discussions.
3.20 P.M. left for
Minneapolis.

Aromathecium sylvestre Emmm
acanthocladium M. M. M. was found
in profusion on the road near the Rifle Range
Leeds, Cumnock, N.B.

Another feature in the installation of minute
insects on very white paper tags is the
termination of the pin at the under surface
of the glossy black flame. The bottom is covered
with white horse cotton upon which the label
and specimen is laid. The label is printed
on a smaller shiny black

Ascent of Ammonoosuc

Prairie		
Rocky Mts.	Equus & Megalonyx.	150
Plains	Bisons & Sal. Omus	150
Missouri	Kansas Fork	400
	Platte River — great unexplored	110
	John Day Aspen Meadow	1000
Rocky Mts.	Black Pine Rev. Dr. Beck, M. Bell, Col. Carradine	1000
Columbia	Uinta (Utah)	800
	Bridger Wyoming, Utah	2000
	Wind River Wyoming	800
	Sacatek (Wyoming, New Mexico)	2000
	Taos (Jon) (New Mexico)	300
	Pueblo (New Mexico)	500
Gulf of Mexico		

Period

Eocene

Torrejon

Puerco

Cretaceous

Upper

Montana

Colorado

Dakota

Lower

Comanche

Potomac

Jurassic

Upper

Middle

Lower

Triassic

Upper

Middle

Lower

Red Sandstone

Keuper

Muschelkalk

Buntsandstein

Permian

Upper

Lower

At Lagrá also on 9th
near Mr. Kaji I secured
Murchisons Silurica with his
autograph to Prof. Hitchcock
for $1.50. A bargain.

with Marshall. All their cases are their iron frame of a unit about 4 feet. The glass sashes fit into the iron frame and in that way Check cases are secured. Three check cubic cases and the tables including the shelving are secured for about $30. The shelving and support is that of the Bristar Institution—gas pipe for uprights with moveable arms secured by a screw.

Phil. Oct 26-98

Spent the morning looking over two second hand book stores. At No. 23 9th S. I purchased the 3 40 Vol. of Penn. by Rogers for $30. Lesley Dict 2d Edit. Beecher for $1.00 Lyells Principles for 20¢—1 Boyle Milk 10¢ and three other books for 9¢.

Washington, Oct 16-98
Left for Philadelphia at 12.
15 P. M. Stopping at the "Hanover 15th
and Arch Street" Hotel
Sunday

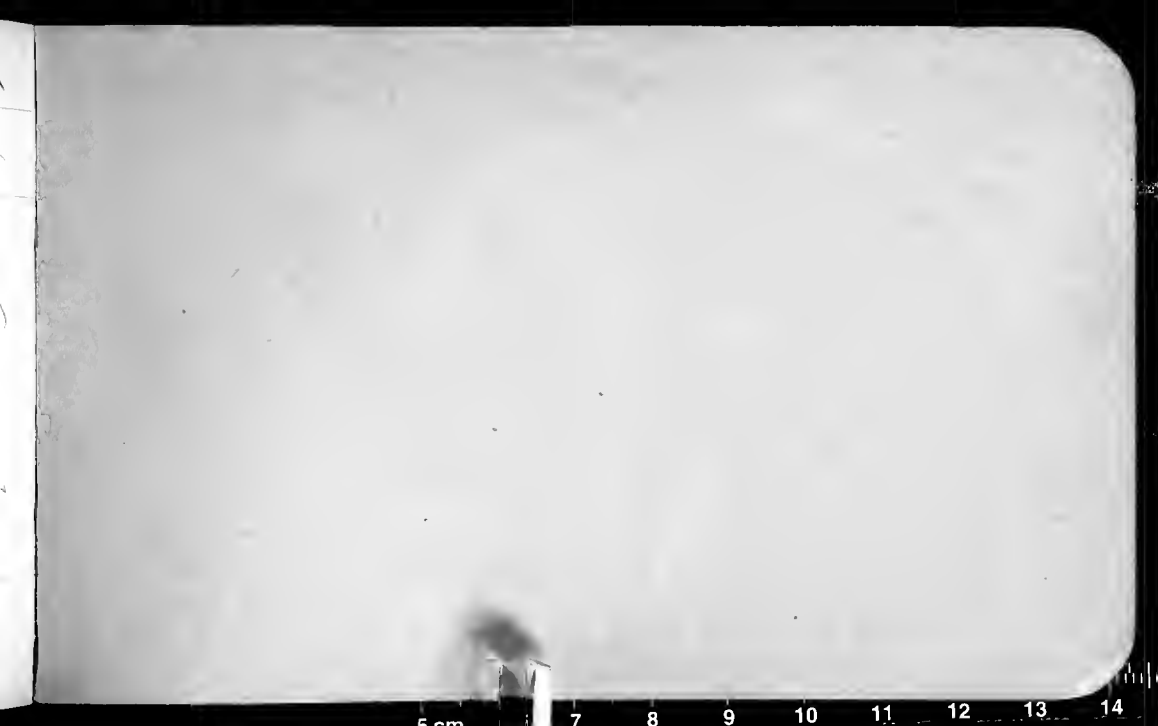
Philadelphia, Oct 17-98
Spent a good portion of the
morning at Cramps Ship Yards.
Also saw the grave of Benjamin
and Deborah Franklin. In the
same region is also the house
of Betsey Ross.
Secured three books (Machine
Gun. U. S. A. the two reports of Fra-
thestmaught for 2nd at a second
hand shop on on 13th &
Chestnut now 33 North. He also
had Lear Testaments paper in
fine condition for $3.50 Also
the five Comm. Rep of the Rogers
Group for $5.00
Spent most of the afternoon
at Philadelphia Museum Arts.

and Pendleton. All these carry

324 - [illegible]

Mrs. White

1316 [illegible]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