

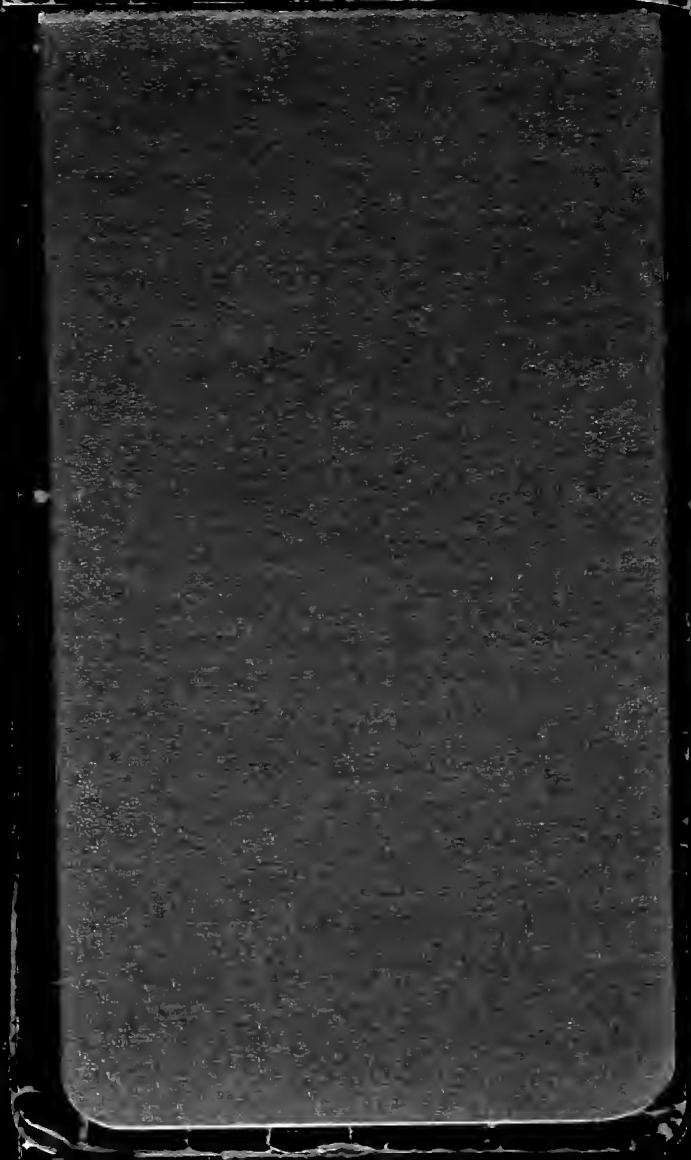
Buffalo Exposition 1901

Buffalo Cement quarries.

Lewistown, New Bloomfield 1901

Same region with Crane in 1901.





Washington May 5 - 1901

New Bloomfield Pa. 7 1901

" " 21 - 1901

Oriskany " 25

Bloomfield " 30

Delaware " 31

Please return to
Charles Schuchert
U. S. National Museum
Washington, D. C.

Monday = Oriskany

Monday Tuesday = Leinster

Wednesday = New Bloomfield - Paul Mills

Thurs. Crotona etc = Blooming

Friday = Delaware

Sat. = Port Jervis

Sunday } Schenectady

Monday }

R. S. Bassler

doc. 84

617 Brown St
Cincinnati, O

May 3	Bag transfer	25-
• 3	dinner on cars ✓	1.00
• 4	Hotel Jeff (Lumburg) ✓	1.50
• 4	R. R. Levee to Lewisston ✓	1.82
• 6	Round trip to McClure ✓	.80
• 6	Box and help ✓	1.25
• 7	3 days Hotel at Lewisston ✓	6.00
• 7	Bus	.70
• 7	R. R. Lewisston to Bloomfield ✓	1.75
• 8	2 boxes, paper etc ✓	.25
• 8	Buggy hire ✓	.75
• 8	Hotel at M. Bloomfield ✓	3.00
• 9	R. R. to Harrisburg ✓	.79
• 9	dinner on cars	1.00

\$18.91



April 22-1901

Left Washington at 7.15 P.M.
and arrived in Buffalo 7.30 A.M.

Took room and board at the
old Fillmore mansion soon to be
called Castle Inn.

Worked at the Pan American
Exposition daily from 8.30 to 5
afternoon if May fasts

May 1-1901

Spent the afternoon at the
Buffalo Cement quarries collecting
Oriskany limestone fossils. They do
not need to give the sections here
since this ground is well covered
by Pratt's papers.

From the Pratt's section secured a
Eurypterus slab with many *Oriskany*.

Nov 2 - 1911

Rained most of the day. Called at the Excavation for the morning and packed up in the afternoon.

Nov 3 - 1911

Left at 8.30 A.M. and departed for Lexington at 3.34 P.M. Will have to wait until tomorrow for a train down to Lexington. Staid at the Neff house.

Nov 4 - 1911

Started for Lewis town at 10 and arrived there in noon. Staying at the Potting house.

Spent the afternoon along the section shown along the P. P. R. track east of Lewis town Junction station. They are (in) order beginning in Ashburns Waterlime shale and ending in the Clinton upper olive shale

in the Clinton upper blue shale
I saw no fossils in the Tratylone shale
variegated shale, ? Mayana li, ? King
Sara shale. Towards the center of the
Clinton upper red shale, I found a
few poorly preserved Leptodictya's.
In the upper portion of the Clinton
upper blue shale, there are numerous
thin limestone bands many of which
are crowded with fossils but few
species. All the material I have is
from these beds. Towards the middle
of this series I saw Clithra perrida,
Proterodonta pinnata (large), Strophia
reticularis, Strophia nigricans, and
S. sulcata in crispa. Probably Niag-
sara age.

Clithra seems about a half hour
in a glance to the N.E., Louisiana
in the lower Clinton limestone. The
most striking feature is Leptodictya
rather large showing that Clinton
in the Brakley, some small Tran-
sian are also abundant.

Lewistown May 5-1901
Sunday.

Spent the morning along the first three miles of the railroad towards Leebury. The road follows pretty nearly on the strike of the Lewistown limestone. In the lower portion of this thinly laminated magnesian limestone the only fossils noticed are Ostracods, apparently the same zone as in Mullens quarry at Cumberland, Md. Towards the top of the ridge and apparently near the top of the Lewistown limestone, the rock is more crystalline and has much crinoidal material Favosites and A. reticularis. I don't think this is very high up in the Lower Postamerus zone. There may be from 20 to 40 feet more of Lewistown.

In the afternoon crawled up to the top of the ridge to "Prospect rock." In a little quarry near the base of the ridge and back of the houses of the village A. reticularis

in common with a few valves of Rhipidula galeata small variety. These fossils and the physical conditions indicate the horizon to be the Merista zone at Cumberland. Did not determine if this is the last of the Lewisport limestone but if it is then this formation terminates with the Merista bed of the Cumberland section. (See May 6-1901).

A little higher on the road there is a little quarry for road metal, the rock seems to be a decomposed shaly chert which weathers whitish. The only fossils seen were Leptopelia flabellata which leads me to think it is the base of the Oriskany and the same as the Hoell chert which underlies the Delthyris shaly at the Devils Post Pile at Cumberland. It is probably Ashburner Oriskany shale and my fossils are near the base of this formation.

Just what the Lewisport shale is has not determined (See May 6-1901)
Continuing up the road blocks!

of Crinoid stem stone are seen and
at the top of the ridge it crops out in
large masses. It is a white sandstone
slightly prinstained and abounds with
Spirifer arenosus. Other fossils seen
are Spirifer arrectus, Rensselaeria
ovoides, Phragmantaria ovalis, Hippar-
ionyx proximus, Eatenia peculiaris
and a large Tentaculites. All of
these fossils are the characteristic
Upper Crinoid species. Ashburner
gives it as 110 feet thick and the
Crinoid shale as 205 feet. Together
315 feet or about the same thickness
as at Cumberland.

Lewistown May 6 1906

Took the 7.33 train on the Sunbury
road to Mr. Chure's which is 17 miles
NE of Lewistown. Just back of the
village is a series of quarries which
the farmers use to make lime for
their fields. A face about 300 feet
high is shown here. The lowest layers

are the thin laminated limestone layers
having the ostracods. Above these ~~are~~
are other thin beds slightly nodular
abounding in Lepiditias and rarely a
Rhynchonella with lamellae like the one
from Lyser Cr. Va. In the higher beds
the Lepiditias are less common with
Spirifer vanuxemi quite abundant and
any occasional Rhynchonella formosa
Rhynchospira and possibly a small
Meristella. (See page 26)

Returned to Lewistown on the 11.08
train arriving at 11.45.

In the afternoon started in at
the little quarry back and at the west
end of Lewistown. This quarry is in
the heavy bedded limestone near the
top of the Lewistown formation. The
Lepidula galeata small form occurs
here. Going to the top of the quarry the
surface is covered with limestone frag-
ments on some which I saw Tentaculites
gracanthus, estimate this covered area
to be at least 50 feet. About here, one
also sees chunks of flint without prints

Above this the fauna is covered with pieces of a gelicious shale in which I found Leptocoelia ~~patellata~~, Amphibia nudicata, Cystina potitata etc. These fossils show this horizon to be lower Crickany. Therefore Ashburner's Acrostoma lanceolata is Crickanian.

Since I have studied the Cumberland section I have surmised that in the region of Pa. and Md. either the top of the Helderbergian was not deposited or it was eroded away. In Perry Co. Clapp's notes little Althysia sp. and here there appears to be none. In Perry Co. the entire Crickany seems to be reduced to 25 feet. Under these circumstances there seems to be a land interval between the Helderbergian and Crickanian always cutting out a good portion of the former and ^{often failing to} ~~possibly also~~ ^{destroying} much of the lower part of the latter. The results hereabouts give the following near table:

Upper Crickany 160'

Lower Oriskany 190-340'

Includes Ashburney, Oriskany shale, and Lewisport limestone. Immediately above the Lewisport limestone I found

Lower Oriskany ~~is~~ as noted above Heater here.

Coeymans

- 17' Chert a few feet thick at top.
- 7' Covered zone 50' T. gyrocantarus on surface
- 7' Heavy bedded blue li. with shaly li. partings. Has Favosites, Gyrodonta galata, Atypa reticularis, Neospirifer, R. formosa, Rhynchospira

Manlius. (No break here)

40' Thin bedded subcrystalline ^{to opary} limestone with thin shale partings. Has Spirifer ranceus, Leperditia, R. formosa etc.

20' Thin laminated blue opary limestone. Has Leperditia, Rhynchonella (lamellosa).

15' Thin paper shaly limestone with some thin blue layers. Has Ostracods like those of Mullers quarry.

20' Thin paper limestone passing downward into the lime shale

(Thickness estimated. Given here only as a general guide.)

Thickened one one by Eypren.

New Homfield May 7-1901

Left Lewistown at 6.58 A.M.

Changed cars at Huncannon and at 9.30 started on the Perry Co R.R. for this place where I arrived a little after 11 o'clock.

After dinner walked out 2 miles N.W. to Clark's Mills also known as Homfield station on the Spermans Valley narrow gauge road. There is a fine exposure of much of the Lewistown formation and all of the Clark's Mills formation. Collected material all the afternoon and had trees cut in place shortly to the rocks. Tomorrow will collect more, pack it and bring in on a wagon.

Some of the Clark's Mills beds are a part of the Lewistown, certainly are the beds above those holding Alpheidolites and the minute Murchisonia. In other words, about 90 feet of the upper beds.

None of the Clarks Mills zones
appears to be so young as typical
Osgoods. The question arises if it
is not best to include the Clarks
Mills formation in the Silurian,
calling it the ^{expiratorian}. These
terms ^{may be used with the}
Clarks Mills for the upper half with-
out Lepidodendron and Marium for
the lower half with these ^{large} ostracods.
If this is done it will remove much
of the Silurian geology from the Sil-
lurianian — the present known con-
dition — including the Pennsylvanian
zone of New York.

May 8-1901

Spent the entire day at Clarks Mills
collecting and packing the fossils by zones.
Shipped two boxes by express.

Tentaculites after its clearance in
the Clarks Mills formations continues to
occur to the end even though the spot
with object. There is nothing in these paper
lets which leads me to believe they are
as high as the Osgoods. Probably no

part is higher than the Tertacalite
zone at Hesser.

In the yellow flint shales the
regular *Schizophoria* fossils occur
in spite of the fact that *Chrysis* equal
is found here. I saw *Trichomella*
serotulifera, *ser. acuminata*, *Scirrh*
calamellus, *S. cyclosternus* and toward
the top *S. macrotentus*.

The Siluro-Carbonic line is
here, therefore to be drawn at the top of
the Park Mills formation. There is
therefore here a faunal hiatus since
no *Coeloceras* with its *Syphidula soluta*
zone occurs here.

The Seddestuppen-Cretanion times
appears in Pa. to have been one of very
wide, slow oscillation. The details of
the faunas toward the top of the formation
often prove inconsistent in that one
locality has a series of deposits not
seen at a far other locality. The
entire matter needs looking into.

(Later part of this is in error due to
a wrong interpretation of the division line
above).

May 9-1901

Left New Bloomfield at 7.30
and Lincennes at 8.20. Changed
cars again at Harriburg at 9.35
and arrived in Washington at 1.15
P.M.

May 21 - 1901

Left Washington at 7:00 AM for
Baltimore to meet Mr. Crane on a
two week trip up through the Silurian
and Devonian rocks of Pa.

Will be arriving at Bridgeport which
is opposite the city of Baltimore on the
opposite bank of the Chesapeake Bay
deposits occur in the Ordovician. There
could be many thousand feet of limestone
here. This would be a good place to
study the section Ordovician. Other
quarries are showing marks
of the Hamilton.

Had lunch at Baltimore and
went out with Crane by 12:30.

Passed over a very long bridge over the
Susquehanna and then along the
river to Duncannon. At Marysville
in Rye Twp., Perry Co., the Onondaga
is directly under the highest beds
of the Hamilton. There then is some
indication of the old land barrier which
and Lane's theory. It passes east

through Darfles and Mull Hill Co.

From Luncannon we pushed on to New Bloomfield practically following the Pery Co. R.R. On the way we passed over Catskill, Chemung and Hamilton. Made no real effort to collect.

Wednesday August 22 - 1901
New Bloomfield Pa

By 7 A.M. we started on the Catskill hills, beds and after collecting half an hour it began to rain and continued to do so all day. Waited until noon and then returned to the hotel.

The Therapsoneella lamellosa beds come in just below the cystoid horizon and occur through about ten feet of strata. Found one cystoid and but little else today.

Stopped over night at New Bloomfield.

June 23-1901

Left New Colton field before 7 am
to visit the hills where we spent
the summer. Found very wet hindering
our collecting. Secured far less than
time than ^{one} ~~my~~ ^{my} visit.

Examined the yellow flint shales in
the field opposite the wells in fossils but
saw almost none. However my first
visit demonstrated them to be the masses
flung zone. At the end of the field
in the woods the limestone occurs as
a fine conglomerate.

Saw no trace of the Portuguese
galathea zone and I believe there is none
here. Therefore there is a lack of discon-
formity here between the "Clark's Mills beds"
and the "Yellow Flint shales" and again
between the latter and the limestone.

Here at Clark's Mills there is a sharp
difference between the Clark's Mills beds and
the limestone here than bedded limestone
The lower is marked by Lepidodictya while
the upper begins with the agatid bed

and soon introduces Tentaculites gyra
canthus.

The fossils collected on this trip will
have to be separated according to my former
collection.

In the afternoon drove from
Clarksville to Newport where we
crossed the Juniata. The rains of last
night has been very heavy for the Juniata
is out of its banks. Then we drove
along the Juniata to Mifflintown
where we stopped at the Jacobs
house. Drove 22 miles today.

Friday, May 24 - 1901

Mifflintown

Crane left me here at 7 A.M. by
train to the Clinton ore banks in the
Ferguson Valley not far from Lewis-
town. He is to meet me Sunday
morning at the National House in
Lewis town.

I take the 9.00 A.M. train for
Mt. Pleasant. Arrived 10.38.

There are two quarries here on the

east of the village, which I did not
visit but me to the east. The latter
is a bar bluff on the edge of a small
stream and the quarry cuts the beds
through the strike. It begins low on the
Lorraine limestone the layers being al-
most of the Onondaga. I saw no fossils
excepting a few Lepiditina and the
small Pachydictya until beside the
stream. Here the fossils are clear and
but enough was seen to show the
lower Pertamens zone. It has also
a Cladopora, Alveolites, Favosites part.
2 species, A. reticularis. Across the stream
the Cuzkany appears.

Left Mt. Vernon at 1.49 for
Oriskania via Mt. Union. Arrived
a little before 5 P.M. A heavy shower
came up but at 6 walked out to the
limestone quarries in Shade Gap. A flood
was on and I could not cross the
stream. The quarries are nearly 2 miles
from Oriskania and are very extensive
along the strike.

On returning to the Allen house I

learn that there is a way of getting on
the stream on a bridge and driving to
the quarry within $\frac{1}{4}$ mile. Made
arrangements to do this in the morning.

Saturday May 20 - 1901

Criticism

A general rain is on this morning
so therefore concluded to return to
Lewistown. left Criticism at 7:32
and Mt Union at 9:48. arriving at
Lewistown before ten.

Crane turned up by 1 P.M. the
rain driving him away from the
Clinton locality in Hagerman valley
six miles out from Lewistown. In
the rain we started out on the
trolley cars for Reidsville to see
the Ordovician limestone.

This limestone seems to have a
great thickness but all we could here
examine was the uppermost 200
feet or thereabouts. In the lower
portion of this 200 feet we only saw
Leperditia fabulites, Bathyurus tail

and Jugospora neuroirostra. Higher up Rafinesquina and Strophomena came in with a rare Lepiditja. At about this zone or a little higher these same species continued along with Orthis subaequata var. circularis, O. tricrenaria (sp.) and O. bellarugosa. Still higher I found Sonitoceras anceps, Maclurea, Fusispira and a small Endoceras siphonifera.

Shipped by express from Lewistown a package containing the above mentioned fossils and the few collected yesterday at McVeytown.

Sunday May 20 - 1901
Lewistown to Middleburg

Left Lewistown at 8.30 and arrived at McClure at 12.30. Examined another quarry here, the one I did not visit on my former visit, ~~but~~ but found almost nothing of value.

visit on my former visit, but
found almost nothing new.
This quarry like the one of my former
visit is in the lower beds, the more solid
flint-black limestones with Lepiditæ
alta. This is followed by another 40 to
50 feet a less fine limestone and more
nodular having Spirifer modesta. In
the lower dark beds I also saw a
T. gracanthus.

Between Danvers and Paxton-
ville but nearest to the latter place beside
the road are small quarries in the same
beds as those of the Clinis. Here I
saw a very fine Pentamerus galathea
(single form) proving the horizon of Merista
to be the same position as at
Cumberland.

Stopped at the Central Hotel kept by
Mrs. D. Holden.

Rained all day although the
weather man had it "fair".

Monday Mar. 27-1931
Middlebury to Northumberland.

Left Middlebury at 7 A.M. on
the ridge road. After a very short
drive collected in a number of quarries
some quarries beside the road. The
following is a rough section.

Dark shaly impure li.
Breathy. Modular. About 20 feet seen.

Solid blue to black li. with a chaly
parting near center holding the small
fossils collected. Stromatopora and Favos-
ites most abundant in lower half.
About 40 feet.

Thin bedded impure li. Eye bedded,
No fossils seen. About 20 feet.

Some 5 or more miles farther
N.E. are 2 small quarries but secured
almost no fossils here.

Arrived at Shelburne by 11.30
Distance traveled 12 miles.

arrived at Selinsgrove by 11:30
Here are some greatly surprised in
learning that no major bridge crosses
the Susquehanna here. Crane drove
over to Northumberland while I walked
over the mile long R. R. bridge at
Selinsgrove and then a mile N. along
the Northern Central R. R. above
Selinsgrove junction. Here there is
a complete section of the Helderberg
from the Salina to the Chickama. It
rained so much and so hard while
here that I could do nothing. Will
come back to it again.

Met Crane in Lumburg and then
took the trolley car to Northumberland
over one stop over night.

Packed my fossils and will ship
tomorrow in express.

The top piece well on one of the
cut beds near Selinsgrove junction had
D. macroplicata and P. galeatus. Most
sure, the rock came from is not known
by the station master but he thought
it came from some loc to the north.

Tuesday May 28-1901
Northumberland to Bloomsbury.

Rainy, hard all night and
Mr. Cranio's horse very lame, we con-
cluded not to start out this morning
later in the day after consultation
we concluded on account of the
condition of the horse to separate.

After dinner I made the
arrangement to travel for Bloomsbury
more direct than for a few days
collecting to the south-west.

At Bloomsbury wrote letters to
Knox, Ulrich, Morse, Becher,
Simpson and Brooks.

Stopping at the Central Hotel @ 1.50

Wednesday May 29-1901
Rain all day.

Thursday May 30-1901
Bloomsburg Pa.

Started out west of Bloomsburg and began to collect in Grove Run quarry at Provania 5 miles west of Bloomsburg, just half way to Danville.

The section here ^{is the more complete one} is given to White and modified by me as follows.

July 6 S. of quarry with Stormville shale. Saw P. caudata (second one) 100'

Stormville conglomerate 4'

There is only a conglomerate for ^{the lower} 100' in which are numerous M. sinuosa columns, Fav. helictyriae and Pentamerus caletus. Saw no P. arvensis. The balance ^{is} a flint band without nodules, the usual flint ^{band} seen in so many places joining the Stormville shale.

Stomatopora zone 56'

At the top of this series is a limestone covered with Leptaena. All are then held in place by shale.

Stomatopora red 10'

interbedded with small branching Fav. and Leptaena.

Feb. 1880 ... 57.

... beneath ...
... shale ...
... li. ...
... with ...
... The ...
... is a bed ...

last and ... 12'
... 100'

... Mod. ...

...

... Fossils not abundant as in
the ...

Soil 5'

... limestone 10'

... bed 12'

Blueish shale 5'

has R. ...

... 20

Stromatopora at top with Halysites

at about the center and below

Crossed limestone 12

Has an abundance of *Marionia* stems, some plates (? cystids), Cladophora, Favosites and Alveolites.

Boasted li 20.

Broadville li. (L. alta) 120

Note

In the dump of the old tunnel below the Grove Bros quarry in a blue lime shale I found together Ectocaria beudanticus and Ectocaria galathea typical forms, these certainly are from the Stormville shale and not to show that they ^{belong to} belong to of some little distance in the shale, and are not restricted to the Stormville conglomerate and sh. etc.

Had the keeper of the saloon at Horanville take me to Stormville.

Packed the box after supper and will ship it by express tomorrow.

Should carefully look for T. con-
cretaria but saw no trace of them, although acta occurs just above the Stormville limestone and below the Stormville conglomerate. see entire evidence of the latter

part of the Silurian limestone
Candy Mills beds points unmistakably
to Silurian aspect. On the other hand
they appear to be no break between the
Silurian ls and the St. Albans shale
and yet the two faunas are wholly distinct.
Some correlation expected the life of the
uppermost Silurian sea wiping out as it
were the limestone and fauna and
is now a new cycle with chert and
blue shales with chert with a fauna a
migrant since it is not a development
out of the Silurian one.

July 31 - 1901 Friday
St. Albans Vermont 5 m. below
Langley
Left St. Albans at 8.44 and
arrived at the Fair View at 10.10. I walked
north 2 miles to where this very complete
section begins
Crest of hill
Soil 10'

5 - crest of hill
Bed 1. It is a "visible 20" or
at the south end did not see this
bed but at the north end a little of it
still remains, along the rail road. Here
I saw red globulites in a chert.

Bed 2. At the north end this bed is well
shown. Chert in many places but
mainly at the top. S. Galedictus
~~is~~ quite common. It is the one
with few specimens. Also saw Coelospira
concaea.

Bed 3. Mostly shale, dark, with limestone
towards bottom in the middle have S. Galedictus

" 4 Fossil. Coelospira.

5 out. P. galeatus.

" 6 T. syncanthus & L. alba.

" 7
" 8

9 have fossils from near the top.

" 10

" 11

" 12 have fossils from here. For Chamaeferus
bed occurs here. Probably in the lower
system. In some places it is abundant.

" 13, 14 - 20. No diagnostic fossils.

Bed 21 I have fossils.

" 22 " " Eurypterus here also.
There must be the *Leptæna* or
Candrot.

The Oriskany is ^{more} ~~more~~ than 20
feet thick since at the northern end of the bed
it is but a few feet from the Orisk. with
S. flabellata and some *Leptæna* or *Candrot*
at the lower end.

Left Lunenburg at 5.20 P.M. and
arrived at Harrisburg 6.55. Stopped
at Hotel Russ.

Correlating the Selinsgrove section
as published on p. 344, Report G 7, I
believe the following will prove to be near
the truth.

Beds 1 Oriskany 20 feet or more.

" 2-4 Stormville or New Scotland
125 feet.

Dev. " 5-9 Coe's mans 108 feet.

Sil. " 10-14 Manlius 117 "

" 15-21 Transition or Bossardville
limestone. 118 feet.

15-22 Transition on Chesapeake
" 22 Revis the "Upper Salina" or
the Rondout.

When the fossils are studied it may prove that the line between 4 and 5 and 9 and 10 are not properly drawn.

The one remarkable difference between the Pa. and N.Y. Coeymans is that Tentaculites yelacanthus continues to the end while in N.Y. it is restricted to the Manlius. In the end it may be established that most of the Coeymans is better placed in the Silurian. In N.Y. certainly the upper 10 to 15 feet cannot be separated from the New Scotland, since most of the species are common to both. In the lower Coeymans however the fauna is very dissimilar and may prove in N.Y. to be more Manlius than Coeymans. Certainly the Stromatopora and Mariacrinus, large columns in Pa. occur in the Manlius as limited above.

Saturday June 1 - 1901

Harrisburg, Pa.

Stopped over here to see the limestones along the Susquehanna from Bridgeport south.

Just a little beyond the Bridgeport bridge is a thick series of dark much crumpled shales. Looked for fossils, but saw none. A little farther in the rail road cut and then along the railroad to Baltimore is a series of heavy bedded limestones dipping from 130 to 35 degrees south. These limestones weathered are from buff to white, but on fresh fracture are dark blue to black. ^{in places they are thin bedded} on the rail road cut saw most evidences of fossils, but could make out nothing of them. I then hunted along the main line south for 1/4 mile when I had the first clear fossils, and these are not determinable. They are sections of large graptolites. I have one specimen and of but others sketches. Both

Large spots of fossils I have one specimen
and 50 but others all lost.

of the latter appear to be Rafinesquina.
One's first impression is that
the entire limestone are of Proterozoic
age, but it is a little strange that
so few fossils turn up. Some days
ago I concluded this series to be like
that of Reidsville but now it appears
it may fit in with which inland
sea limestone.

Left for Washington on the
5 P.M. train, arriving in Washington
at 8.35

