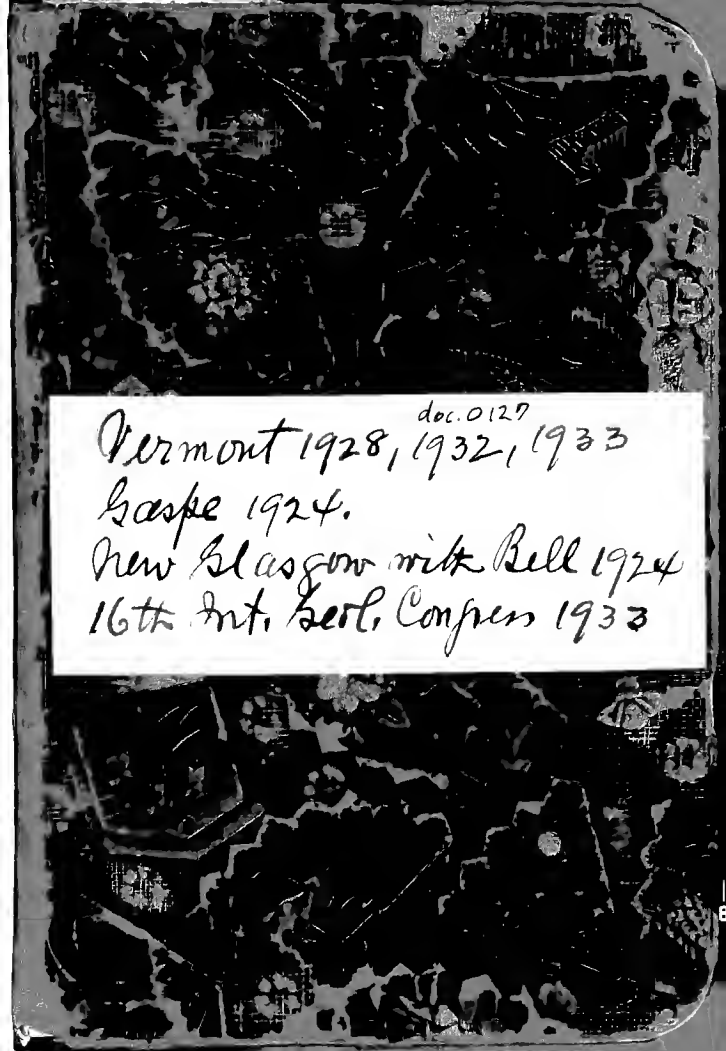
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Vermont 1928, 1932, 1933
Gaspe 1924.
New Glasgow with Bell 1924
16th Int. Geol. Congress 1933

1909.	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
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1909.	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
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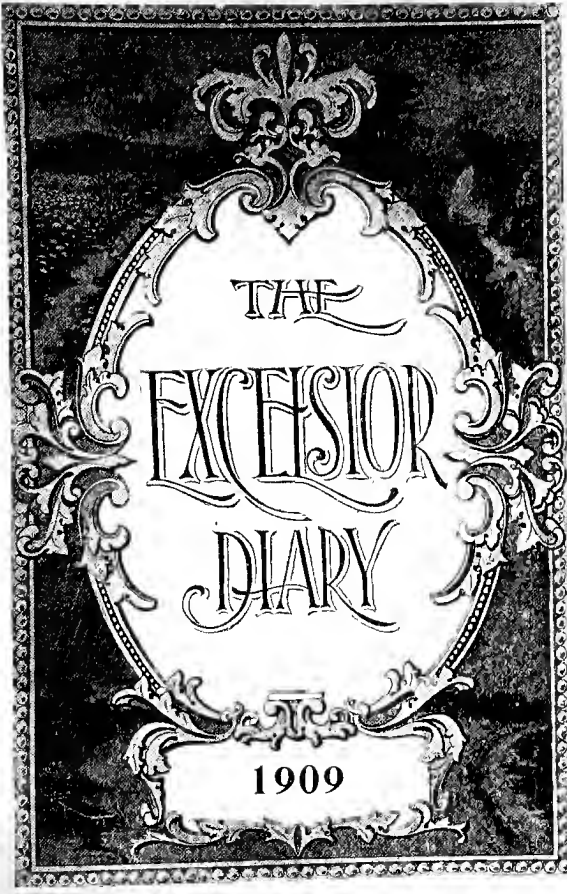

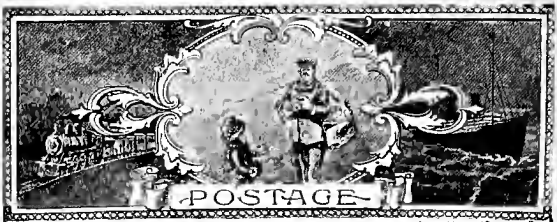

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THIRD CLASS.—Printed books, pamphlets, circulars, engravings, lithographs, proof-sheets and manuscript accompanying the same, etc. Circulars produced by hektograph or similar process. The limit of weight four pounds, except in the case of single books. The rate of postage on mail matter of the third class is 1 ct. for each 2 ozs., or fraction thereof.

FOURTH CLASS.—All mailable matter not included in the three preceding classes, which is so prepared for mailing as to be easily taken from the wrapper and examined. Rate, 1 ct. per oz. or fraction thereof, except seeds, roots, cuttings, bulbs, plants and scions, which are 1 ct. per 2 ozs. Limit of weight, four lbs. Full prepayment compulsory.

Registry fee, eight cents.

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Articles of every kind or nature which are admitted to the domestic mails of the United States, will be admitted under the same conditions, to the mails for Canada, Cuba, Mexico and the Republic of Panama, except that commercial papers and bona fide trade samples are transmissible in the regular mails at the postage rate and subject to the conditions applicable to those articles in Postal Union mails. Packages—other than single volumes of printed books—the weight of which exceeds four pounds six ounces, are excluded from the mails for Cuba, Mexico and the Republic of Panama. Sealed packages other than letters in their usual and ordinary form, are unmailable to Canada, Cuba, Mexico and the Republic of Panama.

Mail matter for Hawaii, Porto Rico, the Philippines, the islands of Guam and Tutuila, the "Canal Zone," and Shanghai, China, is subject to domestic rates and conditions.

INTERNATIONAL OR FOREIGN MONEY-ORDER FEES.—$0.01 to $10, 10c.; $10.01 to $20, 20c. etc. to $100, $1.00.

Wea. FRI. JAN. 1, 1909 Ther.

7443 Aug 8 - Aug 13, 1924
Sep. 9 - Sep 15, (Nova Scotia)

7143 Aug. 10 - Sep. 5, 1932

7146 Aug 26 - Sep. 5, 1933

7966 Jul 16 - 20, 1932
w/ Dearborn + Longwell

7145 Sep 20-28, 1928
w/ Clark Crickmay McGarrigle

3605 Aug. 14 - Sep. 8, 1924
This accn. no. expanded by G.S. to include 1924 coll. in with his 1923 coll. (Port Daniel → Gascons)

doc. 0127

Wea. SUN. JAN. 3, 1909 Ther.

Please return to

Prof. C. Schuchert

Peabody Museum

Yale University

New Haven

Conn.

7443

Wea. ~~Tues. Jan. 5, 1909~~ Ther.

Friday August 8 1924

Started for Quebec via Montreal at 9.30 P.M. Don't to sleep in the Pullman about after starting.

Saturday Aug. 9 - 1924

Got up just before getting into Canada, at St. Johns, Quebec. Ar 6.05 am in Montreal. Train [illegible] around the station for 90 minutes, had breakfast, and in the same Pullman was off for Quebec. Left Lac at 3.45. Put up at the Chateau de Frontenac.

Sunday Aug 10-1924

Onne a den sick with rheumatism. Listless, and do not care even to see quaint Quebec.

Monday even ovorse.

Tuesday morning better

Tuesday, Dec. 12, 1922.
Packed at Cor Levis & see the old fellow that I have looked after. Saw nothing new. Eg afternoon begin to feel better.

Wednesday Dec 13, 1922
Concluded to go on to Port Daniel and get my ticket and settle to Matapedia.
Then around town again to advise, and more especially to see the station of the old Lillery to the older Levis. At Point Levis the contact of the Lor formations is well exposed. Here Lower all is grouped jumbled but necessary a pure for overthrusting or for conformable overlaps. All along to the south from Levis railway Station to Point Levis one hears a gang of thick headed Frenchmen fitted, mashed and stranding in concrete pavements. Nowhere near done, not for (but) this year until we get to Point Levis. The old abandoned R.R. station. Here the first appears above the limestones the quartzites green slates, and the

The whole stratigraphic succession in my theorem. Be that as are so marked that we cannot make out the sequence.

red sandy shales, followed by green shales. Then a transition series into the Orevitation red shales of the Dillery. Probably most geologists would say there is a complete sequence here from the Trias, but which of the two formations in the Alder is not clear. The general inference would be that the Lavis is the older.

Then climbed up the turnpike that goes east into Choice, to see the fine fold figured by Raymond in the Guide Book to the Soc. Cham. It is a fine closed fold, many miles in length, but seems to become more & more recumbent. Coming into Upper Town of Lavis, all turned to the right the red shales bendy green shales of the Lavis.

Then to the Trias north of the Lavis Ferry. Here one sees the transition from the Permian to the Triassic. Otherwise all is green shale. Are these Triassic limestones the well bedded limestones on the road to Point Lavis. After this Dolomite say as we go to the red shales, one observes going down in the section, made by the Dillery rocks than the Lavis. Certainly they are not above the

Above the wooden steps one may have at the Rhumardia gorge the first red gorge seen earlier at Point Levis. Formerly Lake must see beyond the regulation Lillery.
If Raymonds skeleton is correct, there no Objection to it, and if the sequence keeps on as one goes south along the St. Lawrence, then the red Lillery must be on top of the Levis. Then how about the Trenton Limestone at the Quebec bridge? Cut by at the base or at the top? If the latter has one have another case of an unconformity sandstone and limestone.

Normandia Zone.

Go down to the lake in the flats and up a short stretch to the steep cut with the sharp ravine, planed on a zone of red and green shales, and then the regulation green shales of the Levis. But beyond one does not get into the cut mingled red shales of the Utica.

I then walked north along the strata on shale into Langton and then west down a road across the formation mentioned. A Boy in Utica. Over again the boulders with cephalopods, and fossil-pods, at the base of the lie. Except the lie, boulders are larger, some are well rounded, but in the main they are slabs of thin bedded lie with the ends well rounded. There are boulders of gritty green shales and other shales. Round pieces are apt to be twice as large as the lie. Between some of the lie, bedding mud were laid down again with the general condition that the lie. crop. were laid down in a mixed sea.

In three different places I saw gritty green shale boulders one foot across in the regulation intraformational conglomerates. Evidently the boulders mainly mean at hand even in these intraformational conglo-

Wea. TUES. JAN. 12, 1909 Ther.

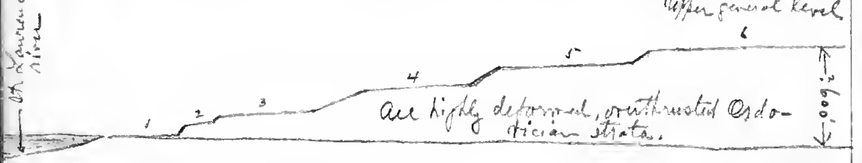
The intra formation of conglomerates here can be explained in the regular way — upcome of the Li. bottoms, sun dried, and then washed up into the angular pieces of Li. in a sandy or Lale matrix. This condition can best be seen along the Canadian Nat. R.R. near the St. Joseph Bridge Jacks.

But the Li. conglomerate with the Li. [illegible] does not get over how to explain. There are no shore lines here, and therefore no cliffs for which the boulders could have come. Ice-floes could have brought them but there are too many conglomerates to be explained in this way. If the great masses of limestone in the Quarry back of Langs are the Ogarella in place then we have the cliffs for which the boulders came as the sea washed against it.

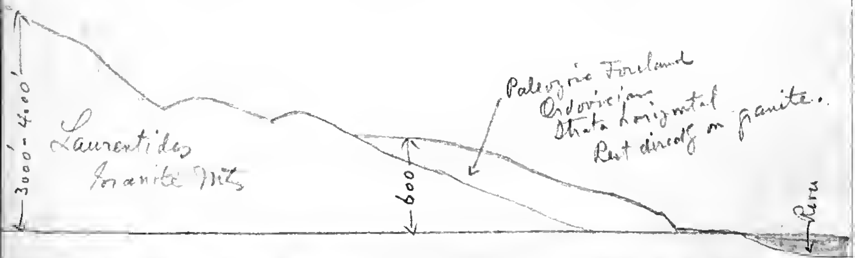
Could the St Lawrence geosyncline have been undergoing slight sinking and folding of its bottom during the time of the Black marble? If so then all the conglomerates might be explained as due to local folding during Li. and Black marble time. Remember the phenomena is local the conglomerate occurs all the way from Chateauguay and to

Wea. THUR. JAN. 14, 1909 Ther.

East side of St Lawrence Valley = Levis - Lauzon - St Joseph.
From the Citadel.



West side of St Lawrence Valley - Montmorency to Mts.



Quebec, into Arm. in T. Folding and thrusting must have taken place in C. C., (Sp. C.,?) and Lee in Eastern Vt. Central Vermont folding in Permian at the close of the Devonian. The fact that the Acadian trough has been overturned but no other Appalachian chain, that trending from the east was gone on elevating the Eastern trough while the Appalachians trough had ceased intermittently.

Paid my bill at the Chateau and at midnight I start for Montebello via Ottawa.

On way from Levis to Matapedia
and Port Daniel.

Thursday Aug. 16, 1924

Big rock cuts to west of Petit Metis, and some east. Also around Pedone. All look like Quebec again. Some are red like Lillooet. Hills rolling all about, but by no means mountainous.

Altitude 2 or 3000 ft. Hot and cool moving. Lake Matapedia to east. Ells Brook has old Silurian dike. Looks like old Lake bottom. No real exposures. Val Brilliant is as large as Bayonne or Dayton; it is beside Lake Matapedia. Lie no real exposures. Farming and lumbering.

What I saw by the Fish Lake mts. are like Laval exposures - Coastal type.

Amqui is another large village at the east end of Lake Matapedia. Hardly any rock exposures till along the flat Lake bottom country.

Some good rock cuts to the west of Amqui on Salmon. Large lumber mill there.

Good rock cuts at Causapscal. Ells calls them Silurian. A few miles east and he calls the strata Devonian.

Wea. ~~Tues. Jan. 19, 1909~~ Ther.

Thursday Aug. 14 - 1924.
Left for Mattapoisett at 10.45 A.M. Sent telegram to Dock Director at Port Daniel Centre. Held Mattapoisett at 10.55.

Left Port Daniel on time at 5 min P.M. My Foreman was at the railway to meet me. It still is raining.

There is a western sunglow so I may expect good weather in the morning.

Aug 15-1924, Friday
Worked all day around Indian Point. Adjusted my old bike took a 1 hour. Left from Gen Locality ⓒ and ⓓ.

Aug. 16-1924. Saturday
Worked all day in the Little Port Daniel river Damaschan and Mattapoisett. Left down stream almost to the limestone

[missing 1923 notebook] →

ridge of the thick bedded reef li. It lies above the Knoll series, and may have a thickness of 150 feet.

Otherwise [illegible] that is seen in Sandy Hollow Brook.

In the stream bed near the shore of the Knoll li. series. It begins with the unconformable beds and forms the thick bedded solid limestone that makes the prominent ridge.

Aug 17-1907 Sunday

Walked out to Point of Rocks and struggled again with the succession. Have nearly run down much of the part one does better the succession. It is much faulted and disgust. Especially the western limb. The eastern limb is not altogether satisfactory but it is not altogether unsatisfactory. In the vest pocket size book I made some

Wea. SAT. JAN. 23, 1909 Ther.

Sketches of the succession.
In the afternoon wrote up my work of yesterday, and read Walther Davis Beast, stole a kiss and holding.
Aspire sunny-eyed Day.

Aug 18 – 28 worked the white Pat Grand area and placed the information planned in the red write book and on the map.
Left Thursday Aug 28 at 5.40 p.m. Reached Akeley 3 miles to fix a wreck.

August 29 Friday
Worked the shore of Anse a la Vieille

August 30. Saturday
Worked the R. R. cuts at the Anse a la Vieille.

August 31. Sunday.

As the tide was low I walked the entire shore from Point Boileau, by Chouinard to the almost to Anse a la Veille. The sea-line begins in the Mc Dennis li, and continues down to the Kelly li. There made a little head land and I got over & got around. Way the whole distance is Two miles & a half.

In the afternoon walked the whole shore of Anse Bazan and found it all to be Two miles, excepting the two horns that are of Mc Dennis.

It got cold and clouded up all day and by 4.30 it began to rain.

Wea. ~~Mon. Jan. 25, 1909~~ Ther.

Sept. 1. Monday

Took a pill yesterday morning to loosen up my bowels, and from my rheumatic condition and the cold had a bad night. It is still raining this morning, cold and nasty and so stay indoors & make a few sketches.

In the afternoon walked around a little but too rheumatic to get about much.

Sister went out again to the clinic to get samples.

Sept. 2 - 1924 Tuesday

Cloudy day and Saturday-rained a.m. Took lunch and collected ferns all day on Redcliff Point Range, Got a big bag of fronds & ferns from four different localities.

Sep. 3 - 1924 Wednesday

After much of the day about Anse a la Barque to find the fault, and may be found it, but it now seems to be unnecessary to have me. Shall all can be well adjusted things settling and shrinking and flattening of the trees.

Little in the office work collected and the last of the fruit dessert use in the field li.

Sep. 4 - 1924 Thursday.

Packed up two trays of Oranges and left Basseau at 10.45 for Roseau. The Brothertons at home, home to and change for little. Paid £1 per day. Share Tent £1.00 and fed and well & did his part well.

Back again at the Sweet Water Lane.

Sep 5–1924 Friday

In the morning loafed around a little about Portsmouth wharf and the gardens in the rear. Sold but few fruits.

In the afternoon collected again at the J. B. corner of Parkman & Tarr-rockers. Got some interesting fruits and a fine Frontenac Vine.

Sep. 6–1924 Saturday.

This mainly hard and looks like an all day rain. Hovered up in the afternoon.

Packed in boxes all my fruits, the good ones and those that about Portland and 2 about 5 ounces. I now have a fair collection from this Division, but by no means a good one. That will take many years and a full summer to do.

September 7 - 1924 Sunday.
September 8 - 1924 Monday.

Spent the day steadily east to Barte and back on the Kilpa Road to prove the fault line on my map. Walk 4 miles on trail. Fenton & Schlicht in the distribution of the formations in the wide Ore Simmis syncline. Seem sure now that I have the stratigraphy and map of the Silurian of the Port Moresby-Bassens area in good order.

The thickness of the Silurian is over 5000 feet.

Shipped by Express collect 5 boxes of fossils. Net weight 310 pounds. These will look at Ihad before makes a good representation for, but is by no means the whole fauna. This can be had only by a young man who will put in an entire summer. A good deal of collecting should be done in the Three Stones to the north of King Road in the Ore Simmis Cove. Trail in and the other places where Pink lie. is exposed, the best place would be Redcliff Point.

September 8 – 1924. Monday

Shipped my five trees, from a nursery and left Port Henry at 11.15 A.M. Left the train at Crown Point, then by auto to the Destination Ferry across the river to Campbellton. Here I stopped at the new Destination Hotel one night. A fair looking and good hotel for the place.

September 9 – 1924. Tuesday.

Had a fair cut and then got ready to take the train for Albany but was advised not to as it was arriving at 10.40 P.M. instead of 11 A.M. But sold a lifepan that I would see him tomorrow morning at 9 A.M.

Left for New Glasgow on time at 10.45 P.M. Putting again at the Berdone Hotel.

September 10 - 1924 Wednesday.

Got the telegram + telephone from
Mr. E. R. Chisholm to see about
R. G. Bell. & then found out that he is
at Frostville, and he over telephone him
there.

Bell met me at 9 A M, and soon
we were started to the Lismore coast, to
see the section of the Coal, west of the Lismore
ore. It is about 30 miles N.E. of New Glasgow.

Started down the Brookfield in the old
Knoydart formation. In all probability all of
it is terminal Silurian and not at all Devonian as is now often assumed.
Of course there may be a unconformity
(Silurian)
& actual zero between the Knoydart and
the Knoydart, but even so I think the evi-
dence is best for regarding it as all Silurian. Sil.

The Knoydart is a light colored rock and
shale and muddy sandstone series with dark irregular
bands of calcite. The Knoydart comes down the
stream from the road and near the mouth
of the Brook in the stream bed in a limited

but fine sedgrave showing the dark red Lepper Horton overlapping the lighter red Knoydart. Here the contacts appear to be at right angles, but even though it is not quite so still the angular unconformity is very great. The lithology of the two formations is very much alike. There is here no Devonian at present and the conglomerate is quite absent.

About 10 feet above the contact appears the first basaltic lava flow, about 60 feet thick. It has many zones of amygdules. Then follows one shaded as, followed by the second flow about 120 feet thick. Then there are 2 or 3 small faults when this second flow is repeated on the coast and the section goes on again to the SE. Soon follows the third flow in Two flows feldspathed separated by a thin zone of trap breccia and some shale. It is about 80 feet thick.

The Lepper Horton more than the Knoydart is at times replete with calcite zones, and rain drop impressions are not rare. It is also a maroon red shale - sandstone here. Above the lava flows the beds are many coal zones, the pebbles all angular of sizes easily up to 6" many of Red. quartzites and some Lel. trachs.

All much cross bedded, and deposition most irregular. Clays a deposit of a desert with all the pebbles, [illegible] rotated with him evaporation. Also many grains of clay balls, or clay galls. [illegible]

Above the conglomerate of the Upper Horton the deposition becomes more regular bedded and becomes more and more a sandstone series. These are all ripplied (cross-rippled) and towards the top full of Esthheria dawsoni. The whole of the Horton here is about 700 feet or more thick. In the cleaner sandstone there is considerable drifted and broken up woody plant material, some of which are fragments of Arcesinites. Some of the wood is coal, and some which are coffee deposits.

The Horton is thought to be in broken relation, with the Windsor since it is at the least Middle Windsor that begins their formation. The Windsor begins with about 8 feet of shale with lie. grass, and then a limestone thick zone, about 30 feet thick. At the base occur about 40 species of Windsor fossils. The whole of the Windsor may be 700' thick.

The Windsor oolite is much riffled, the crest 8 to 10 miles apart. In the hollows of these riffles in a dence ~~oolite~~ Ll. occurs poor bivalves in great abundance.

Over the Ll. comes about 2 feet of shale, and then 10 feet of cross bedded, fairly clean green sandstone.

Then follows a bay series of reddish shales and sandstone, the latter also much riffled. Here ~~some~~ worn fragments are frequent, but no recognizable plants. No Lepidodendron seen.

About 800 feet above the base is a thin zone of oolite that has ~~some~~ small bivalves and a Patellaria. The bivalves look most like Schizodus but none are more than ½ inch long.

All of the Windsor other than the marine limit beds are of desert deposits, though one sees here no gypsum. Beds are placed in thick beds to the south along the Railway. The whole is a series of thick red clays and sandstones, much riffled, though actual denudation cross not seen. Caliche zones are not rare.

Then without ~~break~~ and ~~without~~ positive evidence comes in a lay sequence of Pennsylvanian — at least 2000 ft. The only recognizable fossils are Calamites. Strs also red Sh. and 10. with zones of intraformational conglomerates, these are the Calliche conglomerates.

Bell says that between the Windsor and the Pennsylvanian there & elsewhere a still older Penn. series. However on the whole correlations are not altogether certain, but Bell is doing the best he can on all the evidence available.

All the strata seem today appear to be connected with desert condition — most decided with the Horton. The marine horizon is known in Cape Nova Scotia above the one above mentioned above two regular Windsor one (the one with Potellostiums)

Our examination stopped at the mouth of Knoydart Brook, and Knoydart Point.

Dow but the one angular unconformity today. All is conformable sequence.

The Priest (an Irishman) at Arisaig is much interested in geology, and is inclined to put up in his house the geologists. His name is Father Rankin.

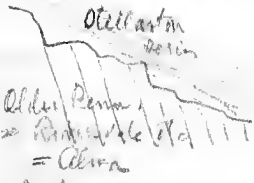
Bell put me up in Norfolk House, a better one than the Rendalls.

Last year Father Rankin read in my text-book and said it was "rank heresy."

Sep 11-1924 Thursday.

into East River

In the morning went to west end of Stellarton to see an outside unconformity in the Pennsylvanian. It is about as this



Then in the most marked Pennsylvanian unconformity, and after this time came the coal deposition.

In the afternoon went north to Middle River to see the Pictou conglomerate overlapping the Albert folded Devonian series. In places there is a fault

Conglomerate series up to 5000 feet thick and ten miles across, then overlain by a nearly flat, Over the interesting features that we [illegible] before the battle, an account may be given of them and of the rocks from the basal [illegible] along with fossils of [illegible] the same formation. Most of the fossils are of the [illegible] formation. The fossils are usually large, up to 2 feet across and while some die entirely [illegible] are about angular. In places between the fossils they are sheared and [illegible] self-mud, so, the whole appears to be a fine glomerate in part of with a fault cliff. Also a dense [illegible] over the [illegible] formation and fossils are [illegible].

Where the coral occurs in the Bellerophon and Permian series (each about 2000 feet) the fossils are [illegible] of [illegible] Permian climate. Salt [illegible] of rocks, deserts and lakes in a desert climate. [illegible] Permian [illegible] Carboniferous, Devonian, Silurian and Cambria [illegible] with [illegible] wants.

Feb. 12 - 1924

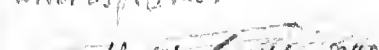
At Portstorm saw the New Glasgow Cngl. laid made up of granitic material, pink granite, and white orthoclase aplite. The granitic debris comes both from Cobequid Mts and probably farthest into the basin. The granite was derived by the old Paleozoic sediments.

Travelled the rest of the day from New Glasgow to Portville, and down a high hill, made of the New Glasgow Conglomerate. Into into Pictou where we looked up the house in which Sir William Dawson was born. A double two story square, wood framed house, built out to the pavement on Church st. at the corner of Lorne. Dawson could not have had forest of any particular standing, contrary to my wont. Then two blocks from there on Church st. was the Academy where Dawson got some of his education. It was the Battle ground.

Then retired from Town Rim along shore of Northumberland to Gilbert Cove, the Rim for dinner we had lunch.

Then went up the west branch of River John to see the capulan overlap of the New Glasgow Cngl. on the older granitic Conglomerate.

Here a series of red beds upon red beds
as follows:



On the west bank we came upon a peculiar
lie. in the Libna area the pegmoids come into the
Iron granitic Conf. Have the pieces. Note the
algroid - Cryptozoon like character of the flat-
ten lie. The lime must be four thick. Can
note 3 feet thick. Here also I collected
two pieces and some pebbles of the radiate intra-
formational conglomerate.

Then west of the Kenogh River to the Falls
to see the remarkable gorge in the very thick
Conglomerate of Taconic debris. Two veins
appear to be two 100 feet thick. A mass
of angular debris, unassorted and of all sizes
up to 3 feet across. Also many Silurian
pebbles full of fossils. These are for the Cotteguids.

Stopping at the Lyon wood, Mrs Patter-
son, at Tatamagouche.

Feb. 13-1926. Saturday.

In the morning went to the Mattock Dale Mine in the Windsor formation. Here along the shore is seen a fine outcrop of the Picton formation on the Lismore. The lower one was folded and contorted greatly and eroded before the Picton crept and so was laid down on the irregular surface. Beneath the Lismore in the Windsor of which one sees a little exposure and dolomite. Near by in the Dale Mine beneath the drift. The depth to salt is reported known - they speak of two hundred feet.

The Lismore has many fine of Silica crust. In these you have a preservation of Carbonic Acid. The outer layer is coral and the inner part is replaced with lime preserving some of the structure.

In the Picton of Malagash Point there are three beds of Gypsum exposed. They vary from one to three feet thick, and one of peculiar blue clay and irregular deposition, a lump out of deposition. Beneath them and separating one of them

in a trial trench — mass red clay with Stigmaria which an has been pressed into lenticles. Beneath the Stigmaria the soil clay is full of green fillings of the Stigmaria roots. Then the seam that has preserved the Stigmaria. Elsewhere one sees the rootlets of Stigmaria without the Stigmaria themselves. These lie, must be lake deposits, dust clays into them, and the Li. precipitated principally through algal & other plant growth. Have a piece, and it ought to be studied physically & chemically, because of its desert character. The thickness of the beds varies regularly across the branch — normal thickness feet wide and flat bottomed. Evidently the Indians had considerable water, but shallow and at first a swamp of Equisetes.

On the track slopes, at lower tide, on sand bottom one sees a series of current ripples, the crests of which are truncated. These flat tops may be 1/4 inch up to 1/2 inch across. The ripple hollows are acute and often deeper than usual. This type of ripply is often seen in these Pennsylvanian deposits. It is an indication of very shallow water over which the wind is flowing, and flowing.

There is an extraordinary amount of ripple and false cross ripples in the sandstone of the Pennsylvania, in fact every sandstone bed is rippled and cross bedded. Sometimes the cross-laminate, and the flat and shales, and then again there is equal amount of both. The shales as a rule are quite soft to brick red and it is rare to see green shales. Up river one could see cross bedding in the Pottsville, and it had one species of Pleistocene well preserved and common.

Near the Pennsylvania evidence is of Calamites and Endocites. Leaves in the sandstone. Where the Calcite conglomerates are present there may be observed an abundance of Endocite wood. One fine trunk was seen on the Lismine today near the Wadesville Salt Mine.

Some cracks and joints were not seen as at last camp, but much of my inspection was too hasty to note them.

The evidence appears to be conclusive that desert conditions appeared with the late Silurian and then continued through the rest of the Paleozoic. Desert conditions are most marked in the Permian, Pictou and Later Pennsylvanian. It was probably during the Acadian [illegible] revolution into mountains that there was a change to the Desert Climate, and the it continued [illegible] to the close of the Triassic. Of later time no Aqueous record here.

As the Nova Scotia coast of the Prince Edward Island is all of red Pennsylvanian, and as the dips are low and seemingly more or more flexings, it is reasonable to assume that much of the island is of Pictou Pennsylvanian. Some oil men set Lake a test of 1000 feet from the island and found oil of Pictou time. Therefore there appears to be Pictou outcrops by Summerside and Pictou. Are there, in these, Permian fossils? Bell says Dolichia is reported from Prince Edward Island. Here maybe are Permian beds with the Dolichia Pennsylvanian, above the Westphalian. Look up Case on Permian Reptiles.

Feb. 14–1909 Sunday.

It rained hard last night and the morning is dark. The day cleared into a beautiful warm one.

At 9:15 we motored to Mrs Glasgow and got here at 12. The distance was about 60 miles.

All in all I motored with Bess during the past 5 days more than 200 miles.

Had dinner and supper at the Chisholms.

Put up again at the Penfield. Will get up at 3 A.M. to take the train for Yarmouth.

Feb. 15–1909. Monday.

At the depot found we had no steamer for Boston on Monday. Was obliged to go via rail (Yarmouth, St John, Bangor and Portland) to Boston. Will arrive tomorrow morning at 8.

Wea. SUN. FEB. 14, 1909 Ther.

Wea. MON. FEB. 15, 1909 Ther.

7145

Sep 20 - 28, 1928

Wea. ~~Tues. Feb. 16, 1909~~ Ther.

New Haven, Conn., Sept. 20-1928
Thursday

Started at 9.30 A.M. for Bellows Falls, Vt. to meet the Keiths on a short trip about St. Albans. There we are to meet Professor Clark of McGill Univ. Got to Bellow Falls at 1.44 Standard time.

The Keiths were at the station to meet me and at 2 P.M we are off in the U.S. Car. I. enroute for Middlebury where we will stop over night. Put up at the Sargent Hotel.

The days were fine and warm and President Coolidge arrived at Burlington about the time we got to Middlebury.

Motored up the Black River valley last ~~Friday~~, South of Plymouth where President Coolidge was born and where he is to be tonight.

More species could be collected here, but none would be good, and are hard or impossible to name.

Friday
Middlebury Vt., Friday, Sep. 21 1928.

First visited Professor Schmidt at the College here, to see if he had done any geologic work; and he had done none. He is living and that is about all, doing nothing else and ignorance of Geology. No one to speak to.

Up ten o'clock we older north, and pass through Bellows and Burlington. Then through Milton where the bridge had been taken out by last years flood.

When near Georgia we had to make a long detour to the east, and finally got to St. Albans at 1.30, P.M.

Put up at "The Tavern" at St. Albans.

After lunch met Professor Clark and his assistant Criddway, and his student Mr Beright. Then showed them the section west of St. Albans.

In the top the Breedon tongue, Ozarca Phyllograpta, Dicranograptus, Diplograptus, Orthoceras, Maclurites, Orbiculoidea lodensis (ornata) and other indistinct fossils = Trenton fossils. Orthoceras one inch in diameter, septa far apart.

This moon maybe as thick as 20 feet, and the various levels hereabouts vary from 10 feet above to about 200 feet above.

Wea. ~~SAT. FEB. 30, 1909.~~ Ther.

Saturday

St. Abrams, Pa. Sept. 22-1928.

Started south to Georgia township to see the ls lentels near the base of the Hillsgate to the N.E and west of the letter R. in the words Georgia on the topographic sheet of St. Abrams. These were discovered last year by Keith but I had seen some with Howell.

The first one seen was a large one about 140'x 120', and at least 10' thick. It rests ls gravity on the Hillsgate ls. The whole ls is formation of a rough and mottled appearance but contains but little Cryptozoon. Took a number of pieces to see if they would show algal parts. They seem to grow in vertical mass pillars inches to about 18 inches in diameter and weather in these patches that lie in basins surrounded by yellowish weathering dolomitic stuff. The whole surface has a weathered appearance (probably due to weathering) with the crest usually 6 to 10 inches apart, but sometimes 18 inches. Kelly has pictures of these and close up views of the vertical structure. Saw no fossils here.

Then crossed the E.W. private road to the ls lentels to the south and to the west of letter R.

The fossils gotten in these lentils would prove the age. There should be many new things. All are trilobites – one sees nothing else. They lived about the reef and where comminuted and deposited in the hollows of the reef. The lime must have come from algal growth almost wholly, but the many trilobites indicates the presence of other animals for them to feed on.

on the topographic maps, there there are three closely
together. One 18×10 feet across had trilobites
in at least two places and probably many more
places. One must find these pockets, and many near
much calcite that appears to have kept the
beds from undergoing diagenetic change. Clark
found the first places, a spot about four inches
across, and then Keith got one such place about
18 inches long. This I then dug up and took
most of it. Has fair trilobites, one with the ax,
appears to be Paradoxides. More it will upset
Keiths mapping. Potsdam, Taconic, etc. known dispute.

In the shales close by Clarke and Mc
Berryfle found smaller trilobites in the dispute
or adjacent shales. I have the two specimens.

Another lenticel is 18×10 feet and here
Clarke got one or two trilobite fragments that I
have

Close by is a much larger lenticel surrounded by
shale. Not worth while here.

Close by these lenticels in a shale outcrop Mc
Berryfle got a loose boulder weighing 50 to
pounds with many trilobites. I took away all

Later the loose piece turned out to be Scranton emph. Therefore it is far out of place. The fossils were broken out at home and were found in the 1928 collection.

Keith has contoured this reef on his map. He has also located the other reefs. I saw at least five of these reefs, but there are more.

of this mean. Keith said it undoubtedly was a piece of one of these lenticels, and this I can prove by the fossils actually collected from the two smaller lenticels. See Opposite.

Then went further south to see the largest lenticel of all. This one rises abruptly out of the plain, perhaps 20 feet high and one thousand yards across and south and northward. It has many trees growing on it. We made no attempt to collect fossils.

These are all ls lenticels grown in situ. Recalled as to the nature of St Cathans may be another one in process. The big boulder in the mountain ash. to the south about 1/2 mile in a boulder lying in the mean of the Cap Limestone. Here are what looks like reef structures with here and there a pallia in connection with the lenticels to the prongs. At the entrance as in the lenticels to the prongs.

On the afternoon we took to Highfield to see the Miss Sinclairs. Last year's flood has cleaned up the basal strata, and now one can make out a complete section and a more detailed collection of fossils. This I will do when I go on to Letter.

Wea. ~~Fri. Feb. 26, 1909~~ Ther.

St. Albans, Sunday, Sept. 23 1928

It is raining this morning, and we are kept at the Tavern.

In talking over the section of N. Vt. with Keith he is thinking of changing some of the formation names. Colchester at the type loc. is without fossils and may be written Parker from "Parkers Cobble" the local name for the prominent hill-top knob to the west of the village. Here is where Walcott got his famous Parkers Quarry Lower Cambrian fossils.

Swanton conglt. was taken from Swanton township and was once much used for Swanton marble; also there is more than one conglt. in the township, because he now prefers to call it Skeels from Skeels Corner. This corner road lies in the mid-length of the conglt. at the base of the Berry is slates = Red mountain.

It is proposed to restrict the Up. Cambrian to places where there must be 1000 feet thick. It has no fossils, all the banded slates, talcs and so down to the base of the great conglomerate.

This turned out to be a mistake, since the Miller goes unbroken into the foreign Missionary work.

Sunday Sept. 23 - 1928

Wea. TUES. MARCH 2, 1909 Ther.

Missisquoi for. rises above in all the thin bedded ls beneath the ~~Highgate Falls~~ down to the heavy bedded Milton dolomite. This change is due to our now seeing the thin beds above the grey down to the Milton. In the lower part of them are lenses of thick bedded local quartzite.

The Milton dol. is now to be added to the Lower C. Therefore at Highgate gorge all the Mid. C., and most of the Upper C is out. In fact I am not certain I can say Up. C. here at all. All may be Quardian.

Near the Canadian border the Mid. Ord. comes south for several miles between the Missisquoi and the Lacfia. It is here in the Mid. Ord. that Keith found and collected the large fragmentary trilobites that Raymond thought were Georgian than Lower Cambrian. It pinches out to the south in about 2 to 4 miles, and swells out in a great arc of series to the east as far as Mystic, and to the north.

Later

Wea. WED. MARCH 3, 1909 Ther.

Sunday Sep. 23–1928

By noon it cleared up and we concluded to go to Canada with Clark, McLaughlin and Friedman. They had first to repair their car and it was nearly four o'clock by the time we started.

We go via Greens Corner to the northeast and finally near Richmond turn over into Canada. Set the Letter seven miles north of the boundary, at 7 P.M. We traveled 35 miles and looked at some exposures of the Alfordian series, and then one big gate, and more Alfordian.

Has getting cold

The Pre-Cambrian is mainly greywacke, but there are areas of quartzite, schist, and dolomite. In Canada it has chloritic schist = metamorphosed igneous material — lavas and tuffs. These rocks are not known in Me.

Wea. FRI. MARCH 5, 1909 Ther.

Monday Sep. 24-1928
Sutton, Quebec.

Slow in getting started because Claude's car is out of order.

Looked at Cambrian series to east of Pinnacle Mountain. Mostly greywackes with zones of quartzite, conglomerates and schist. One zone of a sandy dolomite on east side of a syncline, about 100 feet or more thick.

The thick zones of quartzite look like dense diabase because of the cross bedding that in places in distinctly concavely bedded.

Also saw zones of calcite schists, all metamorphosed layers and cut beds. Amygdules, large and common.

Evident the Cambrian series is made up of massive dolomites, basal lava flows, and continental dense and coarse laid sandstone zones of cut beds and conglomerate.

Back to Sutton for lunch.

Then started for Oak Hill near Cowansville, to see the lowest Paleozoic series. On the top of the hill is a thick bedded white quartzite

Barometer appears to indicate Storms.

that Keith says looks like Cookie = basal Lower Cambrian, thin of a trust sheet.

Fault down Lies in range of dolomite to the ~~look~~ like NW see the mass of. If so it maybe of another thrust sheet.

Still further down Lies in a knoll mass of banded slate very much like the Hillsporte and white knoll limbs may be of this time. Dave on this.

At Cornwallis we descended into the formation Rim to see the steeply standing slate with a few areas of limestone. In the whole Rock collected a Bryozoan, and in deep we got a Pleistocene, Devonian and a few other fossil remains that we could not determine.

Then went to Devonian Fordyce Cornwallis to see Blue black slate, with many specimens of Climenopsis. Dave a piece.

Then retired to Hillsporte where we put up for the night.

Keith says there is probably the final area
anywhere N. of the N. J. Highlands to see a dis-
sected northeast closed and its basal unconformity
gone.

I think Clark had misinterpreted it as a con-
glomerate zone, and that he had no idea of its
being a thrust plane. In many places we could
see the contact of the Mallett on the Beech mountain.
Usually the contact was highly crumpled - dip 35° to 45°
but up on the whole the thrust plane appeared to be
as low as 10° or less.

Tuesday, Sep. 25-1928.

Started out with Claud, Cricdmay and Mc Berrigle and the Keiths for Phillipsburg to the N.E. towards Bedford.

First stop just north of Brome Hill Farm of H.C. Brann, 1½ m. N. of St. Armand. Here one sees the W regulation Beedmantown with fossils. To the east of it is Mallett an overthrust sheet pushed to the west over the Beedmantown. At and near the junction of the two formations one sees much conglomerate and to E the middle member of the Mallett that here as elsewhere is marked by interbedded siliceous quartz. The latter is usually near the base of the Mallett and evidently is secondary after the overthrusting.

The Beed. is locally much faulted and the blocks offset with little throw of two feet or so. The faulting is due to the unyielding and thrusted Mallett in places the Beed. Rocks are much pushed around and out of place.

I got the idea of a great development of Beed. followed by the Chazy ls and dol. The latter is

Wea. THUR. MARCH 11, 1909 Ther.

Tuesday Sep. 25-1928

Last seen about Rosentry School about four miles south of county Bedford. In one zone especial fossils are exceedingly common, and never have I seen so many in one bed before. All are superficially of Chazy species, since I do saw no Piloceras or coiled forms, and all have the septa far apart. Just east of the school is a thin zone with trilobites, of which I do saw no good specimens. Here I do saw two forms of a Camarella, one elongate the other deeply sulcate, and a fragment of what looked like Rhynchotrema plena. I saw Cameroceras, Orthoceras, Cyrtoceras and Dawsonoceras. Also large and very rich Maclurea, large enough to be M. magna.

In the river in the town of Bedford there is exposed a thick ~~to~~ bed of Cayl. series at the top of which is a Ob. series. I saw no fossils and did Claud report any. It looks like a younger series than even the Chazy.

Tuesday, Sep. 25—1928

Just south of the R.R. station Mystic there is a little hill of a limestone conglomerate. The pebbles are rudely rounded and of a dove colored ls. Saw fragments of fossils but not enough that could be determined. What the Ord. age is we could not determine.

In the shale beneath the little bridge just south of the station Clarke found an Isograptus. Clark says it is close to Didymograptus caduceus. This appears to indicate the shale phase of the Lipper Beekmantown. If so the ls. conglo. may be the basal zone of the Mohawkian or zone above.

Mile 5 in a straight line about ½ mile south of the Mystic station occurs apparently the same ls conglo. as the one mentioned above. Here one person had collected many fossils — Lloydia most common and large, clearly indicative of the Beek. Other fossils are Leperditia and Plectorthis. Evidently a mixture of Beek. and younger fossils, but the exact age of the conglo.

Tuesday Sep. 25 - 1928

is unknown. This expl. appears to be surrounded by shales.

The place where Raymond and Hartledge some years ago in a expl. having Remopleurids is two miles north of Bedford on the east side of the road. It is about ½ mile in on a private road to what was once a quarry here. I remember seeing here much Beekmantown in place. He did not get here today.

Three miles to north of Bedford in the fields about ½ mile north of road ocean there is Loraine in a Ravine ok. Here we saw Plectambonites sericeus and smelled their plant Raphinesquina alternata; strias equal and rounded. Evidently this is the Trenton series of shales.

Clark told me that the Laurentian near Quebec are intruded in the red Lillery ls, and that all of these strata maybe of non-marine origin. He thinks the Lillery grades unbroken into the Levis ls, cong. and local ls, and that the

~~Wed. THUR. MARCH 18, 1909 Ther.~~

Tuesday, Sept. 25 - 1928

While Quebec Series is of Canadian time. If this is true then the Phyllograptus and Tetragraptus zones must be somewhere near the middle of the Beekmantown ls. Le Phemardia zone may then = Cassin, and the Lauzon and the Lillery = A and B of the Beekmantown sequence.

Worked in the gorge an hour before lunch
and about three more hours in the afternoon.

~~Wed. SAT. MARCH 29, 1909 Thur.~~

Wednesday, Sep. 26-1928

Raining. Left Phillipsburg, Quebec late. Cleared up enough to do some work in the gorge of the Mississiquoi at Highgate.

Last years great flood cleaned out all of the loose material, and one now sees the entire succession down to the Trenton dol. It appears to be an unbroken sequence.

The Highgate dol (in places up to 1000' thick) includes in its series in the base and goes down to about the great conyl. zone, however the thin ls above the conyl. are of the character of the Missisquoi, and this may mean that there is here no break between it and the younger Highgate. Talk this over with Keith.

The crevices with a formational conyl. in the Missisquoi can be seen to be of local origin.

Beneath the thin bedded ls of the Missisquoi come in the Hazen dolomite ol with intraformational conyl. zones and several zones of quartzite. Above these Hazen ol are fairly pure dol strata but below they become more and more dense lime in the

Wea. SUN. MARCH 21, 1909 Ther.

Wed. ~~Mon. March 22, 1909~~ Ther.

Wednesday, Sept. 26 1928

Milton dol. all of which has angular pieces of the Black dol. ch, showing them dipping, and that the whole is one series of continuous deposits.

Rediscovered the lowest fossil zone and collected more material than I ever had before.

Then determined the following cross section, since between the rain and the limited time had no time to do the work carefully. Keith made a more careful section, and his should be compared with mine: Section from Intrafm. dol. conf. 6' makes base of cliff and zone of fossils that I collected most from in former years.

Black dol sh with thin beds of dol. 6'
Thick bedded quartzite with intraf. conf. 6'
Black dol. sh with lenses of quartzite. About 47'
acum with dip about 30° Calculate thickness.
Thick bedded quartzite 6'
Black dol sh with thin and thick zones of dol. 44'
acum with dip about 20°. Calculate and add 3 feet for thickness more.

Wea. TUES. MARCH 23, 1909 Ther.

Wednesday, Sep. 26, 1928.

Thick quartzite lentil 7' thick.
Fossil zone. Black dol. sh. 15' accum, dip 30°. Calculate thickness. Fossil bed half inch thick, a thin limestone lense in the black dol. sh. Fossils rare.
Thick quartzite lentil 2' thick.
Black dol. sh. with quartzite layers 4' thick.
Bed of quartzite 12 to 18 inches thick
Black dol. sh. with mostly quartzite lenses, 15' accum dip 30°. Calculate thickness.
Dol. intraf. congl. 4' thick
Black dol. sh 4' thick
Dol. intraf. congl. 15' thick
Pocket of black dol. sh. with Lingula (have 2 sp.) 10' accum dip 45° Calculate thickness
Dol. intraf congl. 15' thick
Black dol sh. lens 2' thick.
Dol. intraf congl. 30' seen to river. Further down stream I calculated that these dol. with thin black dol. included pebbles has a thickness of about 100 feet beneath the Lingula bed. Have a sample of the dol. congl.

~~Wed.~~ ~~Fri. March 26, 1909~~ ~~Ther.~~

Wednesday Sept. 26 - 1928

All of the Minnisquti and Millar dol. are very irregular in deposition swelling thick and thin. They give the impression of big reef formations and of local origin and must accordingly be very variable in appearance and in thickness.

The quartzites are even more irregular, and appear to be sand bands of local current action, in and out of the section. The greatest thickness of the quartzites will vanish away on either side in from 100 to 300 feet.

The Reed dol. do appear to be more persistent and especially in the upper part of the series. Such beds must originally have been prescut transport Millar time and from beds were broken up and the angular pieces embedded in the dol., the characteristic feature of the Millar and which (Reed) inclusions distinguishes the Millar from the Mallett. The latter has obr inclusions but these are not Reed.

Wea. SAT. MARCH 27, 1909 Ther.

Wednesday, Sep. 26, 1928

This morning in going directly south from Phillipsburg, Quebec the Hopkinton Springs are all the way on the Marble bed of the Beekmantown. It continues on south to at least the Ford a Quarter south of Swanton, that I formerly thought might be Chazy.

A good place to study these is and the great overthrust just to E should be to make a base at the Franklin House at Hopkinton Springs. To the east is the overthrust mass of Mallett that I once named with Deerton. Just east of Hopkinton Springs is a small lime quarry in the Marble Gore. Farther east the Marble bed is repeated according to Keith. Then comes the Mallett with the gneiss of the Barber & Colchester th. Finally the Milton and the Miniscquin.

Left St. Albans at 6 P.M. and put up again at The Tavern.

~~Wea. Tues. March 30, 1909 Thur.~~

Thursday, Sep. 27 - 1928

Dark morning and rain. Cleared off later on. Left St. Albans at 10 A. M. for Williston where we lunched.

Then raced to Burlington to call on Prof. Perkins who is still teaching (60 years of teaching) at the age of 84 years and does not wear eye glasses.

Then on to Rutland. The Green Mts. had their first covering of snow, and it rained off and on while going through the Mts down the Black River.

Put up at the Bardwell Hotel at Burlington. Professor Emeritus Breckenridge was host for the night, and in the morning goes to his summer home at Mount Philo.

Wea. WED. MARCH 31, 1909 Ther.

~~Wea. THUR. APRIL 1, 1909 Ther.~~

Friday, Sep. 28–1928

Left Rutland at 9 A.M. for Greenfield, N. Hampshire, where we arrived at 3.30 P.M. Delightful day

Stayed with the Keiths at their summer house until Sunday 1.30 when they took me in their new Buick Auto to Nashua. Here I boarded a train for Worcester that took me to New Haven, Conn, arriving Sunday night at 9. P.M., Sep. 30–1928.

Wea. SAT. APRIL 3, 1909 Ther.

Wea. SUN. APRIL 4, 1909 Ther.

7966

Trip to Vermont with
Laymen and Hinston
July 16 - 20,
1932.

Wea. Mon. April 5, 1909 Ther.

New Haven, July 16-1932
Saturday

Longwell had lunch with me at the Graduate Club and at 2.45 P.M. we start for Hartford Country and soon to go to northern Vt. At 8.15 we are off in the midst of a perfect day.

Near Becket Mass. we stop to see Longwell's little daughter, and then we proceed onto Hoel lunch at the Rising Restaurant in Pittsfield.

We go north by a route I have once before, with Raymond, via Bennington and Brattleboro, Keene, and Burlington, Vt. where we arrived at 7 P.M. Put up at the Van Ness Hotel run by the Kennedy sisters on the opposite corner.

Not a cloud in the sky, we had fine views of the Adirondacks and the Green Mts. Camel's Hump stood out finely. The country is green and shows a great abundance of flowers, especially familiar ones.

[10cD2352]

Forth away a large granite of the Lingulella.
These def. Lingulella thick to be at least 150'
thick. The [illegible]

The whole district is a low country, with lands
decidedly sandy, and there seems to be about 10'
thick, then a gravel and in the basin.
The sand in this [illegible] appears to
be wind blown. These def. must have formed from
a shore.

Later on it does seem that the change of dip
is due to a fold. Accordingly the Lingulella is
in. Some part of the 150', lies next beneath the
top of which is seen here, about 100'.

Eastern limit
Dip 150-20°

Wea. ~~Wed. April 7, 1909~~ Ther.

North of [illegible] VT. July 17 1932
Sunday.

Began collecting at Ulricks Loc. 3 four and 1/2 mis. S. of Milton [illegible] [illegible] to see what [illegible] like [illegible]. Then Longwell [illegible] [illegible] up higher in the field of the same strip along where he had a layer of blue sandy dol. with [illegible] [illegible] acuminata here. [illegible] [illegible] [illegible] are thick bedded bluish-gray dol. and where the [illegible] occur it is especially sandy dol. The strata dip NW. 28°, with the strike N 30 W. Farther up on the top of the little rise the same sandy dol. dips [illegible] [illegible]. [illegible] see the [illegible] [illegible] [illegible] Strata dipping within 15 feet [illegible] [illegible] [illegible] a thrust fault. Farther [illegible] [illegible] dipping strata [illegible] are [illegible] [illegible] and breccia with pieces up to 18 in. [illegible] It is an intraformational [illegible] [illegible] [illegible] and dol. [illegible] in the dol.

[illegible] some [illegible] [illegible]. [illegible] [illegible] may be [illegible] [illegible] and appears to be the same species or common in the [illegible] [illegible].

It showered some at 10-12 oclock.

Wea. THUR. APRIL 8, 1909 Ther.

[illegible]

[illegible] [illegible] we failed to find any fossils.

These dol. have [illegible] [illegible].

Is [illegible] of the eastern sequence = Rutland seen [illegible] it [illegible]? It occupies the eastern top of the Cobble.

In the [illegible] [illegible] [illegible] [illegible] it is the [illegible] but farther [illegible] the [illegible] in [illegible], probably due to the overthrusted dol.

Sunday July 17-1938

Wea. ~~FRI. APRIL 9, 1909~~ Ther.

We next [illegible] to Illrichs [illegible] No 2 and No 1. We searched three hours and found no Helder[illegible] fossils, [illegible] that were recently [illegible] [illegible] marble [illegible] hill.

The dol here is again a blue grey thick bedded dol. much torn and filled with quartz filling or veins, [illegible] weathers into a very irregular surface [illegible] [illegible] small [illegible] that weathers out as [illegible]. Saw a little [illegible].

[illegible] little [illegible] N.E. of [illegible] found [illegible] called a [illegible] [illegible], and we saw a [illegible] of a [illegible] [illegible] red [illegible] a [illegible]. All are [illegible]

[illegible] yellow red weathering thick bedded [illegible] dips 40° to the E. and [illegible] [illegible] and [illegible],

The [illegible] "little" and [illegible] a [illegible]. In places [illegible] in [illegible] 35°; [illegible] rises to 70° E. The [illegible] appear [illegible] less than normal [illegible] but this [illegible] be due to [illegible].

Finally retired to St. Albans and fooling as usual at the Papers.

Reading July 19 - 1932

Wea. SUN. APRIL 11, 1909 Ther.

It is not certain that Ulrich is in error in saying Rea was employed here, making the "Milton disc" having Berlin-Chapman points. How he came to make the error is hard to say. I must see the points.

It is not certain that the "Milton" is of Upper Cambrian age (as Lower Ordovician). Cook thinks what points, Log at Rea.

He did not accept the Lee U, as a correct point.

After some remarks and a talk, we returned to Milton to see what Keith & Simonds called Milton disc. They were correct in naming the disc, as the Beaufort Sequence equivalent to the Rutland disc. We looked at the Milton and found it a much smaller and better made disc, made of [illegible] disc in the Beaufort Sequence.

It is now known that Keith & Simonds called Milton and that Mrs. Mellen Sharp Milton are Upper Cambrian and the equivalent of the three river formations and the Rutland disc, etc. and the Waterford disc known as Milton.

This drill is believed to be Lower at the top of the [illegible]

Monday July 18 - 1932

Wea. ~~Tues. April 13, 1909~~ Ther.

Stilled at the east [illegible] Lat. [illegible] N. of Steele Corners. The [illegible] mostly [illegible] Mississippi [illegible] and [illegible] like [illegible]

Beneath [illegible] Lat. [illegible] E.

[illegible] Finally [illegible] at [illegible]

Monday July 15-1907

Wea. ~~Thur. April 15, 1909.~~ Ther.

The cart [illegible] at the Drawlin cft about 6/10 mile south of Youngstead Green.

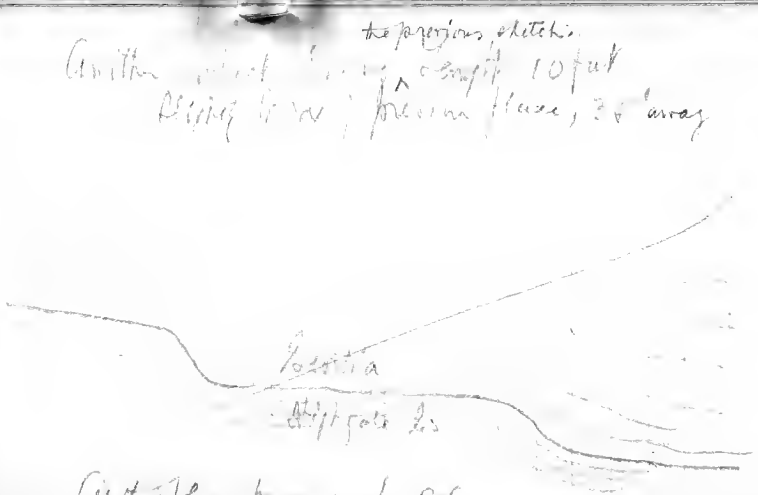
The [illegible] Drawton cft is characterized by numerous large ls pavers several of which can be seen in the 3 acres. There are evidently ls. kerbs [illegible] cft. Of the cft in the Pinfold Pen the [illegible] and [illegible] in the [illegible] cft to be real and below the cft lies the Kimmeridge Clay. The big ls. must have come from the Hambledon Hills [illegible] Ampleforth and Byrkedale. If these stones are [illegible] the Highgate Hambledon cft [illegible] Highgate in age and like all the other cft. also the church & road. This is below the [illegible] Terrace.

Two more days [illegible] the cft. is normally jointed [illegible] off setting and [illegible] the cft.

The [illegible] Highgate. The height of the cft. near the [illegible] Highgate, and besides [illegible] large trees [illegible] Drawton cft. [illegible] Water like Whitby it cannot be the older Millstone Grit cft.

The Eocene is tilted into an
to unconformity the Highgate,
showing the latter to have been deposited during the Eocene
but with a known contact, but is a slight angular unconformity

Wea. SAT. APRIL 17, 1909 Ther.


the porcyrian slates.
Gazetta
Diorite

Monday, July 18, 1932

Wea. ~~Mon. April 19, 1909~~ Ther.

At the Falls of Ryall River one half mile
north Canadian Boundary, the river falls
from the Escarpment and Canal and Locks upon
the High gate Is. The latter is here also provided
(as in the) Welland with a ~~[illegible]~~ upon it.
An section the plans are as follows

Thence we ~~[illegible]~~ down
mouth and are de-
tained by
Ellis.

at this level

A gate is at C Thence.

to get a ~~[illegible]~~

15 ~~[illegible]~~ and at the end with the
High gate Isle over the ~~[illegible]~~
of Canal ~~[illegible]~~
hide any ~~[illegible]~~
low water. ~~[illegible]~~
cannot be ~~[illegible]~~

Wea. Tues. April 20, 1909 Ther.

About three quarters mile to land
left side centre Dunes in distance. Dune farm
on the north shore
In all entrance

Thursday [illegible] 18, 1929.

Wea. WED. APRIL 21, 1909 Ther.

The Carlin Lodge [illegible], in understanding the Shipgate boundaries. And in outcome neither Black Slate Inlet is not bounded. Data is held for the Lodge Data.

Long will tells me that the [illegible] at the Rock River Falls is different between the Lodge and the Shipgate. Let this [illegible] from him.

Tuesday April 19, 1932

Wea. FRI. APRIL 23, ~~1909~~ Ther.

In the Adams's portrait the cgl. at the base of the Whippoorwill is a ~~fine~~ associated mass of older beds. Here we see ~~more~~ almost clearly Missisquoi is dip. N. 15° E. Cornet cgl. The bedding is ~~tilted~~ steep are very large cgl. stones. Up to 20' sec. diam. The cement is a coarse one, and in places there is a matrix of ~~cgl~~.

The Mid. Sil. of Adams are of a greenish gray ~~coarse~~ in thin ~~beds~~ to thick beds ~~with~~ ~~coarse~~ ~~sandy~~ ~~layers~~. Not a mile southeast on the Whippoorwill, of Adams sit rests to the east of the cgl. the strata ~~dip~~ ~~steeply~~ ~~to~~ ~~the~~ ~~west~~ ~~and~~ ~~are~~ ~~very~~ ~~much~~ ~~folded~~ ~~and~~ ~~twisted~~ ~~in~~ ~~many~~ ~~places~~. Quartz veins ~~are~~ ~~also~~ ~~very~~ ~~common~~ ~~in~~ ~~these~~ ~~beds~~ ~~in~~ ~~many~~ ~~places~~.

The qt (arenite) are interbedded in basal part of the cgl. About six miles ~~to~~ ~~the~~ ~~north~~ ~~of~~ ~~Adams~~ ~~on~~ ~~the~~ ~~road~~ ~~to~~ ~~the~~ ~~Whippoorwill~~ ~~Mountain~~ ~~and~~ ~~on~~ ~~the~~ ~~top~~ ~~of~~ ~~the~~ ~~hill~~ ~~on~~ ~~the~~ ~~east~~ ~~side~~ ~~of~~ ~~the~~ ~~road~~ ~~there~~ ~~is~~ ~~a~~ ~~large~~ ~~mass~~ ~~of~~ ~~cgl~~ ~~which~~ ~~is~~ ~~very~~ ~~much~~ ~~folded~~ ~~and~~ ~~twisted~~ ~~and~~ ~~in~~ ~~many~~ ~~places~~ ~~the~~ ~~pebbles~~ ~~are~~ ~~flattened~~ ~~and~~ ~~elongated~~ ~~in~~ ~~the~~ ~~direction~~ ~~of~~ ~~the~~ ~~folding~~ ~~and~~ ~~twisting~~ ~~of~~ ~~the~~ ~~beds~~. ~~The~~ ~~cgl~~ ~~is~~ ~~very~~ ~~much~~ ~~like~~ ~~that~~ ~~of~~ ~~the~~ ~~Whippoorwill~~ ~~Mountain~~ ~~cgl~~. ~~The~~ ~~beds~~ ~~are~~ ~~very~~ ~~much~~ ~~folded~~ ~~and~~ ~~twisted~~ ~~and~~ ~~in~~ ~~many~~ ~~places~~ ~~the~~ ~~pebbles~~ ~~are~~ ~~flattened~~ ~~and~~ ~~elongated~~ ~~in~~ ~~the~~ ~~direction~~ ~~of~~ ~~the~~ ~~folding~~ ~~and~~ ~~twisting~~ ~~of~~ ~~the~~ ~~beds~~. Some ~~of~~ ~~the~~ ~~pebbles~~ ~~are~~ ~~flattened~~ ~~and~~ ~~elongated~~ ~~in~~ ~~the~~ ~~direction~~ ~~of~~ ~~the~~ ~~folding~~ ~~and~~ ~~twisting~~ ~~of~~ ~~the~~ ~~beds~~. ~~The~~ ~~cgl~~ ~~is~~ ~~very~~ ~~much~~ ~~like~~ ~~that~~ ~~of~~ ~~the~~ ~~Whippoorwill~~ ~~Mountain~~ ~~cgl~~.

The Mid. Sil., ~~strata~~ ~~seem~~ ~~to~~ ~~be~~ ~~conformable~~ ~~to~~ ~~the~~ ~~cgl~~. are out of place. They have ~~the~~ ~~same~~ ~~strike~~ ~~as~~ ~~the~~ ~~cgl~~. but ~~they~~ ~~dip~~ ~~more~~ ~~to~~ ~~the~~ ~~east~~. That they are out of place is shown by their ~~not~~ ~~fitting~~ ~~in~~ ~~with~~ ~~the~~ ~~cgl~~. Not fitting with that of the cgl.

Wea. SAT. APRIL 24, 1909 Ther.

Tuesday July 19, 1932

Wea. ~~SUN. APRIL 25, 1909~~ Ther.

Near Stafford at the Colchester Place most trees on the St Albans Bury road run. Here the Colchester white thin dol. beds in contact by 20' of massive grey dol. Here I once saw a fine flood of ripple by the wavy bedded dol. It is three-tenths of a mile back to the Adams Pasture ls. opt. On the massive bedded dol. dips 11° S.E. and the Adams Pasture opt 7° but average dip is 10° to point out the Ticonderoga. The distance is 1585' at 10°. Thickness of Adams ls is 274 feet.

Going south on the road to Fair Haven is much of the upper Colchester and the massive beds like those mentioned above. Here by the cliffs of 150' thick. Here it is a 10' or four more massive beds and the whole weathers in a mass and runs down in slabs. Then thin bedded rock. Beneath are the regulation Colchester thin rock weathering layer by layer with splits into ~~splits~~ ^splits^ into ochreous powder. But I could not find any fossils. These shales are richer in lime, the same layer and more compact than the Utica shales the Utica does not weather off as fast as about 50' high. On my map I called these Trenton and have changed it to Chazy.

On the Big ark trip found that Big Bend of the
head the base of the Hill Bottoms, which the main
Mill Run is at the Top and on the Character of the
Ogl. on the Tidewater Pasture.

Tuesday July 13, 1937

Wea. ~~Tues. April 27, 1909~~ Ther.

From milford we rode to Le Conney Mrd. Co. place. Here we saw about 1/2 mile of the same dyl. as before in bedded with sh. Just what the age is I can't say, but it is known as the Conney Mrd. Co. L.

Further east in a hill, cyl. some of it is white with pieces of 1/4" quartz, it seems, chl. cyl. Quartz veins about 100' of the Conney Mrd. Co. place. Here is a bed of sandstone 1/2 mile wide.

The distance from the base of the hill to the Catskill sh. is about 1/2 mile & the dip about 10°.

The dip here appears to be about 15°.

Here the Coal Measures are [illegible] immediately on the red sandstone [illegible] seem to be about 2000' dyl. cyl. on at the Conney place. Here it is at the base of the Catskill, about sh. to the Coal Measures. It is Penn. cyl.? If so it cannot be correlated with the [illegible] Pocono at its top & the Catskill sh. at its base. Penn. cyl. has pieces of the same sandy dyl. of the L. C. Quartz veins about 20' wide. The Catskill here is about 1000' thick.

Parker's Cobble is in the Hills. Baker's
Quarry is at the base of the western hill. The eastern one
shows the 30° of cutting dol. of the main dol.
On the N.E. corner of the North the first one descends
with the higher beds, the second rises from and
disappears by about 10 to 15 feet being shade.

Tuesday, July 19, 1932

Wea. ~~THUR. APRIL 29, 1909~~ Ther.

Then trail to [illegible] to cgl. to equivalents of the Adams Podunk rds, to the east of Ruggs Corner but ~~[illegible]~~ rds. Saw several choice exposures between Jeffersonville & the High gate ch. In [illegible] went to Ruggs Point saw fine exposures. Real [illegible] to see of the ban such a gl. [illegible] plotted a new map.

Found another Devonian gl. (5-6th m) while hunting for the above cgl. Was formerly in the High gate [illegible] now in the Ft. Ticonderoga rd.

Parkers Cliffs. Looked in the gradest gorge of the lower falls and over Carl. U. Dietz's shoulder had [illegible] specimens of stigmaria Ficoides.

In the midst of the shale on the west wall there occurs thin grey dol layers from one to a couple gallons. The lower one is 20' above the base and about four feet thick. The higher one is about 50' [illegible] and is 6" thick. Both [illegible] the [illegible] shale between them 30' beneath the [illegible] dol. Compare with Gradgetto section. Shale is blue-grey dol. weathers whitish.

Rain fell this morning and [illegible] and heavy in the [illegible] valley. Up [illegible] it was [illegible] but [illegible] it was [illegible] Coldstream Ranch, were [illegible] Elevation. The [illegible] upon which [illegible] be varied in thickness from place to place. At Parking Hill it 30' thick, but one mile south of [illegible] station it is [illegible] 100' thick. [illegible] very hard [illegible] Miocene? rocks from 0-50 or [illegible] greater thickness in the [illegible].

Tuesday July 19, 1932

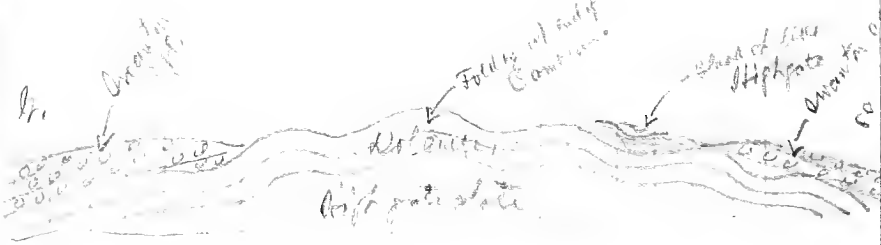
Wea. ~~Sat. May 1, 1909~~ Ther.

About ½ mile south of Parkers Cattle and a few hundred feet east of the road is a little knoll with a stone ring about eight feet in diameter. It is made of [illegible] and is about a foot high. Line of observation to the N. about three. The ring has a high N. bearing 10° dip. Dike at fourth post and two other dikes, one of which is 10 ft. wide. Altitude 5 ft. [illegible] Place num 266'. These places are about ½ the east of the dike at top of 4th. Course 2.

Be then walked to the south to the summit of the Swaddle [illegible] about one mile south of Parkers Station. The main mass of the is brown line of the basalts, some of the white kidneys [illegible] with the light blue type. There is also a [illegible] Hat bottle [illegible] Swaddle. In this area [illegible] Heads Corner [illegible].

The two areas are [illegible] probably 1000', and in between is a high sandy gray clay, mixed the sand and in a little black shale [illegible] Lake Highgate. Schistosity is emphasized marked on the appearance is that the State

Anticlinal structure one mile N.W. of Georgia Center.



Tuesday, July 19, 1932

Wea. ~~Mon. May 3, 1909~~ Ther.

stand near an edge.

Conrad and Stanton then suggested that the egg lies nearly horizontal on its marked end, and has to be rolled away over the equatorial area where lies Mme Brantôme egg. Finally the conclusion was reached that the more towards the egg had been slightly folded and cracked, the end flat before the Bengia was invaded the area. Later the whole of the shell was folded again (? Tuesday in Arcadia or Cliffe) Cornell's idea is on a separate page.

Dr Mme Brantôme shown where there is a great resemblance between the Cave Delgate and the Brantôme egg. But this will have been [illegible] the figure in Dr Mme Brantôme was a slight exaggeration of the Cave Delgate.

Cornell is talking of writing out this Easter Easter greeting.

Ordered to Burlington and Van Nes Hotel.

Wea. ~~Wed. May 5, 1909~~ Ther.

Left Burlington at 8 A. M. and motored to Proctor to see one of the great marble mills. Next visited the Vermont marble mill of the same Vermont Marble Exhibition.

Returned via Ludlow and the Connecticut Valley.

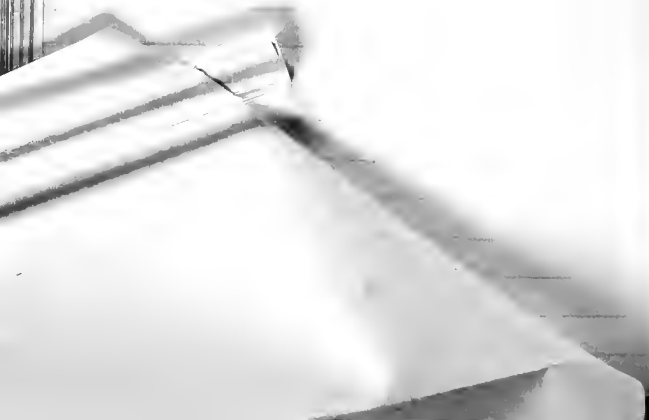
Arr Troy N.Y. at 9.30 P. M.

Wea. FRI. MAY 7, 1909 Ther.

7143

Wea. SAT. MAY 8, 1909 Ther.

Vacation in Northern
Vermont,
August 10— 1932



Wednesday August 10 - 1932

Wea. SUN. MAY 9, 1909 Ther.

Left New Haven by train at 9.50 A.M. standard time and got to St. Albans at 7.30 P.M. It was a good train (vapid) with White River Junction. Then the White Mountain train that I have taken before.

From White River Junction the Vermont Central R.R. in a small train pulled by a gasoline engine painted in all the colors the rainbow with two cars. The first part of the journey took 5 hours and 20 minutes, and the second 4 hours and 20 minutes.

The day was somewhat cloudy with local showers and fairly warm.

Put up again at the Tavern.

7143

Trips.

First trip on Keith July 29 – Aug. 13, 1921.
Second " " and Sayles, July 1 – July 12 – 1922
Third " Kentucky Sept. 16 – Sept. 29, 1922
Fourth " Raymond Aug. 9. – Aug 19, 23
Fifth " Keith and Priddle Sept. 21 – Sept 28, 1924.
Sixth " Howell Aug 11 – Aug 17 – 1925.
Seventh " Knight and Emmons Oct. 17 – 20, 1930.
Eighth " Jay Clark and the guides Sept. 20 – 28, 1928. [+ Crichtmay]
Ninth " Emmons and Kentucky July 16 – 20, 1932.
Tenth " Allen Aug 10 – Sept – 1932

July 31 – 1921 Keith told me that the hills of New Hampshire are the main of Appalachian mating, Mount LeConte, then was how some Canadian origins.

MMARY

Received

Thursday August 11-1932

Wea. TUES. MAY 11, 1909 Ther.

Rained hard during the night, and it threatened to rain more during most of the morning. Towards noon began to clear up some.

[illegible] at Allen's at forks of road. The top of Wi-nooski shows in a lower ledge and above [illegible] 30 to 40 ft of basal sandy Mallett dol. in massive beds. [illegible] more of [illegible] Winooski [illegible]

[illegible] farther W. has the blue [illegible] in which one sees [illegible]. It is [illegible] in the [illegible]

On the north going county road at the first [illegible] to east of road [illegible] a [illegible] white marble and directly [illegible] the Wi-nooski. No actual contact between [illegible] is exposed. The Winooski has been [illegible] the [illegible] and [illegible] otherwise.

Here in a [illegible] opening in the Winooski marble and it shows a [illegible] of [illegible]. They have to [illegible] (about 2 ft) 15 feet into fresh [illegible] weathered [illegible] and [illegible] colored red. It does not look like the best [illegible] Winooski. [illegible] Winooski. Above the red the beds are light blue.

The Mallett [illegible] 30-40 feet above the Winooski [illegible] grey beneath more [illegible] and introducing the [illegible]

Thursday August 11-1932

Wea. THUR. MAY 13, 1909 Ther.

East on the bank a hiper Bartlett comes a swale
wide enough to admit Parker shale. Soon on the
surface next to the Bartlett are seen plenty of
pieces of the Burlington shale. Farther east near the
west U.S. road line is some Bartlett like drk.,
eroding the Parker like drk. It has about the
same Meridian. At in from 300-400 feet to U.S.
road [illegible] about 30 feet.
To the west is now cut flat land [illegible] St.
Albans, by the Hotel and High gate [illegible].
Under one side [illegible] the St. Albans more are to be detected above the
line into [illegible]. St. Albans and the Parker.

[illegible] 300, about of the of
[illegible] place.
[illegible] Hanover of the [illegible]
[illegible] appears likewise
as the [illegible] nine degrees. (95+70)
The Adams Parker [illegible] nearly all the Hamil-
ton's lentil is made up of [illegible] fossil [illegible] of
the large trees. There is some of the Burlington and the Le-

The isol. of hours to have a greater thickness of from 10 to 12 feet and certainly does not exceed 15'. A color of hours to be the local in the surface depth lay in the formation of the Central in the Gt. Plains? Where it loses there the L.C. Central get it of not an what unused transport the L.C. County to the Mines. If it does in the Pawnee State the coal it must have been mined at least 50 miles.

The length of the cyl. from N. to S is hardly more than 300 feet.

Thursday May 11-1732

Wea. SAT. MAY 15, 1909 Ther.

Thurs. very hard a smart shower of rain very windy cold
Letter out of the Bailiff of the Island of Jersey.
Otherwise the news is very scarce. The Pretender
Genl. Oard commanded by him & derived from the Gentil.
Dowagers. He dyed on the 22nd Sept. near the
age of 78 years.

the 9th.

The Vice admiralty stone was removed from
from [illegible] by order from Mr Secretary
Delaval to [illegible]

One sees no other Birds but Swallows from the
Middle of [illegible] and the 7th Oct. the Latter
(Last seen 30th). The Sandy Beach must make
up 1/4 of the Q.C. and 3/4 is Rs.

Wea. SUN. MAY 16, 1909 Ther.

Friday August 12-1932

Wea. MON. MAY 17, 1909 Ther.

A fine cool windy (west) morning but I am so stiff and sore I can hardly move so the pain of my doing any geology today. Took a little walk in the morning and came back very tired. Then lay down and slept two hours. Read a little in Gillmans Life of J. D. Dana.

In the afternoon it rained and was generally dull.

Then wrote a little on my book on the geol. of N.W. Mt. Sent Phil fifty dollars to help out in his general distress. Then read considerable of J. D. Dana and retired at 9 P.M.

Saturday August 13-1932

Wea. WED. MAY 19, 1909 Ther.

A fine cool day after the rain of last evening, but I do not feel like walking and so drive in Dr Dodge's car. Some hours walk east of the Little Tokeo in the village of Clifton. Among fine cattle and sheep the fields are paved with slabs of pink limestone and what look like slabs of the dove-spotted limestone. The former show fine undulation ripples, the latter masses of the sun of ripple crests and true slabs of ripple and rain pittings. These phenomena show unmistakable proof of deposition in very shallow sea.

Of the [illegible] ripples is a common most peculiarity with some hundred and more. On these down ripples [illegible] evidently the water [illegible] would not have been moved by [illegible] there [illegible] of mud which have been [illegible] hardly grains of dolomite but fine mud consisting of dolomite. The [illegible] before stating that the [illegible] is an [illegible] and it may [illegible] that no part of [illegible] too fast.

Saturday August 13-1932

Wea. FRI. MAY 21, 1909 Ther.

St. Albans Bay. At the north end of the village round of the Shelburne Bay where it is at its low water and well exposed. A light blue L.S. dips E. 20 degrees. Its about 25' down to the lake level in which zone we see no outcrops. The Phillipsburg is exposed in the terraces and hereabouts it is a thick and massive mottled gray

Taken into the east [illegible] of the town headed Brainardi dips S about 15°. It has here the same thick massive appearance as seen in Burnside Park in north. Finally at the E. corner in a zone about 5' of Mallett, then about 3' more of Brainardi, and then a wall of Isseni but some is rotten-rusted. Then more Isseni of same. This Brainardi-Mallett series has about the same thickness as the Brainardi north of it.

Farther east in a low ridge of Parker strike north a few degrees (not more than 10°) that takes one to near the Rugg Brook road where he upon definite Pine Parker comes in. This Parker probably has the thickness seen at the Keeler Gulley, about 200' according to Ruedemann.

The axial plane of the Parker is a magnificent slate of course flaked [illegible] that would locally [illegible] thus breaking out and leaving like suggesting a cylindrical [illegible]. In this

Wea. SAT. MAY 22, 1909 Ther.

Saturday August 13-1932

Wea. SUN. MAY 23, 1909 Ther.

Saw 2 [illegible] also saw a quart size [illegible] half 5'-8" thick and striking 2-W. It comes in less than 10' above the Mississ.

The actual contact between the Sauk Lst and the Galena in my trench, the Cincinnati here not more than 16' above. Some of both in a weak bed at 17-6 ft.

The place of this section is marked on my map.

Saw no Maquoketa [illegible] Lst could not tell for it very thin and is all the Galena is [illegible].

This [illegible] section was seen the afternoon in duplicate of the one to the north and seen on Thursday. The thickness of the Dimmick and Galena can be measured and determined on the map. This must be done at home.

It strikes parallel with the Rock. (i.e., N-S.)
and makes a ridge about ½ mile long.

Is the metamorphism due to the mountain-making
forces it done when the entire region was folded?

Sunday Dec 1st, 14-1932

Wea. TUES. MAY 25, 1909 Ther.

A fine cool Sunday morning, and a pleasant quiet time. At 11 A.M. Team & mess to Granton.

After lunch went E. to the "Chazy" exposure beside the E-W road to Dispute Center. In the Ordovician Phillipsburg series I am altered in favor of the Marmora and Dist. that have flown more or less with the gravities. The dip is high from 50°-60° or more to the E. The dist. are much torn down & plunged. By notes I may find more of the Phillipsburg marble, but the marble belongs in the same series.

Just E. of the N.W. of the Amisisquey River Marmora is an outcrop of Phillipsburg blue-white marble dipping E. about 25° (The line of strike E-W.) I could see white marble in the Ch. Mississippi bridge in Granton when all the rivulets are out we can see it.

Both E. & W. from the Granton bridge are made of the Ordovician and very little of the Paramillian, which has a good dip to the E. about 20° to 30°. Fairgrieve's Quarry is in the Paramillian marble quarry. Little more than 1/3 mile the Taylor shale comes in, and I can be found each along the line of the Granton 1/3 mile. Granton Station is a dist. one & I found the same as at Dispute Center. The

Original [illegible] gets here since from his
own Parker/Parker visit Parker Ore Lingle has Mallett
and Parker there now 2 or 3 times.

The Mallett[illegible] of the Parker
State have together the Parker Mallett Lee
against Mallett. It is curious here to see the
Parker in between the Reds of Mallett. This
proves from some to be Keith between between the
Mallett and Parker as Keith assumes.

Sunday August 14, 1932

Wea. THUR. MAY 27, 1909 Ther.

Mr. Church 1 mile E. of Swanton.

Wea. FRI. MAY 28, 1909 Ther.

The Merrides quarry on the Swanton road, does belong to J. P. Kelley or J. P. Kellog (old Cushman farm). In Swanton township.

Farm of John P. Rich (an electric road used to go through this place. Place for fossils, as says Edson (1908).

On the Bullard farm occur two particular ls "that are particularly rich in fossils". Short to the north this ls is more of the same rock as the Swanton and Eutaxius.

Is the Bullard farm near the Horsedon farm? No. Horsedon is above the Fonda Quarries.

East of the Barney quarry (Swanton or Utica) in the Pearson shale occur lenticular masses of ls "rich in fossils": H. cingulata, H. festinata, Strophomena Swantonensis, Rustella, Leptaena and trilobites.

Monday August 1st — 1932

Wea. SAT. MAY 29, 1909 Ther.

Started in the 10 A.M. Sec. north for the road east of Swanton Junction east to Rockledge &c. On the hilltop just E. of the road about one mile S.E. from Swanton is a ridge of Pawlet slate. Course Jones. N is 32°-35° W. about 700' ft. they dip 15° SE., the normal dip.

About ¼ mile further N. there is dk. grey (? Middle) dipping E. about 13 to 15 degrees. Here is about 15' of anthracite in the Pawlet slate, dipping the same way. This is a blue-gray fine crystalline dol. with some interbedded shaly almost slate dolomite. Weathers dove colored.

About 150' further north is another zone of the same kind of dol. but here it has much coarser sand and in some layers is quite a quartzite (2/3 sand and hard dol.). The zone is about 10' thick. Dips as before. Directly beneath this is a gray fine grained sandy dol. of about the same thickness. The dips, &c. are just the same from 100 E.

Still further on in the section (strike W) is some shaly dol. and slate with irregular layers of the same blue-gray thinly bedded dol. Dips as above. Last outcrop is from a few feet to 30 ft. wide across. It makes a distinct ridge. The dol. appears to be the last.

Still further on in the broad metal quarry where

The lagoon for Diadetoidites is about 10' above base of the shale quarry. There seem to be 12 arms.

All of these strata dip east at about 10°.

There are two species of Fluent-whilte d.l. each 10 or more feet thick and weathering dove colored.

Monday August 15-1932

Wea. MON. MAY 31, 1909 Ther.

Left for Clonrides and Raymond an entire Clonrides thompsoni. Then collected Lycosidae and Oecurr today a Drassus sp. of Dermal pores square complete filled with [illegible]. Got one great specimen by lake shore. Higher and rocky weather dilmate state or cloudy dark. Took home Clonrides and Clonrides were Lycosids, Hygrolycosa rubrofasciata and only one Pardosa. Pardosa and Hygrolycosa were more dil. Lycosa Pardosa and Pardosa were more dil and in dense dill than Clonrides. In Clonrides skin a dense of microscopic hairs with dense and fine of dil. Feathery setae [illegible] more close in [illegible] manner to hair.

The question arose as to whether a simple pore feather setae in Hygrolycosa or is it simply that the Pardosa have in broad undulations with distinct pores of dil. In any event hair Drassus today is [illegible] in pore relationship.

A hot day out in the sun and I perspired [illegible].

These 50' are more low in the transition
zone than the trees higher up to the Mallett.

Tuesday Aug 16 1932

Wea. WED. JUNE 2, 1909 Ther.

To day is very hot and effectively dry remained at the hotel and worked on my Vermont paper.

Wednesday Aug 17-1932

6

Took the 10 o'clock bus, to the town Marine, orange.

From the hotel going down to the river is all of 100 feet and above the back garden here is where the marbled gneiss [illegible] formation.

One spring east of the farmers old trail over the ridge, at once a cliff of blue dol about 25' thick

Then a red layer like old bricks 8'

A gray marine limonite zone 45'

Ground area 50'

Another cliff about 50' high. Fifteen feet up the weathers into shelly [illegible] blue and grey to white as if it were Parker slate. Other dolomite taken to Edam. It is, however a hard non-resinous [illegible] Palaeophycus and worm trails.

This gave express at Coit 25m in addition to the mail train of 11h0' at 10h dep.

Wednesday June 11th 1902

Wea. FRI. JUNE 4, 1909 Ther.

From a cliff [illegible] sandstone
[illegible] 50 feet thick.

A crowd was [illegible] 200 acres, [illegible]
[illegible] [illegible] [illegible]
kindly [illegible]

The low cliffs [illegible] were [illegible]
from trail [illegible] and [illegible] the [illegible]
shore line. [illegible] 10 degrees,

From this point [illegible] to the [illegible]
[illegible] a gallon per [illegible]
[illegible] [illegible] at 1 20' high.

[illegible] 20' to [illegible] 15.
Here a small [illegible] [illegible]
[illegible] [illegible] 9-10 acres, [illegible].

The [illegible] [illegible]
seen about 430' [illegible] [illegible] 20
and [illegible] [illegible]
[illegible] [illegible] at 190' [illegible]
[illegible] then. I will have to [illegible]
at home.

= Hillgate Union service.

Forda Quarries

Fredrics Bay Colo. 17-1932

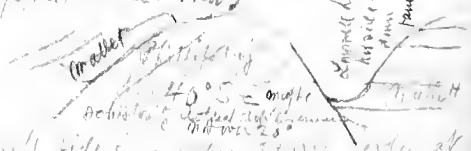
Wea. SUN. JUNE 6, 1909 Ther.

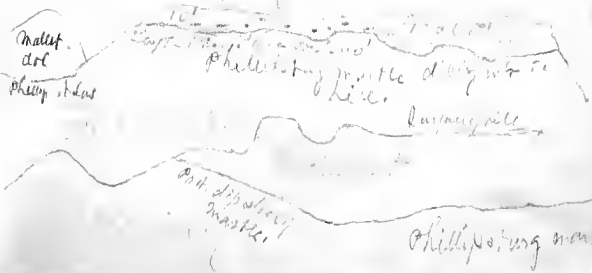
Then went south on the Granite trail to the first county road going west, and here about 1/3 mile west is a hill about 80' high that is one immense mass of very coarse white pinkish marble. It dips E 60°. It is here and there cutting through limestone and there are some little streaks in the marble. The marble is known as the Colorado Yule marble. Took from the face of the Cliff a piece of this and left the Granite trail.

In going into Bus to Travis Canyon I think I saw some of the Central Limestone here but Mallett did — to the north of the road. Then on south the Central Limestone is very thin and more to the west and at the Arbuckle Ranch on the Lake Shore.

Thursday June 18-1932

Wea. TUES. JUNE 8, 1909 Ther.





Have also given up the conclusion and Hatcall in Minnesota as I can't see in the road cutting shortly to the mother. See next page.

Thursday August 18 - 1932

Wea. THUR. JUNE 10, 1909 Ther.

[illegible] and crashed [illegible]
slate. Evidently he [illegible] about the Forest
Quarries in the [illegible] or [illegible]
[illegible] Parker.
However it may be [illegible]
[illegible] moved.

Tom [illegible] to my
old cottage [illegible] the
[illegible] Trust, [illegible]
[illegible] Primrose [illegible] the usual [illegible]
[illegible] The lawn
mower [illegible] to the [illegible]
[illegible] Then we [illegible]
road [illegible] for it showed [illegible]
[illegible] Phillips-
burys. [illegible] for Limestone
[illegible]
[illegible] at Tarring [illegible]
P M Lunch. It rained [illegible]
during the P.M.

Here is some white mottled marble but more exactly or even in texture as to and sufficient to the Phillipsburg marble. Along creek it is cut into the plane of weathered, and on the plane one sees no evidence of weathering or mylonite.

Friday Aug 19-1932

Wea. SAT. JUNE 12, 1909 Ther.

Rained [illegible] last night and this morning all is wet, but cooler.

At 12.30 P.M. [illegible] for Fonda Junction.

Mystic contact near Swanton = Fonda Junction I now [illegible] layer relieve in contact [illegible] the Central and [illegible] sequence, [illegible] turn opposite the railway station [illegible] in a road there is some fresh cutting in the direction [illegible] [illegible] [illegible] the [illegible] Dimorodie. [illegible]

[illegible] to the little [illegible] marked on [illegible] [illegible] [illegible] lower Dimorodie. [illegible] just east to the north on the R.R. going [illegible] that form indicated [illegible] [illegible] [illegible] the [illegible] at the north [illegible] [illegible] much [illegible] and in an opposite direction. [illegible] [illegible] [illegible] or [illegible] [illegible] [illegible] ? [illegible] Dimorodie. On the west side [illegible] [illegible] all [illegible]. [illegible] it lies [illegible] the [illegible] W and N. then [illegible] [illegible] [illegible] [illegible] [illegible] to the N.

[illegible] or side [illegible] the [illegible] Central [illegible]

This position [illegible] above the usual level of the road at Potter, and on approaching it one sees but little of the valley and mountains. It is a fine dark blue slaty rock apparently easily worked. It is said easy to make roofing and is [illegible] use. It is also used for lintels [illegible] is of a more fissile character than any other rocks here. [illegible] could it be a metamorphosed mass of [illegible] slate.

This Mallett-Potter contact seen with Stowell again in August 1909 but no important detail.

Beneath the quarry [illegible] more Potter, some of [illegible] the [illegible] road and down [illegible] to the [illegible]. To the SW is the hill of Limerick.

(1) Tentative, allow for [illegible] in the Potter and may represent the Potter-Mallett and the slates [illegible] beneath.

Friday August 19-1937

Wea. MON. JUNE 14, 1909 Ther.

little [illegible] further in the [illegible] ([illegible] mile [illegible] at 138) one sees to W a [illegible] [illegible] Phillipsburg [illegible] out the [illegible] cliffs to S.E. around 15°. See mark on map for exposure. In the little woods here is an acre [illegible] [illegible], but more thick [illegible] the general level a few feet [illegible]

A little farther W and [illegible] is a large exposure of an unknown [illegible], It certainly does not look like a [illegible] rock, and accordingly must be a plant, or [illegible] [illegible] which [illegible] were laid down. [illegible] Phillipsburg [illegible] but very [illegible], See the samples. The place is located on map, and [illegible] [illegible] [illegible] perhaps [illegible]. To the S. [illegible] and to the N.E. 3 miles no [illegible] [illegible] marble.

[illegible] E [illegible] and [illegible] red [illegible] the [illegible] Mallett [illegible] about 20°) [illegible] [illegible]. [illegible], [illegible] south [illegible] letter 'T' (of Cranston).

[illegible] To [illegible] [illegible] many. At [illegible] 35° [illegible] [illegible]. Thin is [illegible] Seems [illegible] 10-15' [illegible] Mg. [illegible] a [illegible] [illegible]

see item ① Then a low ridge of [illegible] weathering [illegible] that may be (25' thick). Then farther E a high ridge of Mallett that may be 70' thick. [illegible] [illegible] [illegible]

Makes a prominent ridge to north of telegraph line.

An arch of field here 100 feet across —

Friday August 19-1932

Wea. WED. JUNE 16, 1909 Ther.

Then to base of Parker slate that forms base of continuate, N
Then 75 yards across Parker slate.
Now 50 ± across slate with the bases of more
metalliferous described in previous section. The top
dol is 6 to 8 ft thick. These are Beach to mouth of gulch.
Then 75 yards across Parker slate.
Then immediately down dip for 8'-10' thick
dip ledge of very fine grained dolomite
[illegible] dip.
It is then 330 yards of Parker slate dip
dipping [illegible] N 10° E.
Then for about 100 yards the dip is reversed,
[illegible] normally
[illegible] N 10° E. for 100 yards.
No further outcrops to E. The road is more or less keeping of
level and about [illegible] E to Rockridge about one
mile S E. The vertical across the strata would be ten
hundred 3 per mile and the distance is taken up by
more Parker slate, the Mid Cambrian and the
Hightgate having all to the formation is cut.

This is the place for the [illegible] is below until he [illegible] of a little further east. The new Brandon marble quarry is near the Assiniboine River road.

This may not be the same rock as there on which [illegible] Indian [illegible] Tomlinson can be applied to compare with the one found in north. It is a fact that the Phillipsburg series and the others are to the north is metamorphosed paleozoic.

Saturday, August 20-1932

Wea. FRI. JUNE 18, 1909 Ther.

A fine cool day, but too [illegible] to walk much. Remained at hotel, walked a little, wrote in diary and wrote letters to Phil and Marjorie

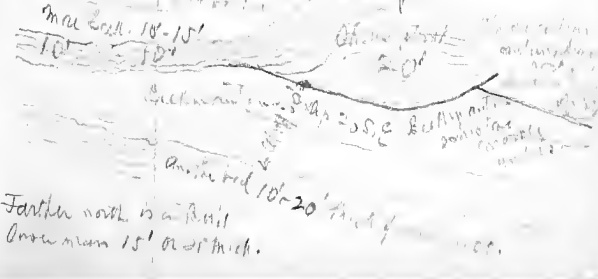
Sunday, August 21-1932

Another fine night. Had a little rain [illegible]

[illegible]

and read the N. Y. Herald-Tribune.

At 1.30 P.M. Jerry and Lus [illegible] road near St. Eliens Ave. After going part mile [illegible] house into eastern driveway [illegible] Island Medium sequence. Sand and [illegible] much like [illegible] Fine [illegible]



The actual contact not seen. The two rooms
get within 10' of another and hear the contact
is broken.

Sunday August 21-1932

Wea. SUN. JUNE 20, 1909 Ther.

Going on north it looks as if there may be one to three more thin-bedded sandy bands (Aquatite) that get squeezed and mixed through in the limestone following around them. They are incompetent layers that crumple more due to the overriding Central Sequence.

The contact-level between the Hinsdale and the Phillipsburg series is not a horizontal one. It undulates and may have dips more than 60° and as low as 20° (at the first house in the east side of road near the turn-around point on the Hinsdale side of road near the bridge). Parting south of it between strata in road cut a good deal like that of the Phillipsburg with the marked thin-bedded Aquatite.

Around Tuller, and on the hill to the E of Lovejoy flat the dip is E of School House and is about 5° and rises up to 10° light. A few hundred feet to the north it runs to the W side of the road, and in Stevens Brook it makes a small fall to the east of the road. Where the strata have undulated, one sees no fine expression of the Hinsdale. The Phillipsburg is exposed at most in the Leiman land 1/3 to 1/2 mile east of road.

Going north on the west side of the Hinsdale road (the Hinsdale side) in Champlain lands, but in the Stevens Brook

Sunday August 21-1932

Wea. TUES. JUNE 22, 1909 Ther.

to the E. of the Piermont Central R.R. one does not of the Scintoshi. The latter must lie nearly horizontal or that the Mallett does not come to the surface until some very small Drumlin hills.

What underlies this whole area and very of the Drumlin need cannot be told, but when the whole area is depicted amount of immature Drumlins could be seen in the map.

Sir Isaac to the hotel in front side of the park Tuesday night.

The barrace is from St. Albans Hill west to Everett School. For the first time today drove stakes to mark the limits and here for the thickness of the Hyposto slate and to Main St. Albans slate.

This dol. may be on the Hyposto slate and strong to the E of the Mill River syn. dol. if so impure can locate it better.

Later on returned to Mill River syn. and it looks to be portion of this dol. Except the distance from this Mill River syn. to the outcrop east down a Ridge would seem to thicken the St. Albans. Will study it up in morning.

Monday August 22 – 1932

Wea. THUR. JUNE 24, 1909 Ther.

Dark and very cloudy [illegible] in the P.M.

In the afternoon took the 1:30 P.M. Bus to first road going west after turning under railway. It is 960' N. of main road in the Brandon [illegible]. with one [illegible] [illegible] new E.-W. road, 20' or more across and 10' high. [illegible] To the E.

A little E. of the first house on south side of road there is a good exposure of a high carbonaceous black slate, that appears to be the [illegible]. The bedding is hard to see but in 2 places it [illegible] about 8–10 degrees to E. From here for about 1000' W. of the house is an exposure and all is highly [illegible] carbonaceous [illegible] slate. To the W makes a final [illegible] 20' high, [illegible] slate [illegible] in road metal and the bedding and [illegible] is very clear, dipping 20° the S.E. Marked on map.

Farther W. in line of the slate [illegible] [illegible] that is 18' × 15' × 10'. [illegible]

The [illegible] may go W. [illegible] road, of black [illegible]

→ Is the [illegible] the same [illegible] About [illegible] at the road about 300' E. of the above mentioned house. It [illegible] 10' [illegible] and the [illegible] of the [illegible]

Later determined it to be at the [illegible]

Thin n the true St. Albans Slate

Between T. bin Keylems Res it n 825' apart. At 9°-10° dip 5°. he Pickan n = [illegible] 110'.

In Annells St Albans slate Spirula bin found in upper layer, or bin n in Wall Nelson jm is St Albans slate. Found also at the top of the Wall Basin Co. and below by the Lays Brook Co.

Monday August 22-1938

Wea. SAT. JUNE 26, 1909 Ther.

Rugg Brook Cgl. to the ^[illegible] St. Albans. It is here far less thick than 200', the thickness given in a [illegible].

Just W. of the same stone house built of Winooski dol. there are [illegible] argillaceous, darker, coarser and more micaceous slate that well may be the St. Albans slate. It is a [illegible] rock [illegible]. The dip is very low less than 10° SE.

The E. cliff (small) of Rugg Brook has a arenaceous congl. of ^sandy dolomite with pieces of the same dol. ^(= interformational [illegible]), more that look like Mallett ^[illegible] and [illegible] at least one piece. [illegible] 18" long. It dips to the E. at about the same dip as all [illegible] 5 – 15 degrees and is about 20' thick. What is directly [illegible] it is not shown here. May be [illegible] [illegible] Mallett [illegible] [illegible] [illegible], or at the top of the [illegible].

Then went [illegible] across, up in the flat valley of Stevens Brook and here found some of Winooski [illegible] of shale resting on. To the E is a little hill [illegible] it is the [illegible], Mr. Schuchert [illegible] one of [illegible] that here [illegible] foreign to the [illegible] while [illegible]. Probably all of the [illegible] in the Cgl. are of these [illegible] in any place small pieces. They are [illegible], [illegible] came from near the top of the St. Albans. Drive over [illegible] to morrow.

A fine cool and pleasant day. Tide R. Run at 9.30
The ship of the Minnetonka is 90° to the S.E.

There is just in view to the transition Minnetonka and some
Whalleit. The Minnetonka goes west to near Lake
Minnetonka upon the waters of the Minnesota River.

The St. Albans State Bank is hard to distinguish
from the Banker, but is less in area and not much
less. The building like the Banker is undoubtedly swept
Low in the St. Albans. There is less of ruins
of this. The pines, however, distinguished with ease.

The Hill gate state is pine ground, one hundred
and many always so, while the Hardy plains are as
brown as Table Top. The cities ... not conspicuous and
in view all present.

Tuesday August 23-1932

Wea. MON. JUNE 28, 1909 Ther.

Back again to the same road as of yesterday.
The Peninsula comes in prominently marked on the map. Then I cut across the strip for about 600' then am on private. Then appear the remains of Mallett in little cliffs that go E. to the N-S. or what I am calling the Ruggles Rock road.

Then I cross [illegible] with it flows Ruggles Rock and which bounds the Parker State just to the Ruggles Rock off. cpt. The distance to this appears to be around 500' [illegible] Mr. Ruggles.

Then between the Ruggles Rock and the St. Augustine = it is 825' across, and 100 [illegible] on the S in Dove Run estuarial.

Then I reach the Dove Run [illegible] to the N-S road which bounds this property. Then [illegible] to be a surprise that an off. grave is not to be [illegible] but clearly [illegible] it. From the right to the road it is 510' across to the St. Augustine. The [illegible] is due E. The line [illegible] the St. Augustine $\frac{810}{2} = 1235'$ down at an angle of 10° or more (between 9 and 15°).

Howells tells [illegible] when he [illegible] St. Augustine comes in at the very top of this formation. Spar a few Cypress and [illegible] yesterday.

The Chilli Cinnamomum strikes the fruit dates, comes and goes. Here it is not over 8' thick and [illegible] N. there is

Le Roy Town has one flatty Orilton piece. All is broken up Lower C. Lentils. There are no lentils in the Ld. Albans. Allen in the Parker and Kirkpatr. At times he ugh. a mixt whitly & very sandy Ld.

I thought former Lentil crop was one of three but now [illegible] Lentils has but [illegible] Ewood making from the 30 acres.

Tuesday August 23-1932

Wea. WED. JUNE 30, 1909 Ther.

another onion coat is ½" thick. The 15 cms are all of the
Cirtids Mica-white and homogeneous. Around the
pieces was erected 5" low, and of Mallett-like clod.
Dawson lamp 3' eastings. Ind paste is a smoky dk
earthy rusty red.

Then crawled across the gulches south to the next
house over rocks running from and from to the Cirtids
and looked at the three small Hus. white Cirtids from the south of the road
one of which appeared to be intrusive. The layers
I about 30° by, but in the south about 20° across the
are quite uneven, and the Hus. are lens. In one
of the shale quarries saw a piece of the Cirtid [illegible]
showing that the Cirtids above the sea bottom and that [illegible]
broke up and buried in the ground.

[illegible] Cirtids
by [illegible] off [illegible]
Devs.

Down again on the top of the Cirtid [illegible]
same road, this 180° over by 12 or 13 S. Mica [illegible]
Much. Took also specimens of [illegible] and
pilotty diagonals [illegible] animal [illegible]
Has [illegible] quartz band.

Wea. THUR. JULY 1, 1909 Ther.

Tuesday August 23 - 1932

Wea. FRI. JULY 2, 1909 Ther.

Farther east beyond a white quartzite limited about 50' by a fine stringer, granite 15° E-W and 4'-5' thick. Pure white fine sand in the clear shale. Is residual in nature. Close to a few shorter pockets of sand up to 8' long and 2' thick. Some are replete with rounded quartz grains.

Farther E there is considerable more shale exposures, and occasionally highly plate tangled slate and they strike about the same direction.

Farther E is a ridge of typically rounded hills of slate that make it to the Bosfia. Farther E is the Connection of the Albany road.

Worked the road going W of Lenoir Center to N-
Sioux one mile S of Parkers Lodge.

These Cattle Hooks grapte at least 15° in length

At least two feet were seen under the Drawton
Ofle, and there may be more. There may be some
but here they were seen. In any event all the strata be-
tween the Burgin and St. Albans is Light gate.

As the Drawton [illegible] the Light gate strata
and the Lime dirt, this contact shows an angular
unconformity, but apparently the Drawton was gradual
after some [illegible] Tacnic.
But how much the late Cambrian gradation shows has
not been determined. As Ordovician is plainly indicated.

Wea. SUN. JULY 4, 1909 Ther.

left in Eu[illegible] ... 5.30 P.M.

All appearance of a slate in about one-half mile west of Beaver Creek. Just before we crossed [illegible] there is facing the north a short ridge of the land and through the [illegible] plunging limit [illegible] Granton [illegible]. At this bench (about 2½) [illegible] and the [illegible] and the [illegible] Upper Quilla and [illegible] beneath. There can be no doubt [illegible] and rock of it is the Granton slate. The land under the Granton [illegible] about 160' and [illegible] the surface Granton [illegible]. [illegible] there and there appears the underlying [illegible] slate [illegible] and [illegible] Flood [illegible] come from.

[illegible] To the E [illegible] 25°-30° E and [illegible] 30° [illegible]

A little [illegible] W. [illegible] fair [illegible] dipping [illegible] direction of the [illegible] A little [illegible] [illegible] to the SE in [illegible] direction [illegible] 30° or 35° W in [illegible] Under [illegible] slate [illegible] 25° all [illegible]. In same [illegible] and on [illegible] 20°-25°. All [illegible] slate

Last Cordia cmpl.

All the rest in Whitfield upto Pardee (1633).

Thro the Juncus Rim cpl. and at 2 ms or 2 1/2 to the Shelton in it.

Those on both sides actually touch and into the Pardee Iron immediately below confluence. The largest ones are, entering Lyon from 30'

The cpl. canes in mouth of the brook marked on maps the little knoll on map top Quick Rim cpls, and beneath the St. Cottons Shale.

Wednesday August 25-1937

Wea. TUES. JULY 6, 1909 Ther.

are rocks in the ridge to the Braunton side, but the Hyp-
gate is turning in its dip to dip. east.

A full 1000 yds to the first house coming from the north of the
fords of the road near the Lark of the Braunton side. The N. a fine
exposure of Hypgate shale, dipping S E 10°. The Hypgate shales
of to seemed here to E; 500 yds E from the house the shales
dip N at about 15°. In the next 200 yds N. the shales again
out to horizontality and then reverse and dip E 10°
100 yds N of the last house the Hypgate tips E.

Further N. the lands are low and flat and no rock but peat
outcrops. To the N. of the third house are two thin Hypgate
outcrops, and beyond no more.

Near the end of the road to the north of this a little
sharp rocky hill. Here the genuine Melly stone can be found
of Hooky Lodge beds and then fragments of the Lime.
The
oranum here are not large, but the rock evidently lies
in the hill here. Of course the rock is not there
only it is nearly to the S.

(estimate)
About 300 yds E of N 5 road near the top there
dolerite with many lines of N 12° and many others up to
24°. It is about 12'-10' thick and dips 10° E.
Near it lies the Pt. Cretaceous shale with fossils. It is

Rec'd year's no new seen Harry Thos Parker, 1 mile E of Sta
Battle Capps Jd.

Wednesday August 24-1932

Wea. THUR. JULY 8, 1909 Ther.

330' stopped a cor the Shale mid the dip has risen 10° to the E. The fms come in at abt 2 c' here at hi tide and an outcrop road at the quarry.

Here it lies the Mill River is eff. dolerite and about 10°-15° and it natural to go on as far as the steps. Total width is much.

Above it there is high ground, shale all the way E to the road the grade, one 1/4 miles acr strike

Past the [illegible] all is shales in [illegible] strike, the shales dip. Harder than it was much.

It is about no jointing, E. of the road in the rocks that in Longmeadow Springs, and in Conn E.

The Middle Quartzose prints [illegible] anything in the Parker and as a matter of fact can be seen in immediately S. Hilltown. Beyond the town bounding well above the S. Hilltown Reservoir.

Some how the Parker Limestone is more varied and explosive. He was badly misled by the architects.

This gray loam must be the transition zone between the Shinarump - Mallet drl. seen in the Barney Swamp S.E. of Scranton.

With this drl. there are 3 fibers in the Pocono mostly from 1 cm in the Pocono shale.

The Pleistocene one ought to be due to the northeast zone.

This Mallet maybe the northeast zone. ⟶
and not as it are it is the mesh. zone. There must be two.

Thursday August 25-1932.

Wea. SAT. JULY 10, 1909 Ther.

It remained the whole day and we [illegible] from Gallander, remained with the [illegible] during the morning.

We left at 12.30 P.M. down the hill with the Bowes [illegible] road for Rockliffe. E. of the Brocton road about 60' above the level of the [illegible] on west of anticlinal-like [illegible] with much interbedded slaty and Parker slate. There is higher coarse Parker slate over which is [illegible] Crumbell. Evidently this is another thrust over which to the E. come the Allen Mallett and all of the Parker slate.

To the north of the second house [illegible] coarse grained cliff of Parker slate dipping 15° to the E. Quartz beds another 4 ft. one 10'-20' thick. Point [illegible] Mallett [illegible] This cliff and the Allen Parker slate shows the coarse beds and shredded blocks of [illegible] into the slate. [illegible] example. [illegible] Mallett [illegible] Followed E. by the Parker and a thin bed of dol. [illegible] of the Utica slate.

[illegible] at the unconformity in the Oneonta conglomerate, here about 300' from the Hillsdale road. Here may be what appears to be contact between the Hillsdale slate and the Oneonta rock.

He has been in the ofc. assisting to the duties and in the usual operations missing [illegible] Milton.

The house in which the above words bounded on the E. by the road. It is sometimes hard to locate exactly such a small place. The St. Albans re. says [illegible] is one of [illegible] the Vs.

Depr. 5-19 am {37° according to Legrand = 5-80' thickness}

Evidently the thing [illegible] eggs made up of the light dirt into Pasture, broken up and recemented by sand spurred sand and dirt into [illegible]. Then [illegible] dirt. Shall leave this for [illegible] on Otake. Quick com. Tests can impossible to locate.

Thursday August 25-1932

Wea. MON. JULY 12, 1909 Ther.

The Georgia slate, ~~from the Hightower slate~~ from here on grey slate without its pieces. Strike N 40° W a few pcs. of the Conl. Ls are intruded, and 10' above pass by an area common and the dikes begin up to 10" across in 10 more ft. are no more common, and then dikes in the upland on Dreamtime Conl. pass that way to Dickson until the E. R. R. There is more thickness of Conl Travels the road about 300 ft E.

to the N. of the E-W. road

In the Middle Conl. in area of the Quill Run outcrop an ext. E. is 2 feet by. In a break of 20 yards and 5 yards of Conl. Ls. The Conl. has thickness of 6" with blocks of 1 ft. by. Beneath it is the Wm. Williams slate, coal when the fronts come from.

→ to 360 ft. area to obtain a strike of Conl. a gain W. 20 thrill and dikes 10° to the N. dikes continue in the St. Albans Big grey massive to open-Parker. Here may be more Parker on the top, it cannot be determined until fronts are cleared. From the Conl. N. to the Quill Run to Conl it is 360 ft. area. In finding more coal of the Conl. seems to dip steadily and regularly and is here in the Big Brush Conl. made up of slate outcrop of open work Parker slate. The same seen the mineral in shown to exist of the St. Albans

This is the third break from the W or the first one from the E.

Thursday, August 25-1932

Wea. WED. JULY 14, 1909 Ther.

Drawn 425 feet E to the Highgate road from the line of the Highgate state on the top of the Mad River ridge. Set iron pin with mound of stone and mile post.

The balance 1425 feet, is all the thickness of the Highgate state, and is in the cultivated ground, part of the Highgate Mc-Sinard.

All rock is Rutland marble except a part of the state mile [illegible] and [illegible] (Isaac Bascom) contained in one [illegible] state (Canada) called [illegible]

Range 3 [illegible] the state road in front house [illegible] East [illegible] 8' to 15" [illegible] Age of tree agrees the Bascom [illegible], 30' [illegible].

Wea. THUR. JULY 15, 1909 Ther.

Friday August 26-1932

Wea. FRI. JULY 16, 1909 Ther.

The hottest day of the trip and concluded to remain at the Hotel. Did a little writing on the Vermont paper.

Saturday August 27-1932

It rained during the night and all morning after over at 11 A.M. It then began to clear up. Concluded to collect Lower Cambrian fossils at the Olenoides locality north of Swanton Junction. Started on the Bike at 12.30 P.M. and collected until 5 P.M. Got a lot of Olenoides tails, patellas and free cheeks, but nothing else. Wanted to get Ruedemannella shumardi but saw not a trace of one.

Sunday sunset 28-1932

Wea. SUN. JULY 18, 1909 Ther.

It was raining hard when I got up this morning, and it cleared off and as during most of the day. Finally as evening it cleared off.

Remained all day at the hotel and worked in the Denmark manuscript.

It is 21 miles south of St Albans to Tree pond Inc. found by Ulrich in the typical Utica.

Due perrin arbs on visit of July 17-1932 in his auto book.

Jerome Hilyate date in plan

Sunday August 29–1932

Wea. THUR. JULY 22, 1909 Ther.

A clear and threatening morning, but soon
cloudy & it is quite cool. Philton to study [illegible]
area & the Philton district &c. Took the 9.30 A.M.
bus to Bridlington. Got off at the mile post out of
Philton and started again at [illegible] 3.
Saw the [illegible]
in very fine [illegible]. All an massive chalk
cliffs with [illegible] and intra-
formational conglomerate, the sea is deep, pale but
in places [illegible] and the cliff [illegible] is a
quadrangle. The dip is nearly to the E at 15°–20° and
there may be NNW or more [illegible] to E.N.E.
Faulting [illegible] of course [illegible]
forms. In some of the bending sections, the chalk
mixture is [illegible] seen. Generally the [illegible]
small less than one inch long, but many [illegible]
flints up to several inches across. In other sections
[illegible] days thick, [illegible] seams. Some
[illegible] to the [illegible]. The masses [illegible]
seem to [illegible] of the flattened and can be seen
[illegible] and [illegible] position in the [illegible].

About one P.M. got to Whitby [illegible] Lunch

Monday August 29-1932

Wea. SAT. JULY 24, 1909 Ther.

known no repetition of here with pieces having identifying joints. It must be a case of many identifications. Here the dk. weathered much chert and irregular chert, some of it flecked chert, and large lumps of sandstone quartzite have added during weathering. The whole surface is extremely jagged and studded with chert and quartz lumps. No joints.

On Siffin Farm with less chert than the dk. but weathers out lots of siliceous Clandellas and large tridistites. Left a number of good specimens and those more flecked with red will also not make specimens. The tridistites clatellas are very irregular and very form. Some of our specimens which have latter clay.

Small w the dk. seem to be, here is nothing to suggest the Knobbed Ls, the Nicholasville one that I used to call Mississippi. Am not admirable to call the latter Middle Ordovician entirely dominant lithologies and fauna. Both all known Upper Cambrian.

If there is any northward projection should be kept
to the standard shale to the [illegible] main highway
If there is Cretaceous - it is not the dip has again
reversed from what it is at Patricks Lee. 3.

Near the house at the apex of the road but on the
Sweeping [illegible] to the road there is a flowing dirt. with traces
of dried petroleum. As the outcrop rocks are thick
flaky shale this oil must have come from there
and run down into the dirt. Store four samples.

Tuesday August 30 - 1932

Wea. MON. JULY 26, 1909 Ther.

By [illegible] the 8.30 [illegible] I was back to the place of yesterday. [illegible] road where [illegible], the land [illegible] and may have the [illegible] in it, but [illegible]. North [illegible] than 1/3 mile [illegible] beside the road, and to the 1/2 mile [illegible] hills [illegible] may have the [illegible].

At [illegible] is the creek [illegible], therefore all [illegible] are [illegible] to [illegible] and [illegible] one at least to the main highway. [illegible] thickness of the [illegible] as 100' but [illegible] it to half his estimate [illegible] thousand.

[illegible] after the second [illegible] on [illegible] side of road at a curve of highway where it turns S, I saw no trace of [illegible].

Then the road descends S, to the east going road and, [illegible] to E. [illegible] going up E on the road, approximately a mile, to [illegible], to E. [illegible] slate. [illegible] road and [illegible] S. [illegible] road and house [illegible] and to the [illegible] in Champlain fault.

On the E going road a little W. of house on N. side of highway, there is an exposure of Highgate slate. This is [illegible] 4 and in this [illegible] the [illegible] gate and not the [illegible]. Saw more Highgate on the banks of

Wea. TUES. JULY 27, 1909 Ther.

Tuesday August 30-1932

Wea. WED. JULY 28, 1909 Ther.

the Ballett track. The slate in or right adjacent to the trading hut is not worth while hunting for fossils. Ask Ulrich what he got at this place.

Then walked back on the roads traversed and north to Ulrichs. Counted 2 fox near Bullion farms. Both cars many as yesterday and or 2 cars more a pair left. There are at least three species of brachiopods and many species. Of trilobites I may have 2 or 3 kinds. A very meagre fauna and one of very diminutive species.

Returned on the 4:30 P. M. bus for St. Albans. Left here at 5:20 P.M.

The morning Sol. [illegible] at its western base a decidedly blue-black appearance, but on [illegible] found to be muddy blue-black [illegible]. Atmosphere above [illegible] and clouds of mine can be seen in the water. Mercury be otherwise. In any event it is to some extent, even a [illegible] at the head metal [illegible].

[illegible] the [illegible] no [illegible] and that the Milton has path to [illegible].

Wednesday August 31-1932

Wea. FRI. JULY 30, 1909 Ther.

packed the trunks & sent to Mrs. Carlisle to remain at the Tavern to ship by express collect. Wrote to send me the receipt.

Then packed up my baggage and had Mr. Carlisle to telephone to the Smith's cab man on Main Street at Depot to come and get me which he did. [illegible] on the platform with [illegible] Carlisle and [illegible] Mr. Carlisle and the Chairman. [illegible] Burlington and Colorado [illegible] 12 [illegible] leaving [illegible]

In the afternoon [illegible] and [illegible] my shirting sequence. Found some slight errors and changed some values and received the proof number 26. This [illegible] was depicted at about 6 o'.

Found upon my return from [illegible]

When the reckoning the [illegible] at 2.30 it [illegible] and [illegible] and at its [illegible] remained

Wea. SAT. JULY 31, 1909 Ther.

Wednesday August 31-1932

Ther. Wea. SUN. AUG. 1, 1909 Ther.

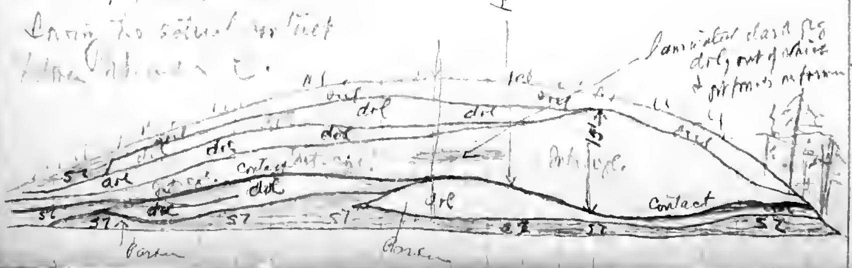
a very little, and got about as dark as a half hour before sunset. The Cattle paid no attention to it but kept on eating grass. Finally the clouds parted a little and I could see a faint half circle in the S.W. and a few minutes later the crescent moon in the S.E. It brightened rather quickly. The sky decided dark and brightening up again all but those in the W.

Wea. MON. AUG. 2, 1909 Ther.

Length of quarry face
about 510 feet.

The little quarry next north
on top of the Parkers slate.
Leaving the [illegible]
[illegible] C.

base of "Milton" = Upper Cambrian
Winooski - Parker Dark
dolomite



Thursday Sep 1 – 1932

Wea. TUES. AUG. 3, 1909 Ther.

Started out for the road metal quarry 1½ miles N.W. of Highgate Center in the contact between the Parker slate and the [illegible] [illegible] [illegible] [illegible] [illegible] overlapping [illegible] [illegible] onto the L.C. dol. [illegible] [illegible] [illegible] opposite [illegible].

The cgl. here is quite like the [illegible] [illegible] of the [illegible], a dark blue [illegible] many [illegible] breccia apparently [illegible] formation and general brecciated [illegible] with dark [illegible] dol. and then [illegible] or marbled cgl. The breccia [illegible] and 5 [illegible].

[illegible] [illegible] [illegible] [illegible]. It seems not [illegible] [illegible] and the gray sandy dol. [illegible] [illegible] at [illegible].

It now appears [illegible] [illegible] the conglomerate [illegible] below the [illegible], at least [illegible] [illegible]. The graptolite [illegible] [illegible] Hartshorne, beneath the sandy dol. and the [illegible] [illegible].

The dip is S.E. about 15° certainly not as much as 20°

Looking W across the little valley the [illegible] here does

Clear here on Middle Cambrian here, and ascending here in the Missouri Gorge.

Bellett is at the road side at the first, second and third house on W. side of road north of road metal quarry. At the third house might take place to examine the middle of the Park Shale

This syncline pitches over to the west.
This syncline shows that the Uplift is folded over here to the west and is the principle cause for the wide expanse of the Uplift, and not a fracture thereon.

Thursday Sept 1– 1932

and appear to be another 200' thick. The distance from the quarry to the Mallett may be 200 or at most 300 yards.

The hill mill is a quarry and the Milton is very narrow and there is not room for two cars on the gorge road – say 80'. Distance one mile.

Then walked N. on the old road and past the first & [illegible] road. Then left Milton [illegible] and walked Milton is very wide further east it is 4 to 5 rods and very open with [illegible]

The next place I stop on my map is Hill's Falls. It is a little gorge in the Rowley Brook, and some of the ledges are not more than 3 feet thick, interbedded with a few thin layers of shale and fine slate. The rock is not interbedded with as much shale as it is in the vicinity of Rowley, but is not quite up to a first class. Dug out to work for stones and also in the [illegible] Test in description and walked if next to [illegible] get them.

About one-half mile [illegible] Rowley Falls on the Rowley Brook. Stopped to map.

On the north going road at the place marked Falls Milton has a very thin interbedded slate and thick bedded [illegible] after another of [illegible]. This thin

Wea. FRI. AUG. 6, 1909 Ther.

Thursday Sept 1 - 1937

Wea. SAT. AUG. 7, 1909 Ther.

[illegible] in the Appalachian Mountains [illegible]. Although probably because of the relatively [illegible] it is more difficult to [illegible] than the whole of the [illegible] sequence is [illegible].

This is to [illegible] the latter and most [illegible] day of the trip. It rained during the night and the mud was deep in [illegible] South.

It cooled off during the day with considerable fogs.

All these places are noted on map.

All appears to be above the lower black slate with interbedded quartzite and the basal dolomites.

Curiously one sees very little of it in place, the rare road metal quarry within one mile. But there is much covered ground.

Friday September 2 1932

Wea. MON. AUG. 9, 1909 Ther.

A fine bright but drizzly morning, but clear off S to make the traverse N. etc 1 1/2 miles S. of Hig gate.

All in Champlain [illegible] to near Hungerford Brook where the land has risen some on the level of Hig gate. To the north and south and W. around to brook the [illegible] Hig gate. A little south of the [illegible] Hig gate [illegible] Hig gate. More south is a marine deposit [illegible] at the top of the Missisquoi. From an [illegible] one massive [illegible] and shaly further south is the third gone of the Shell River [illegible] etc. [illegible] south of the house and barn just mentioned and on both sides the road. In the distance of a mile and one [illegible] the [illegible] and generally more of it in the [illegible]

The [illegible] Shell River [illegible] than 10° N.E. Of Hungerford Brook [illegible] more 2 ft, the rest [illegible] pieces of the [illegible] and the [illegible] in mass. In general it cannot be called [illegible] but approaching it from the N. one sees [illegible] Hig gate and [illegible] Hig gate and the [illegible] Missisquoi, still further south & W. of Shell River is much marine [illegible] and to the N. of it is a mile area of Hig gate [illegible]

Wea. TUES. AUG. 10, 1909 Ther.

This dol appears to be the basal one of the Mississippi formation. See of Jan 20.

Friday Sept. 2 - 1932

Wea. WED. AUG. 11, 1909 Ther.

State dips E at first from 10° and further W flanges down the beds with a steeper dip to W. say from 10° to 20° dip 20° or even 30° S.W.

At the W gate road and the hill, also road then on nearly uphill runs N 60° W. with the [illegible] dip gate state above described and it cuts a ridge here at [illegible] N.-S. across the E-W ridge.

125 yards W in another ridge with dip E. 20°. It is 5 E cuts across in the open (calculate on dip 20°). Beneath it is a flat [illegible] with [illegible] E.

Then a little flat & then 300' across to a [illegible], that is 25×8 yards across. What it [illegible] in [illegible]. [illegible] in this 300 yards

In Middle [illegible]

Then the road cuts a wide flat with [illegible] and then [illegible] ridge with [illegible] and has the gates. [illegible] an offset [illegible] and used in the legend of the contour map.

Started a little on the right down hill and got a fine Down Cambrian fossil.

Then looked on the high ridge at the E. enclosing the farm and found a large extent of what appears from the [illegible]

This connect the the Trenton Cong. once it appears one mile east at the Highgate road.

These great dol. blocks are pieces in the cgl. and were broken from one of the Parker dol. zones.

This cross section is not correct. Redraw in terms of notes and maps.

Friday Sept. 2 — 1932

Wea. FRI. AUG. 13, 1909 Ther.

Mill River & the Lowertown conglomerate. Towards the north it appears to be more like the Mill River & heavy massive beds of the 2C. Cambrics. Glacier has moved sandy clay and put channels of the Pauline slate. Farther north but in the Kenaboi basin & a diabase sill with the usual cooling joints & columnar structure. Another sill 1/2 mile further occurs here & there under the drift. Mill River gorge below is a large glacial channel filled with boulders of the Cambrian but originally must have been much deeper and 50' wider. Assuming Lawrence that the Mississippi was north of its present valley & that the Mississippi & Mill River are one of the united that work of the Lowertown canal in the Pauline, [illegible] with [illegible] & [illegible] slate & about 10°

Assuming the Mississippi ran N. the present Mill River has cut a little shallower in the latter & in gorge and [illegible] wider & deeper than the present channel of the

Wea. SAT. AUG. 14, 1909 Ther.

Friday Sept. 2 - 1932

Ther. Wea. SUN. AUG. 15, 1909 Ther.

Returning E on the Cam road I cross a trib. flowing on the Highgate road a little [illegible] N of it, with [illegible] Sd. This is just up in the high Missouri not far below the head Milk River cyl.

A little farther on the W of Highgate road there is a ridge that I did not [illegible], but my map indicates the Drowsy cyl. It probably is on resting on the high Missouri or basal Highgate beds.

Marked the place on the map.
The thickness of this zone is at least 30'

Collected more binding material, and on more [illegible]
have a large log & root. Their rollers lie in the
direction out of the specimen out of sand 1/2.

Saturday Sept. 3 - 1932

Wea. TUES. AUG. 17, 1909 Ther.

A bright cool morning, and damp to go down Hungerford Brook.

All in Highgate state down to Lafaes where the more denser trees make the falls and dip down stream as N.W. about 20°-25°

Farther down stream but up to the former state of the dri. of them and mention of make some of its intro from birds.

Then the little valley widens in & one see all upstream along the stream. I went down the bank far enough to see that our stream fell and [illegible] clay slumps. [illegible] Kelly telling me there any large del. upstream along the stream. They must be found when frozen.

Returned to the [illegible]
Started with [illegible]

On the afternoon trip we took on the Wrightsville gorge to see if down [illegible] and [illegible] and [illegible] gielded a mean of [illegible] in the same [illegible] and power rotation on in Opus 2. [illegible]
Required to work this out for science.

Next day Prof Lyman calculated the thickness and the mass of 55' plus the 8' as of the crustal compensation.

Dundag. Dep 4-1937

Wea. THUR. AUG. 19, 1909 Ther.

Windy overcast morning with rain in the air. Showered three during the day.

Spent 2½ hours in the gorge at High Falls and in a half mile of the hillsides only found 3.

Then finished up work to leave for Braxton this afternoon. Packed a large basket with rocks.

Left High Falls in the Smiths car at 3.45 for Braxton where I C. R. R. Cars for St. Albans will pick me up.

Put up for the night at the Tavern and will go to Mt. Tabor in the morning by team.

Looked over all of the specimens and concluded the smaller 80-100 mesh, stood to dry across the room and under it 70 yards with a dip between 15°-20° calculate thickness of the seam, At 20° it is 75. This is correct.

Shortly after 6 the team arrived from Mt. Tabor with Ray and Packer of Battleboro. Soon arranged the baggage on the wagon and drove them home by my fireplace. Then stayed there.

The place Keith now corelates with the intersection cyl. on at 9am with the cyl. on the gage. The cirrus can then be done, since the White Plains is a fossil cyl which name in the gage is not. The cyl. Rock Sheets Corners is that a fossil cyl at Swanton.

By Narrow corn and all way fm dep 2p° Ithaca clear 7p°

Monday Sept. 5 – 1932

Wea. SAT. AUG. 21, 1909 Ther.

The fine ~~[illegible]~~ gorge of gl. [illegible] in back of barns of the farm house north [illegible] Shells Corners. Beneath it to north is a thick zone of dol. in the same dip & strike. [illegible] the [illegible] with [illegible] [illegible] may be 20' thick, or 25'. [illegible] this dol. Milton = L. Cambrian, [illegible] [illegible] [illegible] [illegible] gille.

In the [illegible] [illegible] [illegible] [illegible] the thickness of the main "Milton" dol. [illegible] flues 8' [illegible] [illegible] difficulty in ascertaining the thickness is due to the many of the [illegible] and [illegible] cracks out.

At the road north of [illegible] 1½ mi. [illegible] [illegible] [illegible] Dr. [illegible] agreed that the contact between the "Milton" and the Parker slate, [illegible] held [illegible] [illegible] [illegible] are [illegible] one [illegible] [illegible] that all [illegible] [illegible] [illegible] that the contact is a [illegible] one, and has no [illegible] significance. Then [illegible] is the Parker slate [illegible] in the [illegible] = the type of [illegible] Cottle. There are [illegible] [illegible] [illegible] [illegible] that makes this conclusion [illegible] [illegible] this gl. is clearly made of the dol. [illegible] and is then bedded material above a little with the dol. To me this gl. is the same as at the [illegible] of the dol. in the high gate gorge.

Monday Sept. 5-1932

Wea. MON. AUG. 23, 1909 Ther.

The 26th syl. in the Abigail's page Longwell does not appear as he came as the Hill Rem. syl. It is certainly not a transl. syl. of Rem. under such sequences, and it appears to Longwell to be rather an intrusive one. In any event it is easy at present to call it Mett. Rem.

He should have a name for the Miocene gravels. Air for the term. deposits because they seem to be found chiefly associated with the White River sediments, Oligocene.

The syl. at the end of the st. Altamont, next Brooklyn Ave, must ~~have~~ ended not with Rupelian but he would in any event remind the syl. and the associated dist. as pre-dating the base of the St. Altamont. He calculates the total thickness of the St. Altamont beds as about 700' thick.

At the "Portageville" loc. Longwell regards it as a part of the Chattanooga series, the most of it intercalated with the marine strata. He says the Chattanooga shales in Tenn. (dug pits), with coral fossils.

Thursday, August 26, 1909

Share in State if found in my papers. Later
write day are in mail and to come state in the
S.E. side of the Indian cyclone. Have an incom-
plete but detailed account of the cyclone, well
and in print in my mail. All the storms have
dips in the same direction and path state angu-
lar from 2:0 - near 4:0. Due to centrifugal
that any well found in the north be, after
having a back, negative state, I can't help
be strong?

I to Persian quarry Engineer affirmed
not inclined to accept my view of the bullet
being instrumental in the Philippine army series, but
thought it due to ground fault. Called to pro
of my view and asked it to be left for
ticularly on the Salem Expedition, but that
additional funds in connection with it. Left
him to state the situation in my papers.

Engineer the work in Washington at 5 P.M.
I took a street home to next day and
got to the House before 6 P.M.

Sixteenth
International Zeological
Congress
Excursion
July 10- 20 - 1933

Wea. MON. AUG. 30, 1909 Ther.

Sunday July 9 - 1933

Wea. TUES. AUG. 31, 1909 Ther.

Started for N. J. city at 1.40 P. M. in a warm Sticky Atm. Retiring to again. My baggage in Barge for me at Beam Talking Engagement trivial to help when the frosts and when Mains.

Longwell went earlier to spend the day at the Bird. Dec. House and to help on the excursionists, & that all well in camp at 6 P. M. Tom arrive.

At 6 P. M. today Dan to call on Colleen G. Conover, 340 Park Ave to tell him his proposed help for Kenton on his project, & hope arrangements can be made to take them to the Jac mouth of N. E. Northumberland.

Found Mr. Conover away from me, from me over talking over plans & time for Mr. Harriet and Kenton on August 1 at Bisley Cove. Then rang a night letter (81½) and all my letter with a picture of the Camp at Ottawa to Kenton at Bisley Cove and left them to forward to Bisley Cove.

Monday July 10-1933

Wea. WED. SEPT. 1, 1909 Ther.

Got to the Brit. Dec. House on Dr. 117 street at 7:30 A.M. The tires did not turn up until 8.30 and 8:50 one was loaded and off to the north. The day went well and was taught in a small town at the Indian agency.

Tuesday Aug 11-1933

Jones turned up and the other, or that one out of five - just 30.

Dan de Potakie from Shanty acres [illegible] Lake Park is [illegible] a couple of acres to what he has in there. Evidently he wants to sell in the course of time, but just now he developing the Cypress room for the purchaser.

Left Lake Geneva at 6.45 P.M.

Wednesday Aug 12 1933.

Wea. THUR. SEPT. 2, 1909 Ther.

Had a fine clear day in the Adirondacks. Drive Cachegine rocks Granville Summit Lake, attend and Comforts.

In the afternoon Gilbert got lost and we did some wood board.

Thursday Aug 13 1933.

We got right into a pleasant morning in the Adirondacks.

Took some of the same Cachegine rocks and finally the Pittsdam Sanitorium & home at Malone Adams.

Continued with the Inter-
national Delegates to
Hartford. Then returned
to New Haven. The evening
of the 19th.

On the evening of the
20th attended Vaudeville
at the Parsons Theatre.

On the 21 Engrossed had
meeting to hear me
about the close of the trip

Wea. SUN. SEPT. 5, 1909 Ther.

7146

Thirteenth trip
to
N. W. Fairmont
Late August 1933.

Horace wants to show me the
errors of my ways. Refused so.

Asked Horace if he knew the place, to
which reply was affirmative. The Ky-
tiping hotel was the exact place
and bed.

Wea. MON. SEPT. 6, 1909 Ther.

Saturday Aug. 26-1933

Left at midnight in sleeper on Montreal train for St. Albans, VT.
This trip is to see what B.F. Bowers has got and out of having with my wrists.

St Albans, Vt.
Sunday August 27-1933
at St. Albans

Arrived 30 minutes late, to some amount of delay on New Haven.
Put up at an at the Tavern.
At 11 A.M. team & motor to Fobes to the Barney marble Quarry near Swanton. Object to find the Kutsi conglomerate layer. Hunted fruitlessly for it and failed to find it. Saw one Ordovicite in lowest part of Parker that looked like the real Kutsi Layer fossils and so it may be Layer come from the Parker; if not Layer can only be Mahatt.

Left it on it continued out to the Highgate with gone of dolomite and hard sandy slate that breathes out as a ridge makes.

On Monday when I was here again and alone I could find more of the same fossils. Cap of the same slate but large Lyell Imo [illegible] but poor Agnostus.

Monday, Aug. 28 - 1933

Wea. WED. SEPT. 8, 1909 Ther.

St. Albans, Vt.

At 8.30 A.M. Prince Howell called for me and we drove up to the Maidon farm, [illegible] the Experience meeting before going out to the Page Witness. Reported to be near Rescia making the dip about such & such. He thinks it is a downward dip out not a fault line. is because no such evidence [illegible] land [illegible] Parker.

Under the apple trees [illegible] beneath the great dark Elm [illegible] which is a guide to the [illegible]

Ore Bear mountain to the [illegible] road metal quarry one mile N.W. [illegible] Conglomerate [illegible] I replaced the [illegible] I replaced the [illegible]

Later concluded that this crypt. is due to cleavage sliding. The beds are irregularly deformed at the end & somewhat below it so a depositional crypt.

These forms thought not to be uppermost Paleozoic, but

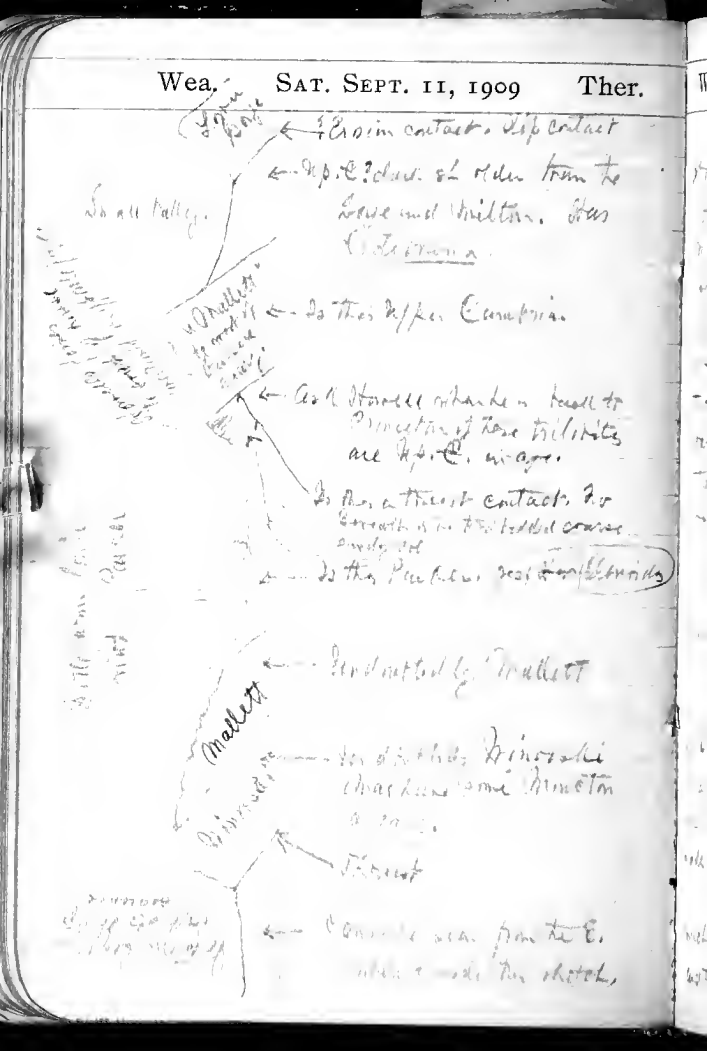
Carboniferous.

Monday August 28 - 1933

Wea. FRI. SEPT. 10, 1909 Ther.

arenella and Ceretitella, and below the compl. te dist. roena orbicularis. The dist. mm- dimerale de opus, a diagonal one across an erosion surface. Require to run below te unconformity in an [illegible] but not the Paleozoic but more like Cambrian. We drop and believe the "Mallett" to be next in Lower Cambrian fault, more like Cambrian. This because the [illegible] to the west a few hundred, but be [illegible] later after the [illegible] Cambrian.

[illegible] dist. comp. took after dotted where encircled on my map just to the east of letter A in the Disputate [illegible] name. Rich and I separated then I [illegible] Mr. Connell returned just to W of the "Mallett" ridge above mentioned. [illegible] Took also [illegible] [illegible] area. Other details in [illegible] in more detail.

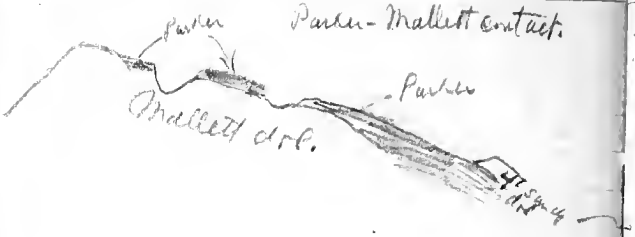

Mallett

We then turned around and [illegible] straight 3/4 miles to the place where Wemell found [illegible] ? p.t age. This directly east of a house [illegible] on my field notes. This on the western side, and Keith and I have called Mallett. Going up to this to the north & the farmhouse we [illegible] and found the [illegible] trail was the Quinnebaie - Mallett and the [illegible] in front of the Parker. Then [illegible] following abstract [illegible] [illegible] is noticed.

Then returned S.W. to Dwan's [illegible] lunch at the Park Hotel.

[illegible] to the north edge of town one mile N. of Stratton Junction. Then we drove west to the Junction from to see the last unbroken contact between Mallett and Parker. I don't think [illegible] Aug. 19-1932 but made little if it other than to confirm [illegible] (see next page).

The Mallett is crowded with undulations as much as 10' high. To north the [illegible] and the Parker shale goes down the hill. Then


Parker
Parker - Mallett contact.
Parker
Mallett dark.

Monday, August 28 - 1933

Wea. TUES. SEPT. 14, 1909 Ther.

[illegible] dr. [illegible] Here a head. Between the Mallett and Parker, and and crossing their claims the order to the Lower Parker has much dip into Bottle inclusions that weather out leaving holes. Thirteen yards across the Parker down to the Mallett contact from a sandy drift in the d.

Then turned east on the road to Mr. Rodrick's. First examined the Mallett Klondike quarry. Have claimed to Harrell the unpatented Parker claim below, given to drainage of that part between the Mallett & Klondike. Farther east Harrell worked old mine & [illegible] in the Mallett for wonderful [illegible] & hipped dr. to Hemple mine (1940') dr. Farther on to worked by [illegible] Cameron but he [illegible] would not open. Then turned up a migrid [illegible] Clatellar in dr. & on the eastern side of the dr. Harrell has [illegible] and had also a Parker with here a vast [illegible] worked.

Min very [illegible] on the Parker dr. are all in Lower [illegible] Sandstone & beds by U.S.

This dil. acid cryst. makes a low anticlinal,
below this cryst. and dol. lies the higher Packer.
In part these dil. cryst. form like Rapp Brook, not
showing on Drill Co. mips.

Monday August 28-1933

Wea. THUR. SEPT. 16, 1909 Ther.

More dk. loose sand pattern E to Mc. road. There I studied the area and the sequence E. is described under date August 29-1933

In the Forest Parker dk. brown loose sand dk. inclusions upper irregularities. There are intraformational. Originally known as in these Mesa Rica and we came to the idea that all higher in the sequence is of upper E. age. We found it true up.

The anticline in Parker just the east of the same road and descending the area contains more Parker part for how far I do not know. I described.

At the eastern end of same road the Parker is overlain by a very sandy dk. stone which is dk. [illegible] coal thin slaty dk. pieces and pieces of [illegible] that may be intraformational or out of the L.C. this matter we have to see. Then E. is NO Parker a sandy dk. from 3'-5' thick [illegible] Here is a very [illegible] dk. coal seam the best home-like mine. Further east about 50' is another shale ridge and it also has the horn-like pieces. Then [illegible] Between the two coals is a local lense

Wea. FRI. SEPT. 17, 1909 Ther.

Monday August 28-1933

Wea. SAT. SEPT. 18, 1909 Ther.

y white of at about 2 feet thick.

How can we account for the presence of the Eozoon? Is that a question of deciding. To me it seems to be a question of the fossil and does the position of the rock have anything to do with the fossil or the fossil of the latter.

From the fossil [illegible] to the [illegible] measured by eye) [illegible] to the [illegible] measured on map) [illegible] to the [illegible] to be taken with the [illegible]

[illegible] to the E. and E. [illegible] a half mile to S. of [illegible]

The [illegible] S. [illegible] College and Montreal W. [illegible] are about 5 yards to a mile. Fallon Hotel [illegible] Rev. Mr. Bergin's [illegible] and in it is a [illegible] bar is 30 inches thick, and [illegible]

[illegible] to the Upper Point. To E. of [illegible] Hotel [illegible] Rev. Mr. Bergin's [illegible] and in it is a [illegible] bar is 30 inches thick, and [illegible]

[illegible] and is 10'-20' [illegible]

Monday August 28-1933

Wea. MON. SEPT. 20, 1909 Ther.

About 10' ripen in the St. Albans beds is a local drk. conyl. and Rock up to 10' in cross.

The local Rapp Brook drk. is often a straight drk. or it is locally conyl. and is then lignitic Rapp Brook. Always a very sandy drk. and may have gr. layers as above described. Limestone nearly in the undulating Packer shales.

The Rapp Brook was interrupted a good deal and drk. seams in local accumulations.

[illegible] of the road to the St. Albans beds & Rock Ledge. Here above the hill Rim. Almost clear from the drk. shales.

[illegible] Rapp Brook drk. is not so conyl. and is thin bedded across the gentle dip in the section. In places the basal one foot of the drk. is thin layers and ovals which the shifting stream forms. Rapp Brook conyl. comes from [illegible] Packer and above in St. Albans.

About ½ mile N.W. of mill [illegible] in a draw about 50' high has partly [illegible] Limestone up to 10 inches in cross. Have five samples.

These storms bred emyl. mitten a formation
are typhoons as also in my shallow seas.

Wea. WED. SEPT. 22, 1909 Ther.

The Parker photog. transcript of St. Albans has four pages & diff. compl. in leaves. I did not examine these but should say he did or could found diff. explanatio.

Farther west on same road just east of Jericho Ctr. a dirt road turns south by the photo-house with white wood fingers pointing to Underhill. I could find no one to give the exact distance but it is probably about 4 miles. Underhill Flats is a beautiful valley.

Some very interesting things here, very interesting families, I should say. The new Methodist Ch. E. possibly is the most interesting.

Tuesday August 29-1933

Wea. FRI. SEPT. 24, 1909 Ther.

Howell called us [illegible] at 8.30 A.M. and we are off for the frost locality about 4½ miles S.W. of Chilton in the Midland. He has been here twice before but got no frost. I took him to my locality of last year under the forty Chapple trees. A day of a lifetime. Found a rain and turned it into a shower. He took most of it and now has much more than I. He carried away fully two pounds of rain and will try to call one of it. It was rainy, remember we started north.

Then retired north and [illegible] across again, Texas, Kaufman Plains to get out [illegible] Lone Cambrian to get a starting point. Dave move. When we got to about 1 mile S.W. of Great Bridgia and just north of a farmers house saw Kilgore state on E. side of road and a tiny house just one story. Drove N' across. That the state of Kilgore was known by several Upperties and Limpies a friend here. A little north of W. side of road in another tiny one [illegible] and [illegible] not even a [illegible]. Here the Kilgore dips slightly to E. and the Clearfork and Leadey principle. Next

Keith had seen fire here and marked it on my map as SW = Carlin Cyn.

In on my place. Lee mast[illegible].

Tuesday August 29 - 1933

Wea. SUN. SEPT. 26, 1909 Ther.

[illegible] road [illegible] and in [illegible] road another quarry and [illegible] and should be a good place to get fossils. I [illegible] [illegible] small [illegible] said [illegible] [illegible] to make a collection.

At this place the [illegible] [illegible] by a small [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] Emp.

Then [illegible] about 1 1/2 miles [illegible] mile the road [illegible] Boone [illegible]. [illegible] [illegible] cliff of [illegible] [illegible] [illegible], and [illegible] [illegible] [illegible] [illegible] [illegible] 5' to [illegible] [illegible]. [illegible] Howell [illegible] [illegible] [illegible]; it is a crystalline ls. and not the [illegible] [illegible] of Kinderhook ls. The [illegible] on my map, [illegible] [illegible] [illegible] to west of the road, and [illegible] [illegible] [illegible] [illegible] to the west [illegible] [illegible] which [illegible] the [illegible]. To west [illegible] Mallett and Sinnorodi.

Next walked to [illegible] [illegible] [illegible] and then W. (ask Howell to [illegible] [illegible] map for me) to see contact between Sinnorodi and Mallett. Here the latter

This place is roughly located. It is on the St. Albans quadrangle S.W. of Georgia Center about four miles. It is just north of Letter D in Georgia Township and about ½ W. of Miles River. It is spotted on map.

Tuesday August 29- 1933

Wea. TUES. SEPT. 28, 1909 Ther.

for about 6' is decidedly conformatic with angular pieces of white qt. The dikes are usually small under 6" but one a piece 18" across. This Mallett is near the contact though not at the actual contact which is not exposed. Have a sample of it. The contact is about as follows:

W.

Primrose, slip E. 80-100

Cambr. Slates, fine grain
Contact
Coarse Green ant. 1-10' thick

In places the basal layer of Mallett is qt. followed by the Cambr. bed, which is intrusive. These small Mallett dikes occur also at higher levels as well as near the base.

I would suggest to impress one that there is a short fault between the Primrose and Mallett. Look into this matter, and maybe Hall left directions to write out for me! Other places showing the detail of the contact.

Look up Mallett's Gulch, Cavalier Mine. Mt. Elbert sheet on my maps.

On the outcrop of the Georgia Placer Mines printed out that the dikes to the west are dol.

In passing through Parker Cattle did. thins out to nothing / on before getting to O'Connors place. Here the dirt. appears thin once more to 100" thick and thins out to very little before getting to W.J. H. Adams. Between the dirt. is mostly the Middle Cambrian and underlain by the Archean slate.

At my "Middle" locality I am fearful we interpret our "Ruff Knoll" dirt as the same as Parkers Cattle Creek dirt appears to thicken to S. Ruff's Corners house of the 7 Kings is the same in Con we might say that from Parkers Cattle must has been eroded off. All the same be worked out by working for the dirt. Then he drawed has [illegible]

Tuesday August 29-1933

Wea. THUR. SEPT. 30, 1909 Ther.

and it be same age as the dk. gr. in Parker Cottle. It might even be found in the Ten-
by light disp. & angular fragments
tered part of the Mt. Merino Mt. but I incline to the dk.
appears to
gr. rapidly to S. and then on the
N. Howell is disposed to place it in the Mb.
Cambrian and think it maybe base of the Mc-
Kim dk. but thickness & lithologic
agree with Cottle Mill. I am disposed to refer
it to the Lower Cambrian, but until more can
be found it is impossible to determine.
The noted fact, however, that the Parker is overlaid
by a marked erosion interval, and is
by a variable thickness in different
places probably due to
time interval by den. dis. Hitter
[illegible]
This
[illegible]
Mississippi [illegible]
[illegible]
Water!
Not as thick as Howell thinks. I saw it Sept. 4
as I motored N. to my "Main Gulch" locality,
about 40'-60'? thick.

I fear the Variation of the Rugg Point as 17°-W. It may be Variation as low as cannot be seen. The actual Variation may be 30'-40' This however includes the d.f. to the W.

La Cay. 2X-1932.

Tuesday Aug. 23 - 1933.

Wea. SAT. OCT. 2, 1909 Ther.

Am. came the expressing thing, I'm due. My new place of last year pk. Mill Canon Cañon rel. be wing. There is no M.E. here and the Highgate district makes a decided E. and W. line I called the "Rugg Basin" but which must be the Parker dk. seen to be S. dome thicker. The rocks are as follows.

My "Rugg Basin" dk. empl. is based on the Highgate diorite at a low angle. If this angle is projected W to the S. end it is seen to reach Parker dk. considerably depressed and probably. It makes the surface of the ridge running to the W., and must be the thickest base the main ridge Parker Little 30' thick.

Crossing "Rugg Basin dk" one is entered and to the E. in the little Gulch and to the Highgate diorite, but this is to be Mt. Albion one and which probably does not reach Highgate Tunn. It is not plainly seen and found the boundary [illegible] and it also crosses in the gulch which is for the diorite. [illegible] one found here and [illegible] Another place for [illegible] is on north side and here the [illegible] [illegible] and one

I got home on Sept. 4 after a dozen of these
birdsitting, more sorrel Locks. I thought Jessie
seem the Lessons Books just Too small and in-
distinct to be taken.

Died, on hills to be handy shins ocean from 30'

Lee Cliff 26-1932

Theodore Durrell 30-1933.

Wea. MON. OCT. 4, 1909 Ther.

[illegible] and [illegible] like pond.

Crossing the state all the time or more [illegible], one of which is about 30' across.

Therein may section men [illegible] now be located as follows. [illegible]

[illegible] as at Parker's Farm about one mile N.

Dr. [illegible] making [illegible] Durrell [illegible], [illegible] locally known as [illegible] and called Rugg Brook, [illegible] but maybe it does [illegible] ville. Jog in [illegible] here to W.

Then [illegible] state line, was about 25 [illegible]. Then 20 [illegible] than 4 or 5 miles. Jaffrey Pond is [illegible] — the [illegible].

[illegible] is disputed in [illegible] Eminent Domain [illegible] part.

[illegible] and it is E. [illegible] little more road to Burgin [illegible] where we had [illegible].

Thickness of Mallett

250 yards from Brimmicks to Brook
115 " " Brook to Parker Slate
365 yards across with a dip not over 10°

Parker 220 yards across from Brimmicks to the Pontiac. Can it be added to St. Albans. In that event there would be no Parker Seam, probably a wrong interpretation

St. Albans 125 yards across at 10°

Tuesday August 29-1933

Wea. WED. OCT. 6, 1909 Ther.

After lunch we motored to the type loc. for Rapp Brook, and here a certain chain in the map. The corrected section is as follows beginning in the creek with Devonian, and ascending:

Top of Devonian.

Mallett dol. From the contact it is 250 yards E to N-S road and across it to Rapp Brook. Here on E. side of brook in the cliff that outlined Rapp Brook and it is now seen to be high in the Mallett. Then high knoll and dar the Devonian is seen, and is 15-20'

From brook with Mallett it is 150 yards to base of Parker slate. Middle Hamilton as mapped here.

Parker slate begins with a cliff about 40' high. Over the slope a ledge of dol. about 20' by N-S and about 5' thick. Then 220 yards across the Parker, to the sandy dol 10' thick, that last seen & included in the Mallett.

The sandy dol 10' thick Hamilton [illegible] Parker, and make it the base of [illegible]. It is 120 paces across to where the Mill Rivers Conel. should be if it extended so far N. It is to be seen several hundred feet to S. of road.

Tuesday August 29-1933

Wea. FRI. OCT. 8, 1909 Ther.

Low [illegible] and at 50' at the Warm - Little Trees.

The Highgate [illegible]

[illegible] hill of Highgate slate and Shell Sink Engl. Howell 681 the Warm - Little Trees.

[illegible] reg. No. 460 yards E. of Dug [illegible] E from [illegible] as [illegible] and noted in map.

[illegible] from the N-S road east to [illegible] of Wilcox Hill

[illegible] comes here. From Dug Bottom [illegible] dip is dir. [illegible] 200 yards with the crooked [illegible] from the original red clip. [illegible] little Hackman in the [illegible]

[illegible] went up the hill [illegible] to find the contact of the dir. with the underlying Palla [illegible] 435 yards [illegible] from the N-S road. From the top of the hill we could see the Ne[illegible] mile to the west [illegible] Wilcox Hill [illegible] colored to the [illegible] Hogan's cor. with Hogwell and Quinlan. His mound is on my map.

This low stretch of dir. [illegible] to E. to Log road cut. Lies in a dense [illegible] dip may [illegible] to E. The flat [illegible] continues for

Tuesday Aug. 29- 1933

Wea. SUN. OCT. 10, 1909 Ther.

about 335 yards, and hence ft 350 down the dip slope to the Potsdam sandst. the beds dip about 80-90°. As the hill from the Cambr. is about 80 feet high, this height should be subtracted from the thickness indicated by the 350 yards distance. However feet, the total thickness of the dolomite does not exceed 100'. At one mile N. on the St. Alban. E-W road the thickness is not over 30'.

Had dinner with the Howells family, mother and 2 girl, about 14 years old at their summer home at shore of St. Albans Point facing Lake Champlain. Howell delivered me at the Tavern a little after noon check. Packed up, etc. and

Really to St Albans may start in shortly
to Mrs Champlain County Court House.
Fine print out map of Parker starts in at
about 249 on map.

Wednesday August 30-1933

Wea. TUES. OCT. 12, 1909 Ther.

Wrote up diary the morning my notes of yesterday.

In the late afternoon walked N. on the Dromtin road to see the Mill Burn outcrop 2½ miles N. of St. Abbs. The Mill Burn at the base of the high-dipping beds in the north bank of the burn was found to be a fine dyke of [illegible] only about 3 feet wide. At the N. end of the little outcrop is a fine one at least 10 ft. wide, the dip being 70° to the east and the cleavage is 40° to the west. Here.

It is uncertain if this dyke must be the St. Abbs. The latter outcrops 18 yards wide. It goes N. on Dromtin road to the burn and [illegible] on map as indicated where the dark appears and goes on north for a long distance. Has indicated on map.

The Mill Burn just appears again among the flags in the stream bed which has a little to N.E. of the one in the Dromtin road.

The cleavage dip at 340° E. of the Mill Burn is probably the prevailing, the actual bedding dip could not be made out.

How Parker Cannon and Mallett intr
intro for matching Comp.

Parker matriculate with Mallett into
Division.

Redneedle August 30-1933

Wea. THUR. OCT. 14, 1909 Ther.

Then turn S. and thence west along county road to R. R. crossing (M. Central). Then S. on R. R. past bench mark 271, across county road near 295 in woods, and about ¼ mile further S. leave railroad and things the Parker. It small and not plotted here. At many places the Parker is replete with interpolations of old. Pines are sharply angular, usually small but some are perfect acorns and one block was seen about 2 feet across. To E. of railroad in Con further one Parker is seen with the same angle. Here was remnant of old fence 6' thick and still 10' long. Timber have been broken since the storm. Further E. is more old castles. Evidently have died, tales pine further than the nuts, and were then broken up by the sun and redeposited as natural crop.

Further S. on R. R. the Primordia comes near to track. Evidently no Mallets in Kentucky were left by the Parker. Another mile the Parker must be crossed and Trust across the Mallets and Cones to be in the Primordia.

Wednesday, August 30 1933

Wea. SAT. OCT. 16, 1909 Ther.

Still passing south near 343 on map and at greater elevation than railway. Base is again Parker in railway cut and on land to W. Base to Parker is a grey and massive muddy-fine sand calcareous mudstone — it is not at all a black slate like the Hudson rock.

These determinations will help to fix boundaries of formations a little more.

Will go on the morning to Hightstown Falls.

Thursday August 31-1933

Wea. MON. OCT. 18, 1909 Ther.

Mr Swift & Mr Evans & Bird started with a car from me and at 9.25 we leave St. Albans. About 9.30 Sam & I walk on road and I leave to run to start the engineers cars up Hilfpate.

At the [illegible] Arrows Hilfpate Road there is to N. a house. To E. 5 [illegible] as follows:

Left road [illegible]

[illegible] to square cliff, house and [illegible] and without [illegible] this distance [illegible]; to 2 [illegible] E. the dip of surface around is [illegible] and dip W. [illegible] road to around 60° W.

At the Hilfpate [illegible] dip is [illegible] from 20°-30° W.

The contact of the [illegible] about 20° east of Hilfpate Road to E. [illegible]

Left Arrows House 10 yards [illegible] a second cyprus and [illegible]

Thursday August 31-1933

Wea. WED. OCT. 20, 1909 Ther.

Generalized section of strata between the two houses is about as follows:

On either side of Highgate and Green Carbon conglomerate of the usual kind. The thickness is between 20-30 feet.

From the road W. for 290 yards all is Green Carbon and Highgate as follows:

In this distance on each side Stephens Passage to W. or mine mouth.

Eastern limit:

Carbon conglomerate (coal) 30 yards across.

Highgate slate, 70 yards across, dip 10° E.

Sandy slate, 10' thick, 20 yards across.

Highgate slate, 40 yards across, dip increases to from 40-50° E.

Highgate slate 20 yards to mouth of another.

Highgate slate, 60 yards to mouth of mine, strike, N. and S. and dip 65° E. Coal seam 6' thick dip is around 65°. One will see that this westerly dip appears further south.

Then went S. to the cross road going W. to Broadoak farm.

Thursday August 31-1933.

Wea. FRI. OCT. 22, 1909 Ther.

In front of house part of road dam[illegible] from the Carlin emp[illegible] dipping E. at an[illegible] 20°-25°. Shingle a little more to the E. in the immediate vic[illegible] W.

It is then 250 yards W. to the first cliff-side of the slip mentioned by, of the same and is also accurately described, in this latter distance the distance is 290 yards, but this difference is entirely [illegible] the surface irregularities of the talus emp[illegible].

The above mentioned ridge is made up of a very coarse dark almost agglomeratic hard stone. The strata are in some cases thick, and I could not find any distinct plate or cleavage dip, of not more than 30°. The general dip of the plate in the vicinity seems to be 100° E. where the strata dip [illegible] to 20° W.

There is, I think, a little circle or syncline existing between the second ridge and the S. of [illegible]. At the point of [illegible] the [illegible] of 250 yards, this 200 yards to W. and where [illegible] the [illegible] line [illegible] and [illegible] the [illegible]. The ridge is made up of a very coarse dark [illegible] and in places it is [illegible] dark emp[illegible] made up of its own material. [illegible] to 20° E.

Thursday, August 31-1933

Wea. SUN. OCT. 24, 1909 Ther.

Beneath the drift on Hillsgate slate in a cliff facing west. Strike dips 20° E.

Farther W, to mouth of small stream are fishermens, large and small. They are in the Hillsgate slate, but well beneath the drift. Bearing continued. The other fishermens lies higher above the drift.

Farther west to stream with small stream in Champlain clays. Thin bottom of gravel and into Hillsgate slate.

Farther west in the rising [illegible] Parker slate and to S. of road a fine exposure of the Mettawee River Ls. and with at bottom fishermens. Both kinds of drift are on the Hemaldon farm.

Made another traverse on Hillsgate and about 1/4 mile N of second house into the bottom of the stream that goes into Dunsford Road. Hillsgate slate with most distinct dip and bedding. The same slate is seen in brooks mouth in Dunsford house.

Thursday August 31 1933

Wea. TUES. OCT. 26, 1909 Ther.

Then went down Kennebago River, then all
from the road bridge down to the Falls is
Mixed gate slate. Drive 18 Bow. The bottom on main
trunk one upward 3 cist. Layers horn & united thin-
ner upstat. Here dip 21. atmt 15°. Then was seen
no new ledge trip.

The entry ends in mouth of road bridge, since 200'
further bridge the black slip & atmt 10°. Pitch very heavy
is in centre of falls causing them in very handsome
folding.

From Kennebago River Hotel to Falls and
Champlain slope and pasture land with occasional

Left for home and [illegible] 6th.
Same room as before. House almost [illegible]
families with children, all from Brighton, Mass
Smiths home.

Friday September 1-1933

Wea. THUR. OCT. 28, 1909 Ther.

Spent most of the morning working up the observations of yesterday.

In the afternoon resumed the Hoffgate Gorge sequence and made sketches and measurements of the general stratigraphical relations. The succession beneath the Hoffgate slate was as follows:

The Hoffgate slate passes gradually into harder and more dolomitic beds. This series appears to be 2 or 3' thick. Above this is the Hoffgate slate.

The next beds above Power House consist of thin flaggy layers dipping at 70° S.E. or nearly vertical.

Below the Hoffgate slate are bedded as series as follows:

Knotty calcareous slate not exceeding 3-4"

Calcareous slate replete with intraformational small angular pebbles, averaging 2-3" and smaller. At top these are 0-6" thick, but at the base they are about 0-10" thick & very irregular in shape, these average less than half inch in diameter. The calcareous beds are 5-6 thick.

Thin bedded blue beds 1'. Hill seen in Strickland's.

Yellowish weathering banded impure slate. 1 foot. Coarse white sandstone 1 foot 2"

Thin bedded beds as before 1'

It is in this gorge or S. canyon that is seen the lowest of bituminous strata 10' long and 4' thick. Below it is another one 4' long by 4' thick. Around and over it are conglomerate thin bedded banded flaggy = sandstone sliding. It lies in the upper of these 15' bed with 2' of fine reddish material. Great Breccia

On its east side the strata strike N W & 12°

On the north east between (1) and (2) occurs thin bedded shale, strata about 10' thick. There two coaling separate from each other by an upper nitrogenous coal, and beneath the 10' is the great breccia again.

On the north end there is but breccia bed, 1/4 E. more nearly due E & W than the bedded upper ones. That passes W into the 36' great breccia.

Friday, September 1 – 1933

Wea. SAT. OCT. 30, 1909 Ther.

Yellowish weathering banded, massive, dk. gr. Thin bedding is marked by ... that ... Loaded ls series 15' ... interpenetrating flat pebble ...

(1) Mapping banded dol. as folded in the beds. ... the ... ls. ... The overlying surface of the large ... ls inclusions 6"-8" across and ½ inch thick.

(2) Blue ls intraformational conglomerate, lies under ... thickness, 10' thick. Is ... in ... Hermosa. Here ... have ... blocks of the limestone up to 2' long. ... pictured by Jaggar, is 2' long. The bedding of the ... shows ... sliding, rolling. At the ... end, the flow-banded ... and ... dol. ls have ... down the sea ... into ... of the Hermosa. Of the ... pieces were seen up to 3' long and 10" thick.

(3) ... or ... beds ... and ... in a distance of ... hundred ... into the 26' ... breccia mass. ... not at all a ... bed, but a ... slide with much ... and ... ls ... up to 12' long ... the ... and ... are the ... and ... by

Rest of week during this Lapse is all to tell ——

Friday, September 1-1933

Wea. Mon. Nov. 1, 1909 Ther.

fuics, while the bulk of the material is of the thin bedded blue-banded Ls. None of this material is foreign, and all of it could be seen in place beneath Extraction Rod; but the Lithoxen Ls cannot be seen in place. Evidently there was a Lithoxen reading that the sea undermining had dug it up and slid it all down the sea bottom. There is interbedded marl in the dip-slope strata beneath the rock-fall in sag. The strata below are like those above the slides truncated.

Beneath the truncated zone 3' thick of thin bedded blue Ls. These are all deformed and were deformed subsequent to deposition. The warp done when the truncated strata were the sea bottom.

T of W on south to fall follows beneath surf.
dol. 0-4' ironing.
A wedge of thin bedded blue Ls 0'-4' } Incorporated in slide strata.
Ironing dol. conglomerated 0-2'
Thin bedded blue Ls 1'-5'
Ironing dol. conglomerating from 8"-4'
All broken fauce [illegible] at 8"-10'

Depth of rock during this zone is 10'. Thick
Here on the last place for fossils.

Finally collected more trilobites in the lowest
fossil zone in the Middle Borge formation.

Friday September - 1933

Wea. WED. Nov. 3, 1909 Ther.

Thin bedded lse 6'-7'. E.W. strike dump. Dance gulf fields here. The fine bed seem most of rock dump.

Rock dump very steep, [illegible] with [illegible] again picked up as follows.

Base of rock dump the first Knoxian is 15' thick. Dare as above. Then follows below.

Oranmire emyl. drl. 0-2' Much altered on bottom
Quartz sliding over older bed,
Thin bedded blue lse wedge 0-18"
Thin bedded drl. oral emyl. drl. grades 1'-3'
Beds arenitic base average 5'-6'
Thin bedded lse 5'
Oranmire drl. emyl. 2'-4'
Thin bedded lse 3'
Oranmire emyl. drl. 3'-1'
Thin bedded black drl with some [illegible] beds of oranmire drl 8'-10'
Oranmire dolomitic quartzite intrusive drl with lenses of black thin bedded drl. 4' on of correct.
For rest of older rocks see as above.

Hills around 200'

Saturday, Feb. 2 1933

Wea. FRI. NOV. 5, 1909 Ther.

One of the guests at The Manor House ^ asked me to Runcel quarry. The clipping is now more extensive than ever. Made a few chalk specks.

Today I concluded that the conglomerate bed does not mean a beach line, but rather is another bottom slide like those of the Upper Eocene. Here at one case of deformation by sliding over a shale series. The shale series just in case of the slide beds are more or less fractured and jumbled and even the flint nodules are distorted. But there is no such a deformation is indicated by the lithology of the shale as one gets at character.

In the Hythe shale of [illegible] time is indicated by the presence of [illegible] Found nine today, in fact I can no [illegible] Kind.

The low ground just [illegible] to the ridge is deformed in 200 yards room. At the Runcel quarry the dip is [illegible] and it is the same for the dist. to the [illegible]

Either this dol. is separated Mallet or M is the oldest upon Caminian. Another minds it is more Spiral Sonfe and equivalent to the Orillian. I doubt if its thickness is further than 20 0'. All if it dips E. and flexures N. The dip [illegible] not from 20° on the E. to 15° on from 10° on the W.

The dol. first appears half way up the hill on the top and the last little Sonfe one ascends on the slope side.

The dip of these if on them troddol dol is around 10° – 15° E. / These beds are often from the overlying dol.

Saturday Sep. 2 - 1933.

Wea. SUN. NOV. 7, 1909 Ther.

The so-called ridge of Mallett begins at about 200 paces west of the Russell quarry. The ascent is up over the dip slope here as in the Russell quarry, about 20° E. The grey-white very sandy (round grains) and massive dolomite is exposed from the crest of ridge to the low ground on the west where the dip is about 15° E. The height can be estimated from the topographic map. [= about 330′]

Beneath and to the W lies another series of thin bedded grey and darker very sandy fine (? named) dolomite. This may belong to the "Mallett" series but probably is older slate, which is clearly Parker. These slates in their [illegible] are [illegible] and did have occasional layers [illegible]: they [illegible] in [illegible] frag-menting the slates. I got a number of speci-mens of [illegible], another [illegible] [illegible] [illegible]. [illegible] I found one which [illegible] *Ptychoparia adamsi*. This key is [illegible] has been [illegible] Parker slate. The [illegible] [illegible] is

Saturday September 2 1933

Wea. TUES. NOV. 9, 1909 Ther.

about half a mile across and partly in Wisconsin
& Pardeeville.

Farther west for several days in Dodge and
Dimmick.

Returned tired ~~[illegible]~~ letters.

Sunday Sept. 3 - 1933

Moved from Kingsgate to Swarthmore where
I took the bus for N. Altoona.
A dark day rainy late in the afternoon.

En places the roads [illegible] to be seen to make the
dol. Even the same [illegible] as on the western slope

Monday Le Stomp 11-1933

Wea. THUR. NOV. 11, 1909 Ther.

Started at 9:30 in the [illegible] to hunt for the trail one mile east [illegible]

The day is dark [illegible] days cloudy with occasional showers. [illegible] rather up. [illegible] and may not do at [illegible] Ted don't know that may matter.

After breaking camp [illegible] Barney & Ted came out as Sedalia Pilots, but in the meantime they had learned many facts.

It was then decided to [illegible] "Camp Comfort," [illegible] collected a lot of [illegible] at Howells place and [illegible] and made a [illegible] check, so [illegible]

Leaving there [illegible] Trail like [illegible] before. Howell says [illegible]

At the [illegible] at 1:30 [illegible] Cut 10 & 12 [illegible] 10 [illegible] long on the [illegible] 30 x 36 and the [illegible]

The "Rugg Trail" [illegible] at the top of the Pueblo. [illegible] What may be [illegible] the [illegible] the Pueblo [illegible] 15" [illegible]

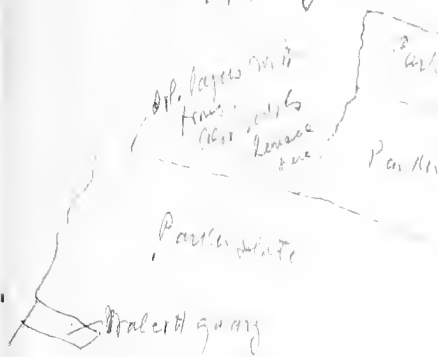
The Birdmen of this dist. is hardly 40'

Monday Feb Leaflet 1-15-32

Wea. SAT, NOV. 13, 1909 Ther.

The beds to W in Parker Butte proper are in places by a series of small normal faults. It is not thought that Parker Butte. It shall place it as here-fore in the L[illegible]. This dyke dips E about 15° and as this angle may not be "Rugg Road" angle. It will only [illegible] to the E of the W.

To the north [illegible] in Parkers Bluff Facing W. In section it is follows:



Mallett and Winters on dip slope to W.

Tuesday September 5 1933.

Wea. MON. NOV. 15, 1909 Ther.

Saturday. Came into morning and ran down off to New Haven.

Shipped by Lehigh a small box of tools.

Arrived at New Haven in the early evening.

Cash Account—November

Received				Paid		

Received					Paid		

	Received		Paid	
Aug 8 1924	had $272.00			
Aug 8.	Rec. Harrow to Quebec		R.R.	16 08
			Meals	5 63
" 13	Quebec to Matapedia		R.R.	9 25
			Meals	2 75
" 13	Chateau room 4 days @ 5			20 00
" 14	Matapedia to Port Daniel & ret.			8 90

Cash Account—December

Received				Paid			

Summary

	Received		Paid	
Cash on hand Jan. 1				
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
Total				
Balance to new account				

CALENDAR

1910.	SUN.	MON.	TUES.	WED.	THUR.	FRI.	SAT.
	..	..	..	..	..	..	..
JAN.	..	..	..	..	..	..	1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31	..	..	..	..	..
FEB.	..	..	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	..	..	..	..	..
MARCH.	..	..	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31	..	..
APRIL.	..	..	..	..	..	1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
MAY.	..	..	..	..	..	..	..
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31	..	..	..	..
JUNE.	..	..	..	1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	..	..

1910.	SUN	MON.	TUES.	WED.	THUR.	FRI.	SAT.
	..	..	..	..	..	..	..
JULY.	..	..	..	..	..	1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31	..	..	..	..	..	..
AUG.	..	1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31	..	..	..
SEPT.	..	..	..	..	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	..
OCT.	..	..	..	..	..	..	1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31	..	..	..	..	..
NOV.	..	..	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	..	..	..
DEC.,	..	..	..	..	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

(1)

Malagash.

Pictou f.

N. Glasgow m. (congl.)

Lismore

~ fault ~

Windsor.

French R.

Pictou f.

N. Glasgow m.

Ordovician slates

Waugh R.

Pictou f.

N. Glasgow m.

Millsville m. (congl) of Lismore?

Precarbon? Igneous.

West R.

(2)

Middle R.
N. of fault.

Middle R.
S. of fault.

Westville

} Thorburn f
Stellarton f.

fault? or Un f? or No f?

Pictou f.
N. Glasgow m.

Lismore f.
Millsville m. (congl. with basic flows)
~ fault ~
Alma f.

Pictou f.
N Glasg. m.

~~~

At RR. Bridge.

Alma f.

Westville

~ fault ~

Lismore
~ fault ~

Alma f.

Westville
(= Thorburn?)
~ fault ~

Alma
~~~

East R.

(3) (Mea

McLean Brook.
Thorburn District

McArthurs Br - Merigomish

Thorburn f
Stellarton f
Plymouth m.
(ss & congl.)

Thorburn f.
Sutherland R. m.
(congl.)

Pictou f
New Glasgow m.

~~~~~

~~~~~

Lismore

Disconformity.

Alma? f.

Windsor.

Windsor
W. Horton
Knowlton

doc. 0127

Pennsylvanian

Pickit ? Sand | Thornton ? Stray Sandstone from Sutherland R. Coal

Middle Coal Beds of N.B. — New Glasg. Coal

Little R. ? Lisconb — Millville Coal

Pennsboro H. Sch. ? Riverdale — Alma.