Section of Campion
strata between Lucania
& Highgate Section of
Bull. 30.

July 29th 1889.

C. D. W.

Broken badly but of
interest on account of
the fossils found.

(1)

Section on east side
Geo. B. Roby's home on
road from Mt. Angel
to Mt. Tigel.

Ledge facing west.

1) Massive bedded, gray compact
arenaceous lm. At this pt
at 45 feet th.
at 107 feet a band of more
arenaceous rock occurs with
small concretionary nodules in
it.
S: N. 45° E. Dip at one 40°
near crest 25, 110-

2. Reddish, arenaceous,
magnesian lime - ss
massive layers 20.

60.

3. Gray calcareous sd.
weathering dark drab - 70

4 Gray arenaceous l-
weathering to a reddish-
~~brown~~ on the decomposed
edges of the layers.
15 feet up found
great numbers of
Kutorgina labradorica-
var, swantonensis -

At 50 feet a bed of
coarse light gray sd
comes in & the l-
becomes more arenaceous
& ~~coarser~~ 110

5

Over the sandstone at
the top of 4. coarse
argillaceous shales appear

45

225.

that st N.E & S.W. dip
50° to 70° E. There is
a fault or slip. This
high dip continues and
entire 340 feet of beds
are passed thro – Coarse
argil – + arenaceous shales
with interbedded calcareous
sd + siliceous l – ab
340 feet a few thin
layers of purer limestone
gravel.
Olenellus – thompsoni
Protypus senectus
Olenoides –
Atolella ?
Stenotheca –
See collection.

The coarse sandy sh +
argillaceous shales with
interbedded siliceous lm –
+ sandstones continue
on up in the section

310

(310)

to a firmer grained (4
more thinly laminated
shale -
Total of 5. 590.

6. ~~Thinly~~ Drab + slate
colored argillaceous
shale - 45

7. Calcareous sandstone 10

8. Lenticular mass of
gray limestone 35
Olenellus - Kutorgina cingulata
Hyolithes
9. Green Sd. 22

10. Coarse arg + arenaceous
shale passing into
sd + shale alternately
as 50 feet a sharp
anticlinal cuts off
the section -

8 — 1 — 84. (1

3 m' E. 20° S. of the Franklin House, Highgate Springs. Vt. On hill directly east of School house.

1) The hill is formed of a massive bedded silicious limestone containing cavities filled with quartz crystals & also irregular strings of quartz. Weathers to a dark buff & black with ~~the~~ included white quartz standing ~~weath~~ ~~white~~ in relief. Gray ~~tiny~~ fresh fracture.

Strike N. & S. (mag.) Dip. 20° E

Continuing down the
west slope of the hill we
meet with evenly bedded
layer of a compact ~~grey~~
fine grained, grayish sd-
2) stone & the road & the
fresh side track as S. W. of
School House No. 12. We
encounter massive layer
of limestone on the
hill to the east. Below
these a belt of argilla-
ceous shale occurs
in which a angle
5) lead of Psychopsis
Tuscon, Bill.? was found.
——— should 25 feet
a little east a mass
of limestone is enclosed
in the shale

shales ~~the~~ mass of
lead colored limestone 13
a) ~~of~~ occurs in which Salterella
& Orthisina were seen.
Continuing westward
several of these
masses were observed.
They appear to be of
lenticular in section
& bedded in the shales
Calcareous & arenaceous
beds ~~appear to~~
~~be~~ also occur in the
shales.

The horizon of the
lenticular masses of
limestone appear to be

the same as that of
the Swanton beds carry
similar names to
limestone. If so we
have a repetition of
the Swanton section
down to the mottled
marble (Winooski) which
is next shown in the
Highgate Springs section.

Continuing east, we
find massive beds
of arenaceous & calca-
reous rocks alterna-
ting with thin bedded
sandstones & calciferous
layers. These continue
to the cliff of "Red

sandrock facing
Lake Champlain
in the Corman farm

Strike of beds in first
ravine east of the
"red-sandstone" cliff
N & S. dip 20° E.

For base of section
see notebook (8) p. 40

8-4-87

Section ~~north~~ east of
Swanton. On the road
leading from Highgate
Falls to St Albans
about 1 m. S. of Highgate
Falls the argillaceous

shales shown on a little brook, just east of the bridge formed, Ptychoparia etc. This belt corresponds to the shales of no. 2. of section in hay 55 of notebook A. Estimate the horizon as about 500 feet above the Olenellus beds.

Cut off by a fault from actual horizon unknown.

Georgia Vt (7

8-15-84.

Going over section east of Parkers taking E + W road first N. of Parkers house, after crossing the road shales appear dipping S-east.

In a mass of brecciated l- embedded in the argillites found Linguleps, Kutorgina, Agnostus, Ptychoparia. This is a continuation of the limestone belt mentioned in section

of Noo Book, & an empty
road south. The
limestone is in the
form of great boulders
sometimes 15 feet in
diameter & from that
down to the size of
marbles. Sometimes
rounded but usually
angular. It is the
remedied in
appearance &
stratographic position
as the limestone
beneath east of Duncan's

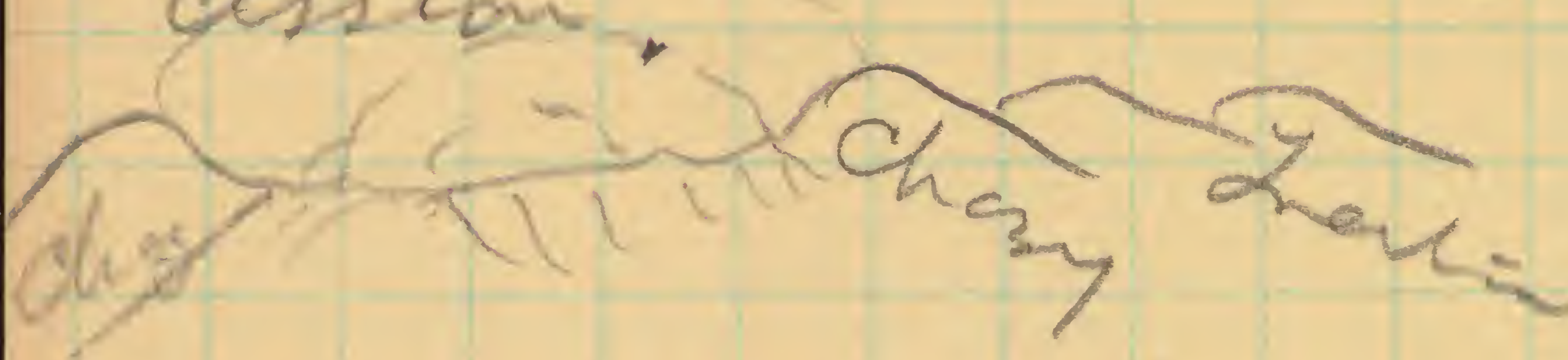
Sept 19/90

Upper Cam - Vt:

Out with Dr Ells on Cambrian shales & congl. south of Highgate Falls on Hungerford Brook. Photographed Falls etc, & also collected a lot of Cambrian fossils from boulders in a conglomerate 1/2 mi S - of Hungerford Brook.

Took several photographs of slate & Falls.

at Highgate Sprgs – the Chazy l-s contains essentially the same fauna as the top beds at Phillipsburgh & a short distance above – all around the anticlinal the Trenton l-s comes in the true order of succession.



See Logans Sections Geol Canada.

Highgate Aug. VI.
June 27/88.

Note on the section near the Franklin House.

The Franklin House is situated just East of a belt of limestone that has a general strike N & S. & dips 40° E. - In the woods a little distance to W. of limestone - a belt of greyish argillaceous slate comes down beneath the limestone In places the slate is highly calcareous, & the strata of this are made up of irregular layers of limestone and argillite - From a half inch to an inch in thickness - In the clearer layers of slate about 100 ft above the second outcrop of limestone west from the Hotel - numerous

Fossils occur.
Orthis -
Strophodonta -
Asaphus -
Etc - See Colleption -

Extension of the
In the mass of limestone
to the North, that occurs just
back of the Hotel - The same
species of Orthis, & Strophodonta
also numerous casts
of Gasteropods -

M. Prof. Jules Marcou in his
observations on this Section
has referred to the various
outcrops of limestone as
Colonies of lower Silurian
fossils occurring in the
slates &c. He places in his
Section as Pre. Potsdam - and
of much greater age than the
lower Silurian - He regards
the fossils occurring in the

limestone as Colonies of the fauna Wh. later in the Geologic history appear above the Potsdam Sandstone.-

He did not discover any Cryptozoëal fossils in the Chazy. On the Contrary he mentions the occurrence of Silurian fossils in the Calcareous Schist - in the Grove Rock of the Franklin House at Highgate Springs. This occurrence I have verified & also found as just stated Lower Silurian fossils in the Argillaceous Slates beneath the Calcareous Schist, & above the next underlying belt of limestone - The fact of the occurrence of the same Silurian fauna in the limestones in the Calcareous schists

and in the pure argillaceous
slate or schist - is proof
positive to me - that all
these rocks belong to one
Geologic Terrane -
The only evidence upon
wh. Mr. Marcou can
urge that these limestones
are older age than the
Red Sand rock or Potsdam
Sandstone so called by
him is the apparent
overlapping of the latter
upon the lower Silurian
Rocks -

And duly Examination
of the data on the line
of the contact of the so called
Potsdam & lower Silurian
shows most positively that
a fault occurs between the
two series of rocks -
{See Section taken in 1885. by
C. D. W.}

Fossils in Limestone in field back of the Franklin House.

- Orthis - Testuvinaria -
Leptaena - seriscea - .
Trinucleus - Concentricus -
Orthis - lynx .
Calymene - senaria - .
Asaphus - Platy cephalus ..
Tellinomya. - levata -
Strophomena - alternata .
Bellerophon - bilobatus
Rhynchonella -
Lepærditia -
Pholopea - Symmetrica .
Proetus -
Modiolopsis -
Trematis -
Stictopora -

Camarella - Billings -
Amboyichia —
Orthis — sp. ?
Serpulites —
Endoceras — Crotiforme -
Chaetetes - Lycopesdon -
Diocrina — —

Outcrop of Limestone next to Road - Fossils found -

Modiolopsis-faba -
Bucania - punctata
Harpes -
Lingula -
Plalopia - Symmetrica
Calymenes - Senaria -
Asaphus - Platycephalus
Bellerophon - bilobatus -
Orthis - Testudinaria -
Murchisonia - Milleri -
Orthis - Plicatella ?
Trinucleus - concentricus.
Tellinomya - dubia -
Raphistoma - lenticularis -
Ceraurus - pleurexanthemus.
Strophomena - alternata -
Proetus -

7-19-89

Jacomé.

Vicinity of Highgate Falls! Vt.

The gorge at the Falls cuts thro the Calciferous Zone of the section. The lowest slates exposed carry fossils of the upper Cambrian of the conformable higher beds carry fossils of the Lower Calciferous.
The strata dip about 70° to the S. East.
At the bridge & falls there is a massive bed of Calciferous Sandrock that is thrust obliquely over the lower beds

Due to the
greater thickness
of the latter on the
south side of the
stream * on the
south side the
Lecciones of the
Calciferous are well
exposed.

July 23/89

Chazy - l -

Discovered Maclurea -
small coil -
in limestone 1/2 mi
E. S. E. of Franklin
House High gate
Sprgs. Vt. Directly
east of lime kilns
about center of ridge,

Colonies of Marcou

Lower Cambria.

Aug 28/90.

Georgia section.

Found a small ledge
in section of "Red
Sandrock" series about
200 feet from the base. 1/2
miles west of Parker's quarry.

Crossed the Georgia
section until C.R. Van Ho

10-21-SC.

Crossed from Castleton P.O. north to the upper end of Lake Bomoseen & thence by the ridge to West Castleton & north ★ to Hydeville.

The slates on the east side of the lake are chiefly purple & green with some gray greenish gray that are quarried for slate ★ manufacture slate pencils +

The section appears to be the same as that east of Salem N.Y.

St. V. 25° E. 9-40° N-

of Castleton.

On the west side of the lake the purple & green slates are quarried

at West Castleton &
South -
The dip is less 30° E.
St. N. 40° E - Average
A fine section of the
lake shore - North of
Castleton there is an
interbedded gray shale
& but not any fossils
were observed.
Interbedded layers of
sandstone occur in
irregular intervals -

Oct 2/90

Hydeville Slate Quarry
Lake Bomoseen. Vt.

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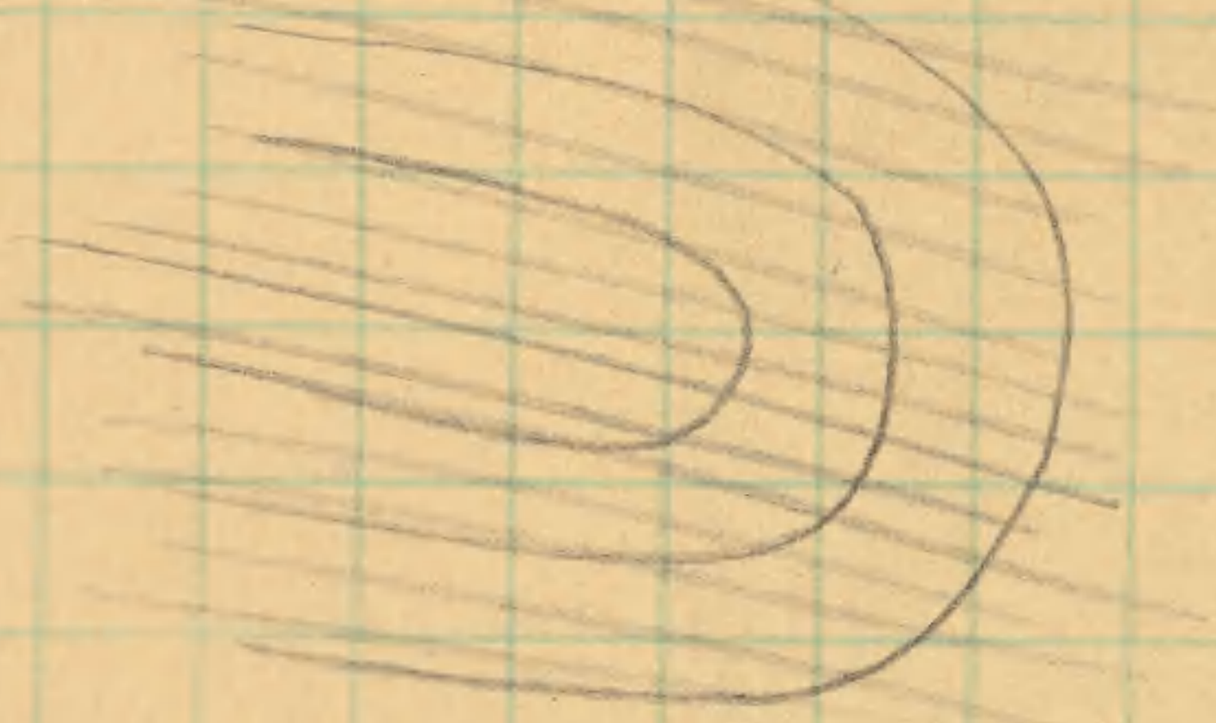
a fold in the purple
slate



which the slaty cleavage
passes through. The
see photographs.

This is the only fold yet
known to me in the
purple slate belt.

Logans Section.

A

1, Dk gray + yellowish white dolomite, 400-

2. White & drab gray fine crystalline - N. of Church 100-

3, Reddish gray, brown weathering dolomites, 1 blk dolomite 200

B.

1) White & drab - gray fine l- With yellow weathering magnesia 120

2, Dark gray to blk l- 120

3, Dk, bluish-gray thin bedded medium l- Surface weathering Yellow earth 150

4, Blk, slaty thin bedded, medium l- 300

5) Bk. l - Rene massive - 1390

weathering bluish gray

interbedded black & dark

yellow weathering magnesian 350

c)

1. Bk 4 dark gray l -

massive beds - with

Macluria etc 150

2. Bk platy on the

bedded l - 170

2060+

Laconia. 6-18-87.

With Prof H.M. Seely visited Lake Winnipesaukee & examined the quartzites of Lucerne Hill, the reported locality of fossils in the quartzite. As Prof. Lily found before the fossils are in loose boulders & none occur in situ, although the quartzite is suggestive by its lithological effect. A humid run up the mountain on the East side of the Lake (Winnipesaukee) showed me quartzite with schists & silica. I - & I think that search should be made for fossils in this area - Nothing satisfactory obtained on this trip

Middlebury VT

10-10-86.

Note on geologic sections by C. H. Hitchcock. 1884.

Sections 3. 4 + 5. represent the western shaly & slate argil-rocks or Loraine = Hudson River.

Within the area of ~~the~~ sections 3 4 + 5, I found Cambrian fossils within the plates & as the sections appear I think the entire series of plates & shales eastward to the limestones ~~also~~ are of Cambrian age & include the Potsdam between the fossiliferous Middle Cambrian & the Silurian limestones. To the south, the Calciferous deposit began earlier & the Potsdam fauna is preserved in the limestones as found

by Prof. W. B. Dennison
in Dutchess Co. N.Y.

Prof. Hitchcock has drawn a fault line at the eastern edge of the slate belt to avoid passing the slates beneath the limestone as in his section they were deposited on the limestone. In section 3 the same fault is shown but from what I have seen of the eastern edge of the slates & the western edge of the limestones I should place the latter as resting on the slates.

In section 11 a block of limestone is represented as of Cambro-Silurian age & faulted down

into the Cambrian
slates wherever it
contains Cambrian
fossils & belongs to the
series of slates being
a great lentil of
sandstone & limestone
deposited in them.

The magnesian limestones
& sandstones marked
Potsdams in section 1
are of Middle Cambrian
age (Georgia series) and
for Belair the Potsdam.

10-15-86

Notes on Cambrian Rocks in Vermont

No. 18 on Geol. map of Vt. 1861. in Val. II. Geol. Vt. is known to be of Middle Cambrian age from the fossils found in its strata Georgia, ~~&~~ Poultney & Wells, Townships Vt. No. 16. is immediately beneath No. 18 & ~~is~~ comes ~~the~~ Middle Cambrian as Georgia ~~fossil~~ fauna.

No 21 has not given paleontological evidence of its age but from its occurrence between the Georgia & Fonton formations I think it represents the Potsdam or found elsewhere.

Passing south on the east
side of Lake St Catherine's
the Cambrian purple & green
slates appear & nothing
was observed of the red
or cherts —

At Evans quarry on
~~the~~ west of Wells
P.O. Vt. green slates
occur & are ~~then~~ 200 yds east a
thin belt of dark shale
& ~~then~~ purple & green
~~alternating~~ — In the
dark shale found
fragments of Olenellus

in dark gray bits of limestone that are imbedded in the shales.

Aug 4/96

Overthrust fault.
Georgia Vt.

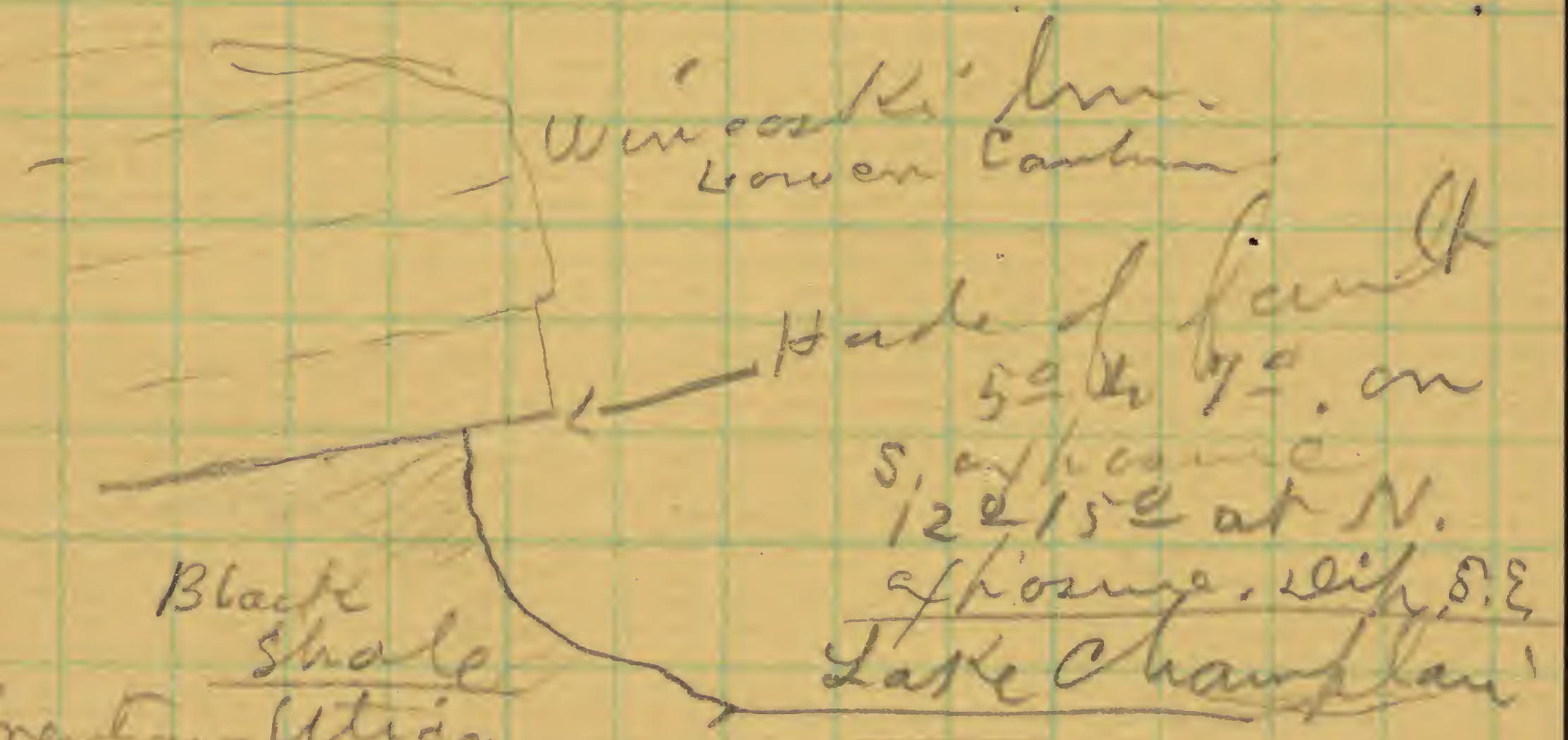
Granite near base of section.
Georgia Vt.

Aug 7/96

Cambrian

Amherst Fault

Academy Point N. E.
of Burlington Vt.



The grooves caused by the sliding of the magnesite mag- like ones on the shale etc- are as clearly defined as glacial grooving & polishing - The slikes of the grooves is S. E. 1/2 12° 15° (See Photos)

Cambrian Aug 6/96
Georgia section
Crossed section west of
Parkers quarry with T. Nelson
Dale & Geo Edson. Found
a new type of Cambrian
fossil near base of section
in a blue gray limestone.
(See measured section) A
cross section of the fossil
shows concentric rings +
 longitudinal is

like a 

slightly curved Cyrtoceras.
The material is too im-
perfect for field deter-
mination. Look of the
elongate forms of the
Archaeocyathinidae (?) & then
the simple tube shells.

Examine Cambrian fossils
collected by Pumpelly
division U.S.G.S.

6-20-87.

Readed Arlington ck
noon -

After dinner crossed the
hills directly east of the
hotel & found 3 lines
of outcrop of rocks -

1st Siliceous l- buff & gray.
with 80° E- Exp. 10 ft

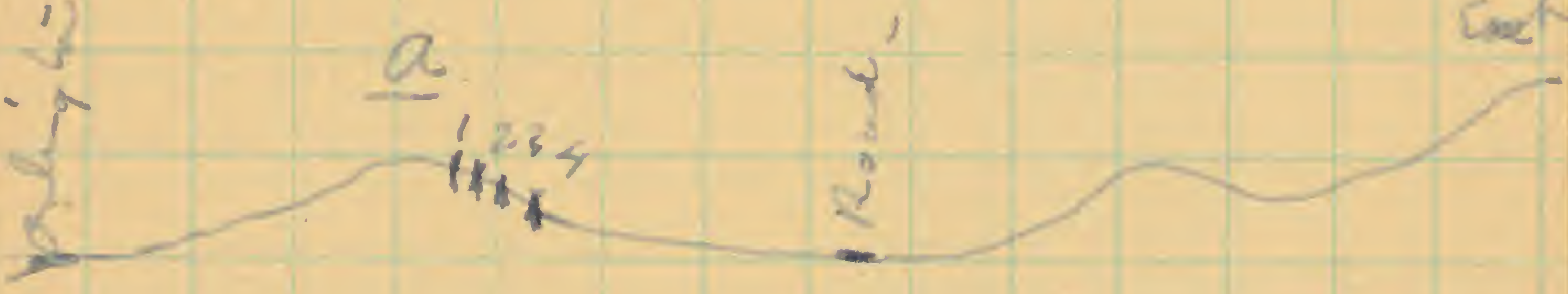
2d 30 or 40 yds east of 1st -
white & gray calcareous
quartzite / with layer
weathering to a reddish-
brown ad- Dip 75° & 55° E-
10-15 ft

3 Light creamy & gray
sil- l- with thin
bands of sandy l-
Dip 80° + E -
30 ft -

Chert

60 yds E —
Sil, buff + gray l —
dip 80° E + 20 ft.

Other outcrops may occur but in the time at my disposal were unnoticed.



Great boulders of quartz + sandy qtz — occur in the hillside south of where I crossed.

6-21-87.

● Drive from Arlington to West Arlington + at the aqueduct bridge just west of W. Arlington the shaly l- dip east + the lowest beds are quite schistose - The schist- like portion looking like the hydro-mica schists to the west. The hill ahead + to the north is formed of greenish hydro-mica schists dipping east and capped by the limestone being confined to the S. E. slope of the hill.

(See note of 1886 on this locality)

To the north on the road to Sandgate ~~town~~ village could not find any l- schist on both sides of valley.

A retch of l- is run (2
up to Sandgate on the
Geol. Map. U/- 1861. But
I should think only on
the Theory that th is beach
the stream bed & drift-

It is not improbable that
the l- extends on the
South side next to the
Battenkill from W. Arlington
to Arlington

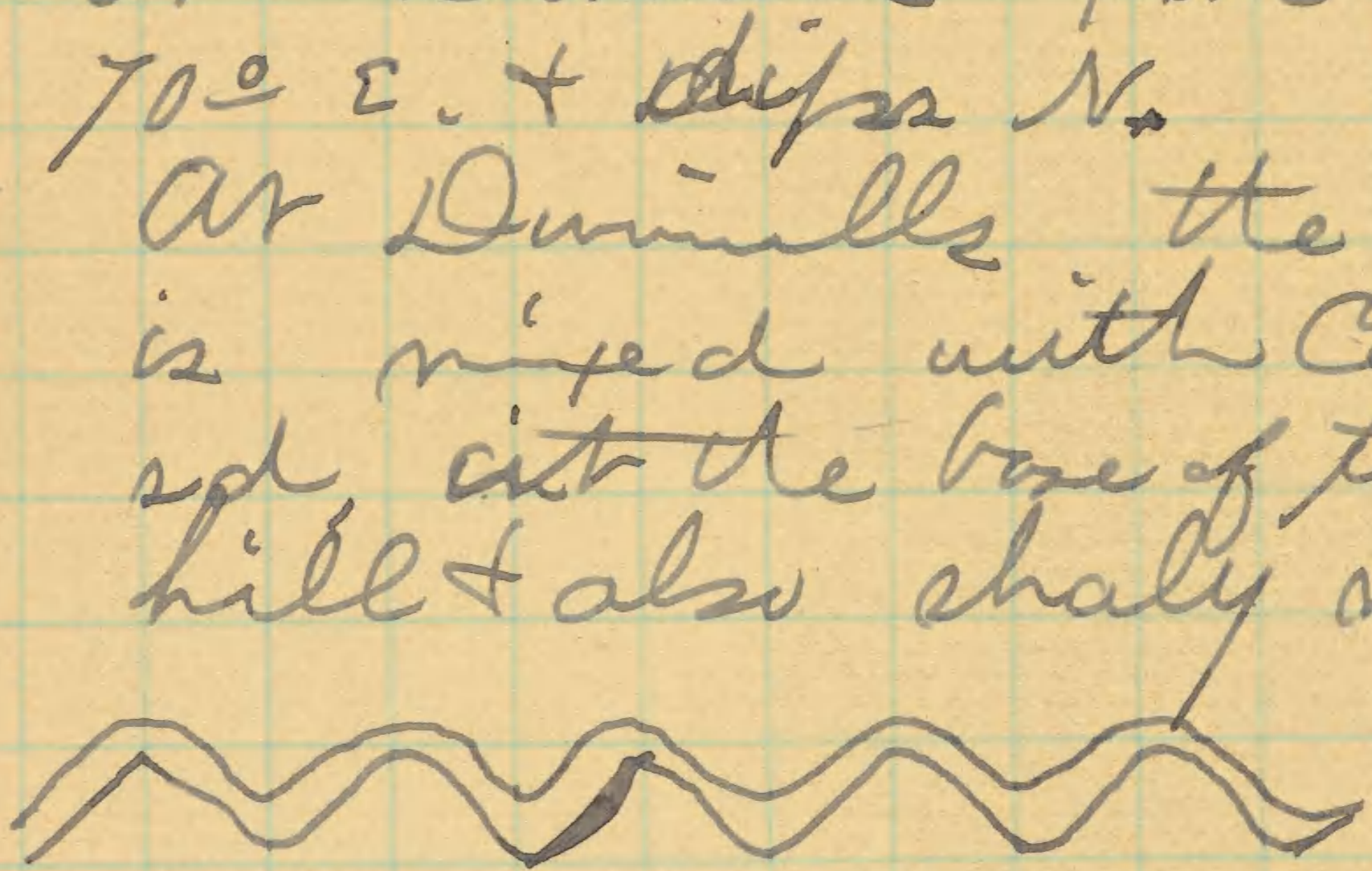
Falcvid Slates

Potsdam hangar?

10-12-86.

Crossing E.S.E. from Cambridge beyond Pumpkin Hook in White Creek found the purple slates interbedded in in green slates & then a succession of greenish argillaceous shaly slates overlaid by talcose shaly beds - that towards the limestone become calcareous & judging from the limestone as seen on Dan Dunnell's farm show up into the limestone. Great contast between the light green talcose beds as not seen but from the section in Allington Pt. There is little doubt in my mind of the continuity of the section from the talcose beds into the limestone

The strata are much broken & distorted & the normal dip of east 50° to 70° is reversed just above Pumpkin Bank to 30° W - The limestone at Dunnells strike N. 70° E. & dips N.



Damon limestone two miles.

The tolesa slates are corrugated & compressed near the line of the limestone & for two miles west of it in many places -

the great belt of greenish slates east of the purple slates pass into the talcoid slates beneath the limestones with apparent physical break—

See Geol. U.S. 1, h-364.

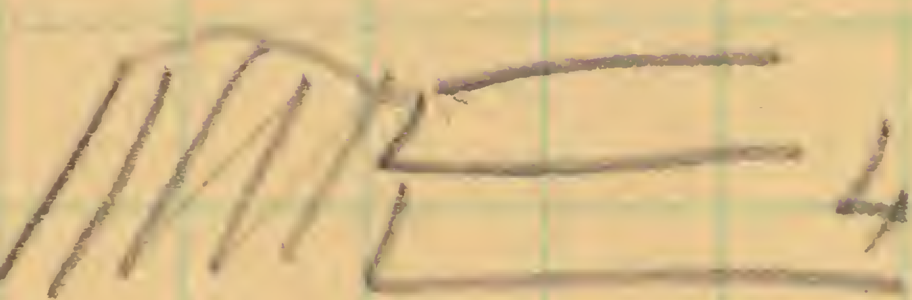
Passage from the Cayuga to the Silurian is shown

in Arlington on the line of the Batten Kill where the talcoid shaly slates pass into the limestones by the shales becoming calcareous & finally limestone—

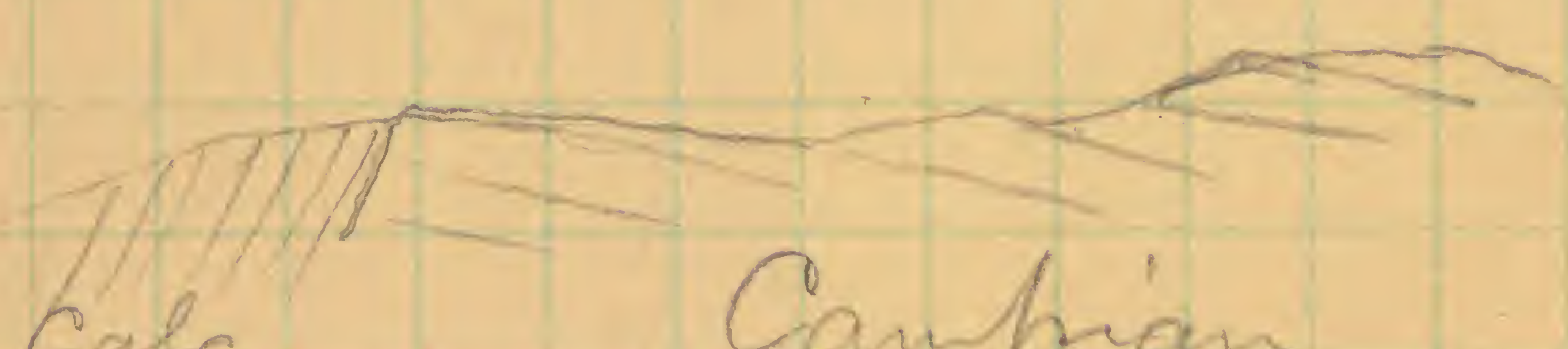
See section to Arlington.

7-~~2~~6/89

Between the St Amand Road & the Moores station road, on the line of the fault east of the Vt Central Ry track the Calciferous is thrown up against the Lower Cambrian

Cal.  L.C.

- see photos



9-21-87.

Middle Cambrian Formation.

Cobble Mt. directly East of North Cambridge is a high rounded mass of shales & shale of the Hudson Canon except on the extreme eastern side where a mass of M.C. shales with interbedded formation - rest against the east slope just N.E. of School House No. 12. It crosses the road just south of the 5th - and outcrops of shale with interbedded - showing on the south side of the road. This far as can be determined it is a small mass of the Cambrian surrounded by shales

Silicious beds
~~Washington Co.~~
of the Hudson Terrane.

Crossing the road E. of S. H. No. 12. bedded & conglo-l occur interbedded with silicious shales & slates & chert (black) The is one of the associates of black chert with the l- is a new occurrence to me, or heretofore the black chert have been exclusively confined to the Hudson terrane - On this visit both terranes carry cherts & consequently it is very difficult to separate them. To place the faulter line accurately.

10-19-86.

3 mi NW x E of Rupert Vt.
on farm of Seymour
Bullard.

Greenish Talcoid schist
St. N 20° E. 35° E. Dip 55° E.

Just at the summit where
the road crosses an
interbedded l- occurs.
It is clear in places &
much like the Bk. O'- l-
in the green plates beneath
As far as known at this
locality it is non-fossilif.
~~Into the~~ Veins of white calcite
cut thru the l- usually in
all directions & again the
talcose shale is interbedded
& interlaminated with
it - as to give a
striped appearance to the
rocks -

5280
1760
3520
707
24640
2464
24863
2500.

7040
05
4928
4928
4977

8700
4350

8 6 6.
2 5 ~ 0 0
4330
1732
2165.

307 ~ 0 0
25 ~ 0 0
55 ~ 35
1414
1767.5
2165
3932

5-13-85

Examined the brecciated limestone conglomerate 2 mi East of Swanton, Vt. Collected a number of trilobites head, Agnostus etc.

The limestone fragments are considerably worn from all they vary in size from [illegible] of an inch to 6 feet in diameter.

5 - 15 - 83.

Section E. of Swanton.
On the ridge where the
section stake is 1883
above the Paleozoic
formations here the massive
Arenaceous calcareous
layers extend to a low
ravine cut in the shales
beds above. The latter are
followed by calcareous
arenaceous massive shales
that carry many chert
nodules & brecciated
fragments of sandstone
& quartzite Cst 75-E

Fine even bedded blackish
arenaceous argillaceous
gray shales similar to
those at Parkers quarry.

In crossing to the
next low ridge a
synclinal is reached

& then a sharp anticlinal

East of the ridge a low meadow comes in for some distance (1000 feet) & then shales form the base of a low ridge which is capped by a band of calc. sd full of vertical veins of ~~qu~~ white quartz (25 ft) On this rests the conglomerate l- noticed yesterday (Potsdam form?)

The anticlinal axis is near a fault line that strikes N. 20 E (mag) The strike of the limestone cong- & [illegible]

shales being drawn
N, 45° E. Dip. 30° to 40° E.
The angle between the
strike & dip brings more
& more of the underlying
shales in view until
the brook is reached on the
road to Highgate Falls.
Here about 300 feet of shale
is exposed. ~~The~~
The fossils found in the
shale & those of the
limestone conglomerate,
probably belong to the
same geologic horizon
(To be seen) The break
between the Georgia
group & the Conglomerate
beds is probably
considerable but it is
as yet unknown.
The (lentile) of the Georgia
section appear to be
above ~~the~~ horizon of the

Congo Limestone.
(See Tompkins famous)

10-6-86.

Crossed from the Middle Cambrian strata of West Haven VT- to the Silurian marbles of West Rutland VT-

The section shows a great thickness of green slaty shales overlain by (talcose) argl-shaly schists-

Essentially a repetition of the Salem + Arlington section.

Notes on "Granular Quartzite" etc in Vermont
March. 1887.

July 30 ~~87~~ 1.

On the west ridge of the Clarksburgh Mass. Mountain — or East Mountain as known at Williamstown the quartzites of the Cambrian rest unconformably on the gneiss & form the south & west slopes of the ridge. The strata ~~of the~~ on the ~~west~~ south slope begin a little north of the divide separating the south end of the ridge from the higher northern portion & dip S. 20° W. at an angle of from 20° to 25°.

Near the base arenaceous & micaceous schists occur & the quartzite varies from clear massive quartzite to that having a schistose structure ~~granular & other~~ & all

Mill Ry white.

Lee h-3.

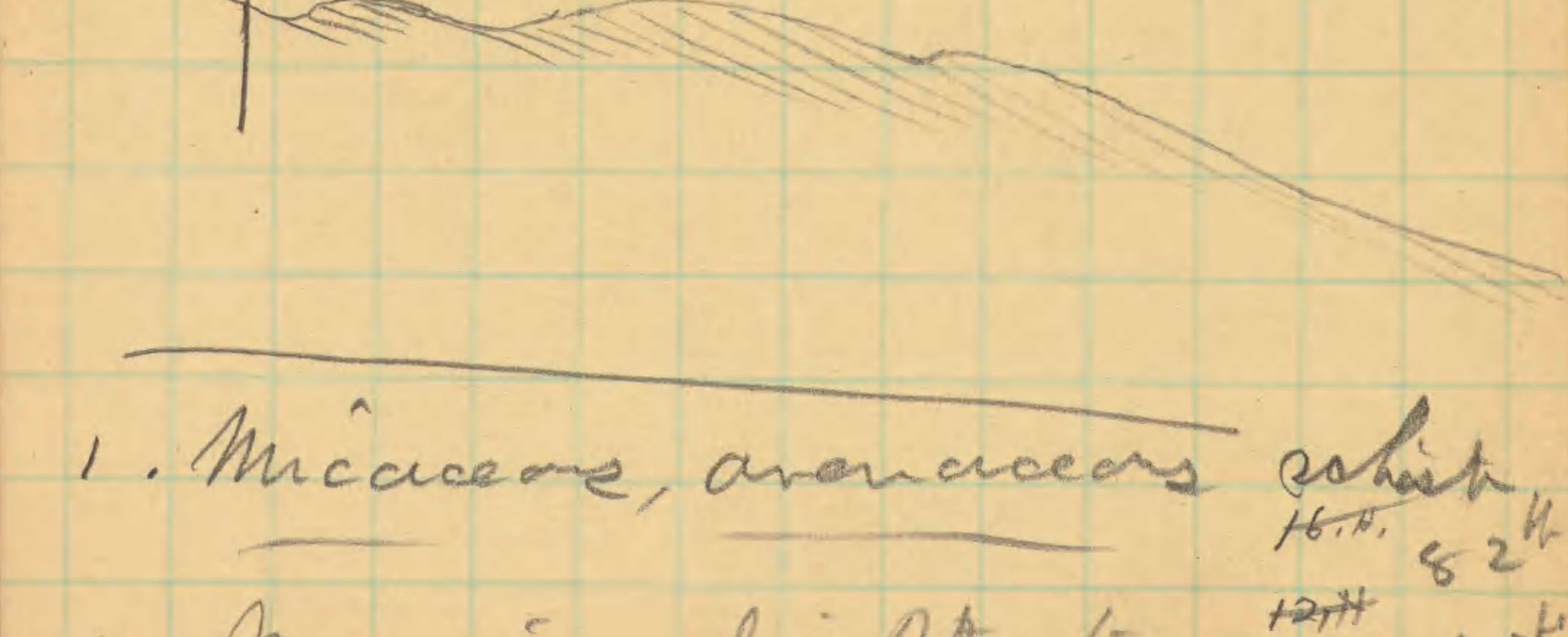
The quartzite seems on the west slope begins a little east of summit of the ridge where the gneiss forms rounded outcrops - But a few feet west of the gneiss the lowest layers shown quartzites of the hydore quartzite & common with the gneiss -

The strata nearest the gneiss contain quantities of small grains of hyaline qtz - similar to that in the gneiss + 2½ feet up in the section thin ledges of conglomerate occur in both quartzite + gneiss

schist, the cargo being (3
formed of quartzite pebbles,
1/4 in to 3 in in diameter.
About 120 feet up in
the light granular quartz
layers ~~fragments of which~~
appeared to be fragments
of trilobites were seen.
One of them a cheek of an
Olenellus +
Strike of strata N + S. dip
5° to 10° W.

8-1-87.

Section of ridge east of
Williamstown.



1. Micaceous, arenaceous schist ~~16 ft.~~ 82 ft

2. Massive light qtz ~~12 ft~~ 62 ft

3. Micaceous schist – becoming more arenaceous towards the top – 220 | 230 ~~44 H~~

4. Light gray & brown micaceous sandstone ~~with~~ | ~~q H.~~ 46

5 Massive bedded light qtz – dip 15° S, St. N. 70° E. 50° 40° to 20° E, dip varies to 30° S. E, 1
12 H. (5.2) = 20 H.E. = 160

6. Schist with much interbedded quartz 18 H.E. 90

7. Qtz – st. N. 20° E. dip
Est – 200

870+

The drift in the ravine north of Braytonville conceals the strata but from occasional outcrops the quartz (No 7) is overlain by a band of micaceous schists followed by a band of reddish brown & yellow sandy shales & these in turn by light gray quartzite that dip towards Graylock.

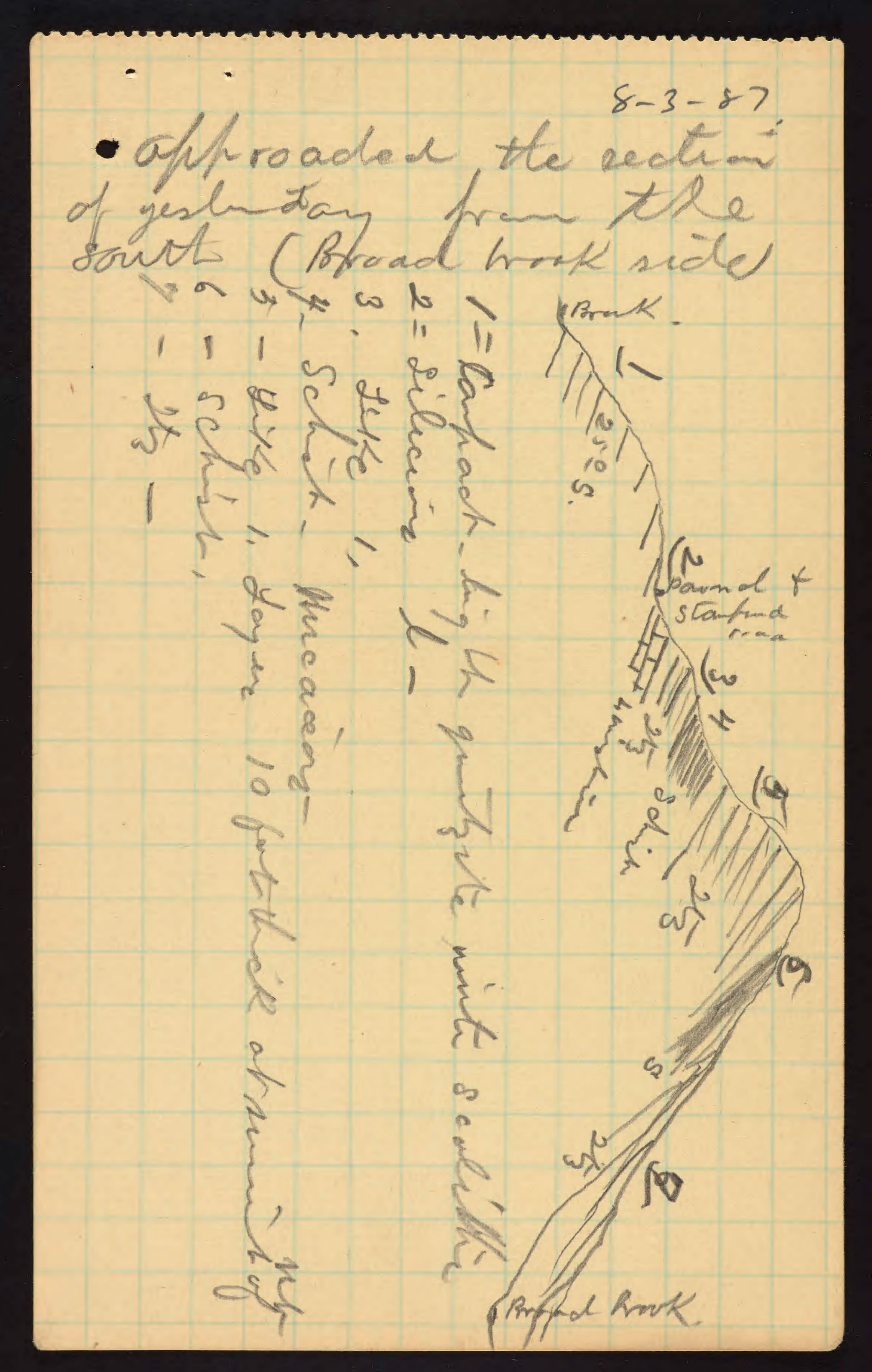
The entire section is not far from 2000 feet in thickness.

8/27/87

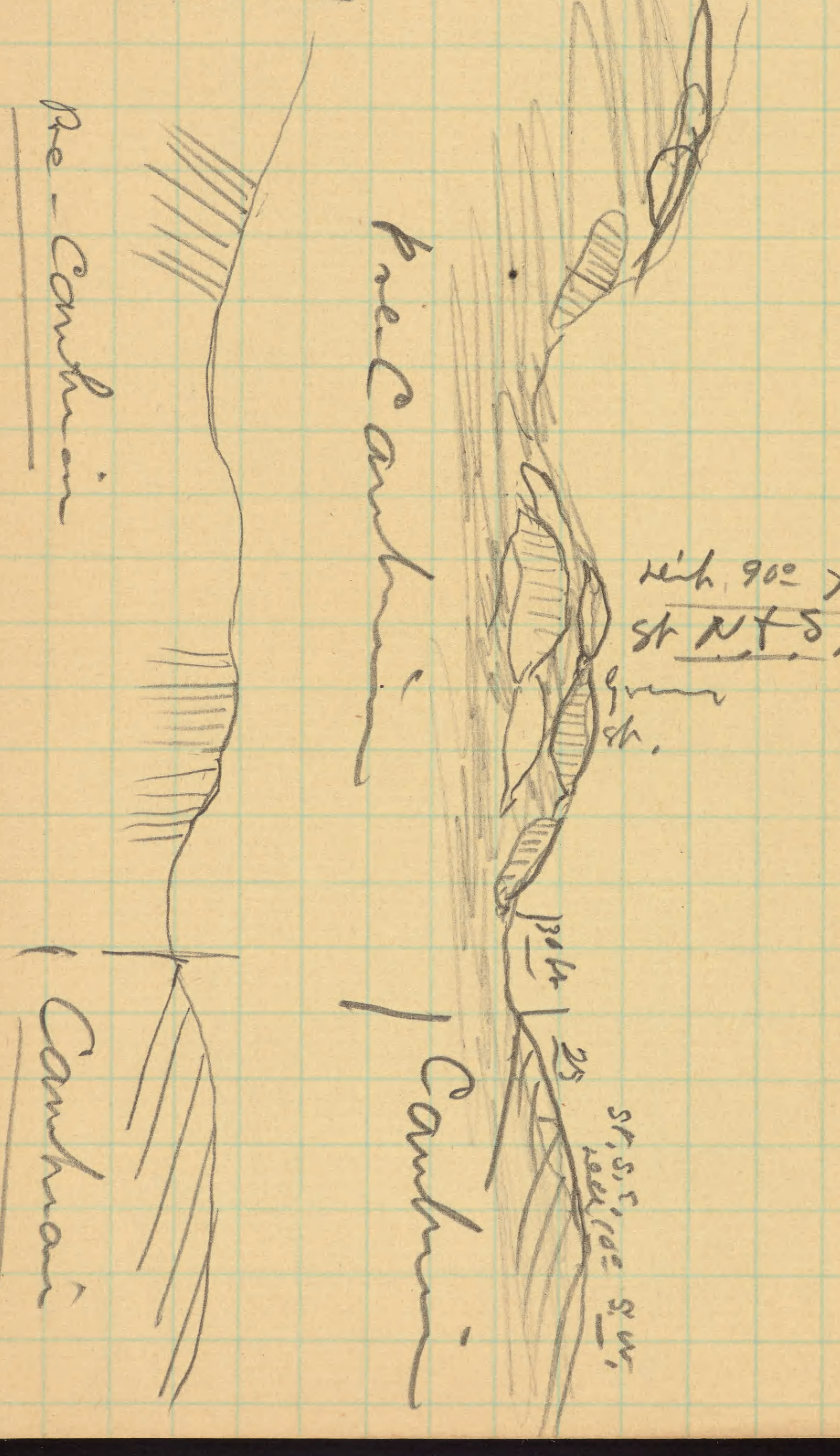
Directly east of Pownal Center, east of large pond & south of a brook (
) there is a fine outcrop of quartzite
St. E+W. Dip south 25°
About 450 of strata exposed between the brook & road.
The finest exhibit of the Quartzite known to me.
Scolithus occurs at 3 horizons.
South of the road & nearly on a level with the divide a belt of gray sil-l- occurs & then quartzite 200 feet followed by Mica-schist.
As a whole it is a very complete section

8-3-87

• approached the section of yesterday from the South (Broad Brook side)



Note for p. 2. of Williamstown (a
East pr.



(4

In the S.S.E. 200 yds -
the laminations of
the gneiss coincide
in strike & dip to that
of the superior schists &
quartzite of the Cambrian
& the same also occurs
across a small swamp
to the N.N.W, a distance
is also seen -

The ledges of gneiss
have the appearance of
an old coast line sloping
towards the sea & the
appearance of the pebbles of
both white & grey colored
quartz of the same
character in the gneiss & with
50 feet of an unconformable
contact line is conclusive
evidence of an unconformity
between the gneiss &
Cambrian

8-5-87.

On the east side of the road leading from Williamstown Mass to Pownal Vt. one half a mile north of the state line, fossils occur in a massive bedded limestone. Sections of a Murchisonia-like shell + also two specimens showing the form & aperture were found.

The strata S.t ~~[illegible]~~ ~~N~~ 30° ~~E~~, dip N. 60° W.

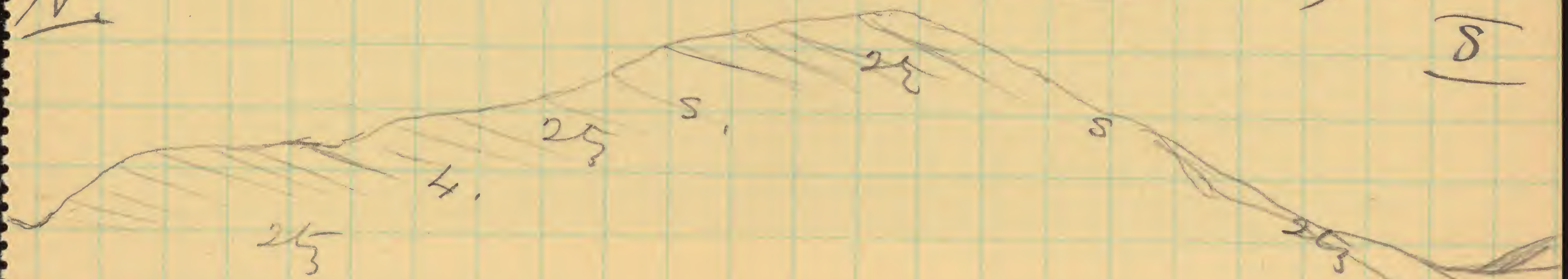
On the top of the hill 1/2 mi S. E. I saw sections of a slender gasteropod, in situ, in a ledge on the south side of the road.

1/4 mi N. the schists dip Easterly.

Up the hill side to the East the schists crop out. ~~[illegible]~~

Outline of mountains for section in Pannal (Pen Outlé) Ut.

N.



5

8-5-87.

Ascended the ridge extending north from Dome Mt towards Prospect Mt in Woodford Qt. Found Quartzite, schist- Quartzite in going up the west face of the ridge, all of the Cambrian series.

This ridge connects the quartzite series at Bennington with that of Haystack Mt (Andrews) & south to the Clarksburgh Mass — mountain +