34.8

E. O. Ulrich

Nb. 4

Southern Appalachian Valley (2)

1901, 1906, 1907, 1911. + 1938

p. 51-

U. S. GEOLOGICAL SURVEY
TRAVERSE BOOK

9-904

4

New section - 1938, 39 + 40
Hortonville, Va., p. 50,

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July 14. at 12.25 hrs. 25. 8.25

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Sketch of section - includes central Ala., Tenn.,
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Wells, oil, companies - names, addresses and number
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White Oak ss. - in section at Birmingham . . 31, 32

Yale, Ky. - localities for lithographic lime-
 stone in vicinity of 95-90

Hickory neck -	Odomet. 400.
Ridge road fork -	492.
Black oak - "	608. 1/2 mi.
Leaving Hickory	770
Dead oak -	815. 1 mi.
Black oak dead chestnut on hill.	1023 1/2 mi.
Rd to saw mill & Self trace -	1146.
Little Hickory	1245. 2 mi.
Fork to quarry rd.	400.
group of port oaks.	453. 2 1/2 mi.
Cordway bridge -	530
Xrds. Farmaway rd.	548
Piney - Self trace -	765
Ridge rd -	455.

July 30. Little Texas Valley, Ga.

Loc. 105. ^{248T} Immediately after crossing bridge over ~~Armenia~~ creek, a considerable exposure of fossiliferous Rockwood. Took a few specimens only. Many could be gotten. The forms are trilobites & gastropods like those described from Ga. by Vogdes & Fournelle. A heavy solid layer & several thinner ones are strongly ferruginous - not enough to be workable. This seems to be above main Rockwood of Lavender Mt.

Loc. 106. The road between 105 & 106 passes over Rockwood, which on southern side of valley and mostly? Floyd shale on northern side. In ascending Lavender Mt. through Lavender Gap saw no Chick. at base - it may be covered if it comes to surface at all in Little Texas Valley. The first strata appear a short distance up the gap & belong to Rockwood. They are almost vertical - possibly because of slip - then the same formation continues, dipping S.E. about 20° to top of gap. Top of Lavender mt. capped with a conglomeratic S.S.

Loc. 118. = 247 R.

dip S. E. about 45°.

Section in gap just west of Lavender, between Lavender and Turnip Mts., showing basal breccia and upper part of Ordovician red shales and Rockwood.

Loc. 119. Sprite - S. W. end of Simms Mt.

Rocks dip S. E. 20° - 45°.

Fossils
Loc.
119.

The red shales and impure li. are more or less mottled and often appear like massive red limestone. When fresh they are doubtless solid, but on decomposition they become a shale. The mottled and laminated li. of the Chickamauga represent a more calcareous phase of the same beds.

The fossils are very scarce - saw them only in the most calcareous parts. Here found a *Rhynchotrema*, *Lept. fabulites?* and the *Conchicollites* of the Ringgold locality.

Two miles S. of Holland saw a fine exposure
Loc. 120. of the chert breccia. While from the abundance
of fragments one might think the bed is ~~many~~
feet thick, it seems to me that it consists
practically of a single bed, 5-8 ft. thick.
At this particular loc. it forms the sloping
top (S.E. dip) of a low spur of Gaylor
ridge. Some of the pebbles are quite 6 in.
in diameter.

Loc. 121. Here the breccia is shown and a small
part of the Chick. The interval between
the breccia and Chick. sh. is reduced to less
than 10 ft. The strata are nearly horizontal
dipping only 5° - 8° S.E.

(No specimens)

Stopping at Mr. Raglans at
Chattoogaville, Ga.

July 31 - Chattahoochee To

At Gaylesville There is a gray to yellowish, slightly arenaceous shale, with a black shale containing a little chert forming the lower bank of the Chattahoochee river just below the mill. The rocks dip 70° - 75° S.

Loc.
122

About 10 ft. beneath Black sh. several bands are full of casts of *Fenestellid*, *Pinnate* & other *Weyer* indicating horizon equivalent to Kings Mt. "Keokuk".

On slope of hill $\frac{1}{2}$ mile west of Gaylesville
Loc. 123. gully in road side exposes red clay with 1"-2" chert plates. Both are fossiliferous, particularly with *Zaphrentis* - *Mucopora* 2 sp. *Archimedes*, *E. vera*, *Spiriferina* near *transversa* & other fossils cause me to place the horizon in Lower Chester. Possibly St. Albans.

Cedar Bluff, Ala., furnishes the best exposure of limestone of the Conasauga shale yet seen by me; And what is more it looks so much like Chick. li., with its ledars & almost "dove" color & texture, that I at first mistook it for Chick. Fossils very hard to find, & poor at the best.

This is under the bridge across Little River 2-3 m. west of Cedar Bluff. It's a fine exposure of peculiarly knotty, thin bedded, shaly li., presumably of Conasauga. Fossils might be found here. Picked up a couple of *Trigonalas* & *Trilobites* but threw them away.

A very long stretch of Conosangu shale is passed over by road between Leesburg and Murray Cross. The greater part of the six miles passes over excellent exposures of the limestone noticed at Loc. 124 & 125.

Loc. 126. Basal part of Chick. & top of Knox is shown one mile n.e. of Leesburg. Made out the following section. Rocks dip n.w. 30°.

Reached Turkeytown, where we are stopping at a Mr. Perry's home. 35 miles today, 34 yesterday, over 300th day before. — Not so bad for the fat mares.

Aug. 1. Turkeytown to Gadsden & south
of latter point.

Road from Turkeytown to Gadsden apparently all
the way on Knox. Chick. & Rockwood probably
lie in valley to the west. The greater part
of Gadsden is situated on Conasauga shale
brought up by fault. It dips southward,
bringing down Knox to base of hills 3-4 miles
south of Gadsden. The Knox in these hills
appears to dip less than 20° , and the top
of the first hill (Loc. 127) is formed by the
127 Braccia, the thickness of which it is difficult
to determine. Certainly the bed is heavier than
at Sims Mt. and Holland, and may be
over 50 ft. thick here. If the braccia is
here as elsewhere at the top of the Knox
and no ^{concealed} fault intervenes bet. it & the Conasauga
to the north, then the whole thickness of
Knox here cannot exceed 600 or 700 ft.

S. E. of 127 saw no Chick., but did see
s.s. of Rockwood. The s.e. flanks of the hills
here are lined with the latter formation.
In its upper part there is a bed not before
Loc. 128 seen - namely: a yellow s.s. filled with ^{interminable}
oblong and strophomenoid & other shells. Thousands
of specimens might be gotten. The whole Rockwood
series is more fossiliferous here than in
Tennessee. Increase in life already noticeable
in Georgia. There is much more s.s.
than shale.

See section p. 17.

Section at Loc. 129 from Coosa River $\frac{1}{2}$ m. n.w. 248W. Dip S.E. 10° - 50° .

The breccia in this section seems to represent the whole of the Chickamoga series, all of the shales & sandstones above it being Rockwood. Evidently this point was part of the barrier during Chick. times.

Signs of Chattanooga shale at river indicate that but little intervened between it and the coral bed at top of section.

Rockwood shown in section aggregates about 500 ft. (including probably Devonian coral bed at top)

Gadsden, Ala.

Aug. 1, 1901.

Sent Ferguson to Sheffield, Tenn. with team this morning & walked up narrow valley north of town.

Section from iron seam east to Knox at 2nd (? 3rd) mine (1 m.) north of Gadsden, Ala.

Dip about 70° N. W.

Foreman of mine, whose name I have forgotten, is responsible for the figures pertaining to Rockwood in above section.

Hope study of fossils will bear out field identification of Richmond & Lorraine. The fossils are poor! Probably taken at night.

Left for Newport this evening.

1901.
 Aug. 2 to 17, spent in Newport, employed
 chiefly in studies of problems pertaining
 to work in Appalachian Valley.

Leave Sunday night^(18th) for Kiowa, Indian
 Terr. where I met Taff.

For continuation of 1901 field work carried on
 with Taff in the Arbuckle and Wichita Mts
 areas in Oklahoma (August 24th to October 24th)
 see notes in NB 2, pages 1 to 49.

Structure of Frog Mt. pla

Nov. 14, 1926

Hayes makes structure more complicated and the ls. of lower Knox and upper mag. ls. (regarding the latter as upper Knox) is overturned, and that the Onondaga SS. is thrust over the ls. I cannot see this structure, the magnesian ls. here referred to Onondaga (cf. Sandville or Hancock ls.) being different from any Knox dol. seen by me. Right, I did not succeed in finding fossils in the dolomite of Frog Mt. but the occurrence of the fossils in the underlying Berkhampton, especially of the Cryptogonion referred to above, cause me to be satisfied that the rocks are not overturned.

1750
 1751
 1752
 1753
 1754
 1755
 1756
 1757
 1758
 1759
 1760

May 5/1760
 1760

The first of the month I went to the
 mill house and found it in a
 state of ruin. The mill was
 built in 1750 and was used
 for grinding corn. It was
 built by the first owner of the
 land and was used for many
 years. It was in a state of
 ruin when I found it. The
 mill was built on a hill and
 was used for grinding corn.

John G. G.

The first of the month I went to the
 mill house and found it in a
 state of ruin. The mill was
 built in 1750 and was used
 for grinding corn. It was
 built by the first owner of the
 land and was used for many
 years. It was in a state of
 ruin when I found it. The
 mill was built on a hill and
 was used for grinding corn.

Possible interpretation of structure between Middle
Quaternary near Sylacauga Ala & ridge North of Town.

? Marble in lower Knox.
This bed may be in Ocala overthrust
or same as the bed seen in Ferguson
Gap, or it may represent some unknown
stratum phase of lower Knox.

75' white marble in
Ferguson ss.
Ocala
K^o
Mesaba ss.
Fulton Gap
Ocala Gap
Ocala fault
Lower Knox
Cherty Knox
Ferguson ss.

Grayton is
being in 4-6' beds of
fine ss. impregnated with iron
beds soft or less apart, the intervening part is more stony
schist, and in part of the same bed the 15-20' ss.

Great masses of chert congl. pebbles 1" to 6 inches. Thought to be coralline. Boulders occasionally appear. This congl. is thought to be basal Metchum here. Some chert congl. which is not ss. Boulders and "Boylers" Cryptogon.

Foster Mt. Ala.

S.

N

Foster Mt.

S
SW

N
NE

- 1080 - Top of conglomerate 6 in layer in buff clay clay.
- 1045 - Buff ls. 3 ft. greenish & with T. shelled.
- 1025 - Top of congl. shales & claystone below.
- Congl. 6 1/2 ft. thick bed. 6 in. sp.
- 3 ft. pink. 1 ft. compact 2 ft. shales
- 3 ft. argil. gray to buff ls. & claystone.
- 995 - " " " " " " " " down to 995
- 45 ft. argil. ls. with congl. of same material, some very shaly near top.
- 950 - base of gorge and not to base of congl.

Half mile south of summit of Foster Mt. Knoll of Knox with all the members of the Foster Mt. section above lower congl. & upper congl. is shale. This change takes place in distance of 200 yds. Same is another knoll 2 m. SW from top. 450 ft. elevation of Black Oak Mt. just SW of Foster Mt. all Knox (Copper Ridge) fossils level of stream to top of Mt., with remnants of Alveolites congl. near base.

This bed contains the upper congl. where section is taken near the old stone house. On north side of Mt. where we are well away from shore no congl. was observed. It shows well on SW side. Upper congl. distinct greenish by often numerous green fossils.

At Chalkville, Ala. (1/2 mi. W of)

4-5 m. south of Foster Mt.

Col 88 Butts 1906

See 1100 - White report 1907

p 22 - 329 M. No.

See Museum reg. no. 2566 1906

Fossils in residual chert (?) boulders

Copper Ridge chert

185 Butts 1906

1100 - White report 1907 p 5 - 329 M. No.

Cherty ls. with abundant fossils of late Island River age

fine grained ls. & shale the former full of small shelled

200 yds

June 8th 1907.

40

Fradey Gap

Canadian Copied

July 9th 1911

136
119
77

Generalized section in Sequatchie valley, Tenn.

40

In northern part of valley in and to south of Cedar Mt. this interval proves to contain Lebanon and Ridley; and it seems probable that the Mansfield ls. may underlay these. In that event the cherty weathering ls. may be basal Stone River (Mansfield) instead of basal Louvville.

41

43

Harrisonville, Va. - 1938
Sandy Hill to Mountain

- * Canadian
- * Moccasin - 7 ft - 9 ft.
- * Harrisonville member
of the Strasburg form, 86 ft
covered shale about 75 ft.
Normal Strasburg ls, 14 ft. 300 ft
- * Spence Ferry
- VI - 150' shale
- VII - 36' 1st. crinoid zone
- VIII - 31' 2nd crinoid zone
- IX - 10'
- X - 18'
- XI - 6.5'
- XII - 9'
- XIII - 12'
- XIV - 12'
- XV - 12'
- XVI - 15'
- XVII - 2.9'
- XVIII - 1.5'
- 226 ft. Spence Ferry or Harrisonville member only
- 2
- Labanon ls.
- XVIII - XXV = 380'
- XXVI - 31' Lowville facies
- Moccasin
- 32 and then up through argill. Fincken
- of Moccasin

Page 1. 1938 1 later
June 7 1938 1 later

Page 2.
June 7 1938 1 later

Also at Spence Ferry, Va.

Page 3. Martinsville, Va. Creek, upland

Route up about 1500 ft.

W. M. M. M.

Page 4. Martinsville, Va. Station

Martinsville	500'
Lanesville	205'
Lanesville	388'
Spent Ferry	286'
Stradburg	150'
New Station	100'
Medicine	1010' diam.
Canada	1010' diam.

Roadside, opposite Gillespie's house, Thompson Valley
14 mi SW. Tazewell Va.
R.D. Mesler June 1938

Structure - Canadian Contact, Gillespie's Farm
Snap. Va.

E.D.V. pointing to contact
Same as p. 54. NB. 4. Contact. Can. - Strasburg. Opposite
Jeff Gillespie's house. Snap. Va. 14 mi SW Tazewell. Va.

Thompson Val. R.D. Mesler June 1938

500
500

125
50
300

May 3rd 1939. 4 miles N. of Harrisonburg, Va.
Spent day and most of next day trying to locate the
exposures sectioned some years previously to the north
of Linville, Va. Failed to do so, but saw and collected
from other interesting outcrops, one about 2.3 mi. nearly
north of Harrisonburg, begins with top of Canadian
and passes upward through 100' to 150' of Strassburg
and is succeeded by fossiliferous Strassburg to
Canadian about 2 mi. north of Linville showed
a similar sequence of Canadian followed by Martinsburg
and that by about 15 ft. of Strassburg and it by
beds of mostly argillaceous thin-bedded ls. with
the *Tentaculis* & *Paterula* - topmost Chambersburg
fossils directly succeeding and with a conglomerate
at its base.

May 5th 1939 - Studied, collected from, & sectioned
outcrop about 4 mi. N.E. of the NW base of the Catawba
Mt. section previously collected from by Richard
who at that time found some good Richard
its most exposed part.

Collected abundance of bryozoa, some brachiopods and
a few trilobites among them *Lophos* & *Cybele* etc.
from 10' but, top covered by weathered rocks.

above loc. is about 1/2 mi. E. of Bateman
Co line, at entrance to Mt. Thomas farm
3 1/2 mi. E. of Catawba Va, Catawba Cr.

Speers Ferry, Va., May 10th 1939

The Roanoke, with a pubbly bed at base, is poorly exposed on the upper R.R. just west of the station. It cannot be more than 10 or 15 ft. thick and may be completely eroded out in the near vicinity of Speers Ferry. Another feature of the sequence here that I had not previously appreciated is the character of the lower 40 or 50 ft. of the Strasburg as here developed. Namely, it consists mainly of thin bedded argillaceous limestone as at Hansonville, Va.. Has some chert in it toward its top and a fossiliferous more limy 2 ft. bed (or less) filled with a smallish form of the Pecten shell commonly found in ^{or} about this horizon. Another fossiliferous zone occurred a few ft. above in all thin bedded type of rock. Probably the Pecten compressed conical fossil previously found at this locality came from this bed rather than from the one to which I have ^{hitherto} assigned it. Later about this in the office.

Otherwise the Speers Ferry section is as determined in recent studies in the office.

June 2 1941
Page 65 Temp removed by
rain 11/12/41

5 ^{at} ~~at~~ ^{of} ~~Mr. J. M. Church~~, on Route 25W about 4.7 miles south
of Clinton, Tenn. ^{May 16th 1929} ~~on way to Knoxville, Tenn.~~ ^{at} ~~roadside~~ ^{top}

5 At Lee Valley, Tenn. - N. of Post Office
May 28th 1929.

See list of fossils in *Senaria* section.

Shasburg = 190' x 5' = 700' at 40°
Holston = 130' at 50°

3 mi (air line) NW of Brownsburg Va
 1 mi E of Jump. Just E Swishers house.
 near Spring
 Aug 21 - '39

August 21, 1939

W. H. Smith, William E. Edwards

Call No. 3.
Call No. 4.

70961 Spurn S. 60° E
from Hazele town
to Bar 25600 yds
1307 08 Oct. 70

T
307 08 Oct. 70

70961 Spurn S. 60° E
from Hazele town
to Bar 25600 yds
1307 08 Oct. 70

p. 730.

DEPARTMENT OF THE INTERIOR
 UNITED STATES GEOLOGICAL SURVEY

p. 70B.

65 1940
 Clinch Valley 3-4 miles
 South of Blackford ^{Abingdon}
 □ = Elm Garden □ T.V.A. map
 just above marble bed
 Butts Oct. 1, 1940
 (see over)

General section in Clinch
 River Valley at Blackford
 and Southwest of
 Butts Oct. 16, 1940

Near NW. cor.
 Abingdon □
 Martinsburg

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are from 10 to 12 feet thick (rarely
 over 18 inches) and very highly in shales
 of yellow, brown or red layers and shales,
 another is a beautiful even color
 grey of drab (often a little white)
 another is a sandy, crystalline
 The same layer may have a little
 as a little. Some of 2 or 3 feet thick.
 Some of the so-called marble seems
 to be well put together, especially
 in layers, shales, etc.

At the 4 there is some excellent
stone, but the lower two feet contains no fossils
except that the lower two feet contains no fossils
always in a very difficult task. The 3rd 25
feet just above the last one sometimes very
fine and quite pure of plant, but, as I observed,
the texture of the lower may change in a few
feet (25-10) D. 30. A 10 to 15 feet of
The lower part of a fossiliferous stratum,
consisting of the same of the upper part, 25 to 30 ft.
approximate by the same subject to same.
At the 4 the middle beds are in good
after (about) the top, some, and along the
bottom 4 x 5 a number of layers (no fossils)
are shown by breaking them. These layers

At the 4 there is some excellent
stone at Washington was divided.
The section is 10 feet, 4 feet, and the
in north-south direction generally with in relation
and the fossils show a not again indicated.
At the 4 there is some excellent
stone, but the lower two feet contains no fossils
except that the lower two feet contains no fossils
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no 1 hour X 3/4 + no 1/2 hour = no 1/2 hour
 100 + the degree no