2

E. O. Ulrich

Notebook No. 2, 1903.

Arbuckle Mountains.

Wichita Mountains.

U.

OKLAHOMA SECTION

EY

TRAVERSE BOOK

9-904

List of formations adopted
in Atoka Folio - applicable
in Arbuckle Mt. region -

Lowest coal,
Atoka formation
Wapanucka formation = Franks Cgl.
Caney shale (Goniatite shale)
Woodford chert Dev. & ? Carb.
Hunton limestone (Heldberg)
Sylvan shale (? Richmond)
Viola limestone (Top Trenton
mostly St. Louis River)
Simpson formation (? Top St. Rv.
balance St. Peter
& Chazy)
Arbuckle limestone (Knox)
Reagan sandstone (Cabrera)
Tishomingo granite.

Index.	Page.
Arbuckle limestone:	
in Ardmore quadrangle	39-41
2 to 3 miles north of Springer	40-41
note on, and Simpson formation at Wyatt, Tishomingo quad.	43
base of, and Reagan formation at Picken's ranch	49
Ardmore quadrangle - Arbuckle ls. in	39-41
Atoka folio:	
list of formations adopted in, ap- plicable in Arbuckle Mt. region	front cover
Arbuckle, Sylvan, Viola, and Hunton shales and limestones in Dougherty and Davis sections	6-10
Arbuckle Mt., section at NW. end	12
Brachiopoda, Richmond of NW. type full of, loc. 4, south of Franks	3
Canyon Creek camp - notes on Reagan section	21
Cartersville = upper Fayetteville in sink holes	76
Davis, Okla. - sections, extending from Hunton to base of Arbuckle ls., Loc. 25	10
Dougherty, Okla. - section up Falls Creek, west of	6-9
Note on Simpson formation SE. of	45
Elk, Okla. - section of transitional beds, Viola to Simpson - section of Hunton at	31
Falls Creek, Okla. - section up, west of Dougherty	6-9
Fayetteville, upper = Cartersville in sink holes	76
Formations adopted in Atoka folio - applicable in Arbuckle Mt. region	front cover
Fort Sill, Okla.:	
quarry beds at may come beneath section at Rainy Cr., NW. extremity Wichita Mts.	17-19

List of formations adopted
in *Alaska Folio* - applicable
in Arbuckle Mt. region -

Hunton ls. and Woodford chert at Loc.2,	
Franks, Okla	2

Fort Sill, cont'd.:

bed II of section at Signal Mt. probably same as Fort Sill	29
Franks, Okla. - localities south from	1
section at	3
Henry House Creek - Hunton formation on, notes on	33

Hunton:

in section at Dougherty, with Sylvan, Viola, and Arbuckle limestones and shales	6-9
Section from Hunton to base of Arbuckle ls., southwest of Davis, Loc.25	10
section of Hunton at Elk.	31
note on Hunton on Henry House Creek	33
section of Hunton in hill, sec.15, Tisho- mingo quad.	47

Indian Territory:

localities southeast from Franks	1
section up Falls Creek, west of Dougherty	6-9
section from Hunton formation to base of Arbuckle ls., southeast of Davis	10

Joplin, Mo. - generalized section at	76
Oklahoma - see Indian Territory	
Picken's ranch, Okla. - section of Reagan formation and Arbuckle ls. at	49

Rainy Mt. and vicinity, NW. extremity of Wichita Mts. - section at - Fort Sill quarry may come beneath it	17-19
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Reagan:

Taff's Reagan, and what he does not con- sider Reagan	20
notes on, near Canyon Creek camp	21
section of, east of Canyon Creek camp	22
Section of, south and east of Canyon Creek	24
section of in sec.17	26

List of formations and places
in Oklahoma Folio - applicable
in Arbuckle Mt. region -

Reagan cont'd.:	
section of	41
section of and base of Arbuckle ls. at Picken's ranch	49
Richmond of NW.type full of brachiopoda, Loc.24, south of Franks	3
Signal Mt., Okla. - section in hill south of	28,29
Simpson formation:	
Simpson to Viola, section of transitional beds at Elk	31
Simpson formation and Arbuckle ls. at Wyatt, Tishomingo quad., Ark.	43
Simpson formation southeast of Dougherty, note on	45
Sylvan, Viola, Arbuckle, and Hunton shales and Limestones in sections at Dougherty and Davis	6-10
Taff, J.A. - opinion on Reagan	20
Tishomingo quadrangle - section of Hunton in hill in sec.15 of	47
Viola:	
in sections at Dougherty and Davis	6-10
Viola to Simpson in section of transi- tional beds at Elk	31
Wooded Hill - section at, 7 miles N. of Springer	41
Woodford:	
chert, Loc.1, Franks, top of Hunton ls.	1
locality in Viola north and west of	31
Wyatt, Tishomingo quad. - note on Arbuckle la.ans Simpson formation	43

Aug. 24th 1901.

South + east from Franks, Ind. Terr.

Loc. 1. Upper part of Woodford chert. a bed perhaps
10 ft. thick containing leached plates of gran-
porous rock that may be chert and possibly
are phosphate. A piece of what seems to
be fossil wood occurred with it. An occasional
Lingula on plates + if I am not in error,
minute fossils in same.

Loc. 2. Lower flinty layers of Woodford chert + top boundary
of Hunter li. These contain the ramose favositoid
(Dendropora + Favosites? + ? Striatopora) and other fossils
indicating Oriskany + Camden chert, + possibly higher
(? Corniferous) Devonian. The lower part, perhaps
(I should say, beneath it, is a soft crystalline li. containing many
gastropods + many other fossils apparently of Oriskany.
types. These are in separate bag.

Loc. 3. A chaly or marly li. 95 ft. beneath the ^{top of the} cryst. li.
of Loc. 2. remarkable for Cameromina which
might be obtained in great abundance with a little
digging. Picked up about 30 specimens. The specimens
in bag — are from 0 - 10 ft. above Cameromina which
is here restricted to about 5 ft. or less vertically.

Loc. 5. $1\frac{1}{2}$ m. S. of Trench, Ind. T. The road runs along strata of bed containing the *Camarocrinus*. Good specimens and abundant.

Gray bands in places,
especially upper half, containing
blacks of ferruginous tint.

Gyrostemma l.
abundant above

Marly & sandy
li. thin bedded,
forming benches &
masses in Trossingen
cap. well - lower 10 ft.
(see field notes)

Chrysomelids Red 3

Steady or mostly
bed with white &
crystalline li. in lower
25 ft. Some of the latter
is bedded.
Crystalline li.

Sylvan shale.
about 150 ft.

Loc. 4, Richmond of N.W. type. full of
Bromeliads with one *Agave*. The
fronds round strongly of Spring Valley
Mass.

[illegible]

proavita *O. kankabensis*

From base of system shale to top of bed 2
the shales are calcareous. In
of section present in same order.

[illegible]

UNITED STATES GEOLOGICAL SURVEY.

SURVEY OF THE

Upper Simpson

(Evan) In charge.

No.

Name:

LOCALITY:

25 - bed E. Ulrichs section

4 mi. W. to 2 mi. S. of Daves

50 ft. beneath first exposure with
Cryptolithus.

Collector:

W. H.

Date:

1901

Note Book:

2

Page:

10.

Memoranda:

1906

1906

1906

Sec. 9, T. 8, R. 17.

Trilobite
R. 17
Thin bedded gray
ls. & shales
many thin bedded
ls. & shales
B. 17
S. 17
200-250
45-50
150-200
200-250

x at upper end trilobites occur but failed to secure anything satisfactory. Beneath them many layers are traversed by yellowish, irregular & branching string (fossil like) the matrix being composed of - almost made up of - hematitised & anchor speckles of sponges. Took specimens.

The crystalline limestone streaks in the glauconitic bed are very fossiliferous. The outcrops are restricted to the upper ten feet.

Secured a good selection of specimens.
Sep. 8th 1901.

Sept 9 to 12 travelling west to Wichita Mts. area.

Sept. 13-22 Sick in camp of Canyon Creek. Last day in camp was helped by party in going to sections ^{east} north east (Sec. 35, T. 8, R. 17N) of camp, concerning which information was desired by party for mapping purposes (For small Archaean collecting maps. Sept 22 see 188 H. These probably came from Red later designated as R. 8 For Upper Ridge small coll. see 98).

Sept. 24th to Oct 8 worked the outcrops of Cambrian and higher beds to the V. 100. between Rainy Mt. and 3 miles west of Canyon Creek camp along coast north of Wichita Mts. Part of time in Redgity Mts.

Oct. 9th Worked interesting outcrops of beds intervening between base of typical Archaean ls. and top of Cambrian in small hills south of Signal Mt. (see pp. 28 & 29)

The Rainy Mt. is made up entirely of the Tremulous bed of the Viola li.
On the south side the rocks are nearly horizontal, but on the north half the dip which is westerly - increases to about 20 deg.

Fossils are not by any means abundant, ^{and} consist almost wholly of the Tremulous. These however occur in all parts of the section. In the lower part Dolerocaulis occasionally is found here one small Lingula. The rock splits very badly so that it is not easy to secure fossils. Patient & long continued rock working would doubtless afford a considerable haul.

The rock is fine grained, light to dark (almost black) gray, and ~~weathering~~ weathering nearly white. It is further here a bedding in somewhat amount of chert in nodules and plates. The chert is clearly superfluous & secondary.

On south slope of peak and near base of it, a red layer was apparently associated with a number of plates and Bryozoa. Two to large bluffs.

R₂ and top 20 ft of R₂ = *Physosporis* zone.

R4 & R5 = sponge zone

See description of p. (p. 21)

Oct. 5th - 8th. 1901.

Returned to Canyon Creek camp for more detailed paleontological & stratigraphic work.

Spent Oct 5 on point of hill in section 13
T. 4 N. R. 13 W. 95

Here found upper part of Regan (R. 2 c of general Canyon creek section on opposite p. 20). The base here apparently does not include Orthoid bed (R. 2 b) but begins with more or less crystalline li. ^{call it R. 2 b'} holding a small linguloid or some trilobite fragments. About 75 ft. above this is a layer ⁽⁹³⁾ well filled with a pustulose & strongly striated trilobite. This horizon is persistent & is distinguished as R. 2 c. It is generally less than 20 ft. beneath the heavy bedded li. distinguished as R. 3.

Spent Oct 6 near Canyon creek camp, taking in the hills just west & south $\frac{1}{2}$ mi. of camp. Here the section is similar to preceding one, excepting that the Orthoid bed (R 26) is well shown where the series butts against the porphyry. This bed looks very much as though it formed the base of the limestone series at this point, but as it shows no igneous or other pebbles, it probably did not.

Faulting will explain all the conditions seen. The Orthoid is not uncommon though not nearly so abundant as Trilobite fragments. Took 75-100 lbs of rock.

rock. Farther up found trilobite of R. 2c,
then about 80 ft. ^{rather} massive, compact & fine grained,
& a few crypt. li. s. These were followed by nearly
150 ft. of ^{thin bedded} thinner bedded beds looking much like R. 2c.
A few imperfect fossils obtained from the last.
Next came 75 ¹⁵⁰ - 100 of thin-bedded compact li. (R. 5),
from ^{the} ^{thin bedded} ^{compact} ^{li.} ^(R. 5) ^{also} a few trilobite fragments were

Wichita Falls

Section of Reg. formation in S.E. corner of N.E. quarter of Sect. 2, T.4N, R.13 W. 1/2 to 3/4 m. east of Canyon creek camp, Okla. Terr.

74 is 40 ft. above
 Elevation 1000 = R. 2
 150-200' 94
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Oct 7, 1928

Section near point of full extension on
middle of west half of Sect. 13, T4N,
R. 13 W. Okla. Terr.

2 mi. S, & 1 mi. S. of Canyon creek camp
Fort Sills or *Ptychospira* zone? *

Fossils occur at many horizons in this section, but in most of the layers they are very poor and hard to get at all. With time & labor good collections might be made. An *Orthis* was noticed in R. 2 C near trilobite layer, but too poor to be recognizable. Secured an *Orthis* also in R. 4.

* Compare the ^{new} section made in 1928 at Sec. 17, T4N, R. 12 W. (For old section of same see p. 26 of this book).

Oct 8th 1901
 Section near ^{middle} eastern edge of S.W. quarter of Sec 17,
 T4N., R. 12W.

A new section of this outcrop made
 in 1926 [see N. B. p. 57]

17. Conspicuous

671

1913-2013

I = upper Cambrian - II, III + IV = Canadian Ozarkian is about. Jan 10, 1915. (See opposite page)

Section of small hill 2 m. s.w.
Lamb Mt. Dike. Tex.

2. undated sections in the two hills

Will 2m SW 7 Signal Mountain

Hill 1 m. S. of Signal Mt. 220' $\pi 30' 90'$ Coars. dolom.

I

II 30 90

County

4

اسی

$\approx I$ guppen an der

32/28
 2 * 12
 = 12
 25 to 31
 Arizona Co. Signal Mt. form.
 to Ethia 3 mi. S Blue
 Canyon Co. area.

all these birds were but 120 miles
from Ozark where the underlying
strata of Ozarkian which the underlying
beds would have suggested of
the same age. Count down

Bed II probably same as quarry at Ft. Silb. Bed I seems to be ^{or 3000 ft.} up. Cambrian. Slight evidence of unconformity between I & II.

not only *Prothomastus* but also
Symphysandera, are very likely
to prove post-Andean.

Evening July 1922

Section of Hum. lav. - South quarter Sect. 1, T₂ S, R. 2 W.
2 $\frac{1}{2}$ mi. S. E. of Ellettsburg, Ind. Town

Oct. 14, 1901

Nov. 19, 1937
Finally decided, all this is Post Card

Section of transitional beds - Viola to Simpson
 $\frac{1}{4}$ - $\frac{1}{2}$ m. N. E. of preceding locality. (NE quartz. Sub. 1)
 500 ft. T. 5, R. 2 W. T. 2 S., R. 2 W.)

Note on Hinton section.

Hinton section in Henry House creek (3 m. E. of Woodford) and for two miles east holds same thickness as in section p. 31. (i.e. about 250 ft.) The Camarotoechia is about 170 ft above base. Fossils few. Large Calymene a few feet below Camarotoechia hor. Several reddish shaly beds in lower 150 ft. Base of lower limestone (5 or 6 ft.) with ?Clinton fossils. (Collected fossils here Oct. 16, 17.)

Location in Sect. 29 & 30, T2S, R4E, Ind. Terr.

41 - 4100'

March 1927.

According to George S. Bushman,

At Newsham - sect. 31+32, 8 N. 8 E - A drabbed bed about
 50' from summit mainly of ss - largely unconsolidated.
 4100' + 4900' depth. Some interbedded green
 shale.

Top - Eocene 80'±
 Fossils ss
 Vids apparently about
 Magnesian Beak River 20 ft (1927)

Oct 23 1927

At Wells (Tadmore quarry) and south for some miles to 4.3
 the upper part of the section is well exposed. There is then
 an in section p. 400 a large development of the same clay as the
 limestone. Therefore there is more of it than the whole thickness of it.
 This is here also a considerable development of the same clay as the
 Simpson, which is about 700' thick in the two preceding sections.
 The top of the section is made up of mudstone or even more uniformly of
 largest sandstone. The uppermost member of the section is
 3' thick a small greenish sandstone Simpson & emerges of well.

A section by well cut a 3 in. layer of ss. The ss. is of the
 kind of the same series. Saw many of the layers of the ss.
 The ss. is of the same series. Saw many of the layers of the ss.
 The ss. is of the same series. Saw many of the layers of the ss.

Oct. 23rd 1901.

From the same notes S.E. of Dymally there is an abundance of vegetable remains of *Siphon* form. Numerous *collembola* were from the lowest (No. VI) and No. VII of the *limulites*. The *limulites* are there unusually frequent, *petriophora* being quite abundant, while there is a good *limulite* here for other *limulites*. The *limulites* are very common, for No. VII, which was not so well exposed as I wished, got a new *Dymally*, and a *collembola*, and as many *Arachnoides* (mostly *Arachnoides*) as I could. By turning the *limulites* within my hand no doubt some better exposures may be found.

187
Z

Oct. 23rd 1901.
 Section of Hunter formation (thickness
 estimated) at hill in S.W. $\frac{1}{4}$ Sect. 17 T2S, R.4E.
 San Tishomingo quad., of Indian Territory.

5' 6" (incomplete) Harder, earthy & cherty li.
 about 50' Shaly or sandy li.
 15' Most of the fossil shells.
 6' *Canavosia* bed.
 Calcareous shale, becoming clayey li. in
 upper half. Fossils very rare.
 White li., compact above. Fossils very rare.
 Sylvan shale.

Trenton

Unconformable contact

Chazy T Stone River

200 ft. Thin. Mottled
Limestone
50 ft. Varied
Sandstone

Thin bedded
250 yd. Varie colored shales
Sandstone.
Thin bedded
shale.

Thin-bedded ls.
and moderately bedded ls.

III { 500 ft. Thin bedded
x 300 ft. shale
x 200 ft. Heavy bedded ls.
x 100 ft. thin and mod
x 100 ft. bedded ls.
x 100 ft. Heavy bedded ls.
x 100 ft. (Eccy light brown
x 100 ft. a thin

Heavy bedded ls
+ dolomite

2 x *malinva* 800 ft.
 + *Formis* Heavy + dark
 + *horizon*

2000 ft. Heavy bedded ls
no fossils + dolomitized
upper con

Heavy & dolomitic
no fossils seen. May
thin bedded ls.
upper Cambrian Trilobite
colored or dull blue
at dolomitic &
in contact

Robuckle limestone
about 5000 ft.

[illegible]

Reverse

108
691

Section of Arbuckle limestone (= Calcareous & upper Cambrian) in Arbuckle Mountains, Ind. Terr.

Reagan form

Arbuckle Co

Oct. 24th 1901.
 Section of Reagan + base of Archuleta
 at Picking Ranch. (See Mr. Tuff for
 location) SW^{1/4} sec. 19 - - T3S, R5E
 Comparison to m. north, p. 63.

Сопоставление с м. н. р. р. 63.

Fossiliferous ledge holding *Lecanospira* & various cephalopods
 51-49-50 ft. To next layer with *Lecanospira* 50-
 46 ft. layers with numerous
Horridana-like species &
 above just above the

June 2nd 1928
 Arrived Sunday
 June 3, 1928.

Sec. 25-36, T6 N, R. 14 W, 10 miles
 47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-103

June 2nd 1928
 Gmabuk Sunday
 June 3, 1928

Sec. 25 & 36, T6 N, R. 14 W. 1/4 = 10 miles S.
 of Carnegie, Oklahoma and 2 m. W. of Admon

UNITED STATES GEOLOGICAL SURVEY.

SURVEY OF THE

In charge.

Name :

No.

Formation :

System :

LOCALITY :

Collector :

Date :

Memoranda :

Notebook :

Page :

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Found 3ft ledge holding *Leconospira* & various cephalopods
 51-50 To next layer with *Leconospira* & 15ft beneath small
 46 IR layers, under numerous " a *Horridum*-like species &
 numerous cephalopods as in bed 65ft above, just above the
 last a 3ft ledge which contains fossils.
 47 18' To a 3ft ledge top of which is filled with a *Synsphyron* like
 48 (22ft) at 32.5ft bed in a *Cryptogon* reef and
 49 15ft beneath it *Leconospira* & *Cryptogon* conglomerates, about 10ft
 beneath the lowest of these a ledge with numerous
 46 IR *Leconospira* & *Cryptogon* with *Leconospira* rare.
 46 6' Under Ecog. ledge, about 6ft with considerable platy chert and thin
 at least 12.
 45 32.5ft chiefly & occasional ledge with *Cryp.* one of these bed
 with white, filling of *Leconospira*.
 44 14ft thin bedded to top of 1ft siliceous white ledge in 2ft. det.
 43 71ft. down to, thence to another siliceous white " " det.
 42 24ft similar to preceding with 1 or more " " "
 41 3ft ledge down to, with white & some white chert
 40 38ft. mostly thin to 1ft ledge white chert
 39 90ft similar to overlying No 40, at base a 1ft ledge with *Leconospira*
 & *Cryp.*
 38 24ft. 6, thin & thick (2') with little or no chert or white.
 37 30ft & beds largely made up of white ledge - siliceous.
 36 193ft. - mainly thin to 1ft, little or no chert or white.
 35 83ft. like overlying but averaging thicker beds
 34 50ft. " second above, with white ledge 15ft above base.
 33 15ft. Thence to top of base bed. Saw only some specimens
 of *Leconospira*.
 32 35ft. , dark gray, rather thick bed to no fossils.
 31 90ft. beds very thin, showing little on surface with 5 thick ledges 18"-30",
 are fairly regular intervals. The thick beds have 1 to 1 1/2" layers of chert.
 30 (141ft) (at 38) similar to overlying but more ledge in lower half and
 some chert in upper 15ft. of thin bed. No fossils.
 29 28ft mostly thick bed to with small chert.
 28 55ft. thin bed, gray to black, the lower 25' weathering with pitting to
 chert, upper 30' more ls. having thin plates of chert to
 Ecog. 27-10' ledge with blotches of chert and contains abundance of a
 distinct species of *Leconospira* & *Cryptogon*.
 26 18.5ft. like top of No 28.
 25 12-11' 7 beds on steep dip slope to top of ridge; gray ls. no fossils seen - many of the
 11' " so are thickened and broken up with small markings, at intervals
 the ledge are separated by 4 to 5 ft of thin beds.
 24 37ft. - usually under 5 in. beds
 23 16.5ft. similar to top of ridge

June 24th 1933. Base of Long Ozarkian section
 from a detour through the Synphysurina zone. Eureka zone.
 from the sponge bed to top of *Strophomena* zone, measured by Rex
 & Ballard, and measured by Rex, Ballard & Normal Ballard.
 = Magomani zone.

Comp. layer with *Psych.* *with Trilobites* Base of *St. Sub. Ls.*
 very green surface material redeposited

Base of *St. Sub. Ls.*
 green layer - 0 to 1/2 in. 0-1 ft with *Psych.* in congl. (interformational)
 to white dense No *Psych.* seen in next underlying ledge
 which is the lowest one in the section

120 dip = 21 ft per 100 horizontal

-Tunnel at road directly south of Signal Mt.
 East 75 ft. horizontal to top of sponge bed & base of *Junonia* zone
 120 ft from top of sponge bed to top of *Junonia* zone
 95 ft 20 ft = 11 ft = a slab with small broken *Trilobites*
 300 = 65' above sponge bed to last observed *S. junonia*
 175 = 28 ft = 155 ft To greenish bed last *Trilobites*
 about 700 ft = 155 ft base *Synphysurina* zone
 * For 20 ft. above base of *Junonia* zone the limestone was filled with small
 round *Trilobites* and not by flat beds as are common in top of
 sponge bed.

Remarks:

Psychosporis zone of Henry Co. zone - Only top 5 ft. exposed.
 Sponge bed - horizontal, measured by Rex & Ballard - got later notes
Junonia subzone.

Study of the *Magomani* fauna during the early
 trip of 1933 finally led me to the conviction
 that the *St. Sub. Ls.* is of *Magomani* age & the
 Signal Mt. of *Trimpachian* age. In the Wichita
 area the latter is preceded by the *Synphysurina* zone
 of upper Ozarkian age. Low Ozarkian interval in Arbuckle
 area. Eureka.

NEW HARRIS HOTEL

EUROPEAN

**HOT AND COLD WATER IN ROOMS, RATES \$1.00 AND UP
ROOMS WITH BATH LARGE LIGHT SAMPLE ROOM**

АДА, ОКЛАНОМА

June 20, 1928

Dr. E. O. Ulrich

Dear Mr. Leach

We spent some time

around the East and West-

Timbered Hills as you

suggested. We were quite

sun poured to find Reagan,

West Tisbury. N. 11.
A piece of Devonian shale. MS. 3.

June 18/1927

50

50

[illegible]

①

NEW HARRIS HOTEL

EUROPEAN

HOT AND COLD WATER IN ROOMS, RATES \$1.00 AND UP
ROOMS WITH BATH LARGE LIGHT SAMPLE ROOM

ADA, OKLAHOMA

June 20, 1928

Dr. E. O. Ulrich

Dear Dr. Ulrich:

We spent some time around the East and West Timbued Hills as you suggested. We were quite surprised to find Reagan, Honey Creek and the Sponge beds all developed on the east side of the East Timbued Hills and extending from the South end about one half the length of the Hills. The following thicknesses were paced by Ballard.

(2)

NEW HARRIS HOTEL

EUROPEAN

HOT AND COLD WATER IN ROOMS, RATES \$1.00 AND UP
ROOMS WITH BATH LARGE LIGHT SAMPLE ROOM41
12864
13
78

Horizontal ADA, OKLAHOMA

Dip about 40°

Top 41 paces ^{~78 ft} gray limestone60 " ^{120 ft}

Dolomite

32 = 64 ft.

Sponge beds

40 = 77 ft.

Honey Creek

45 to 80 " ^{= 85 - 144 ft} Reagan.

The sponge beds are also

slightly developed on the west side of these hills above the Honey Creek. We went up along the N. E. edge of these hills where the dolomite can be found within a few feet of the porphyry but we could find no good contact, and no evidence of overlap by the marble.

We went westward and in a southwesterly direction from

How about the Pteridophytes?

③

NEW HARRIS HOTEL

EUROPEAN

HOT AND COLD WATER IN ROOMS, RATES \$1.00 AND UP
ROOMS WITH BATH LARGE LIGHT SAMPLE ROOM

ADA, OKLAHOMA

near the north end of the
Hills on the west side and
found the two dolomites
well developed and separated
by lime stone, - as follows,

760	paces	in Cherty ls.	Dip 30°-40°
300	"	dolomite	What beds - Canadian or Ozarkian?
190	"	limestone	
56	"	covered by soil.	
455	"	gray and pink det. marble.	
81	paces	Sponge beds	
65	"	Honey Creek.	How about the pyroclastics?

To day we found the Reagan
and the sponge beds along the
S.W. edge of the West Thumb
Hills, with what looks like a
quartzite above the sponge

④

NEW HARRIS HOTEL

EUROPEAN

HOT AND COLD WATER IN ROOMS, RATES \$1.00 AND UP
ROOMS WITH BATH LARGE LIGHT SAMPLE ROOM

ADA, OKLAHOMA

beds. For a distance the
sponge beds are in small
folds with axes nearly at
right angles to the edges of
the porphyry; so there
seems to be no evidence of your cap.

The presence of the sponge
beds shows that it is very
basal arkose.

Cordially yours

Charles E. Decker

NEW HARRIS HOTEL

EUROPEAN

HOT AND COLD WATER IN ROOMS, RATES \$1.00 AND UP
ROOMS WITH BATH LARGE LIGHT SAMPLE ROOM

ADA, OKLAHOMA

Thursday Morning.
Dear Dr. Ulrich:

I am sending you this morning just a few fossils from the south side of the West Timbreed Hills and a few from just above the top of the lower dolomite about $4\frac{1}{2}$ miles S.W. of Mill Creek where we studied the section when you were with us.

I took pictures of the contact of top of sponge beds there with conglomeratic basal part of lower dolomite. - John Fitts is sending you two pictures. He and the boys give me in kindest personal regards and best wishes.
Very sincerely yours C.E. Decker

June 11, 1928
South side
West Townsend Hill
snow about 2000 ft. above
reaching first ^{5100 ft.} slope of Pyramid
Saw no small birds
* Spring creek

June 12, 1926
 Ardmore -
 On the same route (South of Ardmore, 25 miles)
 Found large numbers of dead cotton-
 in about 50 ft of main river to

[illegible]

[Faint handwritten notes at the bottom of the page, likely bleed-through from the reverse side.]

to Lawrence, and we are engaged in the study of some literary & historical subjects. I expect to be very busy.

Exposure of beds between Roff & Bonanza
June 27-28, 1931

27-80
June 1931

1 Sy 22-23

2 18-50' Typical Fluvial

Measurements { 3 25' 4" Yellowish brown. Crayfishes, Oregon
201 K. *Urosalpinx* & *Urosalpinx* *Urosalpinx* & *Urosalpinx*
4 10' 25' *Urosalpinx* & *Urosalpinx* *Urosalpinx* & *Urosalpinx*

4 10-25' *Large, rounded, flat-topped*
field of *Saxifraga* and numerous other plants.

5

6 25% (20%) Pressure to north Road

Y. globosa Fr.

[illegible]

Eliza Jane

10707

1

21.10.15

15

1886

1890

Tuff? and momentarily Deben, where all of the sediments
disrupted since 2 to 10 in the Viola where probably is
correct on view of the fact that the top small of the
formation is in the 1st water. However, it is plain
that with the exception of the overlapping formation to
none of the series (3-10) is represented in the "Viola"
as constituted in the 5th water - probably on the
Lower - Anderson Series.

Sequence of beds between Ruff & Bonanza 22-23 June 1931

1 Sylliman

2 18-55' Typ. ...

These are { 3 25' ... 2014 ... 4 10'-25' ... }
 together { ... }
 full of ... and numerous ...

5

6 20' (Dosa) ...

7 ...

8 ...

9 ...

10 ...

11 ...

12 ...

13 ...

14 ...

15 ...

16 ...

Beds 3 and 6 to ...
 all missing at Norris Ranch & ...
 other places. ...
 Norris Ranch ...
 at John Hill locality near Franko.

... and more certainly ...
 ... all of the ...
 ... 2 to 10 to the ...
 ... in view of the fact that the ...
 ... is in the ...
 ... that with the exception of the ...
 ... of this area (3-10) is ...
 ... as concluded in the SW sector ...
 ... - ...

4702

UNITED STATES GEOLOGICAL SURVEY

9-161a

NAME: Decorah

LOCALITY: 1.5 mi. ... 35-3W-5E ... 1.25 miles

COLLECTOR: ...

DATE: ...

NOTEBOOK: ...

PAGE: ...

MEMORANDA: see over.

Bird -

In check book -

Water Co. - May 29. + P.
running betw. ~~5~~ - 6 normally

Bill in env. - just
mail after calling Water
Co -

Whitingville Market.

Discrep. in 2 balances
paid up to 3/16 however

Peter Paul check - \$50.00

Envelopes

Whiskey -

Call Motor Vehicle
to see if open

Bird—

In check book—

Water Co - Why ~~\$~~ 29. + ?
running betw. ~~\$~~ 5-6

Bill in env. — just normally
mail after calling Water
Co —

Whetungville Market.

Discrep. in 2 balances
paid up to 3/16 however

Peter Paul check — ~~\$~~ 50.00

Envelopes

Whetung —

Call Motor Vehicle
to see if open

Notebook K 18 borrowed

JMB

4/4/57

Generalized section at
Joplin, Mo

about 100' - very cherty
? massive ? Kink.

2'-6" - small chert nodules

90' - Crypt. Mass. in little chert in mass
20' - 5' Thin bedded (up to 12") twisted chert

25' - 50' - Grand Falls chert

Bluish chert & blue ls. nodules
St. gne. 1.2' - 3.5' -
Doubtful T. Mass.

Continued - upper part in south fork.

400

62

100

62

Boxes shipped.

No. 1-4 4 boxes Hickory
5-8 4 " Dougherty, Ind. Terr.
9-10 3 " Davis, Ind.
11 1 " Duncan - 1 box - sent order for
12 (made 12) 1 " Lone Wolf. Ont. sent order from Ft. Smith Ark. 8th
14-15 & 16 (Total) 3 boxes from Duncan - sent order from Chicago Oct. 15th
17-23 7 boxes from Berwyn.

For 14 - day 61. 19. 15. 11. 83. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847.