

Burnet Co. Texas

Sept. 17<sup>th</sup> 1884

Very hot day. Drifting  
with perspiration.

Section of the Texas  
Potadum horizon beginning  
at the summit of a hill  
on the south side of  
Margers Creek where  
the East & West branches  
meet.

1. Summit of hill a gray  
compact limestone showing  
fragments of Trilobites  
Ptychoparia — This part  
l. extends down.  
Shaly in places. — 110 ft

2.

l. changes to a more  
(10) granular character. Brown  
& greenish in places &  
full of fragments of  
Trilobites & Lingulella

at 130 feet down a  
 crumbling greenish  
 sandstone belt appears  
 that is about 10 feet thick  
 the limestone then  
 extends down 200 feet  
 & where it passes into  
 an arenaceous l -

310.

3. Silicious limestone &  
 thin layers of sandstone  
 intercalated.

80.

4. Brownish sandstone

*History*

100.

To the south No 4.

is over 200 feet thick  
 & contains numerous  
 specimens of Lingulepis  
 trilobites etc.

Agnostus.

~~70~~

67<sup>2</sup>

67<sup>x</sup>

9-19-84.

Collecting fossils on Tatum Hill & east on the headwaters of Morgan Creek.

Found fossils in sandstone of Tatum Hill (4. of section)

& in limestone above, base of (27 pg. 2.).

9-20-84.

Morgan Mills south of Burnetts or Hamilton Creek.

Dr Shumard (<sup>states</sup> Ann J. Sci, 2<sup>d</sup> Ser. Vol. 28, p. 213.) that at Morgan Mills the junction between the Calciferous & Potsdam is to be seen.

I find the cliffs of subcrystalline, calcareo-magnesian limestone

The limestone extends  
 down to the bottom of  
 the falls below the  
 mill & here the  
 section is cut off by  
 a deep pool or pond.  
 (The limestones appear  
 to lie nearly in a  
 horizontal position)

at the foot of the pond  
 layers of sandstone  
 cross the stream

Strike N.E. & S.W. Dip  
 50° to 90° S.E.

They correspond to 29  
 thousands depth, but contain  
 numerous fragments of  
 plants remains & are  
 evidently of Devonian  
 or Carboniferous age.

Following down the

the strike swings to  
 N + S + the dip east  
 15°. Beds of shaly  
 sandstone & clay shale  
 appear about two  
 miles south of Mammam  
 mill the limestone  
 ledge from one side of  
 the stream bed, & the  
 sandy shales the opposite.  
 a cliff of sandstone with  
 an eastward dip.

The massive limestones  
 on the west side extend  
 westward to the Colorado  
 & form the principal  
 mass of rock at Marble  
 Falls. Cherty beds & thin  
 sandstones rest on them.

9-23-54

(7)

Section of Potsdam  
on Pack saddle Mt.,  
N.W. end.

At the base rests on  
shales, bluish green,  
St. N. 45° E. Dip 30° S.E.,  
See h. 9 for study of  
these underlying beds.

- 1) Coarse, massive bedded  
reddish-brown sandstone. 40 ft
- 2) Finer grained & thin  
bedded sandstone  
reddish & grayish brown. 68 ft  
Holds Lingulepis & *Trinacromorphus*  
Ae. similar Hyalite. 65 ft.  
St. N. 10° Dip. 15° S.E.
- 3) Impure arenaceous  
limestone (fossil fragments) 12

4 Reddish buff, soft  
 sandstone. *Abolobus*  
*lingulepis* 10ft

5. Alternating layers  
 of sandstone & impure  
 hard arenaceous  
 limestone. Fragments  
 of fossils. 225

6. massive bedded gray.  
 hard l- 60  
 Fossils abundant.

7. Coarse grained greenish  
 brown sd. 30

8. gray fossiliferous  
 l- 60  
 605

9-24-84

9

The rocks underlying the Potodam  $\frac{1}{2}$  mi. S. of section strike E & W. dip  $15^{\circ}$  to  $40^{\circ}$  South.

The Potodam immediately underlying strike N & S. dip  $10^{\circ}$  E

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The formation is made up of talcose shales, dark argillaceous shales, sandstones, gray & dark, fine-grained compact, a belt of gray, compact limestone 200 to 250 feet thick.

This group appears to equal the Grand Cañon Group in position & in a rough way in character, it being changed mainly by metamorphism.

Thickness unknown



Traced it along with  
outcrop of 1 1/2 miles  
it extends from the base  
of Packsaddle Mts. to  
across Honey Creek. preserving  
nearly the same strike &  
dip.

Coming up Honey Creek  
a road on the east side  
crosses to the west & enters  
the road running from  
Glenn to Blanca. At  
the crossing of the stream  
the strike of the Pre-Potodan  
beds is E & W. dip 15° N.  
a little below the strike  
turns to the N. E. but that  
is in the shales which  
~~are~~ are more or less  
distorted locally & cut  
by quartz veins.



9-28-84

12

Down the San Saba 37  
miles. Collected a lot of  
Carboniferous corals near  
the mouth of Brady's creek  
N. side San Saba River, west  
side of creek. Stopped  
at Stephen Yae's at night.  
on Chenaker - Creek.

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9-29-84

Collected a lot of Carb-  
fossils on the Colorado  
Orthis, Nautilus, etc.  
etc. 1/2 mi. above the  
town of Bend, San-  
Saba Co.

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9-25-84.

11.

Heavy rain.

Drove to Llano.

Noticed Pre-Potsdam  
shales, sds & lms, all the  
way across Honey creek  
valley & also to the  
mouth on the road to Llano.

9-26-84

Drove to Cold Brook

Canon. Collected a lot  
of Potsdam fossils from  
the upper beds of the

group.

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9-27-84.

From Cold Brook Canon drove  
to the San Saba valley, McCall-  
hach Co. & then down the  
San Saba River 14 miles

9-21-84

The Potsdam sandstone  
to the north of Packaddle  
Mountain on Tenney Creek  
rests on massive beds of  
dark iron gray shale.

St. N.  $25^{\circ}$  E. dip  $15^{\circ}$   $20^{\circ}$   
E.

The Potsdam sandstone  
here lies conformably  
on the the dark shales and  
shales.

Numerous narrow dykes  
of quartzite cut the  
shales

Layer of sandstone +  
shale pass into the  
Potsdam (Passengeberg)

Potsdam sd above,  
+ Buff, hard, thin & thick  
bedded.

10-2-84.

Section on west side of  
Honey Creek valley, beginning  
 $\frac{1}{4}$  mi N. of road running  
from Mason to Llano.

The Pre-Potsdam strata  
consist of layers of shale  
(Falcose) quartz, hard sandstone  
with more or less  
granite in veins & masses,  
Strike of beds E + W, dip  
15°.

The lowest layers of the  
Potsdam have small  
pebbles + coarse sd but  
are hardly conglomerates  
They dip 8° to 10°, St E + W,

1. Coarse rough sandstone  
Reddish to dark buff.  
passing gradually into  
thinner bedded  
sd

2) more or less calcareous  
sd - mixed with  
fine sds. (Fossil fragments) 50.

3

alternating layers of  
sd & calcareous sd. 160

4. Impure limestone  
becoming cleaner  
above & near the  
top full of fragments  
of fossils 190

5.

Coarse greenish <sup>gray</sup>  
brown sd. 20

B

Gray & greenish  
tinged to very  
fossiliferous midway  
& terminating above

$$\begin{array}{r} 23. \\ 42 \\ \hline 65 \\ 5 \\ \hline 325 \end{array}$$

25

95.

$$\begin{array}{r} 40 \\ 5 \\ \hline \end{array}$$



in massive layers, ~~125~~  
(Same as top band  
of Packaddle section) 85

~~7. Hard compact l.  
buff, drab, conchoidal  
fracture~~ ~~110~~

~~8. Semi-crystalline l.  
with fragments of  
Kifossil, Trilobites,  
Outhor, Cammella~~ 130  
~~115~~

8. Hard compact <sup>9</sup> l.  
like 7. passing gradually  
into a <sup>mottled</sup> massive bedded  
hard calciferous - like  
Sandstone in places,  
<sub>no fossils</sub> 240

9. Cherty calciferous  
arenaceous l -  
Weathering rough  
irregular  
(23) top of hill

This is a thick belt.  
 Considerable cherty matter  
 occurs near base  
 or irregular ramped out  
 etc & then for 365  
 ft, the l. is gray  
 compact & semi-crysta-  
 line in massive  
 layers 1/2 to 2 ft thick,  
 weathers rough. Color  
 dark.

at 365 feet considerable  
 cherty matter again  
 appears.

The section continues  
 up as hard bitthe  
 drab & gray l. with  
 intercalated cherty  
 layers. 540 feet.

Some very massive  
 layers, at this  
 point a streak  
 occurs carrying  
 crinoid stems

Sept. 18

17

and then a massive  
bed of l - is reached ~~at~~

average str. N. 60. W.

905

10) dip 10° - 15°

A massive band  
of gray compact  
l. forms a  
prominent point on  
the ridge overlooking  
Honey Creek where  
it goes thru' into the  
cone. 60 feet

on the top found  
Carboniferous fossils  
*Productus reticulatus*

*P. prattensis*, *P. Nebraska*  
*Steph. cristata*.

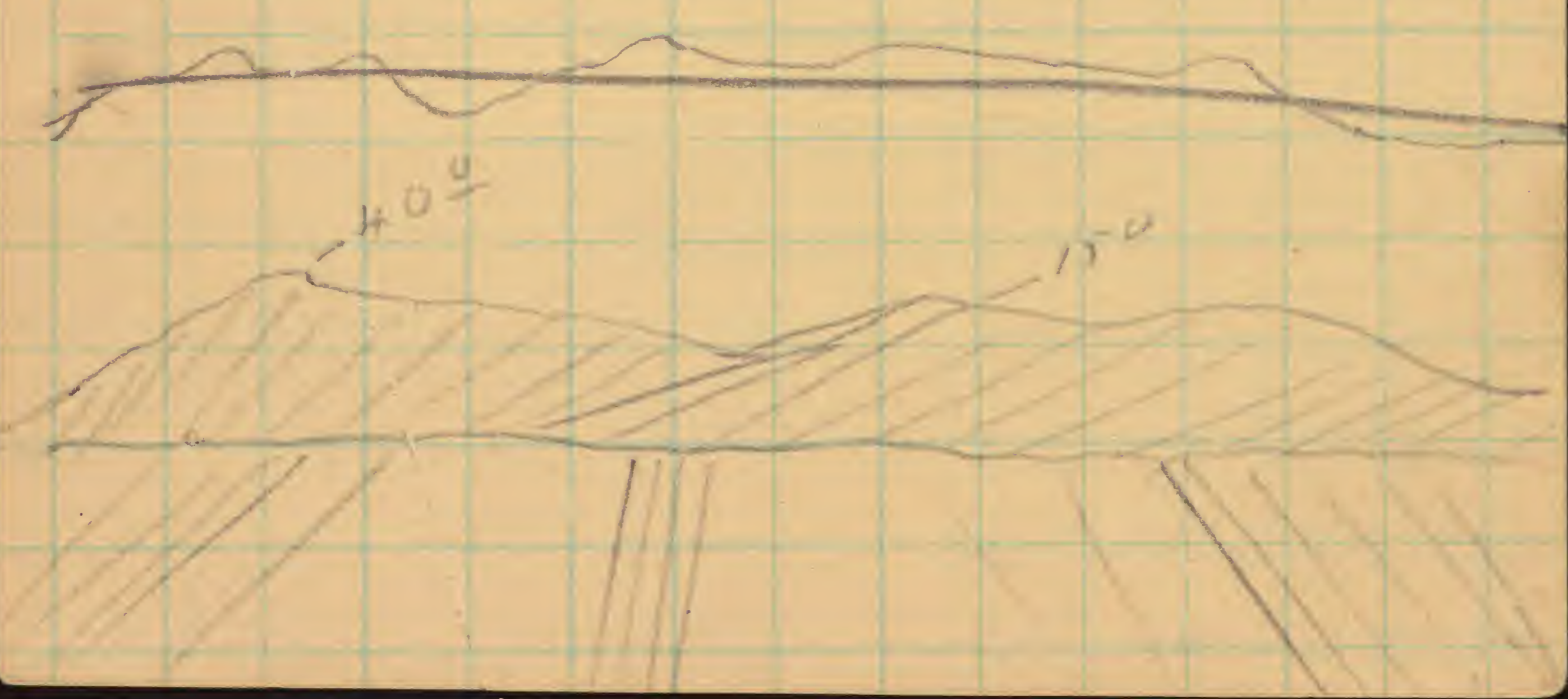
about 200 feet of l.

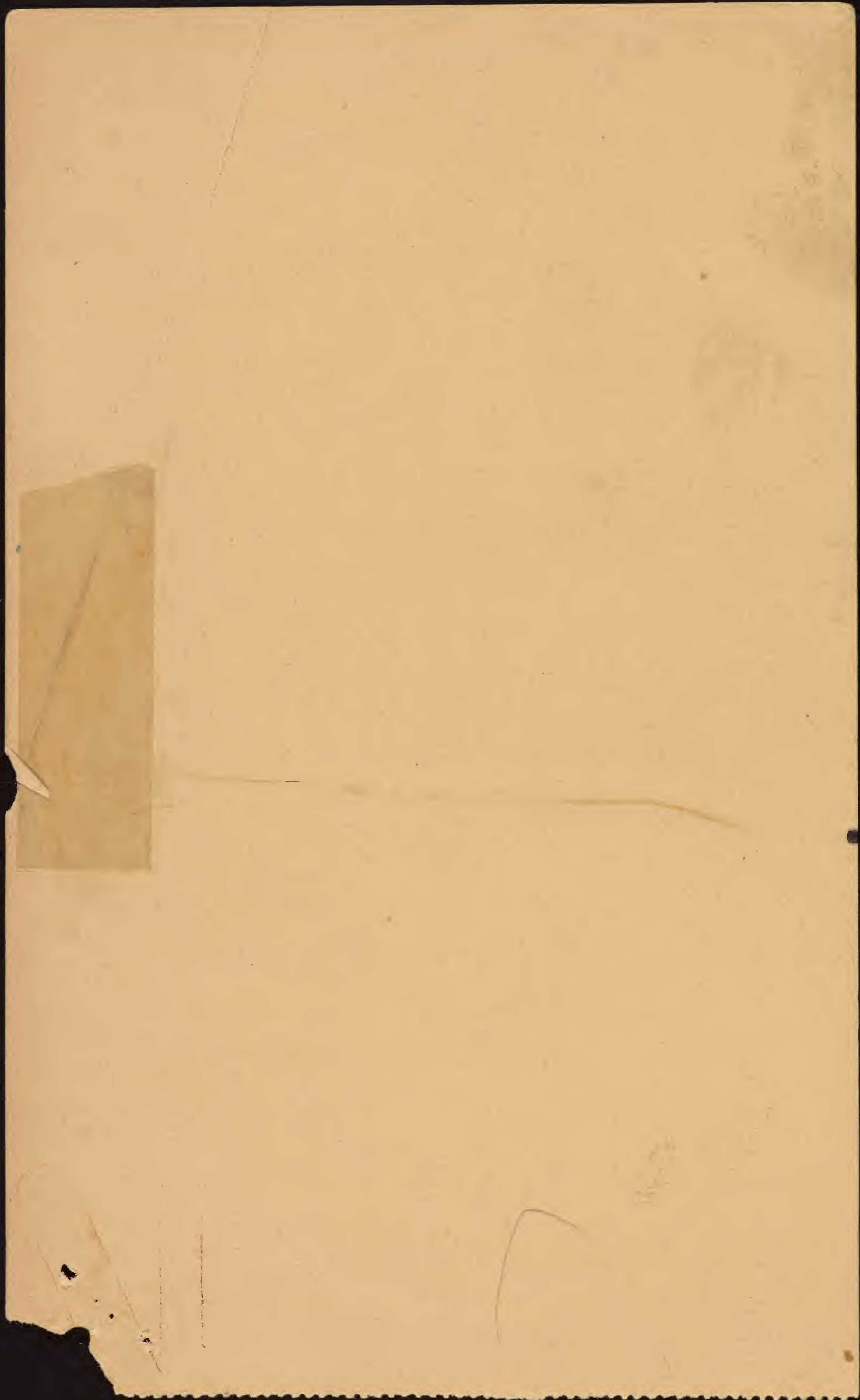
At then the valley of  
Honey Creek on the  
cone is reached

at the top of 9  
just beneath the  
massive belt of 10,  
found numerous  
Silurian fossils.

a fault line cuts  
off the section about  
300 feet up in the  
Carboniferous.

The underlying Silurian  
group appears along  
the line of the entire  
ridge out in the valley





Oct 29/96

Section of Algonkian -  
strata on east face  
of Franklin Mts. 8 mi N,  
of El Paso - Texas -

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Base - Reddish granite?

1) a) argillaceous (very  
fine at base, passing  
up into light colored  
quartzite in layers  
16" - 2 ft thick - (60)<sup>5 1/2</sup>

3. Sr. N + S, 12 1/2 2000 360

1/2 Reddish, sandy shale  
in beds 4 to 2 feet thick  
with occasional beds

of quartzite + 50 @ 5-6) 275  
Sr N + S, 12 1/2 1300 1500

1c Darker qtz than (a),  
thin bedded, thin, and  
interbedded green -

(x) stone (about 25 feet thick)

) passing above into a  
minor massive ytz.

The greenstone shows  
any plainly on the  
N. side of the canyon  
as a dark interbedded  
band in the ytz -

(40) 5-6

220

(d) Greyaceous shales &  
shales with thin  
layers of gray (steel)  
quartzite -

St NTS. var 200 w.

Some cracks (mud)  
abundant in many  
layers -

100 ft. minimum to 250 ft. max

top.

(34) 5 1/2

185

(e) <sup>200 ft</sup> Gray ytz - in only  
bedded layers, not  
as massive as below  
St. NTS. var 200 w

OK

$$\frac{150.}{12.}$$

$$\frac{660}{360.}$$
$$\frac{12}{378}$$

$$\frac{72}{360}$$
$$\frac{36}{395}$$



Passes gradually in to a  
near white quartzite that  
~~is its~~ weathers buff on  
long exposure to the  
weather but as seen  
in cliffs gives a nearly  
white light gray band  
on the mountain side.

(22)(56) 395

f. Soley shales & slaty  
beds - similar to (d) -

60 at 52 1/2 350

g - Interbedded rhyolitic-  
like scruptione with  
pebbles (1/4 - 12" in diameter)  
of quartz - rhyolitic-like  
rock & slates (dark, (NW) 200 ft

h. Reddish brown, fine  
conglomerate passing  
into reddish-brown &  
grayish quartzite tan

50  
2035

218  
6  
1308

110) at lunch)

i) Same as 9. with  
occasional ~~sdly~~  
reddish sdly. - ~~white~~  
(215) 57(2)

1265-3300

2. dull gray ~~arenaceous~~  
limestone, with  
layers of gray  
calcareous sand containing  
amellid bryozoa in  
great abundance.

Stopped section at base  
of 2 - & carried it along  
on top of 1<sup>st</sup> to the  
S. end of the Franklyn  
range. The unconformity  
at the top of 1<sup>st</sup> is fully  
illustrated by local  
irregularities on its upper  
surface & still better  
by the presence of  
Cambrian beds between  
it & 2 - near the S.E.  
end of the range.

The summit of the Algonkian is a coarse crinoid than 10' North but it is eroded & the lowest Cambrian beds are deposited in ~~at~~ the hollows and about the knolls of the Algonkian - pre-Cambrian surface.

Paleozoic section

1. Quartzites & indurated sds - Light gray & buff in beds 1' to 18' thick. The basal bed is formed of coarse grain of granitic-like rock & resembles the crinoid beneath it. Traces of Lingulella & Hyolithes were found 15 feet above the base

and on up from  
50 feet where a fine  
grained quartzose rock  
afforded fine speci-  
mens of *Lingulepis*  
acuminata of the  
Flora or Texas or N.Y.  
state type.

Amphid boring occur  
in profusion both  
vertical & horizontal  
in many of the  
layers - at 370  
feet the quartzose  
layers became  
darken, crossbedded  
& slightly calcareous.  
This continues to  
increase - until the  
arenaceous brown  
gray & coarse grained  
predominates.

420  
42

76  
380  
38  
418  
270  
170

~~56~~  
~~200~~  
~~4~~  
~~8~~

45  
225  
23  
248

1. of Redina

310-

2a. Calcareous sand -  
passing up to arenaceous  
limestone well filled  
with animal remains  
at 240-foot level.

- X) Aphileta
- Orthoceras
- Crinic stems -

These extend up  
for 170 feet when  
the rock changes  
becoming harder & of a  
reddish hue in  
some bands.

at ~~544~~ + 460 banded  
cherty beds appear &  
at 500 feet -

- Ecciliaphylloids
- Orthoceras
- Endoc Aphileta

$$\begin{array}{r} 53 \\ \hline 255 \\ 25 \\ \hline \end{array}$$

$$\begin{array}{r} 130 \\ 650 \\ 65 \\ \hline 715 \\ \hline \end{array}$$

$$\begin{array}{r} 145 \\ 725 \\ 72 \\ \hline 797. \\ \hline \end{array}$$

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$$\begin{array}{r} 16 \\ 800 \end{array}$$



The Aphiletus etc extend  
up to the base of  
a massive bedded  
Arenaceous limestone  
that carries more  
or less chert

No 2 795

2.5 at 290 up

- Aphiletus -
- Archaeocyathus like
- A-muriganensis -
- Orthis
- Orthis - 290

Runs up to 715 feet.

Less chert than  
uniformly arenaceous  
dual - + dirty gray  
limestone bed 2 1/2 ft  
thick.

$$\begin{array}{r}
 190 \\
 950 \\
 \hline
 1045
 \end{array}$$

$$\begin{array}{r}
 176 \\
 \hline
 580 \\
 \hline
 97
 \end{array}$$

---

290

at 880 the beds  
at 290 are  
practically repeated  
Archaeas etc goes  
up.

at 970 a bluish  
thin bedded limestone  
in - containing Rapturina  
like shells - It becomes  
banded with chert  
20 feet up - goes up  
to top of this series

Entinensis 1045 ft  
No. 302 S. W.

3<sup>rd</sup> gray, drab to buff  
weathering uneven  
limestone - Layers 12 -  
to 30 in 15

~~2~~ 10

3<sup>rd</sup> Coarse dirty gray  
dark lead colored  
sdy bur - in very  
massive beds  
sdy matter mainly  
only in rounded  
reticulate masses

See on back { Large coral like  
Favosites stellata  
Large receptacles  
in lower 10 feet

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at fr 90 to 100 feet

Fossiliferous

Rhy. inarescens

Orthis - 3 sp.

Streptelasma

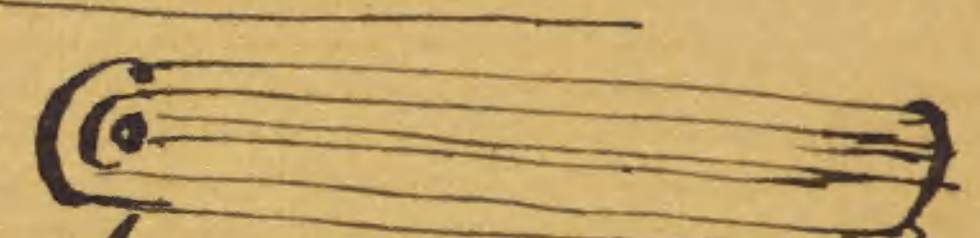
Orthoceras

Endoceras

30/

Another exposure  
showed large  
Endoceras <sup>proteiforme</sup>

Machina - like M. magna  
Lituites 6" to 8"

Anthraceros   
multitubulatum - like

The fauna of the  
Lower 95 ft of this  
bed is essentially  
Lower Trenton, or  
the Black river of  
the N. Y. section.

(11.)

Total 3<sup>5</sup> 125

4. Conglomerate formed  
of fragments of the sub-  
jacent rocks 3a-b - angu-  
lar & rolled.

Est - 100 -

5. Dark - lead-colored  
lim with Pentamer  
abundant in some  
of the layers.

Est - 125 -

2 1/2' - 100' 125' W -  
Rechar cut off by  
covering of debris -  
The

The highest of parts  
of this range. Note -  
Franklin is capped  
by no. 5. The section

being apparently  
unbroken from top to  
bottom. Owing to  
limited time it was  
not studied in detail -  
no traces of the conglome-  
rate 4 were found on  
the lower slopes at this  
No 5 - with Pentamerous  
was abundant in all  
the debris slopes further  
on the east side of  
the range -

Summary El Paso  
Franklin Bungal  
section.

4	{ Upper Trenton	
	{ Lower Trenton	90
3	{ Rahrntona etc	250
	{ Aphiletia zone etc	795
2.	Cambrian,	310
1.	Algonkian	2300.