

U. S. GEOLOGICAL SURVEY

9-896





Record of work done by
S. Ward Loper at Mount Franklin
El Paso, Texas, from
Jan. 14th to March, 15th 1897.

II Work at El Paso, Texas, by J. Ward Loper, 1897

Jan. 12th Arrived at El Paso at 3-45 P. M.

" 13th Made arrangements for working, secured Board at 4.50

" for week, Room at 4. Hired as assistant Juan S. Maese

" at 1.50 per day. * 1. when in camp *

" 14th Commenced work on south side of first Canon on

S. E. side of Mt. Franklin. Following up the bedding

and locating the horizons according to Walcott's section

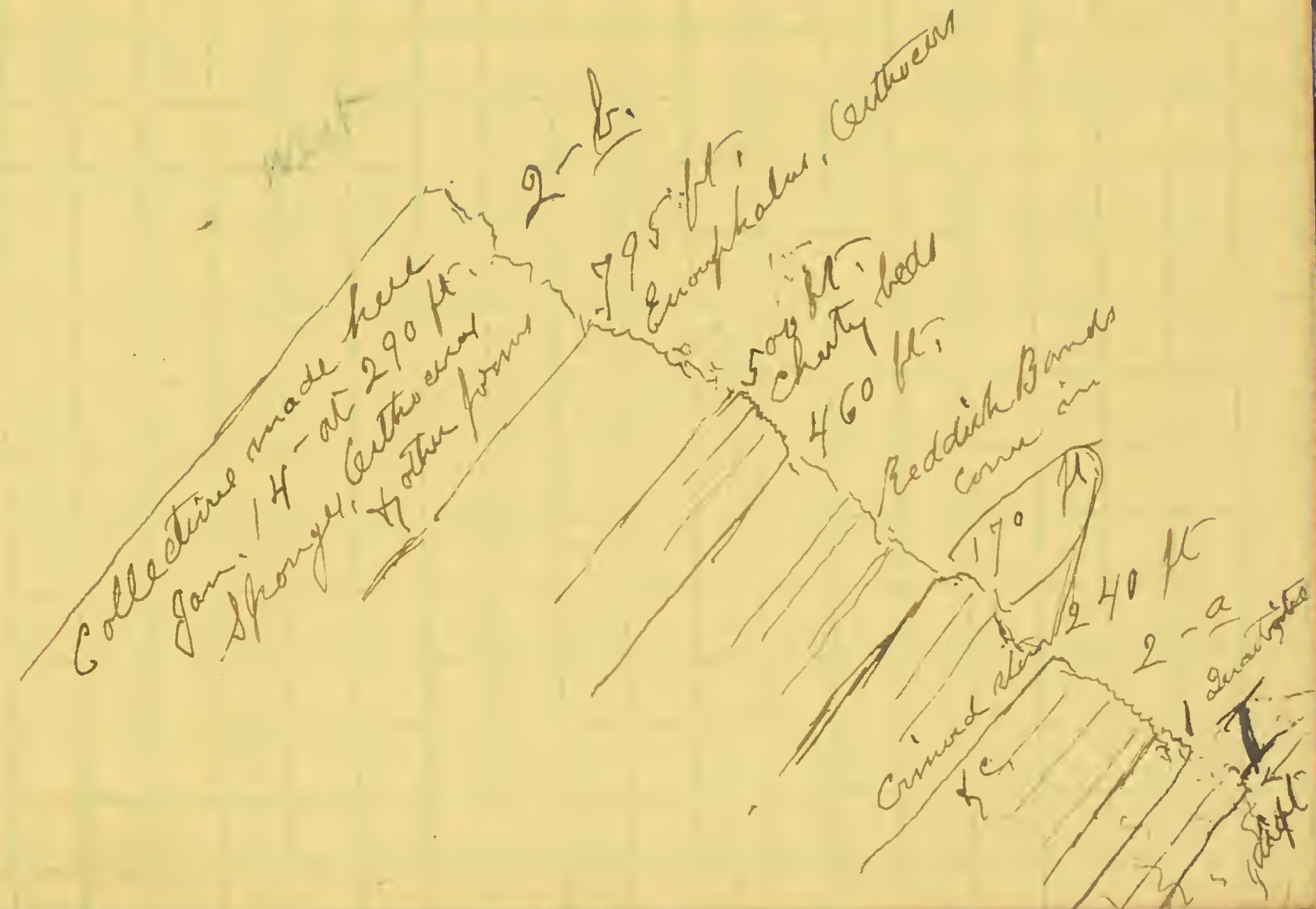
Collected about 100 specimens, commencing at the

top of 2-a and working south on the strike of 2-b

Fossils all collected on 2-b and so

labelled according to diagram on opposite page

* When went into camp assistant finally boarded himself and 1.50 rate
continued



Page 2, Record. Jan. 15th
Worked on 2 b. Same as yesterday.
Collected about 150 specimens.

Page 3 Record. Jan. 16th.
Hired livery man to take myself and man
to Fort Bliss in the morning, then walked across
the plain to the great outcropping of Algonkian
directly west of Fort Bliss. Followed up the canon
to the sedimentary rocks and spent the day searching
the fossil beds south to the first canon, locating
good working ground. Found the thin-bedded
bluish limestone at 970 ft in 2-b with fine
coiled shells.

Page 4 - Record, Jan. 18th Monday
Stormy day and could not accomplish
much work, made half day

Jan. 19th
Ground covered 2 in deep with
snow and unable to do anything.

Hired 2 horses at 50¢ each per day.

Jan. 20th Collected 75 specimens on 2-b
south side of 1st Canon S.E. side of Mt. Franklin
and also searched along the upper Trenton on
top of the mountain. Found places to work later on

Page 5, Record, Jan. 21st Thursday.
Finished up south of the 1st Canon collecting
about 75 specimens, many of them very fine.
Measuring up beds, and also making more
investigations to the north.

Jan. 22nd - Worked today about 5 miles
north on East side Mt. Franklin.

Collected a few specimens on 2-a,
and 60 very fine sponges of *Cethoceras* on
bed 2-b. ~~Just~~ near 290 ft. horizon.

Jan. 23rd Worked same locality as yesterday getting 40 spec.
Explored some distance north and found another good
locality on 2-b.

6 Monday Jan. 25th

Worked today on locality found Saturday. Fine sponges & actinocoelous 50 spec. obtained

Jan. 26th

Examined the range for about one mile farther north and at that point found another outcropping of the fossils on 2-b and obtained 40 spec.

Jan 27th

7 Worked today on the high point near the old mine also found on ridge lying between Main Mountain and the high peak which stands most easterly on the plain a fine show of fossils on 2-b. Shall work this farther tomorrow. Appears to be a folding at this point bringing in a repetition of the Mountain beds. 50 spec. collected.

Thurs. 28th As the weather looked threatening concluded to go on the west side of the Mt. and search for spec. on the Trenton and upper Silurian towards the south end of the Mt. Located a few good spec. and collected a few in upper Silurian. Drove in in the afternoon by a blizzard of snowstorm.

Friday 29th Jan,

Mountain beds covered with snow. Spent day in general repairs, getting tools in order, packing specimens at P.O., writing up accounts & correspondence.

Sat. Jan. 30th Worked today on the ridge referred to the 27th and then supposed to be a folding. It appears to be a fault with the mountain beds repeated as indicated on next page. Collected 80 specimens from the 880 horizon of 2-b. Found horizon 290.2-b on top of ridge and fine show of fossils. This ridge lies between the Main Mountain and a high peak which comes to the plain Northwest of Ft. Bliss. This appeared at top



Strike along South end N. 20 W
 " " Middle N. 30 W
 " on North end N. 10 W
 Dip 35

Monday, Feb. 1st
12 10 Worked today on 2-b fossil
ridge, referred to on Saturday.
Obtained 120 good specimens
at 290 ft. horizon.

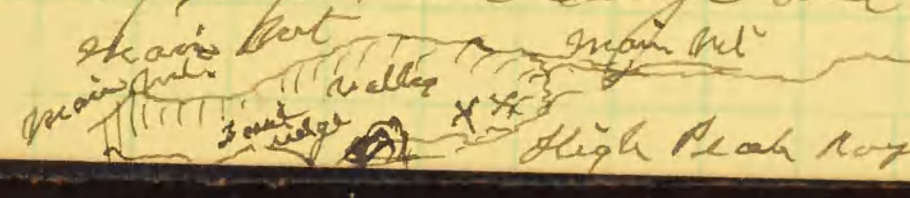
Feb. 2 Collected 75 spec. on 2-b 290 ft
Then followed up bedding to north, crossed over
to High Peak to the east and found upper
Silurian fossils, collected 20 specimens. ⁹⁵⁰
Chiefly Pentamerus.

Page 11

Feb. 3rd In forenoon worked upper Silurian
bed on High Peak and obtained 50 specimens of
Pentamerus &c. In afternoon crossed over to
Main Range and searched for fossils, found a
few Rhynchonella & Streptelasma on Trenton beds

Feb 4 Collected some fine specimens from 3-b
upper Trenton on south west side of Mt. Franklin.
Obtained about 30 spec - 1 *Lilulites* 10 in. in dia.

Feb. 5 Explored north on East side of Mt. Franklin for
several miles. Found good fossils in the north east loop
made by High Peak Range and Main Range. To be worked later on


Nothing found north of that
Refer to diagram on page 9

12 Feb. 6th Blizzard - Not able to work on Mountain. Attended to necessary matters in town. Getting tools & fossils in shape.

Feb. 8th Worked on Lower Trenton on ^{Slope of the Mt} ~~ridge~~ N. East of the Mesa ^{beyond} ~~where~~ the old stone house obtained 200 spec.

1330

Feb 9th Collected 40 spec on Lower Trenton and commenced cutting out large coral on Upper Trenton in same locality ~~cutting~~

Feb. 10th Forenoon working on large specimen until noon, took all back up. Afternoon collected very fine Lower Trenton fossils at the outcrop in the gulch to the South of first high peak on Southwest side Mt. A. 57 spec. obtained Also obtained 12 spec from upper Silurian on ridge to the South.

1339

Page 13th Feb. 11th

Worked in forenoon on large specimen of coral on western slope of the Mountain ^{partly worked before} cut down 5 inches but on account of irregular fracture of rock failed to lift it without spoiling it. Fragments were some of them saved and packed. It was a very fine spec 1 ft. in diameter radiating from a center something like this



In afternoon collected 12 good spec on the Upper Trenton one of them a fine thing ^{something} like this



Drawn from memory after it was packed to carry down the Mountain. Also collected 68 good things from Lower Trenton.

This locality is due South from the Smelter.

1419

Feb. Page 14

12 Went over river with Mr. Julius, collected 88 Oretion fossils
13 To north end of Mountain on east side, searched from
Cottonwood Springs north. Great uplift of granite & quartzite
reaching to top of Mountain. No fossils. No use to camp there.

Monday

Feb. 15 Went up into the Loop above the high peak on the
east side of the Mountain and nearly to north end of
the loop on the western slope of the east range found
fine fossils at horizon 2 to 290 & 880 ft. collected
70 fine things - refer to diagram on Page 9 for
location.

Page 15

Feb. 16 -

On west slope of the Mt. due east from the
Smelter, cut crop of a few fine lower Leinton fossils
near the top. Collected 24 good ones. Also collected 50
from the Upper Silurian on the ridge to the west

Feb 17
Page 16 North east from Smelter, and just
south of old mine, and stone quarry, found
splendid Lower Devonian fossils - collected 100.
An old stone house ^{in ruins} stands south west from this.
A road runs from the quarry across to the Smelter. 17 43

Page 17 Feb. 18th Thursday
About 3 miles north of locality worked
yesterday found exposure of 2-b 880 ft. horizon
Collected 48 good spec. In the massive, brown
^(Lower Devonian) weathered rock overlying 2-b found one fine
coiled shell. This rock here forms the crest of the
mountain ^{here} and from beneath it the blue cherty
rocks slope down the whole face of the Mt to the
west. A narrow spur ^{of the brown Devonian rocks} runs off from the main
mountain at this point nearly north west. The crest
of the spur makes a sharp escarpment and on the top
of the crest the coil was found in the yellowish-brown
rock.

18 Feb. 19th

Collected 58 spec on Lower Trenton &
Upper Silurian - nearly sick with hard cold.
Weather bad, came in soon after noon and went to bed.

Sat. 20th very unpleasant, but went out searching along
Cambrian on east side of Mountain, no success in
finding fossils. collected a few on 2-b Cherry.

1849

Page 19 - Feb. 22nd.

Started in morning for north end of Mountain,
very cold and hard blizzard raging.

Finally stopped on south side of Upper Silurian Ridge
north of Meba, and under the shelter of the ridge worked
all day, obtaining 140 spec of Pentamerus, and on
the low ridge south of the Upper Silurian Ridge found
outcrop of ~~thin-bedded reddish brown rock~~ ~~at point indicated in diagram on next page.~~
Thin-bedded reddish brown ^{weathered} rock, obtained ~~the~~ 40 specimens
at point indicated in diagram on next page.

2029

Feb. 22nd
 Page 20 Location of fossils in reddish rocks in low
 ridge north of mesa. Location marked XX



Page 21 Feb. 23^d.

My man Juan Mase left this morning for the
 City of Mexico. Secured his brother Amado in his place and
 went towards north end of Mountain. Found good
 Lower Silurian fossils about 2 miles north of old mine
 & collected 127 specimens.

Page 22 Feb. 24

Worked on South end of Mt. Franklin
in Upper Trenton and collected 40 specimens

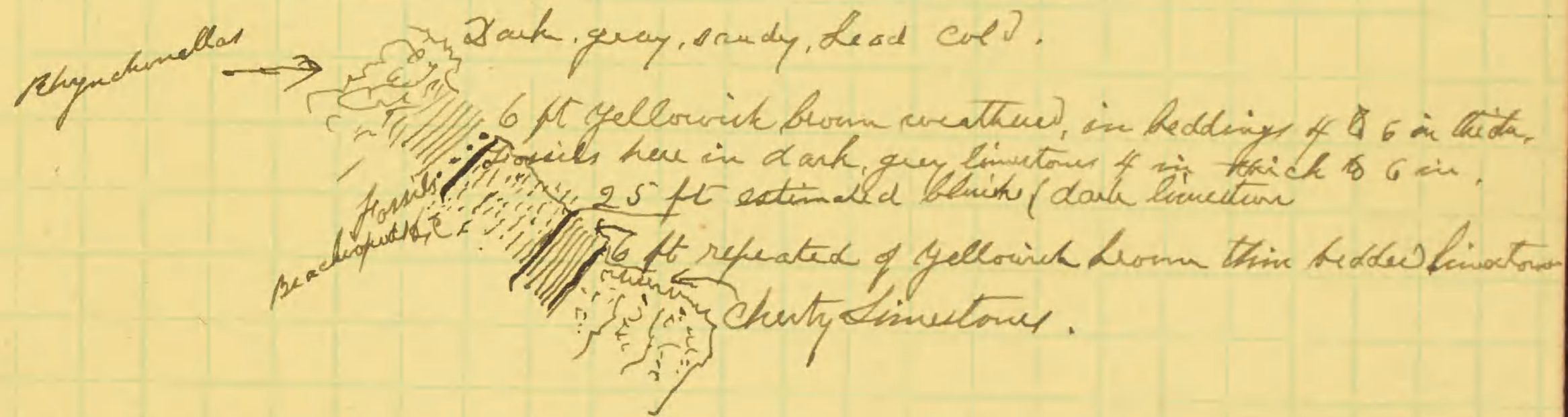
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25

Thurs. 25th Collected 200 specimens towards the
South end of the Mt. in gray, sandy, Lead col^d
limestone, chiefly *Rhynchonella*.
Upper beds of Lower Trenton

Page ²³ 23rd Friday Feb. 26^a Cut out two fine ^{Amoebas} ~~sections~~ near
the crest of the Mt. in Upper Trenton.

Collected 40 species of *Beachiopods* & *Trilobites* in the base
of the yellowish brown weathered limestone beneath the dark gray
Lead colored limestone



24th Packing up and getting tools ready to go to the north end
of the Mt. on Monday, into Camp

2296

Page 24

Monday - Mar. 1st

Went to north end of Mt. for a week's camp.
Reached the springs called Cottonwood Springs
about 2-30 P.M.

While men put up tent and got
everything in order climbed over the crest
of the mountain about 1 mile north of the
springs but found no limestones at that point
except upper Silurian.

Pablo Rivera and Amado Massa in

camp with me

Obliged to hire Pablo as camp guard and cook in addition
to regular assistance.

Mar. 2nd Went south as far as the first 25
Spring - about 3 miles, crossed over Mt at North Anahlin
Found few limestones except upper Silurian. Collected 25 sps
of pentamerids. Found outcrop of thin bedded Lower Trenton just under the
upper Silurian on west slope and collected a few good specimens of fossils.

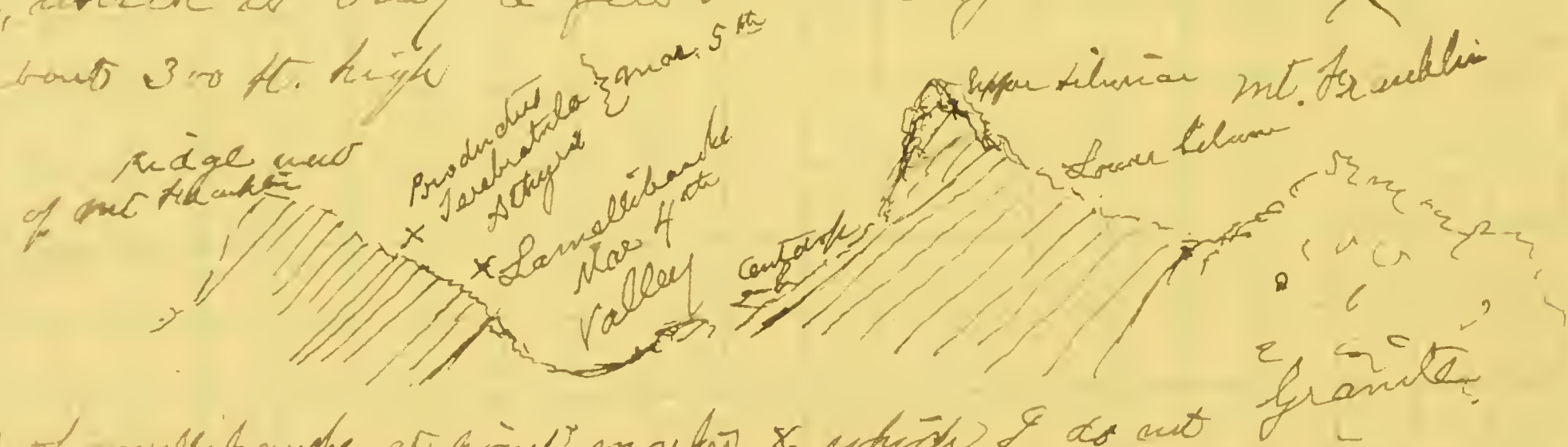
Mar. 3rd Searched along base of mountain to the north end.
Found outcrop of 2-b near Bear Spring but fossils scarce
and poor only secured a dozen. Went across north end
of Mt. found no limestones there except upper Silurian.
Began to rain at 2 P.M. Showed all afternoon, got back
to camp just at dark.

2288

Page 26 - Mar 4th

Crossed over the Mountain at the Sulphur Spring. Searched along the west slope to the north.

Found extensive outcrop of cherty limestone but very few fossils only secured 12 inferior ones chiefly orthoceras. Directly opposite this point a ridge runs parallel with the Mountain, with a narrow valley between, which is only a few hundred yards wide. Ridge about 300 ft. high

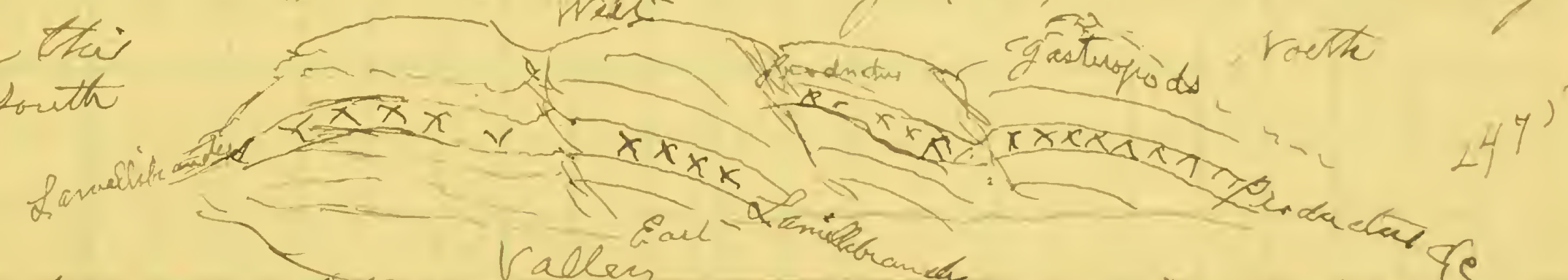


Found Lamellibranchs at point marked x which I do not think are Silurian. Collected 25 fine ones.

Mar. 5th

27

Went over Mountain again to the ridge just west and at a point about 75 ft higher than where the Lamellibranchs were found yesterday found very fine specimens of Productus - 3 or 4 species, also Athyris and Serebratula. Must be Sub carboniferous. The whole ridge shows abundant fossils and very fine. Collected 150 specimens. The Lamellibranchs collected yesterday lie about 75 ft above the level of the valley towards the south end of the ridge. Exposures on the ridge like this



Gastropods on top of ridge but did not have time to collect any

Page 28 Mar. 6th

Mar 6th Rode around north end of Mt Franklin and searched the long cross range at the head of the Mountain, divided from Mt. Franklin by a valley. Most of it must lie in New Mexico. Here there is a great exposure from the granite to the Upper Silurian. Upper Silurian fossils very abundant but did not stop to collect as it was desirable to search the lower beddings.

2472

Plenty of Chazy and Lower Trenton outcrops but fossils scarce and very poor.

went the whole length of the range. Only secured about a dozen spec. of any value.

Found interesting silicified coral like Monticulipora Lycofadae secured a few pieces.

Mar. 8th

29

Back in El Paso.

This afternoon have been boxing up specimens at the Postoffice.

Mar. 9th Working on specimens at Post Office

Getting boxes & material together.

" 10 Packing at P. O.

" 11 Got the horses and Pablo Rivera and went on the south end of the Mt. and worked north for 5 or 6 miles along the crest. Obtained 80 spec from the thin-bedded Lower Trenton formation and dark gray limestone. This closes up the collecting ^{whole} ^{no} ^{the} ^{specimens} ^{collected}

Rest of the week spent in packing up and getting ready to leave on Monday. Saturday turned over the boxes to the Cuatemaco at Ft. Bliss. 256



140 support
~~140~~

