



Fendler (1 - 833)

New Mexico

Plant Lists
(23.4)

The species washed with ink in sufficient number for distribution that is to say more than 3 specimens

The red numbers are those finally adopted - the numbers in pencil are those of the specimens

No. 1 *Ranunculaceae*
Ranunculus *liposiphia* Nutt.

Santa Fe 1st - 19th July 1841.
Moro 11.0. 15th August.
Creek bottom land, near the water climbing to the tops of trees & shrubs.
Also Rio de los Arroyos between S. B. Fort & Santa Fe
Fruit: 15th August - 16th January.

No. = 247

2 *Astragalus* *Ochtersis* Pall.

Santa Fe 1st May - 5th June.
Creek foot of one side of steep chert in shaly places near the Creek.
Climbing over shrubs.
Ranunculus *Pitcheri*.
Council Grove 11th August 1840.
Creek bottom land. = 5

A few miles East of Council Grove
7th August 1840 High bank of a
dried up Creek.

3 *Anemone* *cyathoides*

A few miles East of Santa Fe, Creek
valley in the mountains. Shaly
cliffs feet of rocks near areas
irrigating ditches.
16th - 24th June 1841.

Anemone *cyathoides* in fruit

A few miles South of Kansas River
2d September 1841.

4 *Pulsatilla* *patens*.

Santa Fe higher mountain
range. 17th - 26th April
Lesser hills at the foot of mountains
on a gently sloping northern
declivities; tolerably good soil.

5 *Caltha* *leptosepala* DC.

Sunny margin of the Creek
6 miles above Santa Fe, (in the
mountains). Fertile soil
3d June 1841.

6 *Ranunculus* *tridentatus* Nutt.

Santa Fe 2d May 19th June
Creek bottom, wet places.
Some large patches of standing
off runners in all directions.

7 *R. affinis* B. Hook.

Santa Fe 6th April - 16th June
Creek bottom - wet places.
Stems up to 18 inches high.

8 *Aquilegia* *Canadensis*

Santa Fe Creek valley in the
mountains; 4th to soil near
rocks; also sunny side of mountain
6th April - 5th June.

Delphinium *ajacium*

San Creek valley near S. B. Fort
and Santa Fe valley land
near to creek as sun wetlands
3d October 1841.

D. ajacium var.

Woods of Moro 1st - S. B. Fort
20th June 1841. 5th August 1841

9 *Actaea* *nigra* Willd.

Santa Fe Creek valley between
the mountains; 4th to 6th July
places fertile soil.
20th May - 3rd June in flower
8th July in fruit.
deep 4. white, pedicels - same as 10.

10 *Thalictrum* *ornatum* L.

Santa Fe Creek valley, shady
places, margin of irrigating ditches
at the feet of perpendicular rocks
13th June - 1st July in flower
19th July in fruit
Flowers diurnal.

I find no specimen with this number but suppose a form of the last number, *Trilobium* is meant by it
Bottom level of Mora River.
15th August 1847.

Berberidaceae.

14 *Berberis (Mahonia) Aquifolium*

26th April - 15th May 1847.
Upper part of Santa Fe Creek valley, sides of mountains near the top as well as the feet of them; also on the creek bottom.

Evergreen leaves, most of them eaten partly eaten by animals.
Blossom opens by the 28th of July.

15 *Berberis Fendleri*, n. sp.

Santa Fe Creek, foot of steep and rocky banks, not far from the water.

Shrubs of from 3-4 feet high.
18th - 31st May 1847.
Some specimens have the lower leaves sharp serrate.

Papaveraceae.

One of the varieties of *Argemone mexicana*, I find no specimen with this number.

16 September 1846. At Almal Creek, rather low prairie.

Valves of the capsula 4, with prickles the points of which are directed towards the apex.

Argemone mexicana, a less hispid form

27th August 1847. Upper Spring (Cimarron Riv.) N. Mex.; prickly valves of the capsula 3-4 with prickles the points of which are directed away from the apex.

16 *Argemone hispida*, n. sp.

7th June - 28th July 1847.
Santa Fe. Low, low, sandy places, in the neighbourhood of fields. Stem upwards of 2 feet high. Socially in great numbers.

Fumeraeae.

17. *Comydalis aurea*.

15th April - 20th July 1847.
Santa Fe, Creek valley, between rocks, generally near the Creek, also moist gravelly parts of the creek-bed, exposed to occasional inundations of the Creek.

Cruciferae.

38. *Veronica alpina*, Nutt.

19th April - 31st May 1847. On the lesser hills West of Santa Fe, stony, pebbly and dry soil, gently sloping declivities (both sunny & northern), amongst stones.

Fruit: 29th April - 7th June.

39. *V. Ludoviciana*, DC.

Santa Fe, dry gravelly hills, 24th May 1847.

40. *V. Fendleri*, n. sp.

Santa Fe, Lesser hills, 2nd May 1847. A fruit specimen very different from those of No. 38, also some difference in the leaves.

41. *Draba cuneifolia*, Nutt.

15th April - 11th May 1847. Santa Fe; Creek-bed, in parts exposed to inundations; gravelly moist soil; petals 4, white.

42. *D. micrantha*, Nutt.

8th - 24th May 1847. Rio del Norte, sunny side of ravines. Siliques more crowded and somewhat dotted; stem nearly smooth.

46. *Lepidium alypsoides*, n. sp.

Mountain-valleys, from Santa Fe East to Rabbit Ear Creek New Mex. 10th - 20th August 1847. There seem to be 2 different forms of this plant.

44. *Thlaspi cochleariforme*, DC.

19th March - 5th June 1847. Santa Fe, Creek bottom on the mountains, also foot of mountains. Petals 4, white.

18. *Nasturtium sinuatum*, Nutt.

8th May - 17th August 1847. Rio del Norte, flat sandy bank, washed by the water, East to Mora River.

19. *N. obtusum*, Nutt.

15th May - 23rd June 1847. Santa Fe, Creek-bottom, low wet places.

21. *N. sphaerocarpon*, n. sp.

29th June - 5th July 1847. Santa Fe Creek, low wet places and margin of the creek.

45. *Lepidium nudicale*, L.

16th June - 15th July 1847. Santa Fe, Eastern mountain range near the irrigating ditch of a field.

20. *N. palustre* var.

Santa Fe, wet meadows and moist places of the creek bottom. 27th May - 29th June 1847.

Santa Fe, 17th July 1847. moist soil near irrigating ditches.

27. *Turritis patula*, Graham

30th March - 15th May 1847. Santa Fe, Creek valley. Moist sandy soil on parts of the creek bed, exposed to occasional inundations. Rarely on hills between rocks.

24. *Streptanthus linearifolius*, n. sp.

13th - 18th July 1847. Santa Fe. Sunny side of a hill, amongst rocks.

22. *Streptanthus longifolius*, Nutt.

7th July to 10th August 1847. Santa Fe, upper part of the creek valley, foot of mountains.

23. *Streptanthus micranthus*, n. sp.

7th - 8th July 1847. Santa Fe, margin of the water. Flowers minute.

26th July 1847. Santa Fe Creek, margin of the water. Flowers minute.

24. *Streptanthus linearifolius*, n. sp.

11th August - 15th August 1847. Mountainous region of, one Santa Fe to Oryas New Mex.

25. *Arabis hisuta*, S. & P.

6th June - 8th July 1847. Santa Fe Creek, bottom in the mountains; margin of the creek, also in shady moist places.

26. *Turritis glabra*, L.

24th June 1847.

32. *Sisymbrium Canadense*, Nutt.

24th April - 19th May 1847. Santa Fe; dry gravelly hills; petals 4, yellow. Plant rather socially.

33. *Erysimum asperum*, DC. Hook. n. sp. fruit.

14th - 17th August 1847. Santa Fe, west of Rock Creek (New Mex.) Spots of fertile and loose soil on high prairies.

34. *E. asperum* var.

15th May - 10th July 1847. Santa Fe, Creek valley, level somewhat damp ground foot of mountains.

also *E. asperum* var.

Rio del Norte, 24th May 1847. On a ledge of rock high up on the steep mountain-bank of the river.

28. *Cardamine cordifolia*, n. sp.

15th May - 10th June 1847. Margin of Santa Fe Creek in the mountains.

43. *Draba aurea*.

8th May - 28th July 1847. Santa Fe Creek, shady steep declivities and foot of mountains. Also rarely on the creek bottom and low banks of the creek.

37. *Liapis nigra*.

21st June - 26th July 1847. Santa Fe, near irrigating ditches not far from fields.

29. *Sisymbrium Ippia*. L.

15th August 1847. Bank of Moro River, N. Mex.

31. *S. Ippia*.

16th June - 5th July 1847. Santa Fe, margin of the creek, 5 miles East of Santa Fe, in the mountains.

S. Ippia under the

16th - 24th June 1847. Santa Fe creek, foot of mountains.

Capparidaceae.

36. *Stanleya pinnatifida*. Nutt.

27th September 1846. 15 miles North E. of Rio de los Animas, between Santa Fe & Santa Fe.

48. *Polanisia trachyrrhiza*. Torr. & Gr.

7th - 28th August 1847. Some 200 Colorado is the crossing of the Cimarron R. (N. Mex.) rather low places.

47. *Bristalilla Lamini*. Torr. & Gr.

28th August 1847. Between crossing of the Cimarron Riv. and Willow Jar (N. Mex.). Soil sandy soil.

49. *Oleum integrifolia*. Torr. & Gr.

7th June - 14th October 1846-47. Santa Fe, low level places near town (somewhat so say) near the town, also near the creek. East as far as low creek. Annual herb.

Flowers white, the same

Violaceae.

50. *V. cucullata*.

8th September 1847. Pawnee Fork, steep bank of the river, loose soil.

51. *V. canadensis*.

15th May - 15th July 1847. Santa Fe, creek bottom in the mountains, shady damp places, fertile soil, sometimes margin of the creek.

50. *V. cucullata*.

26th April - 28 June 1847. Santa Fe, creek valley. Margin of the creek and level moist places.

Cistaceae.

52. *Lechea minor*

15th August 1846. 60 miles West of Independence.

Hypericaceae.

53. *Hypericum Scouleri*.

16th June - 8th July 1847. Santa Fe, creek bottom, in the mountains, margin of the creek and moist places.

Caryophyllaceae.

63. *Silene Menziesii*, Hook. & G.

12th May - 25th June 1847. Santa Fe Eastern mountains creek bottom, near the creek between some hills. Sep. 5; Petals 5, (by abortion 4) cleft, (inside of a petal showing to a little elevation near the base of the blade), altern. ; Stam. 10, (5 higher than the rest).

59. *Mollispermum nudum* F.

15th May 1847. Santa Fe creek valley foot of mountains gently sloping declivities between some hills (only in one region). Pet. white.

55. *Drymania sparguloides*, Nutt.

Santa Fe, creek valley in the mountains, open level tract, where cattle and horses were always grazing. seen between Santa Fe & New, 28th July - 10th August 1847.

61. *Cerastium nutans*, Raf.

20th May - 16th June 1847. Santa Fe, creek bottom in the mountains, near the creek. Pet. 5, cleft.

Plant. decid. especially the upper part of it.

62. *Stellaria lanuginosa* Torr.

10th June - 12th July 1847. Santa Fe, creek valley in the mountains, between rocks near the creek.

54. *Sagina Linnaei*, Presl.

24 May - 24 June 1847. Santa Fe, creek valley, moist level soil. Flowers minute, Pet. white.

65. *Silene multicaulis*, Nutt.

late - (S. Drummondii, Hook.) 28 - 19th July 1847. Santa Fe, creek valley in the mountains, margin of the creek.

64. *Silene Antirrhina*, L.

15th - 28th July 1847. Santa Fe, creek bottom in the mountains.

57. *Arenaria Fendleri*, n. sp.

14th August 1847. Prairie, 5 miles West of Vegas, (N. Mex.). Flower white.

56. *Drymania tenella*, sp. nov.

14th August 1847. 8 miles West of Vegas, (N. Mex.), woodland on the mountain region, shady place. Differs from S. in the size & shape of its bracts.

66. *Silene Lemmonii*, Nutt. & Gr.

14th August 1847. Woodland 6 miles West of Vegas, (N. Mex.).

58. *Stellaria lanuginosa*, Torr.

11th August 1847. 2 miles East of Moro Riv., at the foot of high rocks.

67. *Silene Stellata*

24th September 1847. A few miles South of Fort Lowenworth.

60. *Drymania cordata*, Willd.

10th August 1847. A few miles East of Santa Fe.

Mecobraceae.

68. *Argemone dichotoma*, Nutt.

22 September 1847. Creek bottom, about 20 miles East of Moro Riv.

69. *Paronychia Lamini*, Torr. & Gr.

17th October 1846. A few miles East of Big Bend Creek (between crossing of the Arkansas Riv. and Bent's Fort). High prairie, gravelly soil. called.

14th August - 17th September 1847. From San Miguel (N. Mex.) to Council Grove, loose soil.

70. *P. coccinea*, Nutt.

25th August 1847. A few miles West of McVee's Creek, (N. Mex.).

Portulacaceae.

71. *T. parviflorum*, Nutt.

28th July 1847. Santa Fe, creek-bottom in the mountains, on a level tract of grazing ground.

71. *T. parviflorum*, Nutt.

25th August 1847. Between Rabbit Ear & McVee's Creeks (N. Mex.) Flower: white.

72. *Talinum carycinum*, Nutt.

3rd September 1847. Sand hills 4 miles South of the crossing of Arkansas Riv. Flower: green red, the size of a dime.

73. *Portulaca pilosa*, L.

3rd September 1847. Crossing of the Arkansas Riv. sand-hills south of that Riv. Flower red, near the size of half a dime.

74. *Portulaca glauca*

5th August 1847. Santa Fe, common in waste places about town. Flower: deep yellow.

Malvaceae.

75. *Malva brevis*, Wallr.

13th June - 8th August 1847. Santa Fe, yards & waste garden places.

76 *Malva involucrata* Nutt.

31st August 1847. A few miles west of Lower Spring (Gimmaron)

76 the same as last

8th September 1847. Banks of Pawnee Fork.

77 *M. involucrata*, var.

24th & 25th August 1847. Low moist places at Rabbit Ear & M. News Creeks, N. Mex.

~~*Sidalcea mexicana*, Nutt.~~
79 *Malva*

30th June - 31st July 1847. Santa Fe, moist meadows.

80 *Sidalcea candida*, n. sp.

24th June - 28th July 1847. Santa Fe, creek bottom near the creek.

81 *Malvastrum eoccineum*

15th June - 30th July 1847. Santa Fe, neighbourhood of fields & watercourses.

78 *Sphaeralcea miniata*, Spach

Pesano 4th August 1847. Santa Fe, wet meadows and near the washes of gardens & fields.

82 *Malvastrum eoccineum*.

24th May - 3rd September 1847. Santa Fe, plains & foot of the lesser hills, near ditches. East of Rock Creek. Also, Poncha Creek betw. Sant's Fort & Santa Fe.

Linaceae.

Linum perenne

83. 23rd May 1847. Santa Fe level rather fertile tracts; pet. blue.

83. *Linum perenne*

15th - 26th August 1847. (Between Vegas & Moro riv. (N. Mex.) and a few miles east of Cold Spring (Gimmaron).)

85. *L. Burandii*, var.

1st May - 18th July 1847. Hills about Santa Fe gravelly dry soil. Flowers fugacious in the highest degree.

This 85 may be a mere variety of 84 or a peculiar species which could be named *L. puberulum*; probably

85. *L. Burandii* the first.

3rd - 11th June 1847. Santa Fe. In an old dry irrigatory ditch.

This plant seems to differ from the preceding one in having the claw of the petal of the same colour as the blade, while the preceding one has the upper part of the claw brown.

85 same as last

9th August 1847. Between Willow Bar & Middle Spring (Gimmaron)

85 same as last.

10th - 26th August 1847. Moro riv. to Cold Spring (Gimmaron).

84. *Linum Burandii*

29th August 1847. 16 miles east of Middle Spring (Gimmaron).

85. *Linum rigidum*

15th - 30th Sept. 1847. a Prairie, between Turkey Cr. & No. Creek.

Geraniaceae.

87. *Geranium cicutarium*.

15th April - 20th October 1846. Santa Fe, Creek bottom and foot of hills not far from the creek. Found a plant of this kind in flower even as late as 21st March, when the greater part of the creek valley was covered with deep snow.

88. *Geranium* ^{Richardsonii} ~~*psacalatum*~~ var. *altiflorum*.

3rd June - 28th July 1847. Santa Fe. Creek valley, shady places, moist soil near the creek. I never found this plant growing in any dry localities.

89. *G. Cornutum* James

31st May - 28th July 1847. Santa Fe Creek near irrigating ditches at the foot of mountains.

90. *Geranium pentagonum* ^{Hendler, Asplen.}

18th August 1847. 5 miles east of Moro Riv., bottom land.

89. *G. Cornutum* (Arenaria) ~~*pentagonum*~~

18th August 1847. Seems to differ from 89 only in its color. - 6 miles east of Moro R.

Ceratiadaceae.

91. *Nalis Vespatilis*, Torr. & G.

7th July - 8th August 1847. Santa Fe, margin of irrigating ditches, and in low wet places.

Marsilea without fructification!

24th May 1847. Rio del Norte. Leaves floating on the surface of the water in shallow places.

92. *Oxalis stricta*

7th September 1847. (Between Leon Creek and Pawnee Fork. Road side.

Balsaminaceae.

93. *Impatiens pallida*

11th August 1847. 90 miles west of Independence, ^{lowland} creek bottom, rich soil.

Gnaphalaceae.

94. *Pilea angustifolia*, Nutt.

15th May 1847. Rio del Norte steep and rocky banks (trap formation). Shrubs from 7 to 10 feet high. Leaves of an agreeable odor.

95. same as last.

15th May 1847. Rio del Norte. Ravines in the mountains.

Tricardaceae.

96. *Rhus copallinum*

7th August 1847. Mandas River, bottom land, a few miles south west of the upper ferry.

97. *Rhus leucantha*, Torr. & G.

8th July 1847. Santa Fe, Creek valley, steep rocky mountain sides.

26th April 1847. Fruit specimens in the same locality from the preceding year. In the same locality.

98. *Rhus Toxicodendron*.

11th - 21st June 1847. Santa Fe. Creek valley in the mountains, shady banks. Upwards of 4 feet high, at rocky.

99. *R. trilobata*, Nutt.

25th May 1847. Fruit specimens. Rio del Norte. Precipices of the mountains and steep rocky banks of the river.

Shrub from 8 feet high, possesses a peculiarly disagreeable odor.

The berries of this shrub leave greasy spots on the paper in being dried.

Also, 10th August 1847. Moro River, rocky side, ripe fruit.

99. *R. trilobata*, Nutt.

8th May 1847. Rio del Norte. Flower specimens from the same region with 99.

Zygophyllaceae.

100. *Kallstroemia mexicana*.

24th May - 6th August 1847. Rio del Norte and Santa Fe. Open level places, loose soil about town, near fields and waste places; adnate to the ground.

The leaves of this plant when wet compare to the paper a yellow disc.

Acercacae

102 *Negundo aceroides*, Voss
male spec: 22nd April 1847.
Santa Fe, eastern mountain range
Creek valley, near the margin of
the creek and in low situations
at a small distance from the same.
Large trees; in a part of the trunk
generally very knotty, which
seems to arise from the many
wounds the tree receives early
in spring, in order to draw the
sap from it. This sap is gathered
in holes cut in the trunk of the
tree at a little distance below the
wounded places.

Some specimens.
Leaves & fruit specimens. 30th
April - 11th May 1847.

102 *Negundo aceroides*
Rapiniifolia
8th September 1847. Pawnee Fork
Creek bottom.

101 *Acer tripartitum*, Nutt.
12th - 28th May 1847. A shrub 15 feet
high, of slender growth, in shady
places near the creek, eastern
mountains, Santa Fe.
31st May 6th June, fruit.

Celastraceae

103 *Saphylea triplata*
17th August 1846 25 miles East
of Council Grove.

104 *Lactuca scandens*
10th Septbr. 1847. Shady bottom
land of 110 Creek. somewhat
twining.

106 *Beaunitis Fendleri*, n. sp.
flower 4. 24th & 25th June 1847. Santa Fe
eastern mountains sunny side.
fruit spec. A shrub about 1 1/2 foot high and
2 feet in diam.
28th July 1847. in fruit.

105 *Pachystima Meynites* B. Meyer.
15th May 3rd June 1847. Santa
Fe, Creek valley in the mount-
ains. Foot of mountain, shady
steep declivities in soil consist-
ing of decomposed rocks interspersed

with vegetable mould. An ever-
green shrubby plant about 1 foot
high. Short roots consisting for the
greater part in the older branches
which by coming in contact with
the ground send down rootlets, and
are therefore but slightly covered
with soil.

Vitaceae

108 *Vitis*
quercifolia
17th August 1847. 2 miles East of
Morris. at the foot of mountain.

108 the same
28th July 1847. Santa Fe, creek
valley, between rocks.

107 *Vitis riparia*, Nutt.
25th May 1847. Rio del Norte.
steep desolate places of its high
rocky bank, near the water, with
their tendrils fastened to other
shrubs.

Polygonaceae

109 *Polygonum Persicaria* L.
13th August 1847. Low prairie,
a few rods West of Logans.

110 *P. alba*, Nutt.
25th - 28th August 1847. From
Rabbit-Car Creek to Willow bar,
road side.

Leguminosae

111 *Vicia truncata*, Nutt.
14th October 1846. Between Colora-
do & Esmerajo creeks, level prairie,
good soil.

111. V. same
3rd June - 10th July 1847. Santa
Fe, creek valley, foot of mountain.

113 *Vicia micrantha* var?
5th May 1847. Rio del Norte. Shady
places in deep ravines between
rocks.

111. *Vicia truncata*, Nutt.
7th July 1847. Santa Fe, Creek-
valley.

111. the same as last species
17th August 1847. 2 miles East
of Mora River.

112 *Vicia Americana*, Mill.
25th June 1847. Santa Fe, neigh-
bourhood of a field.

115 *Lathyrus polyraphus*
5th May 25th July 1847. Santa Fe,
Creek valley, most abundant near
irrigating ditches in the lower
part of the valley. Flowers of
different colors, but most generally
of a deep crimson which turns
into deep blue on drying. This
plant is never observed to be
eaten by any domestic animal.
fruit 30th June.

116 *L. palustris* var
31st May 3rd June 1847. Santa
Fe, lower part of mountain
sides.
flower of a rusty color.

117 *Phaseolus leiospermus*, Torr.
5th Septbr. 1847. 3 miles West of
Fort Star (near the Arkansas R)
bank of a Creek.

119 *Phaseolus Helvolus* L.
28th August 1847. Willow bar,
low wet bank of the creek.

121 *Glycimeria lepidota*, Nutt.
18th August 1846. Low places
in the prairie, 12 miles East
of Council Grove.
Also: Santa Fe, 25th June -
7th July 1847. Creek valley and
in waste places about Fawn
and near fields.
Plant obscure, and leaves a

print of its shape in green color
on the paper.

122 *Prunella floribunda*, Nutt.
14th August - 9th September 1847.
From San Miguel to Cow-
Creek, high prairie.

123 *P. angustifolia*, Nutt.
29th August 1847. Between
Willow Bar & Middle Spring
(Cimmaron).

Amorpha canescens
14th October 1846. Santa Fe
prairie.

Amorpha canescens
14th August 1847. 7 miles West
of Logans, woodland. Plants
2 - 3 feet high.

126 *Amorpha fruticosa*, var.
17th August 1846 - 8th September 47.
100 miles West of Independence
to Pawnee Fork. Shrub from
3 to 5 feet high.

127 *Dalea alpestris*, Torr.
10th July - 15th September 1846 47.
Santa Fe, margin of irrigating
ditches near fields. Also
low prairie near the Arkansas
River.

132 *Dalea formosa*, Torr.
19th May 9th June 1847. Santa
Fe. Dry gravelly hills, sunny
sides.
A shrub of dwarfish growth,
1/2 to 1 foot high; stem and branches
very crooked and confusedly
intangled in each other.
Fruit spec. 21st June 1847.

133 *Dalea Lanieri*, Torr.
21st May 25th August 1847. Santa
Fe, sunny sides and foot of
stony gravelly hills.
East to Mc Nees Creek.

131 *Galea laxiflora*

27th August - 28th Sept. 1847. Upper Spring (Cimmaron) to Walnut Creek. Prairie.

129 *G. aurea*, Nutt.

15th - 27th August 1847. From Vegas to Upper Spring (Cimmaron) Prairie.

130 *G. nana*, Torr. & G.

29th August 1847. Willow Bar, Cimmaron, sandy soil.

128 *Galea lanata*, Spreng.

28th August 1847. Between the Crossing of the Cimmaron R. & Willow Bar, low sandy places in the prairie.

127 *Galea scopulorum* = 141

25th September 1847. A few miles West of Abilene. Prairie.

134 *Petalostemon villosus*, Nutt.

28th - 29th August 1847. Between the Crossing of the Cimmaron and Middle Spring. Sandy soil.

135 *P. candidum*, Michx.

11th - 26th July 1847. Santa Fe, near fields.

4th August 1846. About 90 miles West of Independence; steep side of a rocky bluff.

20th August 1847. Middle Spring (Cimmaron).

132 *Petalostemon can.*

21st September 1847. Prairies a few miles South West of the apple ferry of the Kansas Riv.

137 *P. violaceum*, Michx.

14th August 1847. 5 miles West of Vegas.

138 *P. violaceum*, Michx.

13th - 24th August 1847. Between Willow Bar & Middle Spring, Cimmaron. Sandy soil. Also Cjo de Bernal.

139 *P. macrostachyum*, Torr.

30th August 1847. 18 miles West of Lower Spring, Cimmaron) Prairie.

140 *Trifolium involucreatum*, Nutt.

3rd October 1846. Poni Creek, between Bent's Fort & Santa Fe. Also: 15th June 1847. Santa Fe Creek bottom, near the water.

141 *Melilotus pariflorus*, Nutt.

7th June & 19th October 1846 - 7 Santa Fe, low somewhat wet places about town.

142 *Medicago sativa*, L.

23rd June 1847. Santa Fe, enclosed field amongst woods & Cjo de Bernal.

143 *Hosackia Purshiana*.

2nd - 6th Sept. Between Fort Stan (Ark.) and Santa Fe creek, high prairie.

146 *Astragalus* ^{*Diphysus*, n. sp.} ~~*Laryngocarpus*~~

24th April - 9th May 1847. Prairie about Santa Fe. Soil sandy - oil; socially of rather low depressed grass, but patches from 1 - 2 feet to ground, whenever observed, that this plant had been eaten by any animal at present known.

147 *A. Diphysus*, var. fl. albis.

10th - 13th May 1847. Santa Fe. Together with the preceding one, flower white.

171 *Sophora sericea*, Nutt.

15th - 20th August 1847. Iron More. riv. to Cold Spring, (imaged) prairie.

148 *Astragalus cyaneus*, n. sp.

22nd April - 28th May 1847. Santa Fe; gravelly hills and lower mountains amongst rocks.

149 *A. Missouriensis*, Nutt.

8th - 25th May 1847. Rio del Norte and Santa Fe. Stony hills.

151 *A.* - 2-lobed leg.

Santa Fe. 28th May 1847. Dry gravelly hills.

156 *A. Antillanus* B. Michx. cap.

25th May 1847. Rio del Norte (Pearl's) Bank.

152 *Astragalus mollissimus*, Torr.

26th August 1847. Between Mestas Creek and Cold Spring (Cimmaron).

153 *A. mollissimus*, Torr.

2nd August 1847. Neighbourhood of Cjo de Bernal. (New Mex.)

154 *Oxytropis Lambertii*, Pursh.

5th August 1847. More. riv. prairie.

155 *O. campestris* B. *speciosa*.

5th August 1847. between rabbit Ca. and Mc. Reed's Creek.

150 *Astragalus hypoleucis*, L.

15th August 1847. More. riv. prairie.

146 *R. regalis* n. sp. ^{*var. latifolia*}

21st August 1847. Between Cjora. Riv. & Rock-creek (Santa Fe) prairie.

157 *Phaca Fendleri*, n. sp.

Between Santa Fe & Pecos. Wood-land in the mountains. 10th August 1847.

161 *Phaca picta*, n. sp.

8th - 25th May 1847. Rio del Norte; loose sandy soil not far from the rock especially around and between low shrubs. flower sometimes white.

159 *Phaca triflora*, DC. ^{*gracilentata*, n. sp.}

19th April. 28th June 1847. Santa Fe; sunny and steep declivities of stony hills.

159 the same as the last

28 May - 28th June 1847. Santa Fe.

156 the same as 165

24th May 1847. Santa Fe.

158 *P. pacilentata*, n. sp.

11th July 1847. Santa Fe; hills.

160 *Phaca macrocarpa*, n. sp.

5th - 13th June 1847. Santa Fe; sunny hill-side, between rocks under protection of shrubs.

164 *Lespedeza capitata*

16th Oct. 1847. Cottonwood Creek to Kansas river; dry prairie.

165 *Lespedeza repens*, Torr.

24th Sept. 1847. 8 miles South of Fort Laramie; gullies along the roadside.

166 *Lupinus* ^{*decumbens* Torr.} ~~*leucophaeus* Torr.~~

8th May - 30th June 1847. Cjo de Bernal. Level places in the neighbourhood of fields & sand irrigating ditches; rather socially.

fruit, 30th June - 2nd August 1847.

167 *L. decumbens*, Torr. ^{*var. angustifolius*}

21st June 1847. Santa Fe; flowers light rose color.

168 *L. latifolia*, Torr. ^{*var. ?*}

24th June - 8th July 1847. Santa Fe, Creek valley in the mountains, foot of mountains.

169 *L. decumbens*, Torr. ^{*var. ?*}

3rd October 1846. Poni Creek, between Bent's Fort and Santa Fe; low prairie.

170 *Thermopsis montana*, Ant.

28th May - 3rd June 1847. Santa Fe, Creek valley, 5 miles above Santa Fe. Foot of mountains, and in level moist places.

172 *Cercis canadensis*

18th Sept. 1847. Council Grove, Creek bottom.

173 *Hippocrepis Lamerii*, Torr. ^{*var. ?*}

17th August 1847. A few miles West of the Fort of Cimmaron riv. and at Willow Bar, road side.

Cassia chamaecrista

31st August 1847. A few miles West of the Lower Spring (Cimmaron).

174 *Desmanthus Lamerii*, Torr.

14th August 1847. Between Santa Fe and Cjo de Bernal.

175 *Desmanthus Lamerii*, Torr.

4th Oct. 1846. A few miles South of Cayado Creek; hills, low sandy soil & 20th June, hill-side, gravelly soil.

10th - 25th August 1847. A few miles East of Santa Fe to the Pecos Riv.

178. *Demarethus brachylobus*, Nutt.

14th August 1846. Black oak vine; low fruiting.

29th August 1847. Between Willow and Middle Springs, Connors.

179. *Thermopsis angustata*

14th August 1846. Council Grove grassy hillside.

180. *Mimosa borealis*, n. sp.

27th August 1847. Higher Springs (Connors), hillside.

184. *Cicer arietinum*

8th August 1847. Santa Fe, cultivated.

145. *Trifolium canadense* L.

11th August 1846. 2 miles south of Texas on woods road.

13 August 1846. About 100 miles N. of Independence, on the road climbed stairs of the river.

1755. *Cassia marylandica*

21st August 1846. Council Grove; low plants - stems from 4-6 feet high.

188. *Apocynum tuberosum*

24th August 1846. Council Grove. Sloping bank of the creek and to the bottom land.

120. *Amphicarpa menziesii*

24th August 1846. Council Grove, creek-bank.

162. *Desmodium sessilifolium*

16th August 1846. 17 miles west of Santa Fe, upper part of the creek bank.

163. *Desm. Dillenii*

16th August 1846. 17 miles west of Independence - bank of a 'Creek' and in bottom land.

110. *Kentrophyta montana*, N.

7th June 1847. Santa Fe, gravelly hillside, socially.

Rosaceae.

182. *Prunus americana*

22nd August 1847. Rock Creek, Creek bottom.

186. *Cercocarpus Virginiana*

17th August 1847. 2 miles East of Mora, N.M. (St. Alex.); foot of high rocks.

183. *Prunella vulgaris* L.

Santa Fe. Creek valley, at no great distance from houses. Trees about 30-40 feet high, branches spreading very much.

20th April 1847. In flower 6th May 1847, in fruit.

185. *Cercocarpus demissa*, Nutt.

8 May - 2nd June 1847. Santa Fe. Creek. Steep rocky banks at the margin of the creek.

187. *Spiraea angustifolia*, V. paniculata

25-30th June 1847. Santa Fe. Creek. Steep rocky banks at the margin of the creek.

190. *Geum macrophyllum*, W.

8 May 1847. Santa Fe. Creek bottom - bank margin of the water; fertile soil.

192. *G. rivale*, L.

6th June 1847. Santa Fe. margin of the Creek in the mountains.

193. *Hallugia parviflora*

24th May - 4th October 1847. Rio del Norte and Arroyo del Rio on Santa Fe. 17 miles N. ravines and steep rocky banks of the river. Shrub from 2 to 5 feet high.

195. *Agrimonia eupatoria* var. *minor*

30th - 28th July 1847. Santa Fe. Creek bottom near the water.

196. *Agrimonia eupatoria* L.

17th August 1846. 10 miles south of Fort Leavenworth.

197. *P. fissa*, Nutt.

17th August 1846. 15 miles East of Council Grove; Creek bottom.

197. *P. fissa*, Nutt.

24th June - 15th July 1847. Santa Fe, Creek valley; sunny side of mountains between rocks 11 miles above Santa Fe. Plant viscose.

201. *P. Pennsylvanica*, L.

16th August 1847. Mora River; hillside.

202. *Potentilla Pennsylvanica*, B. conferta

25th June - 8th July 1847. Santa Fe. Creek valley in the mountains 4 miles above Santa Fe; foot of mountains, sunny side.

199. *Potentilla crinita*, n. sp.

15th - 15th July 1847. Santa Fe, Creek bottom; also foot of hills not far from the creek, sunny side.

203. *Potentilla rivalis*, Nutt.

22nd June - 26th July 1847. Santa Fe, Creek bottom, margin of the creek.

198. *Potentilla diffusa*, n. sp.

16th - 15th June 1847. Santa Fe. Creek bottom, moist soil.

200. *P. Anserina*, L.

13th May - 24th June 1847. Santa Fe. Creek bottom and moist meadows.

197. *P. fissa*, B.

19th Oct. 1846. Santa Fe, damp places.

204. *P. fastigiata*, Nutt.

3rd June 1847. Santa Fe. Creek bottom at some distance from the water.

205. *P. Anserina*, L.

16th June - 15th July 1847. Santa Fe, Creek valley in the mountains 7 miles above Santa Fe foot of mountains.

206. *Fragaria Virginiana*, Pursh.

26th April - 5th June 1847. Santa Fe. Creek. Sunny declivities of the mountains; more frequent.

at the foot of mountains, and in the valley not far from the creek. Socially, and intermixed with the preceding one.

207. *Fragaria vesca*, L.

22nd April - 15th May 1847. Santa Fe, Creek valley. In similar situations with the former preceding one, though generally not so high up in the mountains.

208. *Rubus Nutkanus*, Nutt.

11th - 6th June 1847. Santa Fe, bank of the Creek, shady places.

209. *R. strigosus*, Michx.

11th May - 4th June 1847. Santa Fe. Creek valley in the mountains, shady places near an irrigating ditch.

210. *Rosa blanda*, Nutt.

16th - 14th June 1847. Santa Fe. Creek, near the meadows.

211. *R. blanda*, B.

9th August 1847. 20th h. Creek (St. Alex.); Creek bank among other shrubs.

212. *R. Woodii*!

21st August 1847. Rock Creek (St. Alex.), bottom land.

213. *R. Woodii*!

15th August 1847. 3rd h. of Mora River, St. Alex.

213. *Amelanchier canadensis*, Mill.

7th - 5th July 1847. Santa Fe. Creek valley in the mountains, 7 miles above Santa Fe, sunny side of mountains.

184. *Prunus domestica* (cult.)

30th April 1847. Santa Fe. Neighboring yard of house.

185. *Spiraea dumosa*, Nutt.

18th July 1847. Santa Fe. upper part of the Creek; steep sunny sides of mountains. Shrub about 4 feet high.

189 *Lysichiton cuneatus*

213 August 1847. Rio Colorado (New Mex.), thin layers of soil upon and between talus at rocks near the river bank.

194 *Lythrum paniculatum*, Nutt.

30 15th July 1847. In fruit. Santa Fe, Creek valley on the mountains. Area rocky sunny side of steep rocky mountains. Stems 8 to 10 feet high.

Lythraceae

214 *Ammaniac latifolia*

24 August 1846. Council Grove creek bed.

214 The same

18 Sept 1847. Bluff Creek bottom about 16 miles east of Council Grove.

20 Sept 1847. Bottom of Middle Creek.

215 *Lythrum alatum*

4 August 1840. Council Grove.

215 The same

12 August - 1 Sept 1846-7. 18 miles south of Fort Leavenworth and 2 or 3 miles from west of the lower ferry of Kansas river.

Cruciferae

216 *Epilobium angustifolium*

29 June - 28 July 1847. Santa Fe Creek valley on the mountains, in ravines, flowers purple.

217 *E. coloratum*, Nutt.

16 June - 30 September 1840. Santa Fe, creek bed gravelly wet places near irrigating ditches, grassy margin of the creek.

Also: Galien Creek between Santa Fe & Santa Fe, in bottom of the mountains.

230. *R. (Salpingia) Fendleri*, n. sp.

29 May 18th July 1847. Santa Fe sunny hill side. Also: Rio del Norte bank of the river, flower of a sulphur color, which turns to be red in a few days after opening and is dry.

222 *R. cornifolia*, J. Fr.

28 May 18th July 1847. Santa Fe, Creek valley. In different localities on soil that was washed in the spring to elevate the sides of an irrigating ditch.

Also: In the same soil a small white in places where the soil was full of ants. Petals white but turning into red when drying.

223 *R. pinnatifida*, Nutt.

22-10th July 1847. In fruit. In gravelly soil near the river. Petals white showy. Also Santa Fe. *Vernis, var. hirsutissima*.

218. *Ranunculus Holteri*

24 June 1847. Santa Fe, creek valley on the mountains. Foot and sunny sides of mountains. Plant 2-3 feet high.

219 *Conoclinium bicolor*

19th September 1847. Prairie betw. Bluff Creek & 110 Creek.

220. *R. bicolor* } *caescaus*

16 August 1846. Dry ravine, 10 miles of the lower ferry of Kansas river. Plant 4 feet high.

223 *R. pinnatifida*, Donk.

19 June - 18 July 1847. Santa Fe. In and near fields in cultivated places. Flowers white. b. + same with white flowers.

221. *R. sinuata* v. *hirsuta*.

23 - 8 July 1847. Santa Fe, hillside near a field.

230 *R. Fendleri*

28 August 1847. A few miles west of the crossing, foot of Cimmaron river.

230. *R. Fendleri*
= 237, *foliis angustioribus*

23 - 31 August 1847. 7 miles east of Rock Creek to a few miles west of the Lower Spring, Cimmaron R.

228. *R. (Pachylophus) Fendleri*.

16 June - 19 July 1847. Santa Fe, Creek bottom.

229. *R. serrulata*, Nutt.

15 August 1847. McVies Creek Rio Arriba, Wandy hill side.

229 the same as last

212 - 28 August 1847. Low prairie from Rio Colorado to the foot of the Cimmaron R.

229. *R. serrulata*, Nutt.

22 15 August 1847. Up to several to Casas, New Mex.

224. *R. pinnatifida*, var. *integrifolia*.
The same - 243, 1st integr.

23 June - 18 July 1847. Santa Fe, near irrigating ditches. Also.

28 August 1847. In open low part of the Cimmaron R. and 110 low Bar, a hand.

224 the same as last, more caescaus

29 August 1847. About 10 miles east of Middle Spring, Cimmaron

225. *R. speciosa*, var.

11 Sept 1847. Creek bottom, about 20 miles east of 110 Creek.

225 *Brodiaea speciosa*

11 August 1846. 20 miles east of Council Grove, dry prairie.

226 *Conoclinium putrescens*, var.

24 August 1846. Council Grove, low place.

227. *R. caescaus*, Torr. & Fr.

1 Sept 1847. Sand Creek (New Mex) margin of a low swampy place.

231. *Gaura epilobioides*, H. B. K.

17 May - 28 August 1847. Santa Fe near fields. Sept 4, collected; Oct 4 afternoon, next rose color changing to deep red.

28 June 1847. Santa Fe. Petals white changed to yellow.

11 July 1847. 38 Sept 1846. Walnut Creek, near low prairie.

232 *Gaura villosa*, Torr.

8 - 29 August 1847. Between Willow Bar & Middle Spring (Cimmaron).

233 *Gaura bicolor*

10 August 1846. A few miles south of the lower ferry of Kansas river. Bottom land.

234. *Gaura pinnatifida*, Dougl.

27 August 1840. 30 miles west of Council Grove, creek bank.

15 August 1847. Bottom land at Moss river (New Mex.). Plant upwards of 15 feet high at Council Bar (Cimmaron).

234. - " - "

15 Sept 1846. Between low Bar and Walnut Creek, low prairie. Flower white.

235 *Stenosiphon virgatus*

21 Sept 1847. 10 miles south-west of the upper ferry of Kansas river, prairie. Plant 1.5 feet high.

236 *Ludwigia palustris*

18 Sept 1847. Bluff Creek, bottom land, near the water.

237 *L. alternifolia*

12 August 1846. A few miles south of the lower ferry of Kansas River.

238. *Hippuris vulgaris*.

15 May - 7 June 1847. Santa Fe on the water of a pond near its margin.

189

Lupinus crepitans

21st August 1847. Rio Colorado (Bliss' place), thin layers of soil upon and between ledges of rocks near the river bank.

194th *Lupinus parviflorus*, Nutt.

5th - 15th July 1847. Santa Fe, Santa Fe Creek valley on the mountains. Soil rocky sunny side of steep rocky mountains. A shrub 8 to 10 feet high.

Lythraceae.

214 *Ammannia latifolia*

24th August 1846. Council Grove creek bed.

214 the same

18th Septbr 1847. Bluff Creek bottom about 16 miles East of Council Grove.

20th Septbr 1847. Bottom of 110 Creek

215 *Lythrum alatum*

2nd August 1840. Council Grove.

215 the same

1st August - 1st Septbr 1846 - 18 miles South of Fort Leavenworth and passes a few miles South East of the upper ferry of Kansas river.

Cruciferae.

216. *Epilobium angustifolium*.

24th June - 28th July 1847. Santa Fe Creek Valley on the mountains, in ravines, flowers purple.

217. *E. coloratum*, Nutt.

16th June - 30th September 1840. Santa Fe creek bed gravelly wet places near irrigating ditches, grassy margin of the creek

Also: *Rabin* Creek between Bent's Fort & Santa Fe, in bottom of the mountains.

230. *R. (Salpingia) Fendleri*, n. sp.

24th May 18th July 1847. Santa Fe sunny hill side. also: roadside to bank of the river, flower of a sulphur color, which turns to be red in a few days after opening and in drying.

222. *R. trichos*

28th May - 12th July 1847. Santa Fe. Creek valley. on different localities on soil that was once in the spring to elevated side of an irrigating ditch.

Also: In this many side of a small hill in places where the soil was full of ants. Petals white, but turning into red when drying.

223 *R. pinnatifida*, Nutt.

2nd - 10th July 1847. gravelly soil near the river. Petals white showy. also Santa Fe. *Viennis*, var *hirsutissima*

218. *Ranunculus*, *Holkeri*

24th June 1847. Santa Fe. creek valley on the mountains. foot and sunny sides of mountains. Plant 2-3 feet high.

219 *Ranunculus*, *Biennis*

19th September 1847. prairie below Bluff Creek & 110 Creek.

220. *R. hirsutus*, *causcaus*

16th August 1846. dry prairie 20 miles of the lower ferry of Kansas river. Plant 4 feet high.

223 *R. pinnatifida*, Nutt.

19th June - 18th July 1847. Santa Fe. In and near fields in cultivated places. Flowers white. b. + same with white flowers

12th July 1847. Santa Fe.

221. *R. sinuata* f. *hirsuta*.

5th - 8th July 1847. Santa Fe, hillsides, grassy field.

230 *R. Fendleri*

28th August 1847. A few miles West of the crossing, ford of Cimmaron river.

230. *R. Fendleri*
= 237, *foliis angustioribus*

23rd - 31st August 1847. 7 miles East of rock Creek to a few miles West of the Lower Spring, Cimmaron river.

228. *R. (Pachylophus) Fendleri*.

16th June - 19th July 1847. Santa Fe, creek bottom.

229. *R. serrulata*, Nutt.

15th August 1847. McVies' Creek. Rio Mesa. Windy hill side.

224 the same as last

21st - 28th August 1847. Low prairie from Rio Colorado to the ford of the Cimmaron R.

229. *R. serrulata*, Nutt.

15th - 15th August 1847. Up to several to Vegas, New Mex.

224. *R. pinnatifida*, var *integrifolia*.
the same as 243, 1st integr.

23rd June - 18th July 1847. Santa Fe, near irrigating ditches. Also.

28th August 1847. Between the ford of the Cimmaron R. and Willow Bar, a bank.

224 the same as last, more caespitose

29th August 1847. about 10 miles East of Middle Spring, Cimmaron

225. *R. speciosa*, var.

11th Septbr 1847. creek bottom, about 20 miles East of 110 Creek.

225 *Ranunculus speciosa*

11th August 1846. 20 miles East of Council Grove, dry prairie.

226 *Ranunculus puticosus*, var

24th August 1846. Council Grove, low place.

227. *R. caescaus*, Torr. & Frem.

1st Septbr 1847. Sand Creek (New Mex) margin of a low swampy place.

231. *Gaura epilobioides*, H. B. K.

17th May - 28th August 1847. Santa Fe near fields. Sept 4, collected; Oct 4, altum, until rose color changing to deep red

18th June 1847. Santa Fe. Petals white changed to yellow.

11th July 1847. 3rd Septbr 1846. Walnut Creek, rather low prairie.

232 *Gaura villosa*, Torr.

28th - 24th August 1847. Between Willow Bar & Middle Spring (Cimmaron).

233 *Gaura biennis*

10th August 1846. A few miles South of the lower ferry of Kansas river. Bottom land.

234. *Gaura parviflora*, Dougl.

27th August 1840. 30 miles West of Council Grove, creek bank.

15th August 1847. Bottom land at Moss river (New Mex.). Plant upwards of 15 feet high at Willow Bar (Cimmaron).

234. - " - "

15th Septbr 1846. Between low Bar and Walnut Creek, low prairie. Flowers white.

Menosiphon virgatus

21st Septbr 1847. 10 miles South West of the upper ferry of Kansas river, prairie. Plant 4 feet high.

Ludwigia palustris

18th Septbr 1847. Bluff Creek, bottom land, near the water.

235 *L. alternifolia*

12th August 1846. A few miles South of the lower ferry of Kansas River.

238. *Hippuris vulgaris*.

15th May - 7th June 1847. Santa Fe on the water of a pond near its margin.

Loasaceae.

239 *Mentzelia hispida*

15 August 1846. Council Grove on hills between rocks.

242. *M. pumila* Nutt. 1847

15 June 11 July 1847. Santa Fe near fields. Flower very seldom open in the daytime.

240. *M. ornata*, Torr. 1847

21 August 1847. Between Rio Colorado and Rock Creek, low prairie. Stem 4 feet high, much branching.

266, 3 June 1847

17 September 1846. Gravelly and pebbly hillsides; from the ford of the Arkansas to Santa's flat.

243. *M. nuda*, var.

17 August 1847. 1/2 mile east of Moro River, low prairie.

240. *M. nuda*,

25 August 1847. Ste. Albin, Cr. 8 September 1847. Same place; flowers. Stem 4 feet high, flower vesperite.

Cactaceae.

244 *M. vivipara* ?

8 July 1847. Santa Fe. To Cactus No. 1.

Eastern mountain range at a moderate height and near the foot of 15 May 1847. Santa Fe. To Cactus No. 3. mountains, between pieces of rock. Also.

frequently on the road from Santa's flat to Santa Fe on hills and high prairies. Plant not more than 2 inches above the ground. Subglobose or obovate with the upper part hemispherical. Cylindrical or cylindrical. Here are some which the root sends up several subterranean branches which ramify again & again in elongating, until they reach the surface where each ramification bears a globe just at its apex. Spines straight, radiating at right angles to the axis of the

resp. mammiform or conical tubercles, white, thin more like fine bristles with the exception of few 2-4 stronger ones, which are mostly of a red color and make larger angles with the axes of their support. Tubercles

247 *M. vivipara*

15 May 1847. To Cactus No. 3. Santa Fe. Higher regions of the mountains, steep and rocky - very declivities. Also on elevated plains somewhat sandy.

Plant generally growing in large clusters; the young plants growing from the sides of the old one on the descending line of the subterranean part of the stem from that above the ground that is close to the soil. Sometimes numbers of 11 individual plants.

Alternat. ribs and furrows; the ribs with often radiating spines, generally 7 or 8 in number nearly in a tangential plain to the apex and a tenth one in the center not much longer than the rest and of a darker color. Tub. 10 rarely 11.

249 *M. vivipara*

9 June 1847. To Cactus No. 4. Santa Fe, high oval somewhat sandy prairie.

Young plants growing from the old ones in the same manner as in the preceding No.

Plant 10 ridges, generally 7 radiating, tangential, rather out spines with a larger somewhat curved and oblique standing out in successive and pointing more or less towards the apex of the plant. The younger spines are more or less dark colored of a blue or smoky near the apex, many of the spines are somewhat flattened.

248

11 May - 13 June 1847. To Cactus No. 5. Santa Fe.

Higher regions of the mountains, steep and rocky sides. Also on elevated broken somewhat sandy plains.

Spines, mostly 3 or 5 somewhat

curved, stout, flattened spines with a dip, edge - ridge running on the inside from the base to the apex; length of spines from 1/2 inch; - no central one.

257 *Opuntia clavata*

21 June 1847. To Cactus No. 6. 1/2 mile SE. 3 to 8 miles south west of Santa Fe. Elevated places. Somewhat sandy soil; in great clusters of from 2-4 feet diam. more found than in the mountains or on high rocks.

250 *Opuntia* ?

25 May 9 June 1847. To Cactus No. 7 & 8. Santa Fe. Both grow in sandy, rocky and generally in stony soil spreading over aptly spots 10 or 12 feet diam. 7 rows of 5 plants, flat some but obovate joint with joints of spiny nodes on outside, each containing 7 nodes which are used with fine rigid bristles.

The plant of No. 8. has much larger joints, which are also as oblong obovate

252

19 June - 29 June 1847. To Cactus No. 9. Santa Fe. Foot of mountains, on moderate hills and high prairies. Upwards of 6 feet high and the lower part of the stem in some instances 5 inches diam. Spines straight.

Stem lateral as well as terminal, the dry and hard, or soft and yellow.

22 December 1846. The yellow fruit adheres to the branches as strong as ever, and has not changed in its appearance in the least since in 1846.

12 November. This kind of Cactus seems to stand the cold much better than the flat jointed kind. No. 7 & 8. They are sometimes used on the top of mud walls, or the same purpose as broken glass bottles are used in other countries

4 May - 6 June 1847. To Cactus No. 11. Santa Fe. Eastern mountain range, sunny declivities of the smaller mountains, common rocks.

245 *Mentzelia*

15 May 1847. To Cactus No. 12. Santa Fe. Valley of the lower hills, low sandy clay soil, very good soil.

Grossulacae.

250 *Ribes*; leaves only = 289

16 August 1847. Heron river, rocky hill side.

255. *Ribes* - leaves only

30 May 1847. 5 miles south west of Santa Fe. Sandy valley between the lower hills. Leaves viscid and peculiar taste.

257. *Ribes aureum* Pursh

15 August 1847. From Moro River to Rock Creek (between hills) bottom land and near the lower 3 to 5 feet high.

258. *Ribes leptanthum*, n. sp.

25 May 1847. Rio Grande. Steep and rocky banks of the river. Shrub about 4 feet high.

254 *R. leptanthum*, n. sp. = 283

8 25 May 1847. Wooded, fertile ravines.

253. *R. leptanthum*, n. sp. = 283

29 May 1847. Santa Fe. Shrub 3 feet high.

255 *Ribes cereum*, Gray

12 May 1847. Santa Fe, mountains

253. *Ribes irriguum* Druel

11th - 28th May 1847. Santa Fe
margin of the creek

255. *Ribes cereum*

11th - 12th July 1847. Santa Fe
Creek, sandy bank near
margin of creek. Shrub 4 or 5 ft.

Cucurbitaceae.

258

Echinocystis lobata

14th August 1847. Hickey
along the creek near
margin of creek.

259. *Discanthera dissecta*

12th August 1847. Santa Fe
bottom.

260
Cucumis perennis

11th - 30th June 1847. Santa Fe
margin of a pond, and near fields in
hollows.

261
Cucumis sp.

19th - 31st July 1847. Santa Fe,
fields.

Crassulaceae.

262. *Sedum Rhodiola*?

3rd August 1847. Santa Fe
margin of creek. The mountains are
the creek. Sandy soil.

Stems 5, white; leaves
10.3. Flowers minute; leaves
thick fleshy.

263
Penthorum sedoides

18th Septbr. 1847. Bluff-Creek
bottom.

Saxifragaceae.

264. *Stenandra parvifolia* Nutt.

16th June - 28th July 1847. Santa
Fe; on the declivities of mount-
ains, on rocks. Leaves green
the upper part blue.

265. *Saxifraga bronchialis*.

12th May - 24th June 1847. Santa
Fe Creek. Steep shady rocky
banks.

266. *Philadelphus microphyllus*

24th June - 8th July 1847. Santa
Fe Creek, sunny slope side of
the mountains between rocks.
It is above the creek.

267
Tanacetum americana

6th - 22nd June 1847. Santa Fe
Creek near the water, above
the creek is a small hill. It is
about 1/2 mile.

Umbelliferae.

268
Amelanchier mexicana

18th Septbr. 1847. Bluff Creek,
bottom.

269
Licuta maculata

18th Septbr. 1847. Bluff Creek
bottom.

270 *Licuta maculata*

15th August 1847. Santa Fe
bottom.

271. *Berula angustifolia* Koch

8th August 1847. Santa Fe
bottom.

272 *Artemisia Fendleri*.

15th June 1847. Santa Fe
Creek fertile soil margin of
the water.

273. *Heraclium lanatum*.

16th June - 8th July 1847. Santa
Fe Creek margin of the water.

274. *Fendleri*, sp. nov.

Gymnosteris Fendleri, sp. nov.
14th April - 30th May 1847. Santa
Fe. gently sloping declivities
amongst the gravelly hills.
Rather good soil.

275. *Fendleri*

Gymnosteris montana, Nutt.
24th April 1847. Santa Fe. Socially
and together with the preceding
one found only in one locality

206
278
Cornus setacea

276 *Thaspium montanum*, n. sp.

26th April - 3rd July 1847. Santa
Fe Creek, sunny declivities foot
of mountains.

277 *Galium* sp. nov. n. sp.

17th August 1847. - miles East of
Horseshoe River. Elevated rocky region.

Cornaceae.

279
Pernis stricta?

20th Septbr. 1847. Bottom land
of the creek.

280. *Galium thronifera* Michx.

28th May - 10th June 1847. Shady
sandy steep and rocky bank
of Santa Fe Creek, close to the
water. Shrub about 10 feet high.

Joranthaceae.

281

4th June 1846, 17th March 1847.
Highly rocky hills about Santa Fe
and elevated places. I found this
plant growing only upon the branches
of the so-called "Summit" that
grow about Santa Fe, and on no
other tree. It occurs sometimes in
clusters of over 1 foot diameter and
up to 10 feet high. Whenever they are
found, they are found on many
neighbouring trees, especially
spruces. The berry is globose of
a light champagne colour with a
tinge of red when dried, fleshy.
Serves on short bran stalks, 1 or 2
together. The lines of delimitation
of adjacent tops of any pair of
adjacent joints are at right angles
to each other. Branches more
or less branched after than before being

282 *Arctostaphylos*?

24 March 1847. Santa Fe mountain
range, declivities of the lower
mountains. Only on *Coniferae*.
It is in much smaller and thinner
or clusters than the preceding one.
Branches somewhat quadrangular.
Leaves smaller, on stiff twigs. The branches

of the tree on which this plant
grows, seem to be much injured
by it.

283 *Arctostaphylos*?

1st March - 2nd April. Santa Fe
mountain range. Lower part of
the mountains in ravines. Only
found on *Coniferae*. The
branches of the tree, on which this plant
grows are likewise injured by it.

Caprifoliaceae.

284
Symphoricarpos?

18th Septbr. 1847. Santa Fe
bottom.

285
P. occidentalis

24th Octbr. 1846. Santa Fe
bottom.

286
P. var. ph. incisus

1st July 1847. Santa Fe
bottom.

287
Sambucus pubera Michx.

10th June 1847. Santa Fe
margin of the water. It is
about 2000 feet high.

Rubiaceae.

287 *Galium boreale*

16th June - 7th July 1847. Santa
Fe Creek, sandy bank near
margin of water.

288 *Galium Fendleri*, n. sp.

Santa Fe Creek valley. Shady side
of high mountains. It is
about 1500 feet high.

289 *G. asperum*, n. sp.

10th - 29th June 1847. Santa Fe,
at the margin of the water, it is
about 1500 feet high.

290 *Hesperaloe occidentalis*.

12th - 23rd August 1846. Santa Fe
bottom. It is about 1500 feet
high. It is also used as fuel for
the water.

291 *Hedyotis (Hondonia) rubra*

17th - 30th May 1847. Santa Fe
bottom. It is about 1500 feet
high. It is also used as fuel for
the water.

Leptotis stenophylla

Below 6th August 1847. Between
McKee's creek and Council Grove
(Cincinnati). Prairie.

292 the same as last

19th August 1846. Council Grove
hills. Prairie at roots.

Calceidaceae.

293. *Valeriana edulis*, Nutt.

15th 8th August 84. Below
Moro river, New Mex. Eleva-
tion high.

V. sylvatica, Richard

22nd Sept. 8. 1847. Santa Fe
Creek. Prairie. Flowers
sandy soil. Incessant; not
in excess of a few.

Flower more abundant in
light soil than in dark soil
or above. Inflorescence
rather slender, branched in
a few.

Flowers more abundant in
light soil than in dark soil
or above. Inflorescence
rather slender, branched in
a few.

Compositae.

Anomia verticillata var.
1st Sept 1847. Ford of the Santa
Fe river. Prairie.

299 *Liatris punctata*, Hook.

14th 8th August 84. San Diego
10 miles S. of Council Grove.

Liatris punctata, glabrior

14 August 1846. Highway
various. Leaves rough and
narrow, bracts of the flowers
pointed.

the same as last

30th August - 15th Sept. 1840-1.

Below Creek to Cottonwood Creek.
dry prairie. Flower spikes now
cracked; bracts of the flowers
more abundant.

The specimen flower white.

300 *L. spicata*.

25th August 1847. Middle Spring
Cinnabaron. Low prairie.
Leaves 4-6 feet high.

301 *Liatris pycnostachya*

11th August 1840 14 miles south of
Fort Lavenworth; dry prairie

298 *L. squarrosa* L. *intermedia*.

15th Sept 1847. Prairie between
Turkey in and Council Grove.

297. *L. squarrosa* (Nutt)

11th August 1846 4 miles south
of Fort Lavenworth.

302. *L. scariosa*.

18 August 1840 20 miles S. of
Council Grove. Prairie
Fort Lavenworth. High prairie

Liatris scariosa ramosa

11th Sept 1847. Council Grove;
high prairie. Inflorescence
different from the preceding one.

Tetradymia inermis,

26th July 1847. Santa Fe; sunny
side of a hill. A shrub 2 feet high,
the only one shrub of his kind
seen by me.

306 *Brickellia grandiflora*,

25th 3 August 1847. Four Forks
Creek; steep rocky side of a
ravine.

Repatonium aegrotoides

18th Sept 1847. Council Grove,
Creek bottom.

E. perforatum

4th Sept 1847. 8 miles south
of Fort Lavenworth, low prairie.

E. purpureum

23rd Sept 1847. Creek bottom;
North of Kansas river.

305 *Blaviera brachyphylla*, Nutt

17th August 1847. 2 miles East
of Moro River (New Mex); foot
of high rocks.

304 *Kuhnia eupatorioides*

17th August 1840; 18 miles East
of Council Grove.

Linopsis grandis B.

23rd Sept 1840. Bent's Fort;
gravelly dry hills. A shrub
2 to 4 feet high.

305 *Kuhnia eupatorioides*, Griseb

11th August 1847. Bottom of
Moro River, N. Mex. 2 to 3 feet
high.

Kuhnia eupatorioides

9th 8th Sept 1847. Between Council
Grove and Poudre Fork. Prairie.

304 *Eupatorium purpureum*

15th August 1846. About 100
miles West of Independence,
Creek bottom.

310 *Eup. aegrotoides*

15th August 1846. 100 miles West
of Independence, Creek bottom.

308 *Brickellia affinis* (Mill) Nutt. *affinis* Nutt. *californica*.

16th August 1847. Moro river;
hillsides between rocks. Also.

18th August 1847. 8 miles East
of Moro River. bottom land.

306 *Brickellia Fendleri*, Nutt

8th - 28th July 1847. Santa Fe,
Creek, 11 miles above Santa Fe,
foot of mountains, sunny side.

Diplopappus ericoides, Torr.
& *Brickellia*

10th May - 19th June 1847. Santa
Fe, sides of ravines in very
dry places. Also. 2 or 3 feet
high.

Townsendia fluvica.

19th April - 10th May 1847. Santa
Fe, gentle sloping sunny declivity
side of hills, less frequently
on grassy places.

Townsendia Fendleri, Nutt

11th May - 1st August 1847. Santa
Fe; hillsides, gravelly soil.

31 *Townsendia stizosa*, Nutt.
4th - 15th May 1847. Santa Fe,
gravelly hills.

317 *Dieteria coronopifolia*.
10th August 10th Sept 1840-47.
Moro River to the junction
of Kansas River; loose somewhat
sandy soil. Also: a few miles
East of Santa Fe.

Townsendia eximia, Nutt.
28th June 15th August 1847. Santa
Fe Creek, sides of high mountains
10 Moro river, prairie.

Aster thalictroides
22nd Sept 1847. Sandy creek
bank and low prairie, 2 feet
miles North & South of the
upper ferry of Kansas river.

313 *Aster sericeus*
16th - 19th Sept 1847. Santa Fe
20 miles West of Council
Grove. Lavenworth.

312 *Aster segittifolius*
17th Sept 1847. Council Grove,
Creek bottom.

312 the same
17th August - 23rd Sept 1847.
10 miles East of Council Grove,
and a few miles South of the
upper ferry of Kansas River,
Creek bottom.

23rd Sept 1847. Prairies and
banks Creek banks, between
Kansas river and Fort Laven-
worth.

do not find this
28th Sept 1840. Rio de los An-
dros, between B. & P. Fort &
Santa Fe, bottom-land.

Aster simplex
3^d July - 3^d August 1847. Corners
of a walled in pasture.

The same as last
15th August - 3^d October 1847. 41.
Banks of the Moro Riv. (S. Mex.)
and bottom of Poni Creek (betw.
Santa Fe & Bent's Fort).

310. *Aster laevis*.
28th July 1847. Santa Fe, creek-
valley in the mountains, 7 miles
above Santa Fe, foot of mountains.

311. *Aster divaricatus*.
3^d Sept. 1847. Ford of Arkan-
sas riv., south side, bottom
land.

312. *Aster multiflorus* var.
17th August 1847. 2 miles East
of Moro Riv.

313. *Aster miser* var. *discolor*.
22nd Sept. 1847. Creek banks
and bottoms a few miles North
of the upper ferry of Kansas
River, 5-6 feet high.

314. *Aster azureus*
1st Sept. 1847. Prairies, 12
miles South West of the upper
ferry of Kansas Riv.

Aster multiflorus capitatus
2nd August 1847. Rock Creek,
New Mex. Bottom land.

A. multiflorus
16th 21st Sept. 1847. Cottonwood
Creek to the upper ferry of Kansas
River. Prairies.

A. oblongifolius
17th Sept. 1847. Prairies and
Creek bottoms about Council
Grove.

17th August - 17th Sept. About
Council Grove, margin of creek.

317. *Aster comus*,
2nd Sept. 1840. Banks of Walnut
Creek.

3211. *A. blaydesii*.
23rd August 1847. 1 mile East
of Rock-Creek (N. Mex.)

A. fendleri, n. sp.
20th August 1847. Ucate' Creek,
and Rio Colorado.

Egletes Munitis, var. *flava*
25th May 1847. Santa Fe, Creek-
valley foot of a hill.

Eriogonum cinereum n. sp. α
11th April - 11th May 1847. Santa
Fe, sunny declivities, foot
of hills near waterworks, usually
irrigated by ditches socially.

Eriogonum canum, n. sp.
17th May - 2nd June 1847. Santa
Fe, gravelly hills, also foot
of mountains, dry places.

Eriogonum macranthum β
28th July 1847. Santa Fe, Creek-
valley, sides of hills, 10-15 miles
above Santa Fe.

323. *Eriogonum canadense*.
19th July - 10th October 1847. Santa Fe
Creek-bottom, margin of the creek.

Courea subdecurva DC. β
28th July 1847. Santa Fe, foot of
mountains, high up the creek.

Boltonia glaberrima
16th Sept. 1847. Prairies, a few
miles East of Cottonwood Creek.

Eriogonum cinereum β .
24th May - 11th June 1847. Rio del
Norte, low sandy banks. Also
Santa Fe, Creek bottom in the
mountains.

Eriogonum flagellare, n. sp.
22nd May - 22nd June 1847. Santa
Fe, Creek-bottom, low moist
places.

324. *Eriogonum divaricatum*
1st Sept. 1847. Bottom of
Creek & Poudre Fork, near side.

325. *Eriogonum Bellidiastrium* Nutt.
28th August 1847. A few miles West
of the ford of Cimarron River,
and Willow Bar, deep sand.

Eriogonum macranthum Nutt.
3^d - 15th July 1847. Santa Fe Creek,
high mountains, 11 miles above
Santa Fe.

Eriogonum cinereum, n. sp. γ .
31st May 1847, July 1847. Santa Fe,
Creek valley, near irrigating ditches.

Prionopsis ciliata, Nutt.
28th August 1st Sept. 1847. Between
Willow Bar and Low Creek, low
prairie.

Solidago speciosa, B. angustata.
14th - 28th July 1847. Santa Fe, Creek
valley, sides of high mountains.

Solidago rigida
7th July 1847. Santa Fe, 2 1/2 miles
N. W.

Sparganium angustifolium.
23rd Sept. 1846. Bent's Fort. Also
1st July - 10th August 1847. Santa
Fe, gravelly hills.

Solidago rigida
2nd August 1846. Council Grove,
Missouri.

Gnaphalium squarrosum.
24th June 3^d August 1847. Santa
Fe, Creek bottom, also moist
places and near irrigating
ditches.

Phryopsis villosa
11th June - 6 August 1847. Santa
Fe, Creek-valley, sunny hillsides
between rocks, etc.

Phryopsis villosa
10th October 1847. A few miles East
of B. W.

C. canescens passing into *C. fulva*.
12th July - 12th Sept. 1847. From
Santa Fe to Island Creek (N. Mex.)
dry prairie.

C. canescens var. *parva*
11th August 1847. 2 miles East
of Moro Riv. Chert & rocky
regions.

Heterotheca scabra, B. Nutt.
29th - 31st August 1847. Middle Spring
to Lower Spring (Cimarron), low
prairie.

Aphlopappus (Bluff.) gracilis.
19th October 1846. Creek-bottom, Santa
Fe.

Aphlopappus spinulosus, var. *glaberrimus*.
30th August 1847. 16 miles East of
Middle Spring (Cimarron), prairie.

A. spinulosus, var. *canescens*.
24th May 1847. Between Santa Fe
and Rio del Norte.

Helianthus scaber
26th Sept. 1847. Banks of the Missouri
River, below Liberty.

Melanthera (Leucanthemum)
17th Sept. 1846. 10 miles East of
Big Sand Creek high prairie,
gravelly soil. Also:
1st May 1847. Rio del Norte.

Silphium integrifolium
12th Sept. 1847. High prairie
a few miles South West of the
upper ferry of Kansas River.

Silphium perfoliatum
23rd Sept. 1847. Creek-bottom
5 miles South of Kansas River.

Zinnia grandiflora, Nutt.
1st June - 4th October 1847-48. Santa
Fe. Dry gravelly hillsides. Also
Cajalco Creek, below Santa Fe
and Santa Fe, foot of a hill,
gravelly soil.

Euphorbia pinnatifida
29th Sept. 1846. Baton mountains.

Aster multiflorus capitatus.
Santa Fe, near garden, in moist
soil. 2nd August 1847.

A. multiflorus
16th 31st Sept. 1847. Prairies
about Council Grove.

The same.
26th July 1847. Santa Fe, Creek valley
near the creek.

Ambrosia longifolia.
6th July - 10th August 1847. Santa
Fe, Creek bottom and other
level places. Branches mostly
decumbent, upwards of 1 foot high.

Transea tenuifolia ^{McL. Gault} ~~H. & G.~~
13th July 1847. 3rd October 1846. Pecos
Creek below Fort Santa Fe,
low first 40. Also: Santa Fe, foot
of hills near an irrigating ditch.

Ambrosia ~~longifolia~~
1st August 1847. Santa Fe,
Creek bottom.

Transea acanthocarpa (B.) ^{Muhl.}
2nd Sept. 1846. Dry Creek banks
East of Fort's fort, sandy bed
of the creek.
8th August 1847. Willow Bar,
deep sand.

Transea spodiocarpa Nutt.
19 October 1846. Santa Fe near
the creek.

Transea coronopifolia
1st August 1846. Dry, inside of
"Stone" Camp.
8th Sept. 1847. Pawnee Fork.

Transea discolor Nutt.
1st August 1847. Between Pecos
Colorado and Rock-Creek.

Transea ^{tomentosa} ~~dealbata~~ ^{Nutt.}
1st Sept. 1846. Walnut Creek,
high part of the bank.

Iva ciliata
1st Sept. 1847. Sand Creek
(N. Mex.) Low wet places in
the prairie East to Fort Leavenworth.

Ambrosia turfida
22nd August 1847. Rock Creek
bottom land.
22nd August 1846. 3rd Sept. 1846.
Council Grove to Walnut Creek;
8 to 10 feet high.

Byelachena hantzifolia
8th August - 1st August 1847.
Santa Fe - 2 miles East of
Moro river, bottom land.
8 to 10 feet high.

Byelachena hantzifolia
10th - 22nd August 1847. Santa Fe
to Rock Creek (N. Mex.) B. L. M. land.
6 to 10 feet high.

Rudbeckia laciniata
3rd June - 19th July 1847. Santa Fe
Creek bottom close to the water.
Rudbeckia laciniata

17th August 1846. About 8 miles
East of Council Grove, creek bottom.
Rudb. submontosa

11th August 1846. 15 miles South
of Fort Leavenworth
Rudb. lyrata
Berlandiera puberula Nutt.
11th - 12th August 1847. Between
Pecos and San Miguel, woodland
on the mountains.

Himnania exilioides
13th Aug. 9th Sept. Santa Fe,
west garden in a row about
fields, foot of hills. 1847.
Rio de las Animas, prairie
mountains, among.

Lepachys columbiana (B.) ^{puberula}
1st August 1847. 15 miles East
of Pecos, valley.

Lepachys columbiana
10th August 1847. 15 miles Santa
Fe and Pecos.

Himnania ^{puberula} ~~puberula~~
Lepachys columbiana von Pulch. var.
1st July 1846. 15 miles East of
Santa Fe; west to its and
level tracts near water cuts.
Ujo de Beval and ^{Cheriton}
prairies.

Helianthus mollis
13th August & 21st September 1847. 40
miles East of Santa Fe
and Fort Leavenworth.

Helianthus rigidus
3rd July 1847. Santa Fe, a little
above the prairie.

H. Maximiliani
2nd Sept. 1847. South side of
the ford of Mora near the
bottom land.

Helianthus lenticularis
23rd June - 28th July 1847. Waste fields, and
Santa Fe Creek valley, 5 miles above San
ta Fe.

H. petiolaris
29th August 1847. Middle Spring (Cimmaron),
low places in the prairie,
height 8 to 12 feet high.

Bidens laciniata
15th August 1847. Bottom land of Mora
Creek (N. Mex.).

H. trachelifolius
16th August 1846. Creek bottom, about
1 mile East of Council Grove.

Helianthus multiflorus Nutt.
3rd August 1847. 1 mile East of
Rock Creek, bottom land.

Bidens lewisii B. ^{pacifica}
16th August 1846. Council Grove, creek
bed, near the water.

Helianthus scaber DC.
14th August 1846. Rocky point low
prairie.

Bidens ~~puberula~~
25th Sept. 1847. Dry part of the bed
of Missouri River, a few miles
above Liberty.

Lambertia aurea
~~Lambertia aurea~~ ^{Nov. gen. 1846}
6th - 27th August 1847. Between Cold
and Upper Spring (Cimmaron).

Bidens ~~puberula~~
6th Sept. 1847. Dry part of the bed
of Missouri River, a few miles below
Liberty.

Bidens foeniculifera
23rd Sept. 1847. Banks of Missouri
river near Liberty.

Bidens annata
17th Sept. 1847. A few miles West
of Council Grove, low prairie
places.

10th August 1847. Between Santa Fe
and Pecos.

Bidens tinctoria
17th August 1847. A few miles East
of Mora River, low places.

Same as 441
5th 9th Sept. 1846. 7. Between
Leon Creek and Pawnee Fork,
shallow hollows in the prairie
said to be made by the sageloes
and willows.

Bidens foeniculifera
2nd Sept. 1847. South side of the
ford of Mora River, bottom land.

Bidens involucrata Nutt.
20th Sept. 1847. A few miles East
and West of Mora Creek, hollows in the
prairie.

Cosmidium gracile
4th May - 1st Sept. 1846-47. Santa
Fe, foot of hills near irrigating
ditches. Also: Rio del Norte,
low creek.

the same as last
1st October 1846. 5 miles South
of Rio Colorado; valley in the prairie.

Cosmos bipinnatus, Cav.
14th August 1847. 10 miles East
of Pecos, woodland.

Same in fruit,
20th October 1846. near a St. John
well.

Bidens tenuisepta, n. sp.
13th October 1846. Pecos Creek, below
Santa Fe and 15 miles East of
mouth of the creek bank.

Gaillardia pinnatifida
13th June - 26th July 1847. 20 miles
East of Fort Union, 500 feet
high, very strong roots.

G. pinnatifida B.
22nd August 1847. 7 miles East of
North-Creek. Struts, a few of
the heads of flowers, much smaller
than in the preceding one.

G. pinnatifida var.
34th July 1847. Rio del Norte, 10
miles East of Pecos.

Gaillardia pulchella lanceolata
17th September 1846. Between Crow
and Walnut Creeks.

Gaillardia pulchella

18th August 1847. Santa Fe. Ford
of the river between Crow and Pawnee
Creeks.

Palaeoxipha hookeri B. subradiata

18th August 1847. Santa Fe. Ford
of the river between Crow and Pawnee
Creeks. Also at Walnut Creek.

Hymenopappus luteus, Nutt.

5th May - 11th June 1847. Santa Fe.
along the river bank.

Actinella argentea, n. sp.

18th August 1847. Santa Fe. Ford
of the river between Crow and Pawnee
Creeks.

Schubertia (Amelanchier) mexicana

7th July 1847. Santa Fe. Margin of fields near wells.

Dryas chrysanthemoides

10 July 1847. Santa Fe. Creek. at
margin of the fields.

Actinella Richardsonii var.
floribunda

8th June 1847. Santa Fe. Hill, among
rocks. In leaves and stems.

18th August 1847. Santa Fe. Ford
of the river between Crow and Pawnee
Creeks.

Middellia fasciata, Nutt.

23rd June 31st July 1847. Santa Fe.
Creek valley, foot of hills near
margin of fields. Also:

1st October 1846. Santa Fe. Ford
of the river between Crow and Pawnee
Creeks. near the road.

Melantherum leucanthemum var.
cinereum DC.

10th August 1847. Santa Fe. Ford
of the river between Crow and Pawnee
Creeks.

Hymenopappus flavescens var.

28th August 1847. A few miles west
of Walnut Creek, bottom of hills.

Hymenopappus flavescens, n. sp.

14th August 1847. Walnut Creek. Along
and along.

H. tenuifolius, Ph.

18th August 1847. Santa Fe. Ford
of the river between Crow and Pawnee
Creeks.

Actinella scaposa, var.

11th June 1847. Santa Fe. Ford
of the river between Crow and Pawnee
Creeks.

Stemodia

17th August 1847. A few miles east
of Walnut Creek, bottom land.

Helleborus

18th August 1847. Santa Fe. Ford
of the river between Crow and Pawnee
Creeks.

Psahia oppositifolia

10th August 1847. 8 miles east
of Santa Fe to Cold Spring, some
miles. Low places and sides
of ravines.

Senecio longilobus Benth.

17th May 4th June 1847. Santa Fe.
mountain sides, hills and foot of
hills. - 20 3 feet high.

= 460

8th June 1847. Santa Fe. Hill, among
rocks. In leaves and stems.

Senecio longilobus

18th - 20th July 1847. Foot of a
hill Santa Fe.

Senecio longilobus, Benth.

2nd June 25th July 1847. Santa Fe.
Creek valley. Also:

19th July 1840.

Senecio filifolius B. Arundin.

8th Septbr 1847. Santa Fe. Ford
of the river between Crow and Pawnee
Creeks.

27th Septbr 1846. 27 miles south of
Walnut Creek.

Senecio demissus, Richards.

20th October 1846 & 2nd June 1847.
Santa Fe. Creek bottom, not far
from the creek.

Senecio aureus

22nd June 1847. Santa Fe. Creek
bottom.

Senecio exaltatus, Nutt. var.

28th April - 8th June 1847. Santa Fe.
Creek valley, foot of mountains
10 miles above Santa Fe.

Senecio Fendleri

24th June 18th July 1847. Santa Fe.
Creek valley, foot of mountains
11 miles above Santa Fe.

Senecio aureus var. *brevifolius*

13th May - 8th June 1847. Santa Fe.
Creek valley, foot of mountains
11 miles above Santa Fe.

Senecio Fendleri, n. sp.

8th June 1847. Santa Fe. foot of
mountains 11 miles above Santa Fe.

Senecio

4th July 1847. Creek banks south
of Santa Fe.

Senecio

1st August 1847. Santa Fe, waste
land.

The same

2nd Septbr 1846. Walnut Creek
bank.

Senecio

17th August 1840. High bank of
a creek.

Senecio, Nutt. ?

24th May 1st June 1847. Santa Fe.
Creek valley, foot of mountains
11 miles above Santa Fe.

Senecio, n. sp.

1st July 1847. Santa Fe. mountain
side.

Macrorhynchus propinquus

16th June 28th July 1847. Santa Fe.
Creek bottom, grassy places.

Rhaphanus, n. sp.

1st June 10th August 1847. Santa Fe.
Creek bottom, level grassy
places.

When the root when
broken there is exuding a
white milky juice.

Ricnoscia longipilum

1st Septbr 1847. High prairie,
about 10 miles south west of
the upper part of Kansas river.

Malacothrix var. *conchoides*, Fr.

1st June 1847. Santa Fe. Creek
bottom. Low sandy bank.

Laduca elongata V. Sanguinea,
17th August 1847. A few miles east
of Walnut Creek.

Sonchus oleraceus - 506

21st August 1847. Between Rio Grande
and Rock-Creek. Also:
24th July 1846. Walnut Creek.

Nabalus asper

1st August 1847. 16 miles west of
Council Grove, high prairie,
20th - 25th feet high.

Melospiza tuberculosa

1st June 1840. Council Grove
Creek bottom.

Taraxacum palustre var. *latifolium*

15th May 1847. Santa Fe. Creek
bottom near the bank.

The same as next; 1847.

1st October 1840. Walnut Creek, bottom
south of Santa Fe, low
prairie.

Pygodesmia purcea

20th June 1st July 1847. Santa Fe.
margin of fields. One flower
consisting generally of 3 whorls
which at the lower part of the
stalk are united by a single
flower: stamens 8, united at
base into a white space filled up
with dust.

From this plant a white
exudes a yellow-greenish juice
which on coming on the atmosphere
forms a white powder of the
color of a white powder.

Enveloping scales of the flower
head smaller than the leaves.
Lower leaves white linear.
Stem and branches striated.
Flowers red at upper part.

Stephanomeria reniformis, Nutt.

9th June 1st July 1847. Santa Fe.
foot of dry hills, although not
yet from irrigating ditches or fields.

Aphlopappus spinulosus, DC.

20th May 1st October 1846-47. Santa Fe.
Creek valley, grassy and
little cultivated places, generally
not very far from irrigating
ditches. Also:

About Walnut Creek

= 495

15th May - 25th June 1847. Santa Fe Creek bottom, near the bank.

= 495

15th - 20th May 1847. Santa Fe Creek bottom moist fertile soil.

Anchus asper.

1st - 15th June 1847. Santa Fe wrote places about town and along garden-walls.

Alexandrium longipilosa - 1889

13th August 1846. 30 miles West of Independence, stony hill.

Lactuca graminifolia var.

3rd July 1847. Santa Fe, Creek valley, 12 miles above Santa Fe, high up the mountains. 30th as banded flowers seen by which I could tell its color.

Same as 504.

8th July 1847. Santa Fe, Creek valley; flowers yellow.

Mulgedium pulchellum.

8th - 25th July 1847. Santa Fe Creek, hillside facing the creek, loose gravelly soil. Flowers blue.

Sonchus oleraceus.

23rd June - 10th July 1847. Santa Fe, along the inside of field-walls near irrigating ditches.

11th - 25th June 1847. Santa Fe Creek valley.

Achillea millefolium

16th June - 20th October 1847 - 16. Santa Fe Creek-bottom, moist meadows, also also foot of mountains. fl. white

A. the same with rose fl.

13th July 1847. Santa Fe. Flowers: rose-color.

Artemisia Canadensis.

17th August 1847. 2 miles East of Mero River, rocky elevated place. Also:

1st Octbr. 1846. 8 miles South of Rio Colorado (between Santa Fe and Santa Fe).

11. *Artemisia Dracunculoides*. 15th August 1847. Bottom of Mero River.

A. pigida.

3rd Octbr 1846. Poné Creek, prairie. 23rd August 1847. 7 miles East of Rock Creek (New Mex.).

A. ludoviciana -

26th July 1847. Santa Fe, Creek valley.

Artemisia Ludoviciana.

20th August - 23rd Octbr. 1846. Council Grove to Poné Creek, low prairie.

the same as 573 & 574

17th September 1847. Prairies, a few miles West of Council Grove.

Artemisia filifolia. var.

24th August 1847. Between Rock and Rabbit Ear Creeks (N. Mex.)

A. discolor? (young)

31st July 1847. Santa Fe, foot of a hill.

A. vulgaris?

15th July 1847. Santa Fe, Creek-bottom close to the creek.

Gnaphalium Spragelii.

10th - 14th August 1847. Between Santa Fe and Vegas. Mountain woodland low places.

Gnaphalium var. prairie

23rd August 1840. Council Grove hill.

Artemisia Divica.

31st May - 3rd June 1847. Santa Fe, hills at the foot of the higher mountains, northern declivities.

Artemisia Divica.

30th May - 3rd June 1847. Together with the preceding one.

Artemisia Divica.

1st May - 3rd June 1847. Santa Fe hills at the foot of the higher mountains, northern declivities, together with the preceding one.

Artemisia Divica var. *arvensis* - 1847. Santa Fe hills at the foot of mountains.

Solidago incana, var. *racemosa* (young).

14th - 10th June 1847. Santa Fe Creek bottom, irrigating ditch.

Artemisia sphaerocephala, n. sp.

7th - 20th August 1847. Upper prairie, 10 miles West of Santa Fe.

Amphicarpis dracunculoides Desf. ~~*Guthriea* *Zethra*~~

1st September 1847. High prairie a few miles South West of the upper ferry of Kansas river.

Solidago lanceolata

2nd September 1847. Head of Arkansas river, both sides wet bottom and prairie. 1st September 1847. Council Grove, 10 miles West of Kansas river.

Solidago ulmifolia

1st September 1847. Prairie about 10 miles South West of the upper ferry of Kansas river.

Solidago speciosa

21st September 1847. High prairie, a few miles South West of the upper ferry of Kansas river.

Solidago rigida

21st September 1847. The same locality with the preceding one.

Townsendia grandiflora.

4th August 1847. Between Santa Fe and Rio Colorado low prairie.

Heterospermum tagetinum, n. sp.

14th August 1847. 10 miles West of Vegas, woodland.

296 *Pedicularis* sp. *impatiens*?

10th August 1847. Between Santa Fe and Pecos.

Florina angustifolia, Pursh

30th August 1847. 10 miles West of Lower Spring (Comanche co.).

14th - 17th August 1847. A few miles East of Mero river.

Artemisia

Sonchalia lanceolata, n. sp. 10 August 1847. Between Santa Fe and Pecos, woodland.

Labellaceae.

20th Septbr. 1847. Creek bank, a few miles West of Mero creek. Lower blue sometimes purple.

17th August 1846. About 18 miles West of Independence, C. at bottom.

1st - 15th Septbr. 1847. Ford of Arkansas river to Cottonwood Creek, banks and Creek bottom.

Campanulaceae.

Campanula acuminata

2nd September 1847. Woodland about 6 miles North of the upper ferry of Kansas river. Flowers blue.

the same

23rd September 1847. Woodland of Kansas river.

16th June - 28th July 1847. Santa Fe Creek 9 miles above Santa Fe sunny side of mountains between rocks.

Ericaceae.

16th - 17th June 1847. Santa Fe Creek overhaded margin of the Creek.

28th July 1847. Santa Fe Prairies high up on the mountains.

Arctostaphylos, W. W. W.

26th April - 1st May 1847. About 6 miles East of Santa Fe Creek bottom. A sandy declivity of the mountains. Evergreen. In the surface of the berries as seen in the snow that covers them is melted away.

Aquifoliaceae.

Junonia acuminata W.

25th May 1847. Rio del Norte; steep rocky bank of the river. A shrub about 10 feet high.

Primulaceae.

Adonis vernalis.

11th April - 15th May 1847. Santa Fe Creek; sandy shores of its bed exposed to insolation moist soil. Petals light rose color usually white. Some few specimens I found to have been preserved under the snow throughout the winter.

Dr. Meadia.

3rd - 10th June 1847. Santa Fe Creek, sunny margin, deep fertile soil. Flower of a very fine ~~rose~~ purple color before drying.

15th - 18th August 1847. Bottom land about New River.

Plantagineae.

10th May - 10th August 1847. Santa Fe. Dry valley between the lesser hills, tolerably good soil. Also Creek valley sides of hills not far from the creek. Also Rio del Norte and a few miles East of Cold Spring (Cimarron).

Plantago major

6th June - 5th July 1847. Santa Fe Creek bottom, near the creek.

Plantago major

17th August 1846. About 120 miles West of Independence.

Scrophulariaceae.

Mertensia pubescens

31st August 1847. Lower Spring Cimarron, prairie.

Scrophulariaceae.

Linaria pedunculata

25th August 1846. Council Grove, gravel of the creek-bed.

Linaria ciliata

11th August 1846. 10 miles South of Fort Leavenworth. Flower blue.

the same

22nd Septbr. 1847. Woodland about 6 miles South of the upper ferry of Kansas River.

Scrophulariaceae.

3rd June - 7th July 1847. Santa Fe Creek-bottom margin of the creek, wet soil.

27th May - 9th June 1847. Santa Fe. Near and in Springs in mountain.

11th May - 14th October. Santa Fe Creek bottom low sandy margin of the creek, wet soil.

Herpestis rotundifolia

2nd Septbr. 1847. A pool of water in the prairies 40 miles South West of the fort of St. Kansas riv.

Mimulus alatus

20th August 1846. Council Grove Creek-bottom.

26th April - 10th June 1847. Santa Fe, creek-bottom margin of the river. flat sandy wet banks. Petals blue with white streaks the lower

one smaller than the rest and of a lighter blue. Flower rugose.

27th May - 8th July 1847. Santa Fe Creek, margin of the water partly submerged. Flower blue, fragrant in a high degree.

Veronica Anagallis

17th August 1846. About 15 miles East of Council Grove.

Trophularia marylandica

4th August 1846. Council Grove creek bottom, yellow soil. Flower 18 feet high.

Lindernia DiCatata

18th Septbr. 1847. Bluff Creek, bottom.

14th August 1846, and 18th September 1847. Bluff Creek and Hickory point, bottom land.

23rd - 26th August 1847. Between Rabbit Ear Creek and Cold Spring (Cimarron); sandy hillside.

Gerardia tenax

10th Septbr. 1847. Pro. 110 feet West Leavenworth; low prairie.

4th Septbr. 1847. Arkansas-bottom, wet places, South of its ford.

23rd August 1846. Council Grove low places between hills. Flower: blue, fragrant.

Gerardia auriculata

18th August 1846. 2 miles East of Council Grove; also.

21st Septbr. 1847. Dry prairies a few miles South West of the upper ferry of Kansas Riv.

18th August 1846. 10 miles East of Council Grove. Prairie.

21st May - 26th July 1847. Santa Fe, dry gravelly hills.

4th - 28th May 1847. Santa Fe, gravelly hills dry soil.

14th August 1846. Hickory Point, prairie.

10th August 1847. Between Rabbit Ear and Cold Spring wood land.

15th August 1847. High bank head of San Miguel.

1st - 12th July 1847. Santa Fe Creek hill side; flower white.

22nd June - 28th July 1847. Santa Fe Creek bottom, also. 11 miles above Santa Fe, on sides and ravines of high mountains where the moisture is greater than in the plains of Santa Fe.

15th May - 1st July 1847. Santa Fe Creek, shady, gently sloping declivities, foot of mountains.

Petals white, diam. 2, nearly twice the length of the petals.

28th July 1847. Santa Fe Creek, shady sides of mountains 11 miles above Santa Fe.

29th April - 15th July 1847. Santa Fe, gravelly hills and sides of mountains; - Rio del Norte, - Poni Cr. and Bayado Creek; also Fort's Fort and Santa Fe. 4th October 1846.

Verbenaceae.

17th Octbr. 1846. Rayado Creek (betw. Bent's Fort and Santa Fe); gravelly valley.

Verbenaceae.

Verben. *capitata*

1 30th April - 20th October 1846-47. Waste fields and low valleys in the mountains, Santa Fe. Also between Rayado & Ocati creeks.

Verben. capitata

1 24th May - 31st July 1847. Santa Fe, Creek bottom.

22nd June - 31st July 1847. Santa Fe Creek bank.

= 586

8th May 1847. Rio del Norte, flat sandy bottom not far from the river.

= 587

19th Octbr. 1846. Santa Fe, Creek valley, gravelly moist soil.

= 586

23rd Octbr. 1846. Santa Fe, Creek-bottom. 27th August 1847. Upper Spring (Cimmaron), bottom.

= 587.

1 28th August 1847. 1st Septbr. 1847. Below Bar, low sandy places, also sand creek, low places in the prairies.

Verben. *subletia*

21st Septbr. 1847. 18 miles East of Rio Creek.

12th August 1847. Neighbourhood of San Miguel, prairie.

Verben. *paniculata*

15th August 1847. Moro River bottom.

Verben. *articulata*

22nd Septbr. 1847. Bottom land of Kansas River.

1 11th June - 31st July 1847. Santa Fe, Creek-bottom.

6. In some specimens the flower white. Verben. *stricta*

4th Septbr. 1847. Ford of Kansas River to Burne Fork, bottom-land.

Verben. *capitata*

17th August 1846. About 30 miles East of Council Grove, bottom land.

Verben. *capitata*

16th August 1846. About 100 miles West of Independence. Creek bed, wet places.

10th August - 10th Octbr. 1847. A few miles East of Santa Fe to Moro River, mountain valleys and low prairies.

21st August - 6th Septbr. 1847. Rio Colorado to Burne Fork, low places in the prairie.

Labiatae.

1 10th August - 10th Octbr. 1847. A few miles East of Santa Fe to Moro River, mountain valleys and prairies.

25th June - 15th July 1847. Santa Fe Creek, foot of mountains (sunny side).

1 16th June - 18th Septbr. 1847. Santa Fe to B-luff-Creek, bottom land.

6. Same spec. with white flowers. Verben. *capitata*

22nd August - 27th Septbr. 1846. Council-Grove; also: 25 miles North of Bent's Fort.

1 9th June - 20th Octbr. 1847. 1846. Santa Fe, Creek bottom, also sides of hills between rocks not far from irrigating ditches.

Verben. *capitata* 605

27th Septbr. 1847. Between Kansas River & Fort. Leaves with, perianth. Flower: white.

1 10th 16th - August 1847. Moro to Moro River, woodland on the mountains, low valley.

1 18th - 31st July 1847. Santa Fe, Creek-bottom, in moist-hady places.

1 14th - 18th - August 1847. A few miles West of Vegas to Moro River.

607.

18th August 1847. 8 miles East of Moro River bottom-land.

609

11th August 1847. 8 miles South of Fort Lavenue etc.

17th August 1846. About 25 miles East of Council Grove.

23rd June - 20th Octbr. 1846-47. Santa Fe Creek-bottom near irrigating ditches; Ford of the Kansas R. and East of Council Grove.

13th August 1846. 17 miles West of Independence, Creek-bottom.

Verben. *capitata*

10th August 1846. Council Grove, Creek-bottom.

14th - 17th August 1847. A few miles West of Vegas to Moro River, woodland on prairies.

10th August - 4th Octbr. 1846-47. Pecos Rio de Bonnet to Rock Creek; also: Rio and Rayado Creeks, Bent's Fort, Santa Fe, in valleys.

Verben. *lateriflora*

13th August 1846 - 3rd Septbr. 1847. Kansas River-bottom.

24th May - 31st July 1847. Santa Fe, sunny hill-sides facing the creek, between rocks; also: between rocks near irrigating ditches. - Rio del Norte.

30th July - 10th August 1847. Santa Fe, Creek valley in the mountains, sunny mountain sides between rocks, also stone piles near a field.

Boraginaceae.

Heliotropium uncinatum

11th August 1847. Between Rock Lake and Rock Creek. Low prairie.

18th August 1847. 1/2 mile S.W. of, deep sandy soil.

11th August 1846. 4 miles south of Kansas ferry, low prairie.

23rd August 1847. 1 mile East of Rock Creek.

16th April to 3rd June 1847. Santa Fe Creek bottom, foot of hills at some distance from the water.

24th May - 28th July 1847. Santa Fe, creek bottom, moist fertile soil at the margin of the water.

24th June - 15th July 1847. Santa Fe, same as the creek, sunny side of mountains. In bunches of 12 foot diameter and 12 foot high. Flower short and small.

20th May to June 1847. Santa Fe. Creek valley, foot bottom land and foot of hills. Flowers long but narrow.

19th April - 15th May 1847. On the stony side of hills, unimproved. Flowers long and large.

The same

3rd October 1846. Poni Creek below Fort Bent and Santa Fe. Bottom prairie, good soil. The root of this plant is said by the Mexicans to be good (when boiled) to cure sores &c. Also 13th August 1847. Between Rabbit Ear and Mc Nee's Creek.

Datura longiflora Nutt

18th July 1847. Bluff Creek, bottom land.

Crypt. Jansoni

25th August 1847. Mc Nee's Creek sandy hillside.

Crypt. flavocanescens.

25th April - 1st May 1847. In gravelly hills south West of Santa Fe. Lower white.

25th June - 15th July 1847. Santa Fe, creek up the mountains, sunny sides of mountains above rocks.

4th May - 7th July 1847. Santa Fe, valleys between a dry and gravelly hills also creek valley close to fields.

Crypt. Fendleri

7th - 16th July 1847. Santa Fe, creek valley near a field.

Crypt. Jansoni

19th May - 31st July 1847. In the valleys between the gravelly hills where they run out into the plains.

Echinospermum virginianum

18th Septbr. 1847. Bluff Creek bottom land.

1st July 1847. Santa Fe, creek valley.

17th - 25th August 1847. In the Mores to Rock Creek; elevated prairie.

Crypt. crassifolia

24th April - 30th May 1847. Santa Fe. Valley between the gravelly hills south West of Santa Fe.

Hydrophyllaceae

3rd - 10th June 1847. Santa Fe Creek 8 miles above Santa Fe, sandy damp stream on E. side of rocks.

3rd June - 18th July 1847. Santa Fe, creek bottom low rather moist place.

Hydrobiaceae

30th May - 4th June 1847. 5 miles South West of Santa Fe, low tolerably good soil in a valley between the hills. Plants in moist.

10th - 14th August 1846. Santa Fe. In the bottom of the valley between the mountains.

Polemoniaceae

18th August 1847. Low bottom land or Mores river.

11th June - 30th July 1847. Santa Fe. Creek valley; on hills, also foot of hills near irrigating ditch. Flowers red.

= 646

4th August 1847. 12 miles S.W. of Santa Fe.

4th July - 1st May 1847. Santa Fe, valley. Between the gravelly hills south West of Santa Fe. In the plain. Plants white, a tinge of a bluish green color.

24th May 1847. Arroyo del Norte, low bank between rocks. Flower blue.

8th May 1847. Arroyo del Norte; sunny places in ravines between rocks. 8th August - 1st Septbr. 1847. Santa Fe. Foot of the mountains. Sandy soil. Sand Creek.

17th May 1847. Santa Fe. Sunny side of hills, in gravelly soil. Dry under this place. 1st June 1847. Santa Fe.

23rd August 1847. 1 mile East of Rock Creek, on the bottom.

24th June - 8th July 1847. Santa Fe. 14 miles S.W. of Santa Fe. In the mountains.

19th July 1847. Santa Fe, creek bottom. Sandy soil.

16th June - 8th July 1847. Santa Fe. High up the creek. Sunny side of hills. Rocky mountains.

Convolvulaceae

Cuscuta glomerata

11th August 1846. 8 miles South of Santa Fe. Bottom land.

The same

8th September 1847. Pawnee Fork; deep burn.

C. Coryli

18th Septbr. 1847. Bluff Creek bottom land.

C. umbellata Humb. Torr.

9th July 1847. Santa Fe; waste house gardens and margin of fields. In America, etc.

6th Septbr. 1846. About 15 miles East of the ford of the Arkansas river, low prairie.

25th August 1847. Between Rio Colorado and Rock Creek, also land cut
27th Septbr 1846. 20 miles South of Santa Fe.

2nd Octbr 1846. Between Poné and Rayado creeks, gravelly hillside.
1st 2nd August 1847. Near to Rock Creek.

8th 10th August 1847. Santa Fe, corn fields, also wood land between Santa Fe and Vegas.

10th August 1847. Between Santa Fe and Pecos, mountainous woodland.

14th June 1847. Santa Fe, margin of an irrigating ditch and waste lying garden.

10th August 1847. Between Santa Fe and Pecos, woodland.

Convolvulus Sepium (glaber)

15th August 1847. Moro River bottom land.

Convolvulus panduratus

23rd Septbr 1847. Creek-bottom, North of Kansas river. Flowers white showy.

25th May - 11th July 1847. Santa Fe, at the foot of dry hills, sunny side. Locally. Flowers seldom seen expanded.

10th August 1847. Between Santa Fe and Pecos.

Solanaceae.

21st June - 11th August 1847. Santa Fe creek valley about fields and irrigating ditches. Also from Santa Fe to Vegas, woodland, shady places around us and shrubs.

28th May - 11th June 1847. Santa Fe, Creek valley, close to an irrigating ditch at the foot of a hill.

7th June - 14th Octbr 1847. Santa Fe on rock fluts of the iron and marbells, but on the ground. Also between Pecos and Somojo creeks, level prairies.

6th 11th August 1847. Santa Fe, rocky sides of dry creeks. Also from Santa Fe to Vegas, woodland between mountains.

Solanum.

12th July - 6th August 1847. Santa Fe, creek valley, foot of mountain, sun side.

18th August - 9th August 1847. Rock Creek to a few miles East of Council Grove, prairie.

7th July - 13th August 1847. Santa Fe, Rock valley. Sunny declivity near the U.S. horse rail. Also neighborhood of Rio de Bonos.

28th 9th August 1847. A few miles West of Willow Run to Middle Spring, common.

10th 21st August 1847. Council Creek to Upper Spring, (near Pecos), low prairie.

6th June 9th July 1847. Santa Fe waste garden places.

23rd August 1847. West side of low prairie.

14th June - 13th July 1847. Margin of an underfoot irrigating ditch on a waste garden. Flowers deep blue. Santa Fe.

1st June - 20th August 1847. Santa Fe - Middle Spring, common on prairies and low places in the prairies also creek bottom. Between Poné and Rayado creeks.

1st July - 12th July 1847. Santa Fe, waste garden fields. Also foot of mountains not far from the creek.

11th June - 18th July 1847. Santa Fe, creek valley, waste garden, also the foot of hills.

2nd June - 18th August 1847. Santa Fe, sunny sloping sides of ravines, low soil; also in level places, creek bottom, prairie, etc.

Flowers somewhat consisting of 25 feet high. Use of the East of Moro River.

7th June - 10th August 1847. Santa Fe, waste gardens and yards. Also between Santa Fe and Pecos.

Gentianaceae.

10th 5th June 1847. Santa Fe, creek valley, foot of mountains. This seem to be very good of this plant. 4-5 feet high.

1 28th August 5th Septbr 1846-47.

Corrective of names given to you.

Fendler 688 *Gentiana Pygmaea* L. f. *pubescens* T. & G.

689 *G. Andrewsii* Griseb. —

690 *Apocynum androsaemifolium*.

b. *A. hypnoides* - *glaberrimum*

691 *A. canbinum* *glaberrimum* —

692 *A.* " " " "

693 *Solanum scabra* n. sp.

Apocynaceae.

24th June - 28th July 1847. Santa Fe, steep rocky sides of mountains facing towards the creek.

23rd July 1847. Rock creek bottom - land.

19th August 1846. Council Grove bottom land of the creek.

Jasminaceae.

31st May 1847. Santa Fe, sunny hillside between rocks, foot of hills and in valleys. Flowers fugacious.

Asclepiadaceae.

25th June - 31st July 1847. Santa Fe, foot of the mountains as well as of the lower hills.

11th June - 12th July 1847. Santa Fe near fields.

4th June 1847. Santa Fe, creek valley, sunny side of a long hill.

= 695 feet

17th August 1847. 2 miles East

25th August 1847. Between Rio Colorado and Rock Creek; also Sand Creek.
27th Septbr 1846. 20 miles South of Santa Fe.

2nd Octbr 1846. Between Poncha and Lagado creeks, gravelly hillside.
1st August 1847. Near to Rock Creek.

8th - 10th August 1847. Santa Fe fields; also wood land between Santa Fe and Logans.

10th August 1847. Between Santa Fe and Logans. Mountainous woodland.

14th June 1847. Santa Fe, margin of an irrigating ditch and waste lying garden.

10th August 1847. Between Santa Fe and Logans woodland.

Convolvulus Sepium (Gleason)

15th August 1847. Moro River bottom land.

Corn paniculatus

23rd Septbr 1847. Creek bottom, South of Kansas river. Flowers white showy.

1st May 11th July 1847. Santa Fe

The neighborhood of Santa Fe - as soon as he returns to me (= a week or two).

I include *Sida hispida* ?? Can it possibly be the Georgia plant ? - It grew in Adams - destroyed now - but have found it at various rocky places in the mining region of Missouri with *Oenothera missouriensis*, *Lithospermum fenellum* and other rarities. I must have sent you specimens and seeds before.

I had some other things to say, but forgot at the end of the day.

28th May 11th June 1847. Santa Fe, Creek valley, close to an irrigating ditch at the foot of a hill.

7th June - 1st Octbr 1847. - 6. Santa Fe. on east side of the river and near fields; flat on the ground. Also between Logans and Santa Fe creeks, level prairie.

6th 11th August 1847. Santa Fe. Along rocky side of Logans. Also from Santa Fe to Logans, wooded the mountains.

Solanum

1st July 6th August 1847. Santa Fe, Creek valley, foot of mountains, sunny side.

18th August - 2nd August 1847. Rock Creek to a few miles East of Council Grove, prairie.

7th July 1st August 1847. Santa Fe, Creek valley. Sunny declivity near the creek loose soil. Also neighborhood of Logans.

28th 9th August 1847. A few miles West of Yellow Springs to Middle Spring, common.

20th 27th August 1847. Logans, Creek to Upper Spring (Logans), low prairie.

1st June - 20th August 1847. Santa Fe - middle spring, common. Grows on soil low places, in the prairie also creek bottom. Between Poncha and Logans creeks.

1st July - 1st July 1847. Santa Fe. East of fields. Also growing in prairie not far from the creek.

11th June 18th July 1847. Santa Fe. Creek valley, near Logans, sunny side.

1st August 18th August 1847. Santa Fe. Sunny sloping sides of ravines, loose soil; also in low places, creek bottom, prairie, the prairie.

1st June 10th August 1847. Santa Fe. Waste gardens and yards. Also between Santa Fe and Logans.

7th June 10th August 1847. Santa Fe. Waste gardens and yards. Also between Santa Fe and Logans.

Gentianaceae.

10th 25th June 1847. Santa Fe. Creek valley, foot of mountains. Flowers seem to be very good of this plant. 4-5 feet high.

23rd August 5th Septbr 1846-47. Travels a few miles West of the ford of Cimarron river, also Arkansas river.

Saprania bipartenda T. & G.

21st Septbr 1847. Travels a few miles South West of the upper ferry of Kansas River.

Jentiana Saprania

21st - 23rd Septbr 1847. Creek bottom North of Kansas River, near its upper ferry.

Apocynaceae.

24th June - 8th July 1847. Santa Fe. Steep rocky sides of mountains facing towards the creek.

22nd Aug. 1847. Rock Creek bottom - land.

19th August 1846. Council Grove bottom land of the creek.

Jasminaceae.

31st Aug 1847. Santa Fe. Sunny hillside between rocks, foot of hills not in valleys. Flowers fugacious.

Asclepiadaceae.

25th June - 31st July 1847. Santa Fe. Foot of the mountains as well as of the water hills.

11th June - 1st July 1847. Santa Fe. near fields.

11th June 1847. Santa Fe. Creek valley sunny side of a long hill.

= 695 feet

17th August 1847. 2 miles East of Moro River

= 696 feet

15th 21st August 1847. Moro River and Rock Creek.

24th - 25th August 1847. Between Rio Colorado and McKee's Creek.

Asclepias tuberosa

18th Septbr 1847. Bluff Creek bottom land.

22^d August 1847. Rock Creek bottom-land.

12^d August 1847. Neighborhood of San Miguel.

Asclepias verticillata, fruit

1st Sept. 1847. 12 miles South West of the upper part of Kansas river.

A. verticillata

12^d August 1846. A few miles East of Kansas river, prairies.

14^d 5^d August 1847. Between San Miguel and McNeess's Creek.

Arenaria auriculata Esch. - plant with fruit

25^d August 1847. Between Rabbit ear and McNeess's Creek, high prairie.

24^d May 1847. Rio del Norte; flat sandy river bank between stones

Utriculariaceae.

16^d Sept. 1846. 20 miles East of Big Sand Creek; sandy grassy soil.

25^d August 1847. - 19^d Sept. 1846

32 miles East of Bent's Fort, near flat prairies near the bank of the Arkansas river. Also McNeess's Creek.

at shrub 1 1/2 to 3 feet high and very much spreading.

B. leptophyllum (H. & A.)

10^d August 1847. Between Santa Fe and Pecos; woodland.

21^d August 1847. Between Rio Colorado and Rock Creek. Low parts of the prairie.

Rochia dentata

26^d August 1847. Between McNeess's Creek and Cold Spring; sandy soil.

10^d August 1847. Between Santa Fe and Pecos.

15^d 17^d August 1847. North river, prairie.

22^d August 1847. Rock Creek, bottom-land.

10^d 11^d August 1847. Between Santa Fe and San Miguel; woodland.

1st Sept. 1847. Sand Creek (Mex.); low prairie.

C. leptophyllum & *Proserpinaca*

17^d & 21^d August 1847. 40. Council Grove, dry prairie. Also a few miles East of Santa Fe.

C. album, candidum

23^d June 1847. Santa Fe. waste house gardens.

17^d May 12^d July 1847. Santa Fe creek valley; foot of hills where the ground is occasionally irrigated.

25^d August 1847. 7 miles East of Rock Creek.

7^d June 26^d July 1847. About house gardens etc.

Chenopodium. 186. E.

12^d July 1847. Santa Fe; margin of fields.

C. album var.

17^d August 1847. A few miles East of Moss River.

23^d June 9^d July 1847. Santa Fe; about fields and yards.

Amaranthaceae.

17^d Sept. 1846. About 10 miles East of Big Sand Creek; high prairie.

20^d August 1847. Middle Spring (Cimarron); prairie.

The branches of this plant are not so spreading as in the preceding one.

18^d August 1847. Neighborhood of San Miguel. Leaves smooth.

10^d Sept. 1846. 5 miles South of the fork of Arkansas river.

14^d August 1847. 16 miles West of Vegas.

7^d October 1846. Between San Miguel and Pecos; roadside.

24^d May - 28 August 1847. Santa Fe. yards and waste places. Also Rock Creek high prairies.

24^d June 1847. About houses and yards, near irrigating ditches. Santa Fe.

The same as last

10^d July 1847. 1846. etc. lower leaves side of the leaves marked with red spots.

2^d May 6 August 1847. Santa Fe. creek valley. Also Rio del Norte sandy soil between rocks flat river bank.

14^d June 11^d July 1847. Santa Fe. Creek valley, foot of hills.

14^d July 1847. Santa Fe, near houses and fields.

14^d - 21^d August 1846. Hickory Point to Council Grove; gullies.

The same as last

5^d September 1846. Walnut Creek creek bank.

Nyctaginaceae.

19^d May - 11 August 1847. Santa Fe; flat somewhat moist places not very far from fields and irrigating ditches. Flower white.

10^d August - 8 September 1847. Between Santa Fe and Rio de Bernal; mountains woodland. Also 28^d September 1847. Rio de las Animas valley, laterabe good soil.

Flowers seldom expanded early in the morning.

22^d August 1847. Rock Creek bottom land.

14^d & 15^d August 1847. Vegas to Moss River. Leaves cordate, involucre of the flower somewhat tomentose.

19^d Sept. 1846. 42 miles East of Bent's Fort; bank of the Arkansas River.

17^d August 1847. 2 miles East of Moss River; elevated rocky region.

Oxybaphus ovatus s. pilosus

11^d 17^d August 1846. First leaves worth to Council Grove.

16^d June - 10^d August 1847. Santa Fe; Creek valley, foot of hills also near fields between rocks.

Involucre of the flower consisting of 5 segments and containing 2 flowers.

7^d July - 6^d August 1847. Santa Fe; Creek valley near irrigating ditches, amongst the branches of undershrubs. Flowers rarely to be seen opened except in the morning. Involucre resembling a calyx of 5-segments.

Polygonaceae.

Polygonum amphibium Terrestre

August 1847. 2 miles East of Mora river. foot of a high rocky embankment.

Pol. pennsylvanicum

8th Septbr. 1847. Pawnee Fork, Creek bottom.

27th August 1847. Middle Spring (Gimmaron); low places.

4th July 8th Septbr. 1847. Santa Fe and Pawnee Fork, Creek bottom.

Pol. virginicum

17th Septbr. 1847. Council Grove Creek-bottom.

22nd June - 28th July 1847. Santa Fe margin of irrigating ditches.

Pol. ramosissimum

7th July 1847. Santa Fe, Creek bottom.

4th June 1847. Santa Fe, near the irrigating ditches.

Pol. scandens largest form.

8th Septbr. 1847. Pawnee Fork. Fruit winged.

Pol. scandens, smallest form

4th August 1846. Hickory point, Creek bottom. Seeds much smaller than in the preceding one.

Pol. scandens common intermediate form

22nd August 1847. Rock creek, over-shaded deep ravine.

8th May 1847. Between the Rio del Norte and Santa Fe, elevated grassy plains.

Remotest *cruciformis* oval, with 17th August 1847. miles East base of Mora River, bottom land.

4-5 feet high

21st June 1847. Santa Fe, near the irrigating ditch of a field.

29th August 1847. Middle Spring (Gimmaron).

8th August 1847. Santa Fe, pasture, wet moory places

1st July - 17th August 1847. Santa Fe Creek valley, up in the mountains. Also 2 miles East of Mora River, elevated rocky region.

10th August 1847. Between Santa Fe and Pecos. Also 15th July 1847. Santa Fe, Creek valley.

25th August 1847. Between Tablar Bar and Montezuma Creeks.

766 *Encyonema tenuillum* Torr.

16th August 1847. Near summit of a rocky hill between ledges of rocks.

21st August 1847. Between Rio Colorado and Rock Creek.

23rd Septbr. 1846. 3 miles above Bent's Fort, at Arkansas River, on the rounded very pebbly and sterile bluffs.

15th - 17th August 1847. Mora River, rocky elevated region. Also

2nd October 1846. Between Pecos and Rayado Creeks.

15th July 1847. Santa Fe, Creek valley, mountain side between rocks. Leaves more or less persistent through the winter.

14th August 1847. 15 miles West of Vegas.

= 771

12th Septbr. 1846. Between Tablar and Cow Creeks.

= 771

28th August 1847. Willow Jar in sand, socially. - 5 to 6 feet high.

= 771

28th - 1840 - side

Claynaceae.

18th July 1847. Creek valley 2 miles above Santa Fe, foot of mountains and in ravine.

Ulmaceae.

25th May 1847. Rio del Norte, somewhat elevated bank of the river close to the water.

A tree-like shrub about 12 feet high, branches spreading.

Euphorbiaceae.

25th May - 13th July 1847. Rio del Norte, lower part of ravine sunny side. Also

Santa Fe sunny steep side of stony hills. Also

4th Octbr. 1840. Between Pecos and Rayado Creeks.

Acalypha virginica longipetiolata (caroliniana and)

17th August 1846. A few miles East of Bluff-Creek.

18th Septbr. 1847. Bluff Creek, bottom land.

A. virginica brevifoliolata

14th August 1846. Hickory point, Creek-bottom.

Croton ellipticum Nutt.

21st Septbr 1847. Creek-bottom 20 miles East of 110 Creek.

29th, 31st August 1840 47. Cow-Creek and Middle Spring (Gimmaron). Dry, prairie.

30th June - 17th Octbr. 1840 - 47. Santa Fe, lower part of the town, creek valley gravelly soil, also on steep side of gullies, rather sterile soil.

Euphorbia yuthopora fol. ovata pedunculis

25th August 1846. Council Grove creek-bottom.

14th June - 8th Septbr. 1847. Santa Fe, in and near fields Pawnee Fork steep banks of the River.

Euph. variegata

17th August 1846. 120 miles West of Independence to Wagon Mound, New Mex.; in gullies and low places of the prairie.

Euph. corollata

16th & 7th September 1847. 18 miles West of Council Grove to Fort Leavenworth.

24th May - 28th July 1847. Santa Fe, Creek valley, foot and sunny sides of high mountains

Euph. hypolepis

8th Septbr. 1847. Pawnee Fork. Steep banks of the creek.

Euph.

31st August 1840. Between Cow-Creek and little Arkansas River.

10th - 16th August 1847. Between Santa Fe and Mora River. Around the stand of trees and shrubs, mountainous country.

4 May 1847. Rio del Norte, canyon
river bank. Leaves smooth
somewhat serrate. Usually towards
their axes.

6-12 August 1847. Santa Fe to
San Miguel.

23 August 1847. Council Grove
hills edge of rocks on covered.

5 August 1847. McPeters Creek,
dry hill-side.

18 August + 12 September 1847.
Foot of the mountains to land
Creek; low in water.

15 August + 12 September 1847. Rio
del Norte. Sandy soil low in
bank between rocks. Also
Santa Fe and Rio Creek.

30 June - 10 July 1847. Santa
Fe. Always between the 27
hills. Branches nitid.

8 June - 18 July 1847. Santa
Fe foot of hills.

8 September 1847. Pawnee Fork
right bank of the creek, loose
soil.

8 September 1847. Pawnee Fork,
prairie and steep bank of the
Creek.

4 May 1847. Santa Fe, dry
side of hill and mountains.

= 800

21 June 1847. Santa Fe, dry
hill side.

= 799

14 August 1846. Cichory point
dry bed of a creek.

= 799, minor

12 Sept. 1847. Sand Creek, prairie

= 795

4-5 May 1847. Rio del Norte

= 796

7 June 1847. Santa Fe. Differs
from the preceding one in its seeds.

Cupuliferae.

8 June 1847. Santa Fe, Canyon
mountains. A shrub tree, 8 feet high.

8 June 1847. Santa Fe, Canyon
mountains. A shrub tree, 9
feet high.

8 June 1847. Santa Fe, Canyon
mountains. A shrub tree about 9 feet
high.

8 June 1847. Santa Fe, Canyon
mountains. A shrub 10 feet high.

8 June - 19 July 1847. Santa Fe
Creek valley, banks of the
Creek and foot of mountains.
A shrub 8-12 feet high.

6 June 1847. Santa Fe side
of mountains. A shrub 8-10 feet
high.

Betulaceae.

16-25 June 1847. Santa Fe,
upper part of the Creek valley,
margin of the water. A shrub
15 to 20 feet high.

30 March - 1 April in flower.

Salicaceae.

25 April 15 May 1847. Santa
Fe, Creek-bottom, exposed to the
undulations of the creek.

Shrub 10-14 feet high. In
drying, the rays leave a greasy
mark on the paper.

30 March - 1 April 1847. in
flower.

12 May - 20 May 1847. Santa
Fe, Creek-bottom; margin of the
Creek and near irrigating ditch.

25 May 1847. Rio del Norte;
foot of steep mountain banks,
amongst rocks near the water.

11-20 May 1847. Santa Fe,
margin of the creek.

A tree like shrub about 15
feet high.
I could find no male flowers
to this shrub.

30 April - 2 May 1847. Santa
Fe, Creek-bottom bank of the
Creek. Tree like shrub about
10 feet high.

12 May 1847. Santa Fe, margin
of the creek. The buds of this
tree are coated with a very sticky
substance, which resembles wax,
is transparent and in drying
between paper is taken up by
the latter and makes the paper
transparent and strong also.
April in flower.

Santa Fe. Close to the Creek.
Trees about 40 feet high; lower
branchlets long slender and
pendulous; trees of a fine growth
in the neighbourhood of a
house. I could find no male
flowers to this tree.
10 May in flower.

Santa Fe Creek bottom, 4
miles above Santa Fe.
A tree with spreading branches,
the bark is of a shining
white color given out by a coat
of a very white powdery sub-
stance which easily comes off,
adheres to clothes with great
tenacity.

12 April 1847. in flower.

Urticaceae.

24 May 1847. Rio del Norte
rocky bank of the river.

15 August 1847. Moro river,
bottom-land.

Urtica canadensis
18 August 1846. 15 miles East
of Council Grove, Creek bottom,
rich soil.

Buchanania cylindrica
15 August 1846. 100 miles
West of Independence, Creek
bottom, fertile soil.

Panicum sativa
10 August 1846. 8 miles north
of Fort Leavenworth.

Hemlock Cupulus
15 July 1847. Santa Fe Creek,
6 miles above Santa Fe, foot
of mountains.

= 825 ♀
15 August 1847. Moro river,
bottom-land.

= 825 ♀
21 August 1846. Council Grove,
Creek-bottom.

= 825 ♂
15 miles South of Fort Leaven-
worth. 11 August 1846.
Leaven.

Coniferae.

12 November 8, 21 January 4th
March 1847.

Stems are in the height
of 5 or 6 miles East of Santa Fe.
Especially on the mountain
side they are to be found
and not in the woods but
very few other trees between
them, it is as if the
country of that same kind.

It is occupied by a thin
layer of soil, 18 to 20 in. to the
surface of a very heavy
stratum.

The principal flower branch
lets are to be found on the top
part of the tree, the lower
ones are in the branches.

One of the young trees
smooth and of a glaucous
color, as only in summer
and the branches are smooth
and green.

The lateral buds of the branches
are situated among the winter
with the thick and woody
substance.

The bark is brown or blackish
in color, it is in little
pieces and it is very
the bark is very
young and the surface
of the tree, by which the surface
is raised and it is
has a very light color and
has an agreeable odor.

Trees 60-80 feet high
some of a very handsome
pyramidal growth.

1st Novbr. 5 Feb. 1847. near
Custer's mountains, upper regions
as well as along the higher part
of the "red valley".

I saw several trees of this kind
from which the bark has been
stripped, probably for the use of
tanning leather. The bark of
some of the larger trees of this kind
measures 7 feet in circumference.

see above the ground.

20. March 1847. Hills Eastern
near Santa Fe.

A shrub like tree which attains
a greater height towards the summit
of the mountains, but not above
20 feet. Mostly of a stunted de-
pendent growth branching out
they stand.

It is found abundant in the
valley, plains and hills East
and South West of Santa Fe.

By the mountains near Santa Fe
it is found in the Mexican
country in flower.

17. February 1847. Hills
near Santa Fe.

The tree is very small and
the bark is very smooth and
green. It is very common
in the mountains near Santa Fe
and is very common in the
country near Santa Fe.

18. February 1847. Hills
near Santa Fe.

The tree is very small and
the bark is very smooth and
green. It is very common
in the mountains near Santa Fe
and is very common in the
country near Santa Fe.

17. February 1847. Hills
near Santa Fe.

The tree is very small and
the bark is very smooth and
green. It is very common
in the mountains near Santa Fe
and is very common in the
country near Santa Fe.

Leaves articulated, quadrangular
lower portion persistent to the
of branchlets.

I found only a few of this kind.

298 (325)

2

108 . 4

218

286

425

437

659 . 6

694

692

788

790

792

8