

- 1137 *Gentiana* from Butterfly val.
 8 " " Soda Springs south of Lake Tahoe
 9 { It seems I sent you 2 species together of *G. Hartwegii* and one
 you thought new. The other has larger, thicker, spotted, cordate leaves,
 larger flowers and lower dry sand; This is near streams of Butterfly val.
 1140 Hills near Reno.
- 1 Road-side near Pyramid lake. (Has a disagreeable scent.)
 - 2 Near Steamboat Springs Nev. (Habitually crowded, as this specimen)
 - 3 " " " (Also crowded like specimen)
 - 4 " Pyramid lake, Washoe Co., Nev.
 - 5 On hard cement, side of Webber butte near Sierra val.
 - 6 Near summit of Lassen's peak, *Eng. manipulum*, var.
 - 7 Steamboat Springs val. Nev. (*G. Paronychia?*)
 - 8 " " " "
 - 9 Near summit of Lassen's peak, in volcanic ashes,
Eng. pepulacifolium
1150. " " " Castle peak, Nevada Co. (Always clumped.
 1 Streams of Sierra com. { I have had no time to describe
 2 " " " { Too busy with centennial trees etc.
 to carefully examine - as I meant to do.
- 3 *Pinus flexilis?* Summit of Tellac peak, 11,150 ft. near Tahoe,
 - 4 *Larrea* near Big Trees of Calaveras, 4 to 8 feet high,
 - 5 " The only tall, (20 to 40 feet), ^{oak} of Sierra & northern valleys,
 - 6 " Foot-hills and small ones in Indian valley Plumas Co.
(my sendings to Dr. Vasey.)
 - 7 Excellent forage grass, com. in valleys. (Has been omitted in)
 - 8 Marshy shore of Webber lake; average height as shown
 - 9 Indian val. and northward
- 1160 Side, near summit of Mt. Rose ^{2,500 ft.} Connected by a high ridge to
 Castle peak. Only one plant, stem about 9 feet around.

See also in "Register"

Notes on flowers from Sierra valley, and
 vicinity, communicated, Jan. 28. 1876. by
 J. S. Lemmon Sierra Val., Cal.

(In 2 packages)

- 1066 ^{com} Reported once as "*G. repens?*" but fruit was asked for.
- 1067 Sierra val. sent before but in too ^{dry} ripe a stage,
- 1068 Pluto's gate bet. Reno & Carson on lava rocks, of a narrow, windy pass
- 1069 Butterfly valley
- 1070 High ridge near Reno, Nev.
- 1071 Gray's valley between warm-spring val. & Pyramid lake ^{sandy points 2,666 ft.} abundant on
- 1072 Volcanic scoria shore of Pyramid (This and the above report "*G. repens?*")
- 1073 High ridge near Reno Nev. associated with 10-1070.
- 1074 Sierra val. not abundant,
- 1075 " " & Webber lake val.
- 1076 ^{Big-meadows:} Indian & American val. Plumas Co.
- 1077 Sierra val. flowering all summer,
- 1078 " " & Webber val.
- 1079 Lassen's peak. " " peak. Nev. Co.
- 1080 Floor of Sierra val. sparse.
- 1081 Webber lake val. near Castle Peak.
- 1082 Cascara valley, near Lassen's peak. Plumas Co.
- 1083 Webber lake val. " Castle " Nev. "
- 1084 " " "
- 1085 " " "

- 1086 Kings val. near Lappers peak.
- 1087 An *Astragalus* not before collected. Summit of Castle Peak, 8,000^{ft} Nev, Co.
- 1088 Sierra val. & Great Basin, root creeping.
- 1089 " " near Loyalton,
- 1090 N. of Rose 8,600 ft, connected to Castle Peak, near C.
- 1091 Webber lake val. on peaks,
- 1092 " " " and Sierra val, among willows
- 1093 Side of the sierras on rocks,
- 1094 " " " " on high benches
- 1095 Sierra & Indian val. com
- 1096 " " " " "
- 1097 " in one locality only, mud of warm springs,
- 1098 " & Webber lake, com.
- 1099 Reported 2 years ago " Arabia - ? ^{Indian val. 4 to 6 feet high.} probably new, how is it?
- 1100 Webber lake
- 1101 Tellac peak near Lake Tahoe
- 1102 Stanislaus river, Calaveras Co.
- 1103 Irrigating ditches, near Reno, Nev.
- 1104 Banks of Washoe creek, Plumas Co.,
- 1105 North end Sierra val. Plumas Co., on sand,
- 1106 Washoe Co., Nev. near Reno,
- 1107 Tellac peak, overlooking Tahoe lake,
- 1108 Sierra val. (sent before but ¹ wish to identify duplicate)
- 1109 Eagle val. near Carson City
- 1110 " " " " "
- 1111 Near Lake Tahoe,

- 1112 Near Carson City
- 3 " " " with No 1112
- 4 Foot hills, near Big Trees,
- 5 Sierra val. & southward
- 6 Sierra and Great Basin. Is it *Aster* or *Monarda*?
- 7 A bit of a solitary plant by the road-side, Sierra val,
- 8 Near Big Trees, Calaveras
- 9 " " " "

- 1120 Carson val. com ^(sent package)
- 1 Sierra " "
- 2 Near Big Trees, and Carson val. 2 to 5 ft.
- 3 Sierra valley, in grain fields, *Rafinesquina*?
- 4 Near Big Trees,
- 5 Sierra valley, com
- 6 " " in sloughs,
- 7 } These Pentstemonus have been sent before, but were not reported upon. ^{Is not one of them the supposed new one?}
- 8 } Bolts of Plumas Co., 1127 near Lappers, 4 to 8, near Luning, is tall (2 to 4 ft) much branched, with few yellow & purple flowers.
- 9 American val. near Luning. (sent before) but more perfect.
- 1/2 - Foot-hills " Big Trees,
- 1130 Washello's peak near Sierra val,
- 110 1/2 - By some mistake marked on Watson's report "*Glossopetolon Nevadaense*," Pyramidal like
- 1 Sierra val,
- 2
- 3
- 4 } Biliac from foot-hills near Washello's,
- 5
- 6

1229 *Pellaea bridgesii* - Mt. Meadow lake, near Webber. Sent this
 30 } *Cheilanthes gracillima* " " " } you may
 1 } " " " " " } note the
 " " " " " } locality,
 Sierra Valley, Sept. 3rd 1886.

Dear Professor,

Many thanks for your reply to my

last to Dr. Gray, and for your kind words. Glad the
 tired Dr. G. will take a holiday. Too bad about the new
 Bot. Cal. I write Judge (?) Hastings in vain, where
 can I obtain a copy at any cost? I can't think of
 going into winter quarters at Webber lake without it.

Above are a few notes of plants sent herewith. I feel
 particularly humiliated on the record given of *Astragalus*
Leammouii, credited to Prof. Bolander "and apparently not
 since met with" I have coll. bases of it annually for
 5 years, and know what it was for Dr. G sent me the
 "Contrib. to Acad." that described it in the exact Latin.

I lost credits on several other things by sending at
 first to Prof. Bolander instead of Dr. Gray. Prof. B. perhaps
 did not mean to omit reporting collector. He was
 never nearer Lassen's Peak than 80 miles. The *Gilia*
Larseni & the *Holcus nana* var. *Larseni* ^{also *Gorydalis* Ciscana} were collected
 only by me. I had the pleasure of a glance at

the Bot. Cal. at Santa Barbara, and notice several *Onofrius*
 I have found *Veronica Americana*, *V. subulteria*, *V. arvensis* &
V. serpyllifolia all in Sierra Co, also several others ^{not noted}.

I wish (since I must live without the new Bot.) that you
 would copy my last long list out of your books & forward,
 in the last Order especially, it would be very helpful.

My health for several weeks has been bad, but if able I
 mean to study & experiment thoroughly this winter, hoping to
 qualify myself for business that will pay, a little.
 Dr. Parry kindly undertakes to determine & distribute our coll. of plants,
 sending them only sub. wanted. I will collect for seed again.
 Again thank you very sincerely & remain Yours &c. J. H. Lemmon

Plants from Sierra Valley & vicinity, Cal.,
 Collected by J. H. Lemmon.

Lemmon

1186. *A. trifolium* I to I leaved, which was
 ported on Howard 4 years ago as *A. subcuneatum*, but
 not described in new Bot. Cal. locality ^{only} Sierra Valley
 Flat, spreading the peduncle turning downwards
 ago, while the flowers are colored in white, *C. ...*

1187. *A. ...* Collected in '82. I ...
 unrecorded by Prof. Bolander. Abundant in
 western portion of Sierra valley. A few ...
 ... reported as growing (I should have been sent after, to

1188. *A. ...* Coll. first in '83 in ...
 attempted at same point in Sierra valley. Recorded
 as a var. of *A. Lemmonii*. ...
 show connecting forms, &c. hence frequent sendings, ^{instead of *A. Lemmonii*}

1189. *Holcus nana* var. *Larseni*, Grant Coll. '83.
 with *Loas. Case* then in '83 with John ...
 ... communicated. ...

1190. *Eriogonum* ...
 1191. *Ranunculus* ...
 The *R. ...* abundant in high ...

My dear Professor,

Again I send you a small

package of plants to you,

Too unwell, at late to collect, I have been
cleaning up the herbarium, sending off promised
plants, & so come upon these without a
certainty of some get.

As you have copied
my large list of last fall, and that it is on the
way to me, Mrs Ames has not her "Bot. Cal.
net, and mourns deeply. By the kindness of Mr.
Pringle of Ut, Mrs Austin has a copy. Good,

I hope you have despatched one to me by Ex, C.O.D.,

Dr. Parry at home and tired at work. Did not
stay at Colorado to collect Conifere seed, not bearing
this year. This ought to give me a market
for the firs & spruces here, which are bearing a
little about $\frac{1}{4}$ as usual. I will write Prof. ~~Woot-~~
~~son~~ about the matter.

I hope Dr. Gray & party are enjoying a fine trip.

Please tell him of my plants sent you. I hope
he and Prof. Adney will get at the Cedars and
Gomina I sent Dr. Vasey. I cannot soon
again collect such another fine lot.

My health is very poor, suffer with a rough
& dull eye. Nearly unfit for anything. If I
recover, I will be home at Eberhart Lake again to
study & experiment, assisted by flower books, and
a costly microscope. I will visit first to the Fairbank, then
Please send me on plants with Yours truly, H. D. Seward

Plants from J. G. Lemmon,
Sierra Val, Cal. Sept 2nd 1847,

- 1262 Gentiana — ? near G. Newberryi
but several-flowered, &c, Sierra Val,
" 1263 Brickellia ^{imifolia, Engelm} ? Nev. Desert,
" 4 Potamogeton — ? " " in a hot spring
" 5 Spyrogyna ? " same " "
" 6 — ? rocky stream beds, Indian Val,
" 7 Critérium Kingi ? (I've sent this
plant to Dr. S. several times. It seems not
well described. It is perennial, ^{running} prostrate ⁱⁿ
Sierra Val,
damp ground, forming a carpet, ?
" 8 Rumex — ? Nev. desert, 2 ft. high
" 9. Minulus nova ? (Cannot this be
Bandy hills,
separated from the little, low, purple one ?
1270 Strophyllium This word, copied
from your report, so pleased Dr Parry
Alkali flat, Nev.
that I send again to make sure,
" 1 Trifolium Lemmonii, var. I saw
its head downwards, the fl. reverting upward
during extraction, Sierra Val, on horse ranch,

- 1272 Ranunculus Lemmonii Better
 spec. those sent before, The flower often
 1/2 in. across, abundant this season, D. Val.
- " 3 Ranunculus repens? Very leafy, & smooth
 springy, muddy places, Sierra Val.
- " 4 Crepis occidentalis var. viridis B. This
 matures 2 months before the typical plant on
 same ground, Sierra Val.
- " 5, Draba alpina var. algida? Mt. Lola.
- " 6 Pentstemon Lemmonii, Better spec.,
 Abundant on Downville peak,
- " 7 Hieracium — ? " " near top,
 Seems diff. from any described,
- " 8 Astragalus Austinus Better spec., Acres
 of it on summit of Mt. Lola, near Webber's,
- " 9 Leucothoa Davisae, in fruit, Downville peak,
- 1280 Lewisia Gordonii var. pignae? " " white fl.
- " 1 — ? (I've nothing on cryptogams.)
- " 2 — ? Curious sedge-like thing from
 springy places, ^{Cratichneum} side of D. peak,
- " 3. Sedge — ? " " "
- (Who is studying the Graminae?)
- 1284 Cuscuta — ? Downville peak,

My dear Prof

Are going is
 a list & notes of a few more plants
 sent for various seasons as stated,
 As strength permits I take short ex-
 cursions, but hereafter must stay at
 home on the qu'vive for the great
 botanists, Could not get out
 on the desert soon enough. Only
 found a few odd things, The Pato
megeton is abundant in Isullings
 hot-spring north side of Honey Lake
 desert, Spyrognae also,

A 2 days trip to Mt. Lola revealed
 several strange things & abundance of the
 new Astragalus Austinus,

Another 2 days exploration of the
 gold-heated Downville, better gave me
 several rare or new things The rest
 from Sierra valley,

Hoping you are well and that the Bot. Cal
 is approaching completion I remain

Yours sincerely
 J. S. Lemmon

Plants from J. G. Linnon
Aug. 1878.

Discharge - Red - belongs
to Hollister.

No. 1400. Eriodictyon —? Plant
3 to 5 feet high, branching from base.
lvs. strong-scented, lower 4 to 8 inches
long; flo. creamy white, urceolate!

If new please dedicate to Col. W. B.
Hollister of Santa Barbara - a noble gen-
tleman of distinguished ability and
benevolence. - the peculiar patron of
the poor & deserving. ^{Monterey Co.} Clidame Val.

No. 1401. Herpestis? (Not in Bot. Cal.)

1. 2. Is Bergia how about the tubular
calyx? If Ammonia ^{latifolia} what of the 5 dis-
tinct petals? Near Tulare Lake.

1403 Ammonia humilis, Wats. - Wats. Calif.
1402 guttata, 5 petaled, So. Semite.

1404 Artemisia? Clark's Ranch,

5 Hemizonia near Merced,

6 Gilia, - floccosa? but petals yellow.

7 Chrysanthemum - Palmeri near San Louis Obispo

No 1408 *Chorizanthe diffusa* ~~B~~

9 " *membranacea* ?

1500 (Composite)

1 *Castilleja* In wet grounds, 4 feet,

2 *Lepingia* (but fls. yellow!)

3 ~~*Claytonia*~~ *Chamissonis* ^{axils of leaves} - bubble bearing

4 *Veronica scutellata* (Not in Bot. Cal.)

5 *Bolandra* Ya - Semite, 3 places.

6 ~~*Hemicarpha*~~ *occidentalis* ^{by name} root-hill streams,

7 *Hemizonia* - gland-tipped lvs, terete leaves,

8 ~~*Carex*~~ *Cymomyia* infl. ^{Ya} Semite

9 *Cymomyia* ^{10 ft} Bank San Joaquin

1510 *Jupisea* ^{var. californica} always 5 parted, Kings R.

1 ~~*Molloya*~~ *verniculata* ^{Chowchilla Ranch,}

2 *Lilium micranthum* near *Abriposa*

3 *Hemizonia congesta* ? but rays white, ^{San Luis, Cal.}

4 *Nadia* - robust 3 ft. near *Abriposa*

5 ~~*Sesuvium*~~ *portulacastrum* ^{Zulare lake shore}

6 *Polygonum* ^{wood} near *Abriposa* grows,

7 *Hemizonia* (*Calycadenia*) yellow,

7 1/2 " " is it the white the same?

8 *Chenopodium* ^{Bolton's} ~~*altissimum*~~ near Y.S.

9 *Antirrhinum cornutum*, at Clarke found only before by Hartweg.

1520 Composite Ya. Semite

1 *Potamogeton* ? ^{to Robbins} Kings R.

2 *Calochortus clavatus*, n. sp. San Luis

3 *Eriogonum Torreyi*, abundant in meadow at Clarke's.

Scammon's
Plants from Shasta
& Vicinity.

- *1431 *Cornus* ^{susita} - from Mt. Cloud
river, (seemingly with 1 berry.)
- o 2 ~~*Prunella*~~ ^{*Spiraea pectinosa*} with finely-divided lvs,
near a snow bank of Shasta,
- 1 3 *Astragalus*, ^{*Hookerianus?*} side of Scott Mt
near Shasta, but, pods pointed.
- # 4 *Galandrinia* ^{hans}, near Castle lake
west of Shasta. Belongs to the peni-
culate section. None in Bot., Cal.
- x 5 *Archidaceous* plant, from ^{woods}
~~*Cypripedium*~~ near Shasta, (fls. white.)
- x 6 *Viola cuneata*! near Shasta
- " 7 *Dicentra* ^{*pauciflora*}, a *formosa* x
^{n. sp.}
uniflora, 2 x 3 fls. white,
near Castle lake near Shasta.
- " 8 ~~*Echinoglossum*~~ ^{*diffusum*}
Synoglossum from woods of Shasta
flowers pink, lvs. narrow.
- x 9 ~~*Adiantum*~~ ^{*quadricolor*}, ^{Spach}
Arctostaphylos, ^{n. sp.} on Mt. Mt. Cloud
river, fls. small & white.

California, May

- 7/4 40. Druidax. Mc Cloud river
 + 1. Allium ^{falciparum, H. & A.} ~~Head-maters~~ ^{river} Sacramento.
 - * 2. Staphylea (Bolanderi), in fruit.
 On a rivulet of Mc Cloud,
 (Found after much search &
 exposure to ^{heat at} 146° for 3 hours.)
 1 3. Cypripedium ^{californicum} Scotch Camp
 near Dizon's, at Shasta,
 lip white, alae orange,
 1 4. Clintonia ^{uniformis} Scotch Camp.
^{pubescens, Nutt}
 + 5. Cornus, Dizon's meadow, Shasta.
 (in fruit)
 1 6. Cycladenia tomentosa, with
 the C. humilis on Cinder Cone
 of Shasta. Confirms the species?
 + 7. Caulanthus ? Streptosanthus ~~barbatus~~ ?
 Sandy bottoms
 along the upper Sacramento,
 (lvs. similar from bottom to top.)
 1 8. Salochotus nudus Dizon's Shasta
~~Stachys~~
 1 9. Habenaria ^{elegans} Scotch Camp. "
 14 50 Lythronia ^{californica, Bol.} Dizon's meadow,
~~borderensis~~ ?
 + 1 Pleuricospora - fimbriolata, but
 corolla lobes longer than calyx
 side of Shasta.

- 2
- " 1452 ~~Stipa~~ ^{Festuca} *occidentalis*, Hook
 Sisson's meadows,
 x 3 *Alnus* ^{incana, var. grancea} milk leaves (or
 galls) among the anemone,
 Sisson's near Shasta,
 x 4 *Pinus* (*flexilis*) ^{Raynoldsiana} side of Scott
 near Shasta
 5 *Cornus glabra* Sisson's, Shasta
 x 6 *Brucea breweri* " meadows,

Plants of San Bernardino,
 County.

- 1457 *Erigeron* side of Grey back,
 x 8 *Draba* *conryana*, n. sp. " "
 x 9 *Thesia* ^{Horkelia Bolanderi, var. Parryi} in tough sod. " "
 depressed, white fls.
 x 1460 ~~*Adiantum*~~ ^{*Oxytropis* - ?} *calycosum*? top of
 Grey back. 9,000 ft.
 x 1 ^{*Petalonyx Thunbergii*} An odd thing from San Ber-
 gonio Pap. forming clumps of
 bushes 2 to 4 feet high. A
 corolla-like involucre enclosing
 the pistils, the stamens outside.
 o 2 *Oroton*, ^{California} *apertus*? An tired of wait-
 ing for 2nd vol. Bot. Cal. to
 tell me about the *Apetalae*,

Psathyronus Schottii

- x 1463 ~~Aphelappus?~~ Side of Grey
back, 9,000 ft, alt,
Urodynmia squarrosa
- x 4 ~~Bigelovia~~ Woods near Grey-back,
- x 5: *Thallictrum* ^{occidentale} " " "
- x 6 *Gleomella* ^{psittacina, Torr} ~~Bobane~~ Desert,
- x 7 *Lupinus* ^{laxiflorus} ~~californicus?~~ Can it
be this sp. away down in
San Bernardino Co.
- + 8 *Platanus* ^{racemosa} Near San Bernardino
- + 9 *Dalea* Cal^{ca} (of Parry) in fruit,
White-water river Cal. Desert,
- x 1470 ~~*Chrysothrix*~~ ^{*Sarcocolla*} Near San Bernardino
- x 1 ~~*Vilfa?*~~ *Poa* -? " "
- x 2 *Chorizanthe* *prunifera*, ^{Wt}
- + 3 " *spinosa*, n. sp. "
- x 4 *Hulsea* *Parryi* ^{nana} Top of
Grey-back, (nearly acalcescent,)
- x 5 *Silene*, Mt. San Bernardino
- x 6 *Lilium* *Parryi*, 2 to 5 feet
high, sweet-scented, Near S. Ber.
- x 7 *Calochortus* ^{puberulus} ~~whitens~~ San Bernardino.
- 1 8 " *eplendrus* "

J. G. LEMMON, ©

Sierra Valley, California,
Amateur Botanist, Lecturer, Microscopist and Collector in Natural History,
—AND DEALER IN—

Seeds, Bulbs, Roots and Dried Specimens of Rare California Plants;

—ALSO AGENT FOR—

The most popular and useful Microscopes, Telescopes, and their furnishings, Scientific Books, &c.

508 1/2 15th St. Cal., Feb. 16 1880
Oakland.

Change in the number of plants, both
14 & 9, Eriogonum, —
from the N. W. Fishery on
the McCloud river, July
27, '79.

If any of these Hesperis
plants prove distinct I
desire that one be dedica-
ted to Hon. B. S. Redding,

as it had reached the
Gronium - (which we cannot
name until you speak the
word,) in my distribution
book & get the set off in
a fortnight.

Am trying to go down in
Arizona in March & meet
Pro. C. L. Greene.

Yours ever, J. G. Lemmon

No time to study & mount.

My dear Dr. Gray,

Your favor
of the 8th at hand, inquiring
for habitat &c. of the new
shrubby Chenopodium, &c.

I recognize the plant at
once by your description as
one of a mislaid lot that
I was about to submit.

Now I have found the
plants and herewith send
them.

14 & 1. Chenopodium tomentosum, N. Sp.

I found ^{July 12, '79.} near Ligon's at
a ford of the upper Siskiyou,
about 8 miles west of the hotel.

Grows on the river bottom of
formerly washed sand, along
with a distinct form of
Streptanthus tortuosus Prof.
Watson says. (No 1447.)

The plant is certainly a shrub,
or suffruticose, root-perennial,
about 18 inches high, very many
stems from the same root,
quite abundant and striking.
(Have distributed all my specimens
so take a bit from my duplicate.)

1482. Briekellia incana ?
Humboldt desert. Apr. '89.

3. Briekellia linifolia ?
Yosemite valley, Aug. '88.
(Not reported from Cal.)

4 Astragalus — ? from
West's valley, Modoc Co.
Nov. 5. '89. Lemmond, Plum-
mer. Prof. Watson thinks
this a form of A. lentiginosus
but it seems impossible to
me. Please examine anew

and if found distinct dedicate
to Miss Plummer. The fls.
are large, pink & showy,
1485 Bigelovia — ?

Surprise Val. Modoc Co.
6 Collinsia — Scott, Mt.
July 13, 1879.

7. Isopyrum ^{nuticolum sp. nov.} from "Perry's
valley" on west side of Mt.
Gray (back, alt. 8,000 ft.
Differs widely from I. occi-
dentale, being taller, and
having often numerous foli-
oles. Very strong scented, colored
sepals large & showy.

Collected June 23, 1879.
8 Arenimon ^{brunnopodii, Wats.} summit of
Scott's Mt. about
8,000 ft. alt.
Always small as these spec.
fls. appearing soon after the snow
left and before lvs. were developed.
Too small for A. occidentale
Have found in fruit.

22. *Astragalus atratus*? West valley.
microanthus
23. *Ranunculus* - Love wet grounds.
microanthus
24. *Umbellifer* White-heads glen, Pyramid lake,
paniculatum macrocarpum.
- ~~24 1/2~~ " ~~Buffalo canon of Humboldt desert~~
25. " " Mountain meadow, near Lassen peak
paniculatum villosum (instead of globosum)
26. *Sanicula* (not *tuberosa*, see long tuberosa)
paniculata
27. *Umbellifer* Surprise valley.
28. " Goose lake valley.
paniculatum villosum, strictum + divaricatum
- 29-33. " " Mountain meadows" Plumas Co.
paniculatum triternatum
30. " Goose lake val. & Pitt river.
paniculatum strictum
31. " West valley, on Pitt river, (for flowers or fruit)
paniculatum strictum
32. " New Pyramid lake. (We were too early)
paniculatum strictum
33. " West valley, on S. fork, Pitt river.
paniculatum strictum
34. *Crucifer*, Sand dunes, Humboldt desert.
Arabis longicaulis
35. *Lathyrus* ? Sage between Indian val. and Quincy
subulmifolius
36. " High peaks of Warner range near
Lathyrus palustris, var.?
 Silver creek, Surprise valley.
37. *Trifolium* Peaks (6,000 ft.) west-side
hemionii
 of Pyramid lake, though resembling *T.*
Andersonii, this is very distinct, & earlier
 in flower though on much higher ground.
38. *Lupinus* ~~silvaticus~~ ^{pusillus}? Surprise valley.
 (An extension of range.)

J. G. Lemmon,

Sierra Valley, Cal.

Amateur Botanist, Collector in Natural History,

AND DEALER IN

SEEDS, BULBS and ROOTS of Rare California Plants.

Sierra Valley, Cal., June 1879.

Plants collected April 23rd
 to May 28th '79. from Sierra
 valley to Goose Lake Oregon, via
 Pyramid lake, Surprise valley the
 Humboldt desert & head-waters of
 the Pitt river, through Washoe
 & Reno counties of Nevada &
 Plumas, Lassen & Modoc counties
 of California.

By J. G. Lemmon & Wife Sara
 A. Plummer

Peraphyllum ramosissimum, Nutt.
 No 1 A rosaceous shrub we think of
 the *Amidaleae* sub-order as it
 yields the flavor of Prussic acid &
 bears the other characters of the class
 but in addition it has 2 to 5 carpels.
 (New genus?) Bush 2 to 4 feet high
 with woody branches forming a sugar-leaf bush
 Dry hills in Buffalo canon, Nev. to Surprise val., Calif.

also in West valley & on the pass between

Willow creek valley & Susanville, Cal.

1. No 2 Ceanothus, near cuneatus but not "upright" but decumbent. Every plant of it so. Mohawk val. Plumas Co.

2. No 3. Betula occidentalis from Surprise val. Cal. the whole trunk (12 & 15-foot high) red & glandular like the twigs,

3. No 4. Betula glandulosa Big Meadows, bark gray.

4. No 5. Cornus pubescens? Buffalo cañon Modoc Co. (hairs attached by the middle)

5. No 6. Aphelopappus? Low, weak bush, with few flowers. Buffalo val. Nev. & West val. Lassen Co. Cal.

6. No 7. Leptosiphon Nevadaense! Finely in fruit on original locality the west bluff (shore) of Pyramid lake. Extremely bushy & crosses & sticks into compact clumps & is perfect local. No one knows of other bushes.

7. No 8. Ephedra Large, robust, gray bark very distinct from E. antisiphilitica growing with it. West shore Pyramid lake.

8. No 9. Erigeron? Peaks back of Whitelead Townsundia oleaginea, 9ab.

glen, west of Pyramid lake. Apr 26, Rays a ~~fruit~~ striking blending of pink & salmon.

9. No 10. Erigeron ^{achrodemum} from Buffalo cañon Lassen Co. May 1st (None matured)

10. No 11. Senecio. Is this S. coronopus of Nuttall? or S.? ^{multilobatus?} (immature plants.)

11. No 12. Palaamarhiza, with tubular rays. ^{Hooker, multipinnatis!} (occasionally) & leaves twice pinnate. Peculiar for the insects striped or dead, found within the corolla.

12. No 13. Crepis ^{occidentalis} How can this be a var of occidentalis? so different, and grows with it. This from Sierra valley,

13. No 14. Troximon ^{glaucescens, Vth.} Eagle lake. Lassen Co.

14. No 15. Antennaria Is this dimorpha? pubescence of athenes ~~not bi-uncinate base~~ as I can select.

15. No 16. Crocodymium multicaule Surprise valley, Cal.

16. No 17. Castilleja ^{Diphysa villosa} Eagle lake. Lassen Co.

17. No 18. A crucifer from Surprise valley Cal.

18. No 19. Crucifer Long val. & Surprise, Cal. ^{Arabis arvensis}

19. No 20. " Alturas plains. South fork Pitt river.

20. No 21. Astragalus ^{sp. montanum} obscurus West valley. Modoc Co.

If anything cultivable is dedicated to me I will be overjoyed ^{not} proceed to give it away, as formerly, for it dawned upon me (when too late, perhaps) that hard-earned honors ~~are~~ the principal profits in botany. & I may be privileged to earn but few more.

My cultivable finds all bear other names (and more worthy names than my own) but many friends desire that my name shall be connected with some showy species.

Our principal hope for novelties is in the cherry-like shrub, the Ceanothus the red-barked Betula, some of the umbellifere, the clover, the Lupines and the ferns. The latter we shall also send on to Eaton.

I am off to-day for San Bernardino to explore certain peaks with W.B. Wright my prized friend of that ~~place~~.

I shall be at home in 2 weeks when I hope to receive a report from you of these plants with many "n. sp." in it.

Yours faithfully
J. G. Lemmon.

J. G. LEMMON,

Sierra Valley, California,

Amateur Botanist, Lecturer, Microscopist and Collector in Natural History,

—AND DEALER IN—

Seeds, Bulbs, Roots and Dried Specimens of Rare California Plants;

—ALSO AGENT FOR—

The most popular and useful Microscopes, Telescopes, and their furnishings, Scientific Books, &c.

Cal.,

18

(2nd Sheet,)

- not like arboreus.
39. Lupinus ^{suephurens?} Yellow-flowered dwarf, from American valley, near Quincy, Cal.
40. L. laxiflorus (N.B. bracts persistent)
41. "bracteatus? West val. Pitt river, ^{Lupinus, n. sp.}
42. "holosericeus? Indian val, ^{Calcarovitis, Hill}
43. " — ? Near Quincy, Cal. Always of same size & abundant in the locality. ^{L. micranthus}
44. "pauciflorus? Surprise val. on dunes, ^{fruticulosus}
45. " grays. (Dert & show extension of range. No-dentate to leafless.)
46. Erigeron ^{truncatus} from Eagle lake. Plumas Co. ^{Illinois}
47. " Illinois ranch, near Quincy, ^{fruticulosus}
48. Erigeron. Buffalo, ^{California}
49. Collomia heterophylla Indian val
50. a small crucifer. Surprise val. ^{Sisymbrium incanum}
51. Phacelia insularis Can it be away ^{this?} this, away up in Surprise val.

Sierra val, June 4, '88

My dear Dr.

Foregoing are the most of our finds that are suspicious. There has been so little snow or rain in the north and the spring was so cold there was but little vegetation out, but what appeared was seized, though amid storms of snow & wind, at times.

Miss Plummer proves an excellent explorer with keen vision & skillful hand. In case some suitable things in our coll. prove distinct I strongly urge that she be honored - both in recognition of service now, and for several years of laborious but unrecognized work in Southern Cal.

I should anything from West val. prove distinct I should like it dedicated to Dr. J. West Esq., of Loyalton Sierra valley, by whose liberality we were much aided in our outfit.

52 } *Erytrichium Kingi*? Dry sand dunes
common, annual or biennial.

53 } *Erytrichium*, that you once called
E. Lemmonii, Sub-arctic. Perennial.
Forms large dense carpets, acres in
extent, in Sierra val. along streams.

54 } *E. ^{leucocarpum}* West-val. Pitt river.

55 } " Sand dunes Surprise val.

56 } " *circumscissum* " " Sierra val.

57 } *Hemizonella ^{parvula}* Bry - Meadows.

58 } *Conanthus ^{arhizoides}* " Dry sand dunes
Surprise val. & near Susanville.

59 } *Minulus ^{nitellus}* same as above
locality

60 } *Psilocarphus ^{Strogilimpharisma}* Indian val.

61 } *Arctostaphylos ^{nivica}* Surprise val.
(*Cornifolia*)

62 } *Riccia fluitans*? Streams of high
lemnaticulea
valleys, in the current.

63 } If this fern is *Woodia* - *Cystopteris* it is
Allosorus ^{arostylisoides}
different in form than any we have
heretofore seen. Forms large masses

on the lava beds above Pitt river, from
West valley to ^{above} Winter & Marsh's ranch on
Madaline plain. It appears to be a
Chedanthus, *indusium marginis*, especially
seen on last year's fronds. Hope it is new.

64. *Crepis*, just picked up from
a hill near Webber lake, but recently
left bare of snow. June 3, '88.

of these plants are forwarded
without examination.

My Special Ticket (Plants
& B. Redding
& Dr. Gray) has been renewed

for 6 months, and will be
granted me as long as I keep
at work, so is there any
special work you wish me
to do? I shall be able soon.

I have a dozen roots
of this panicled Calandrinia.

Will send one to Prof. Der-
gent, the large Magenta
fls. were quite showy.

I hope to get a detail
with Laurence King next sea-
son. Can the Harvard peo-
ple endorse me?

Prof. Eaton has just kindly for-
warded me with ^{the Botany of} Whipple's Report.

I suppose you & Dr. Gray must
still be very hard at work upon
the Mexican plants of Parry & Palmer.

Yours sincerely J. G. Lemmon

J. G. LEMMON,

Sierra Valley, California,

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The most popular and useful Microscopes, Telescopes, and their furnishings, Scientific Books, &c.

Sierra Val. Cal., Aug 6, 1859

My dear Prof.

By this
mail I send a package
of plants directed to you
this time, as you seem
to be always at home,

They comprise some of the
rarer forms collected both
in Southern Cal. and around
Shasta.

In San Bernardino Co. I
was fortunate in finding a
secluded valley inhabited by
Parry's lily & brought away
300 bulbs. Can you
help me to sell them?

Also I have 100 roots of
my new Chelidonium viscidum
found on the Colorado Desert.

Both these ought to be very valuable.

I scaled Grey-back the highest peak in S. Cal. but found few rare things.

Returning I went up to Shasta into a region so near to Oregon that I have several plants not described in Bot. Cal. & I hope also, some that are new.

A beautiful fern I have forwarded to Prof. Eaton.

In this package for you I am particularly interested in the Dicentra, the Calandrinia, the Sodetia, & the Cornels.

But a few days ago I sent specimens of Trifolium for re-examination, with a request to dedicate to Miss Sara A. Plummer, if a chance offered.

I continue the request & very properly ^{for} in this Col.

lection many are the same as those she met with me on the N. E. trip, [&] which were too young.

After she is honored by a beautiful plant - that will come into cultivation I will cease importing, for favor except for one of California's most diligent and useful scientists. - B. B. Redding ^{of San Francisco}, a gentleman to whom I am indebted for many special favors of late.

Perhaps you will be pleased to get fruit of Bolander's Staphylea. It nearly cost me my life. I had but a limited time for search and the mercury stood at 146.° I suffered prostration followed by congestion of the lungs. Too ill yet for study. Hence some

- 141. (Leg.) *Zinnia mexicana*, Gray Pandora ranch, N. Sta Catalina, Apr. 26.
- 142. (Gallea) *egoporia*, Gray Banks of Rio Grande, El Paso, Tex. May 23. Only buds to be found.
- 143. *Astragalus* ~~sp.~~ *Coburnii*, Pandora ranch, N. Side Sta Catalina Mts. - High foot-hills. 5000 ft. Apr. 25.
- 144. } *Chrysothamnus* ~~sp.~~ *microphyllus*, Gray, n. sp. S. slope of Sta Catalina, Apr. 3.
- 145. } *Hesperis* ~~sp.~~ *fruit* ~~var.~~ " with the preceding " "
- 146. *Galactia* - ? Fruit wanted Pandora ranch, N. S. Sta. Cat. " 24.
- 147. *Cassia* *Covisii*, Gray " " " " " "
- 148. (Leg.) *Tribulus maximus*, L. ? Sand wash at mouth of Cañon del Oro, N. Side of Sta Catalinas - Tucson Ar. - May. 4.
- 149. (Leg.) *Sophora* *arctica*, Nutt. Near Franklin & El Paso, Texas. May 27.
- 150. *Acacia* *prostrata*? Parade ground Camp Bowie May 26.
- 151. *Petalostemon* *halimoides*, Gray. Sand Knicker, Chiricahua Mts. - *Dalmanella*, n. sp. Coll. by Mrs. Dr. Ord. Sept. 1880.
- 152. *Acacia* *constricta*, Nutt. ? N. Side Sta. Catalina, May 23.
- 153. *Mimosa* *bimacifera*, B.H. Pandora Ranch N. Sta. Cat. Apr. 3.
- 154. *Amorpha* *fruticosa*, L. Dos Cabezas, Chiricahua Mts. Texas, Aug 20.
- 155. *Gelsemium* *virginicum*, Gray. Summit - Sta Catalinas. Apr. 8.
- 156. *Prunus* *Caprollin*, Gray. 7 1/2 ft. diam. 40 ft. high. N. Slope of Dos Cabezas peaks. Tucson, Ar. - 6000 + ft. May 26.
- 157. *Rubus* *delicatulus*, Torr. Creamy white, crumescens, fragrant. 5-8 ft high N. Sta Catalina Mts. deep cool Cañon 6000 ft. elevation. Apr. 20.
- 158. *Potentilla* *alticola*? *subvirescens*, Gray Summit - N. Sta Catalina. Apr 27.
- 159. *Meria* *Azidarach*, L. ("Umbrella tree") El Paso, Texas. May 26.
- 160. *Rhus* *toxicodendron*, L. N. Slope Dos Cabezas Mts. May 20.
- 161. *Lycopodium* *enophila*, n. sp. " Sta Catalina, 6000 ft. " 2nd
- 162. *Zinnia* *arctica*, Gray. Summit - N. Sta Catalina, Arizona, May 20.
- 163. *Haplophylon* *cinereum*, A. DC. side Sta Catalina. Apr. 5.
- 164. *Menispermaceae* *scabra*, Gray. Summit - N. Sta Catalina. Apr. 5.
- 165. *Boraginaceae* *gibbosa*, Barn. Legan Mts. Texas. May 20.
- 166. *Sonchaceae* *hispidula*, Gray, var. *interrupta*. Sta Catalina Mts. 6000 ft. May 24.

Oakland, June 10th 1881,
 Det + report on
 Nov. 15/81
 Dear Professor.

Home again, tired, nearly sick but bringing our sheaves with us. Now we go up to our old home in Sierra valley to rest a few days then off for Salt Lake. Return here again before the end of this month, & reorganize for the autumn campaign southward again.

But in the meantime we wish to hear from you and others whom we have lost in our dismal exile in the desert.

How did your northern collection turn out? How many N. Sp.? How many changes of old species? divisions? consolidations, &c &c.

We have had no time to study a plant all this summer, and as for that we have little to study from, only a few of the many books necessary.

So we have hastily selected some 200 specimens & forward (in 2 packages,) by this mail. Some we hope are new or at least are rare. The ferns are so well described by Eaton that we do not send specimens tho' we have a fine large lot.

The grapes may come later. Cacti & most of the trees, Yucca &c. we send to Dr. Engelmann, who poor man! has been prevented from coming this season. Miller has kept the place in good order, is well & hearty. He joins my wife in best wishes & kind regards
 Yours &c. J. D. S. Miller

Arizona, New Mexico & Texas
 Plants with a few from S. California,
 Collected March to June, '81, by L.G. & E.P. Lemmon.
 Submitted for determination June 10th 81,

- No 110 *Delphinium* ^{agrum, Mx.} Is this Greene's N. M.?
 Santa Catalina Mar. 28,
 111 *Viola Canadensis, L.* Along streams summit of Sta Catalina,
 in dense pine forest. Apr. 30.
 112 *Lepidium* Side of Dos Cabadas. May 25,
Thlaspi alpinum, D.
 113 Crucifer *Grypha camporum, Gray* On an island of Rio Grande near El Paso,
 (May be introduced) May 15.
 114 *Lepidium* ^{alysoides, Gray} Same as above (on sand wash
 115 *Eleocharis* ^{fragilis, Hook} What clone is this so near
 home as Lathrop (near Docton) undescribed
 thus far. Apr. 23.
 116. *Mollis* ^{coriaria} Banks of El Rieta S. side of Santa Catalina
 (Aug 80) and Apr. 26. 81
 117. *Portulaca* ^{Claytonia ambigua} El Rio. Cal. on plains. Mar. 25,
 118 " ^{oleacea} Sand Wash near Santa Catalina May 10,
 119 " ^{filosa, L.} Ft. Bowie Ariz. " 20,
 120 *Cerastium* ^{longipes, Greene, Mex.} Santa Catalina 5,000 Apr 10.
 121. *Acer* (*grandidentatum*) Along stream in the
 the dense pine forest on summit of Santa Catalina.
 Apr 30. Yields good sap for sugar. 20-50 ft high with
 a dia. of 1-1/2 feet, dark bark, long spreading limbs.
 (A similar maple reported from Dos Cabadas.)
 122 *Glopetalon* ^{spinulosum, Gray} On summit of Organ
 Mts. El Paso. Looks very like my G.
 Nevada from Pyramid Lake.

123. *Polygala* ^{seoparia, Gray} Summit of Organ Mts. near
 on Calcareous rocks. 7000 ft. May 1.
 124. *Polygala* ^{pubescens, Gray} Clark's ranch. N. slope of
 Sta Catalina Mts. Tucson Arizona - limestone rocks.
 5000 - May 27
 125. *Polygala* ^{macradenia, Gray} Near base of south slope of Sta
 Catalina Mts. May 5. It forms large masses.
 126 *Ceanothus* ^{hendersonii, Gray} N. side Sta Catalinas 7,500 ft.
 May 23. (Is it - *C. cordulatus*?)
 127 *Galium* ^{microphyllum, Gray} N. slopes of Sta Catalinas 4,500
 May 5 - Fort Bowie. *Clusia hua* Mts. May 5.
 128 *Argemone* ^{acroides, Moench} N. Slope of Sta Catalina. Near
 Copper mines. 7000 + ft. May 5.
 129. (Malvaceous plant) S. base of Sta. Catalina, 4,000
Abutilon crispum, Gray
 130 (" *Abutilon* ^{Islandicum, Gray} " " " " " "
 131 *Hibiscus* ^{Abutilon - new A. texense = A. texense, Torr., var.} 2-3 ft h. bushy " " " " " "
 132 (Malvaceae) ^{Hibiscus, *deltoideus*, Nutt., var *involutus*, Gray} Foot-hills west of Tucson Apr. 10
 133 " *Hibiscus* ^{Coulteri, Gray} " " " " " "
 134 " *Sida* ^{hederacea, Torr} " " Sta Catalina " 1st
 135 *Lupinus* ^{barbiger, Watson} N. slope of Sta Catalinas - 5000. " 2nd
 136 (Leg.) ^{Zophronia} Spring Creek Cañon, N. Sta Catalina, 4,000.
 137 *Phacelus* ^{asymptoticus, Gray} Pandora Ranch N. foot-hills Sta Catalina " 25.
 138 (") *Rhynchosia* ^{lexana, Torr.} " " " " " "
 139 *Hesperis* ^{Psoralea tenuiflora, Ph. (P. floribunda)} Oracle, Pima Co. mines. Foot-hills, N. Sta Catalina 20
 140 *Petragalus* - Foot-hills between Pandora & Spring Creek Cañon N. Sta Catalina
 possibly new sp. A. *Habibula*? April 26.

247. *Evolvulus discolor*, Benth. *var. at Camp* ... Apache Pass Arizona May 26 '67

248. *Manum* *rostratum*, Gray *Uletta*, Texas - on Rio Grande. Mar. 14. '68

249. *Chamaecarpha coronopus*, Gray *Bowie*, Arizona. " 25

250. *Physalis pubescens*, L. *Care Camp*, S. Catalina foot-hills. Apr. 8. '69

251. *Datura discolor*, ~~Benth~~ *El Rio* on banks of Colorado Riv. Cal. Mar 29. '70

252. *Pentstemon* ~~dentifolius~~ *barbatus*, Torr. *Apache Pass*, Arizona. May 26.

253. " ~~dentifolius~~ *var. barbatus*, Torr. *Cave Springs*, *San Catalina* mts. May 24.

254. " *centranthoides*, Gray *Oracle Camp* - high foot-hills N. Sta Catalina Apr. 15.

255. " *linarioides*, Gray *Apache Pass*, Arizona May -

256. " *spectabilis*, Hook. *N. Sta Catalina* Mar. 7 Apr.

257. *Antirrhinum* ~~montanum~~ *fls. minute*. *Care Camp* S. S. Sta Cat. Apr. 10.

258. " *manzanilloides*, Gray *like manzanilla* but red flowers. N. high foot-hill Sta Catalina. Spring Canon ranch east of Apr 7 May 10.

259. *Pentstemon ambiguus*, Torr. *foot-hills of Western Sta Catalina* Apr. 15

260. *Stemodia durantifolia*, Swartz *above Care Camp* at base of Sta Catalina mts in

261. *Cactilia lanata*, Gray *near Apache Copper Mine*, N. Sta Catalina mts. Apr. 2.

262. *Cactilia latifolia*, Gray *Los Cabezas peaks*, Chir. Mts. May 25.

263. " *minor*, Gray *Canyon on west side of Sta Cat. Mts.* May 20.

264. " *laxa*, Gray *Imperial mine*, N. Sta Cat. Mts. 6000 ft. " 6.

265. *Delphinium* ~~nanum~~ *var. purpureum*, Pursh. *What curious plant is this?* Pandora ranch, high foot-hills of N. Sta Cat. Mts. May 5.

266. *Oryzopsis coccinea*, Torr. *Same place as above*, also at Oracle Camp. May 10

267. *Erythraea speciosa*, Gray *El Paso* on low bands of Rio Grande Tex. May 15.

268. *Asanthus* ~~dentifolius~~ *var. parvifolia*, Gray *high foot-hills of N. Sta Catalina* Mar. 28.

269. *Colymbium* ~~dentifolius~~ *var. parvifolia*, Gray *Apache Pass* S. Cat. Mts. " 8.

270. *Artica* ~~var. parvifolia~~ *var. parvifolia*, Gray *Foot-hills of Dos Cabezas* peaks May 27.

271. *Salvia polystachya*, Nutt. *Western Canons of Sta Catalina* mts. Coll. also by Pringle.

272. *Aristolochia* ~~montana~~ *High foot-hills on S. slope of Sta Catalina* Apr & May.

273. *Eriogonum abertianum*! *Apache Pass*, Arizona. May 27.

274. *Selinocarpus* ~~chrysantherus~~ *var. parvifolia*, Gray *Foot-hills of Sta Cat.*

Browardia hirtella, Hook. 2nd Sheet

Sta Catalina mts. Mar. Dos Cabezas, May 11 Camp Bowe May

Sambucus ~~canadensis~~ *var. mexicana*, L. *Magnesia Spring*, N. Slope Dos Cabezas Mts. 7000 ft.

May 20.

Symphoricarpos ~~var. hirtella~~ *var. hirtella*, Gray *N. Side Dos Cabezas* peaks. 7000 ft. May 21.

Philadelphus microphyllus, Gray " " " 8,000 " "

Ribes pinetorum, Greene *Summit - Sta. Catalina* 9,500 ft. "

Spilostemum ~~var. hirtella~~ *var. hirtella*, Gray *Foot-hills* " " Apr. 5.

Mentzelia multiflora, Nutt. *Sand washes at base of foot-hills Sta Catalina* 7,000 ft.

Cevadilla sinuata, Lag. *on banks of Rio Grande*, Franklin, Mar. 11, 12.

Vilciana capitata? *N. Slope Sta Catalina*, 6,700 ft. Apr 28 (rose color.)

Ludwigia palustris, L. *Banks of El Riata*, S. side of foot-hills, Sta Catalina, May 23.

Astragalus arizonicus, Gray *Southern foot-hills of Sta Catalina* mts, at "Care Camp" Apr. 1.

Stenandrium barbatum, Torr. *Organ Mts. Texas*, 8000 ft. May 18.

Microglossum ~~var. hirtella~~ *var. hirtella*, Gray *Foot-hills*, N. Sta Catalina, Apr 27.

Apodanthera ~~var. hirtella~~ *var. hirtella*, Gray *Sand Wash, Canon del Oro*, May 21.

Periclymenum ~~var. hirtella~~ *var. hirtella*, Gray *Foot-hills S. S. of Sta Catalina* mts, Apr 2.

(") *Uletta*, on Rio Grande, Texas.

(perhaps introduced) *Cuminum cyminum*, L., v. *albanum*, Boiss. ?

Eupatorium ~~var. hirtella~~ *var. hirtella*, Gray *N. S. of Sta Catalina* mts. May 23.

Coll. also by Pringle.

Eupatorium ~~var. hirtella~~ *var. hirtella*, Gray " " Apr. 26.

Brickellia ~~var. hirtella~~ *var. hirtella*, Gray *Foot-hills N. Catalina* May 2.

Baccharis ~~var. hirtella~~ *var. hirtella*, Gray *N. S. of Dos Cabezas* peaks. June 1st

Brickellia " " *Sta Catalina* May 4.

(Comp. *Encelia frutescens*, Gray *Shrub*, 2 ft high, plains N. of Sta Catalina, Apr. 1st

Senecio ~~var. hirtella~~ *var. hirtella*, Gray *Foot-hills N. S. of Sta Cat.* May 10.

Senecio ~~var. hirtella~~ *var. hirtella*, Gray *Summit of Sta Cat.* 7000 ft. Apr. 27.

Dypodan ~~var. hirtella~~ *var. hirtella*, Gray *Foot-hills*, Organ mts. Catalina. May 4.

Porophyllum scoparium, Gray " " " " Apr. 15

Brickellia coulteri, Gray *N. S. of Sta Cat.* (very low shrub) Apr. 15

Thonactis ~~var. hirtella~~ *var. hirtella*, Gray *not C. hirtella* - probably new " "

(*Tagetes*) *Dypodan* ~~var. hirtella~~ *var. hirtella*, Gray " "

- 195
 190. *Taygetia* P. S. of Sta Catalina May 1st.
 197. *Thulesperma* ^{longiflorum, Gray} foot-hills N. Sta " Apr. 25
 198. *Hymenanthemum* ^{agrostoides, Gray} side of Organ Mts. 5000 ft. May 20.
 199. *Ginnia* ^{grandiflora, Nutt.} Cascade Ground Ft. Bowie, Arizona, May 25
 200. *Collomia* ^{crispifolia, Gray} A plant of very strong fragrance, not in fruit or flower.
 S. slope of Sta Catalina Apr. 11.
 201. ¹⁸³ *Brickellia* near Summit of Sta Catalina, Apr. 15.
 202. *Gymnosporium* ^{complanatum, Gray} Southern Slope " " " 15
 203. *Taygetia* ^{var. longiflora, Gray} foot-hills " " " 16
 204. *Aster* ^{spinulosus, DC} " " " " 5
 205. *Viguiera* ^{gondoliana, Gray} Plains around Bowie Sta, Arizona " 25
 206. *Chrysopsis* ^{villosa, Gray} Sta Catalina May 12 - (May 25)
 207. *Chrysopsis* ^{villosa, Gray} Dos Cabezas & Helen's dome, Chiricahua Mts, Yuma
 208. *Chrysopsis* ^{villosa, Nutt.} foot-hills N. Sta. Catalina, April 2 -
 209. *Helianthus* ^{celianus, DC} Galletta, Texas (a Rio Grande) May 25.
 210. *Thulesperma* ^{gracile, Gray} Sta Catalina, American Flag. Mines, " 23
 211. *Aridus* ^{fasciculatus, Gray} Pandora ranch, N. Sta Catalina, " 25
 (rarely flowering)
 212. *Aster* ^{tamaricifolius, Hook.} P. Sta Catalina, summits of foot-hills, Apr. 12.
 213. *Gradiola* ^{platensis, Gray} (rarely flowering) Wash of El Riata, S. of Sta Catalina.
 Coll. in 1880 & in May 28. 1881.
 214. *Luphamia* ^{hemisphaerica, Gray} Helen's dome, Chiricahua Mts 8000 ft. May 29
 215. *Ridellia* ^{taygetina, Gray} Ft. Bowie. Arizona, May 28.
 216. *Antennaria* ^{divisa, Gray} N. S. of Sta Catalina - Apr. 29.
 217. *Hymenophyllum* ^{trifidum, Gray} Oracle Camp. high-foot-hills N. Sta Catal. Apr. 8.
 218. *Hymenophyllum* - ^{marginatum, Gray} S. S. of Sta Catalina - May 3
 219. *Veronica* ^{capitata, Gray} Lewis Springs. High foot hills. Chiricahua Mts. May 28
 220. *Actinella* ^{odorata, Gray} Plains around Franklin, Texas. May. 13.
 221. *Arenaria* ^{neomexicana, Gray} Foot-hills near Dos Cabezas peaks, May 25.
 222. " ^{undulata, v. ochroleuca, Gray} Sta Catalina Mts, west side. May 23.
 223. " - ? Foot-hills near Dos Cabezas. Many flowered (600)
 May 28.

224. *Malacothrix* ^{clivandii, Gray} Oracle Camp, N. foot-hills, Sta Catalina Mts, Apr. 5
 225. } *Stephanomeria* ^{minor, Nutt.} Ravine near Lewis Springs, high foot-hills
 of Chiricahua Mts. May 26.
 226. " " N. slope of Dos Cabezas peaks, over top May 27
 227. " " near Camp Bowie, Chiricahua Mts. " 28
 228. *Lactuca* ^{graminifolia, Gray} Magnesia Spring, N. foot-hills of Dos Cabezas. 24
 229. *Microseris* ^{linearis, Gray} Sta Catalina Mts. May 15.
 230. *Androsace* ^{aphemionoides, Gray} " 9500 ft. " "
 231. *Plumbago* ^{scandens, L.} Pot-hole ravine, S. S. of Sta Catalina, rarely flowering
 Shrubby at base 3 ft high. Habitat evidently farther Southward, Apr. 25.
 232. *Asclepias* ^{macrocarpa, Torr.} Organ Mt. El Paso, Tex, May 15
 233. " ^{linaria, Cav.} (Is this Greene's *pitetorum*? - Hy 1880)
 peaks of Sta Catalina Mts. Apr. & May
 234. *Asclepias* ^{Mexicana, Cav.} Western ravine, Sta Catalina, May 23.
 235. *Acerates* ^{annulata, Gray} ~~Chiricahua Mts, May 23~~ " " Apr 8 on Chir-
 icahua. in May
 236. *Asclepias* ^{decumbens, Gray} Sta Catalina in Apr. 9. Chiricahua in May
 237. *Philibertia* ^{undulata, Gray} Lewis' Spring, high ravine N. of Dos Cabezas
 in Chiricahua Mts. May 26 - (Only two specimens to be seen
 238. (*Asclep.*) *Roulinia* ^{uniflora, Engelm.} Climbing over bushes, near streams, in high
 foot-hills S. Slopes of Sta Catalina Mts. Apr. & May.
 239. *Tetraclea* ^{Coulteri, Gray} Top of Organ Mt. Texas - (coll. in May 28)
 240. *Collomia* ^{Cavanillesiana, Gray} Camp Bowie, Chiricahua Mts. Lower
 leaves wanting, Coll. in Aug. 1880 by Mrs Dr. Ard.
 241. *Gilia* ^{hirsuta, Gray} On plains west of Sta Catalina
 Mts. May 28.
 242. *Cheelia* ^{integripetala, Torr.} in plain around Franklin, Texas. May 12
 Plants 8 inches to a foot high.
 243. *Eritrichium* ^{helveticum, Gray} foot-hills N. S. of Sta Catalina - Apr. 20.
 244. *Lithospermum* ^{angustifolium, Gray} Pandora ranch
 245. *Encinta* ^{arvensis, Gray} Plains toward Union del Rio, Texas, in May 27
 246. (*Convolv.*) *Evolvulus* ^{argentens, Pursh} High foot-hills at Oracle Camp, N. Sta Catal. Apr. 5

- 31
 No. 275. *Chorizanthe* *Thurberi*, ^{Wagon} Western foot-hills of Sta Catalina Mts May 8.
 " 276 " *brevis*, ^{Wagon} Plains on N. Slope of Sta. Cat. Mts. Apr. 5.
 " 277. " *coronata*, ^{Wagon} Foot-hills at El Rio. Cal. Mar. 29.
 " 278. *Paronychia Jamesii*, ^{Wagon} Top of Organ Mts. Texas May 15.
 " 279 *Sesuvium cilioides*, L. Pot-hole ravine, S. P. of Sta. Cat. Mts. Apr. 5.
 " 280. *Polygonum nodosum*, ^{Pers.} Western ravine of Sta. Cat. Mts. May.
 " 281. *Rumex hymenosepalus*, ^{Wagon} The "Canyagra" of Tex. & Mex. rich in tannin -
 In ravines - and sand washes - about Sta. Cat. Mts. at Pan-
 land, Arizona & in Texas - May & June
 " 282. *Goodyera plicatula*, ^{Hors.} *ripidiflora*, ^{Hors.} Is this another species of *Hallisteria*?
 Paved grounds at Ft. Bowie. Ar. May 26.
 283. *Euphorbia polyacantha*, ^{Wagon} Ft. Bowie " "
 284 *Croton Texensis*, ^{Muhl.} El Riata near Tucson May 15.
 285. *Agavea humilis*, ^{Wagon} Peaks of Sta. Cat. - 8000 ft. Apr. 5 -
 286. *Dianthus* (?) What green, little shrub is this? S. Slope
 of Sta. Cat. Apr. 16 -
 287 *Ephedra* ^{Hors.} Black seeded. Top of Organ Mts. Texas, ^{May 15}
 also near Phoenix (Shown to Dr. Englemann who did not
 name it.) Aug. 1880.
 288. *Morus microphylla*, ^{Muhl.} Los Pabozas & elsewhere May 27 -
 289. *Celtis reticulata*, ^{Wagon} Camp Bowie " 30.
 290 *Shepherdia* *Bremelia lanuginosa*, ^{Muhl.} " "
 291 *Tradescantia* ^{Virginia} (blue flower) N. Slope Sta. Cat. - 23.
 292 " ? (pink ") N. P. Sta. Cat. Pandora ranch. Apr 28.
 293 (Sil.) *Andropogon tenuiflorus*? " " " " " "
 294. *Calochortus* ^{Muhl.} Crack Camp. N. " " " 15.
 295. *Milla biflora*, ^{Car.} Camp Rucker. Coll. by Mrs. Dr. Dr. Aug. 1880
 296 *Allium* ^{Wagon} Pandora ranch N. P. Sta. Cat. Apr. 28.
 297 *Azore* ^{Hors.} Organ Mts, El Paso. Texas May 17 -
 298 " *Shottii* Sta. Catalina S. Slope. Mar. Apr. May
 Large pale yel. fragrant flrs - spike 4-6-8-10 ft. high - M of the
 Drapp plants of South & much used!

290. Polanogeton ^{Mexicanus} Sta Cruz Creek, near Tucson, May 21.
 300 Callitriche virginica, L. " " " " " "
 301. Pinus ponderosa - a sport in 5 lbs. A. Sta Cruz Mt.
 302 " reflexa (A. Sp. Engl.) " " " "
 303 Yucca macrocarpa (" " " " " " " "
 (I suppose this is Dr Engel's new species.)

Now my dear sir, do not trouble yourself to determine these plants in lieu of your own or of others earlier received, but of course we shall be glad to get an early report, Please direct to Oakland,

By the way were my new discoveries of last year (Sophonia Lemmonii, Senecio Lemmonii, &c., named by Dr Gray,) ever published? As the Dr. is to remain abroad for some time yet, to whom can we look but you to name & publish our plants?

My enthusiastic little botanical help-met has accompanied me everywhere, climbing peaks, penetrating gorges or roaming plains so please give her equal credit, and if anything beautiful is found to be new & you approve of the suggestion please dedicate to her; and if a new genus is found please give it her maiden name of "Plummer," perhaps in the form of Plummeria.

Which do you prefer? that we send all our autumn collection, (as now) in a lot, or to forward package after package as often as collected?

Our mother joins in profound regards,

J. & S. P. Lemmon,

- 369 *Hieracium* top of Mt. E. Rucker val.
 370 *Aster Ericifolius* near Ft. Bowie, Apache P.
 1 *Hymenothrix Wrightii* " " "
 2 *Grindelia squarrosa*, Camp Rucker, Rucker val.
 3 *Aster canescens* Hermitage, Rucker val.
 4 *Verbesina pedunculata* Apache Pass,
 in Rucker valley
 6 *Hymenothrix Wislizeni* " " "
 7 *Oniscus* near Des Cobasas Peak.
 8 *Cosmos bipinnatus* floor of Rucker valley.
 9 *Tagetum micrantha* streams Apache Pass.

- 380 *Dolidago* Hermitage, Rucker val.
 1 *Verbesina* Apache Pass
 2 *Berlandiera* stream banks of Rucker valley
 lost my large specimens, they were 2-3 feet high, robust base, leaves not
 lyrate oblanceolate 10-12 inches long, mostly rad-
 ical in a large rosette.

The Rucker valley so often written above
 is a large secluded region in the south end of
 the Chiricahua range 40 miles from the border, &
 60 east of Tombstone. Only one inhabitant now
 a hermit claiming its upper part of the valley
 for a future stock range. He lives for se-
 curity in the mouth of a tunnel. He showed
 his quarters with us for three weeks, ena-
 bling us to make good collections.

Apache Pass is 40 miles north of Rucker
 & 15 south of the R.P. In it is Ft. Bowie
 where we stopped as guests of Dr. & Mrs. Cord for
 several weeks. The commander of the fort
 extended distinguished favors, &c.

Compositae,
 from the Chiricahua
 mountains of Arizona,

Collected Aug, Sep, & Oct, of 1881,
 by J.S. & S.J. Gummerson,

- " 89" *Senecio Gummersoni* Gray, 1880, cd, side Santa Catalina
 sent last year.
 No. 305 *Brickellia* near Rucker valley.
 6 " " " "
 7 *Encelia* Plains near " "
 8 *Brickellia* Hermitage " "
 9 " (*Gummersoni*, Greene) " "
 310 " *grandiflora*, Hermitage. " "
 11 " " " " " " " "
 12 " *Fendleri* " " " " " "
 13 " *betonicifolia* " D. " " "
 14 " " " " " " "
 15 " " " " " " "
 16 " *grandidentatum* " E. " "
 17 " " " " " " "
 18 " *Armenata* " D. of Bowie? " "
 19 I cannot place this in its genus
 320 High forest on top of a mountain on the
 east side of Rucker valley

320 *Stevia* Mts. N. of Rucker valley,

1 " in shades, " " " "

2 " meadow " " " "

3 " serrata? " E " "

4 *Baccharis* Hermitage " "

X

5 " sand wash, Plains near " "

7 = (213) " high Mts. N. of " "

8 *Aphelappus* laricifolius on high rocks. S. " "

9 *Erigeron* glabellus Mts. N. " "

330 *Gutierrezia* *Euthamia* Fort Bowie, Apache ^{Mts.}

1 *Galinsoga* Plains near Apache Paps,

2 *Bidens* in Spring, Hermitage, Rucker val.

3 " near Ft. Bowie, Apache Paps,

4 " " " " " "

5 *Heterospermum* tagetinum " " " "

6 *Danthonia*, (N. sp?) streams, Rucker val.,

7 " *Aheriti*, Apache Paps. " "

8 *Schkuhria* *Hopkirki* ^{Plains near} " " " "

9 *Aster* multiflorus in Spring, Hermitage " "

340 " " at " " " "

1 *Actinomeris* angustifolia Mts. N. of " "

2 " on limestone rocks, Ft. Bowie

3 *Trigonotis* *laxa* " " " "

344 from Apache Paps,

5 *Gymnosolenia* multiflora? Rucker val.,

6 top of peak S. of " "

7 *Hymenothrix* *arizonicensis* Apache Paps,

8 *Senecio* *Douglasii*? " "

9 *Canthocarpus* *gymnospermoides* ^{Hermitage} Rucker val.,

350 *Aphelappus* *gracile* Apache Paps,

1 *Villanova* *chrysanthemoides* " "

2 *Actinella* (N. sp!) = ~~Plumosa~~ " "

3 *Solidago* Hermitage Rucker val

4 " " " "

5 *Artemisia* *Canadensis* " "

6 *Hymenatrum* Mts. N. of Apache Paps,

7 *Pectis* *longipes* (Perennial!) " "

8 *Artemisia* *Ludoviciana* Rucker val.,

9 *Perezia* *arizonica* ^{near} Mts. Apache Paps.

360 " *Brightii*? " of Rucker val.,

1 " " var. albus, " " " "

2 *Brickellia* " " " "

3 *Eupatorium* *Berlandiera*, Apache Paps " "

4 *Brickellia* Mts. of " "

5 " along streams " " " "

6 " *grandiflora* Apache Paps,

7 *Erigeron* *flagellaris*, " "

8 near Ft. Bowie, in " "

- 460 *Zinnia ^{stylaris, M. Nutt.} acutifolia* Hermitage Rucker val
- 1 - *Croton* - ? Apache Pap.
- x 2 - *Diodia* ^{Trees, var. R. & T.} *nitida* var. *rosea*.
- 3 *Gomphrena nitida* var. *rosea*.
- 4 *Chenopodium comutum*, B. & H.
- 5 *Amaranthus Palmeri*, n. sp. - male
- 6 *Boerhaavia purpurascens*
- 7 " *phoenicea*, n. sp.
- 8 " "
- 9 } *Oxybaphus ~~coccineus~~* Plains near "
- 470 } " *innotifolius*, fruit
- 1 } *Boerhaavia erecta*, var. "
- 2 " "
- 3 *Mirabilis* = 488 = *Oxyb. myrtifolius* ^{S. Nutt.} *var. oblongifolia*, Gray
- 4 *Eriogonum alatum*, var. *Hermitage*, Rucker val
- 5 " *Abertianum* ^{T. & G.} Black Mt., Apache P.
- 6 " *Jumati* ^{T. & G.} Mts. E. of "
- 7 *Bromelia* ? ^{5' tall, very bushy} - pretty thing is this so like a gigantic *Spiranthes*. Plant 1-2 ft high. Lvs. bright green, fls. greenish yellow turned one side. Rare - in Hermitage of Rucker val. just in flower. Sep. & Oct. First detected by Nara Lemon
- 478 *Allium ^{acutulum}* Mts. S. of Apache Pap
- 9 *Hesperanthes Torreri*, Watson
- 480 *Polygonum aviculare*, L. Go Bone " "
- 1 " *imbricatum*, Nutt. I believe near *brecheri* ^{Leite} Not ^{before} submitted

- 482 *Eriogonum ^{pharmacosides, Torr.}* San Geronimo Pap
- x 3 *Physalis ^{at St.?} crassifolia* Hermitage Rucker val
- 4 *Ammannia latifolia* " " "
- x 5 *A. Borrage* ^{lith. glabrum, n. sp.} Apache Pap
- x 6 *Asclepias ^{var. glauca, Nutt.} purpurascens* " "
- x 7 *Hesperophyllum ^{var. hispidum} virg.* Coas Bay Oregon
- 8 *Acrostichum ^{var. obtusifolium} oxypleum* St. Bowel Apache P
- 9 *A. strictum* ^{var. obtusifolium} " " "
- 490 } An *Amaranth* ^{var. multiflorus, Torr.} Rucker val
- 1 } *Acanthochiton ^{var. multiflorus} Wrightii* Apache Pap
- x 2 *Salix ^{var. purpurea}* " " "
- 493 *Rubraea ^{var. multiflorus} humilis* " " "

- Rucker val.
- Arizona plants chiefly from
Chiricahua Mt., Sonora 3 + 3
493. Sep. & Oct. 1881. J. & W. P. Lemon
-
- x 83 *Gymnoloma ^{var. multiflorus}* " "
 - 494 *Boerhaavia ^{var. multiflorus}* " "
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 - 600 *Boerhaavia ^{var. multiflorus}* " "

- 500 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 1 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 2 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 3 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 4 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 5 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 6 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 7 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 8 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 9 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 10 *Thymus* *leucostictus* *leucostictus* *leucostictus*

I have no influence or if it proves of much interest, please return, after examining, at your convenience.

Please determine & report as soon as convenient as we shall soon be ready to distribute. We will put up a full set of the best specimens for Dr. Cooper.

Parker #2 3
Arizona Plants including
Numbers 494 & 583 Collected mostly
in the Chiricahua Mts. Sept. & Oct. 1892

- 494 *Thallictrum* *hermitage* *hermitage* *hermitage*
- 5 *Sisymbrium* *hermitage* *hermitage* *hermitage*
- 6 *Thelypium* *linearifolium* *linearifolium* *linearifolium*
- 7 *Polygala* *anthemina* *anthemina* *anthemina*
- 8 = 124 *Polygala* *puberula* *puberula* *puberula*
- 9 *Momordica* *wrightii* *wrightii* *wrightii*
- 500 *Polygala* *albica* *albica* *albica*
- 1 *Polygala* *hemisphaerica* *hemisphaerica* *hemisphaerica*
- 2 *Arenaria* *axsonii* *axsonii* *axsonii*
- 3 *Draba* *stretocarpa* *stretocarpa* *stretocarpa*
- 4 *Silene* *picata* *picata* *picata*
- 5 *Silene* *laciniata* *laciniata* *laciniata*
- 6 *Arenaria* *florea* *florea* *florea*
- 7 *Arenaria* *obovata* *obovata* *obovata*
- 8 *Dryas* *axsonii* *axsonii* *axsonii*
- 9 *Dryas* *axsonii* *axsonii* *axsonii*
- 10 *Dryas* *axsonii* *axsonii* *axsonii*
- 11 *Malva* *gerrardii* *gerrardii* *gerrardii*
- 12 *Thymus* *leucostictus* *leucostictus* *leucostictus*
- 13 *Leimnium* *pedunculatum* *pedunculatum* *pedunculatum*
- 14 *Leimnium* *pedunculatum* *pedunculatum* *pedunculatum*
- 15 *Artemisia* *parviflora* *parviflora* *parviflora*
- 16 *Artemisia* *parviflora* *parviflora* *parviflora*
- 17 *Artemisia* *parviflora* *parviflora* *parviflora*

Plants sent to Cambridge
from the Collection of 1881, by J. G. &
-D. P. & Emmon; mostly Arizonian.

Croton Edwardii, Gray, var. ~~sericeus~~

588 *Astragalus*, A. side of
Santa Catalina Mts, May '81.

589 *Astragalus Coulteri*, ^{Benth} White river, San
Geronimo pap. Grand Diego Co. Cal.

590 *Galactia* - ~~torreyana~~ = 146
~~torreyana~~ Santa Catalina, May '81

591 *Apharalcea*, Emoryi, Torr., var.
Benson, Ariz. juv.

592 " " *Maricopa*
Emoryi, Torr. (torreyana)

593 " " Santa Catalina, May

" 555" (of former seedling) *Lupinus*? in
plains near Apache pap. Sep. 21, '81.

" 556" *Chiricahua* = Mts, Sep. '81.
Croton Edwardii Gray - new var. *platella*
Sida filiformis & *S. pinifolia*, var.

594 *Apharalcea*, Apache pap. Sep.

595 *Galactia tephrosoides*, Gray
Ephrosia? Santa Cat. May.

596 *Cologania longifolia*, Gray, var.
erect stems
Plains near Apache pass. Sep. 21, '81.

597 *Phaseolus* ^{amblyolobus, Gray} *Chiricahua* - Mts. Sep.

598 *Cologania longifolia*, Gray
climbing plant.
Chiricahua Mts. Sep.

599 *Arauca hastata*, Gray
Always appeared different from
A. hastata.

Dichondra repens, Forst.

- No 600 ~~Diola~~, Like *D. sarmentosa*
Formed large mats, Tucker valley
in the Chiricahua Mts. Sep.
601. *Polyala*? or *Carlo-Brigitiana*?
Santa Catalina Mts. May. P.O.
- 602 Top of Argon Mts. Texas
June 18. Prof. Watson called it
Lactuca, but it looks diff't.
603. ~~*Hypocissus*~~ *Coulteri* Gray
Santa Catalina Mts.
604. *Desmodium* *cinnamomeum*, Gray
Chiricahua
605. " *brevifolium*, Gray
Chiricahua Mts.
606. *Astragalus* *dipinnus*, Gray
Like *A. Nuttallii*
(See the villous heads) & fresh pap.
607. *Galapfia* *wrightii*, Gray
Chiricahua Mts. Fresh pap.
608. *Microstylis* *montana*, Roth.
~~*Chiricahua*~~ *Chiricahua* on the
high shades of peaks.
609. *Labiata*, *Chiricahua*
610. *Berlandiera* *tyruba* var. *gracilis* Gray
near water, Tucker valley
Chiricahua Mts. (See the large acutely
entire leaves. They were very
numerous, forming a large rosette. Most
of the plants bore leaves only.)
- 611 *Lonicera* *dumosa*, Gray
Fresh pap. Sep.
- 612
613. " Coast form of *L. mollucata*?
614. *Comp.* San Antonio creek near
Tucson, very strong scented.
615. *Galium* *Rothrockii*, Gray, ined.
Fresh pap.
616. " *aspermum*, Gray
Chiricahua Mts.

East of Arizona plants of 1882. Coll. principally in the
 Huachuca Mts. from May to Nov. by J. G. & S. A. P. Lemmon

- No. 2617. Clematis ~~missilis~~ ligusticifolia Nutt.!
 Tanner's Canon. July 24. Typical flower.
- " 2618 " ligusticifolia. Nutt. July
 Care Canon - Oct.
- " 2619 Thalictrum Fendleri, Engelm.
 Tanner's Canon - Sept.
- " 2620 " same
 Siemega - Oct.
- " 2621 " Fendleri ?
 Tanner's Canon Sept.
- " 2622 " rande (hemaphrodite)
 Tanner's Canon Sept.
- " 2623 Ranunculus hydrocharioides, Gr!
 Staron's Ranch. S. side of Mts. July 23.
- " 2624 " same
 Igo's ranch. July 23.
- " 2625 " macranthus, Schreb. !
 Igo's ranch. July - 8th
- " 2626 " affinis - var. ?
 Fort Huachuca Canon & Tanner's July 24.

No. 2627. *Aquilegia chrysantha*, Torr!
Ft. Huachuca canon. Tanner's along stream June-Oct.

No. 2628 ~~*Delphinium*~~ *argyrea*, Mx
Fort-Huachuca low moist-ground near stream May 21.

No. 2629 ~~*Berberis aquifolium*~~ *pinnata*, Lag.
Sierra of Tanner's Canon. Fruit in Aug.

No. 2630 *Argemone* (*Mexicana*, L. *Var. hispida*, Torr) *platyceras*, Link + Otto
Plains near Ft. Huachuca. June

No. 2631 *Corydalis aurea*, var. - apparently
"Nigger head" alt. 8000 ft. Huachuca Canon. fructed in early June.
not worth describing

No. 2632. *Draba streptocarpa*, Gray! rather smooth
Fern Conservatory, Tanner's Canon. Aug.

No. 2633. *Draba aurea*, Vahl
Peaks of Mts. north of Ft. Huachuca. June 8.

No. 2634 ~~*Thelypodium*~~ *longifolium*, Watson
~~*Streptanthus*~~
Tanner's mill, Aug. 11.

No. 2635 *Thelypodium microanthum*, Watson
June 12.

No. 2636 *Thelypodium linearifolium*, Watson
~~*Thelypodium*~~ (two forms)
"Nigger head" Fort Huachuca Canon June

No. 2637 *Polanisia graveolens*, Raf.!
Igo's rancho July 14.

No. 2638 { *Trachysperma*, 709
~~*uniglobulosa*~~ Torr.
Cleome integrifolia, Nutt. Tanner's Canon Aug

✓ No. 2639. *Linum hes. mexicanum*, Greene (Flax-like plant.)

Tanner's Cañon. June - Aug.

✓ No. 2640. *Polygala hemi^{stero}carpa*, Gray!

Cave Cañon. July 23.

✓ No. 2641 " *Lindheimeri*, var. = 497

Babacomori creek. May.

✓ No. 2642 *Silene lasciniata*, var., var. *Greggii*

Tanner's Cañon. July - Oct.

✓ No. 2643. *Cerastium nutans*, Raf.

Above Tanner's Mill. Alt. 8000 ft.

✓ No. 2644. *Drymaria effusa*, Gray! (but not "smooth")

Carr's Cañon. Huachuca Mts. Sept.

✓ No. 2645. *Samolus valerandi*, L., var. *Americanus*
~~*Calceolaria*~~ larger form in Sanoita Val. June 24
 Smaller " " Huachuca Cañon, July.

✓ No. 2646 *Sidalcea humilis*, Gray (very robust & many stemmed).

Igo's Spring. July 23.

✓ No. 2647 *Sida filiformis*, var. *setosa* Gray. = *S. diffusa*, HBK.

Plains near Fort Huachuca

✓ No. 2648. *Janusia gracilis*, Gray

Santa Catalina Mts. Apr. 1880.

✓ No. 2649. *Ceanothus integerrimus*, A. & A.!

Maple Cañon Creek. Oct.

- No. 2650. *Acer grandidentatum* Nutt.
Tanner's Canon - abundant in July.
- No. 2651. *Geranium* ~~*cespitosum*~~ *Mexicanum*, HBK.
Tanner's Canon - July.
- No. 2652. " *caespitosum* ~~*Freemontii*~~ *Townsendii*
Tanner's Canon - Aug.
- No. 2653. *Oralis decaphylla* - A.B.K.
Tanner's Canon - Aug.
- No. 2654. " *violacea* L. - so called?
Tanner's Canon Aug.
- No. 2655. *Astragalus humistratus*, Gray
Slavens ranch. July 12.
- No. 2656. *Astragalus hypoxylus*, Watson - n. sp.
Maloney's ranch. July 12.
- No. 2657. *Astragalus Thurburii*, Gray
Fort-Huaslucca Canon. July.
- No. 2658. *Astragalus Hartwegii*, Kunth
Igo's ranch, La Bacomari Creek. July.
- No. 2659. ~~*Cassia*~~ *Gnemosum* ~~mountain~~ - near *Siphocampylus* (in fruit) fl. white redd.
Montezuma Canon. Sept.
- No. 2660. " *Maylandia* L. *leptocarpa*, Kunth
Plains near mouth of Tanner's river. July 23.

- No. 2661. *Calliandra reticulata*, Gray. & var.
Maloney's ranch, July 12.
- " 2662. " *humilis*, Benth.
Near Fort Huachuca, July 12th.
- " 2663 *Cologania longifolia*, Gray (erect.)
Tanners Cañon, Aug.
- " 2664. *Clitoria Mariana*, Linn.
Tanners Canon. July - Sept.
- " 2665 *Cracca* - ~~*sericea*~~ ~~*Edwardii*~~, Gray. & n. sp.
Sienege. at right of Tanners Canon, Aug. (west)
- " 2666 *Cracca Edwardsii*, var. *glabella*
Tanners Canon, Connolly's Cabin, Aug.
- " 2667 = 2665 " " var. *sericea*, Gray. ?
Tanners Canon - Aug.
- " 2668 ~~*Hedyseris*~~ *Nissolia Michizeni*, Gray
South point of Huachuca. Sept.
- " 2669 *Hosackia rigida*, Benth.
Camp Huachuca, July.
- " 2670 " *oblongifolia*, Benth.
Miller's Canon, near Tombstone the river
- " 2671 *Indigophera sphaerocarpa*, Co.
Tanners Canon - Aug.

10. 2672 *Dalea laevigata*, Gray.
Tanner's canon - Aug.
- " 2673 *Dalea polygonoides*, Gray?
Carr's canon - Alt. 8,000 ft. Oct.
- " 2674 " *calycosa*, Gray.
Barricuari creek, May.
- " 2675 " *lachnostachya*, Gray (in fruit)
Mouth of Tanner's canon. Oct.
- " 2676 " *nana*, Torr. (Leizer)
Tombstone hills, May 23.
- " 2677 " *Wigligeni* Gray. not found
Tombstone, May 23.
- " 2678 " *Ordia*, Gray. two forms
Tanner's canon, Aug.
- " 2679. *Vicia leucophæa*, Greene (like a *cracca*)
Tanner's canon - Aug.
-
- List - Nos. in package No. 1 sent.
- " 2680 *Erythrina coralloides*, Torr. & G.
Tanner's canon, Aug. Oct.
- " 2681 ~~*Galactea humistrada*, Torr. (*Calopogonium Serotinum*, Gr.)~~
Cologania Lemmonii, Gray, n. sp. near *C. thurripesa*, Handel.
Tanner's old mill canon, Aug.
- " 2682. *Tephrosia tinella*, Gray
Camp in Tanner's canon. Aug.

- (7)
- No. 2682 1/2 ~~Galactia~~ *Pharacochus acutifolius*, Gray (*P. parvulus*, Torr.)
 Tanner's Mill. Aug.
- " 2683 *Lupinus ~~arizonicus~~ concinnus*, Agardh, var. (?)
 collected also by Pringle in the Santa Mts.
 Tanner's Mill, Aug.
- " 2684 " *Sitgreavesii*. Watson.
 High mesas of Huachuca Mts, Sept.
- " 2685 " *affinis* ! (Large, Fls. not verticillate.)
 San Bernardino, Cal. May. on one specimen - they are on the other, as usual.
- " 2686 *Hosackia brachycarpa*. Benth.
 San Anita Val., June 24.
- " 2687. *Desmodium Neomexicanum*, Gray
 Connolly's ranch. Aug.
- " 2688 *Lathyrus palustris*, L. - var.
 Connolly's ranch - Tanner's canon, Aug.
- " 2689. *Vicia pulchella*. H. B. K.
 Ft. Huachuca cañon. Sept.
- " 2690. *Mimosa ^{dyeo} ~~dyer~~ carpa*. Benth.
 Tanner's canon. Sept.
- " 2691 " *bincifera*. Benth.
 Tanner's cañon - June Oct.
- " 2692 " *flexuosa*, Benth.
Mimosa Lemmonii, Gray, n. sp.
 Fort-Huachuca cañon June

- No. 2693 *Mimosa* = 2692, in fruit.
 Care cañon at Duncraggan, Sept.
- " 2694 *Phaseolus Wrightii*, Gray.
 Tanner's cañon July - Sept.
- " 2695. *Robinia Neo-Mexicana*, ~~Gray~~ + Var.
 Fort cañon + Duncraggan July + Sept.
- " 2696. *Trifolium involucreatum*, Willd.
 Tanner's cañon - July 12.
- " 2697 " " *Var.*
 Igo's ranch, July.
- " 2698 *Cercocarpus parvifolius*, Nutt.
 Connolly's ranch, Sept.
- " 2699 *Potentilla Thurberi*, Gray
 Tanner's Mill, July - Sept.
- " 2700 " *rivalis*, Nutt.
 Babacornasi Creek, July.
- " 2701 *Jamesia Americana*, T. & G.
 Miller's cañon at falls, Sept.
- " 2702 *Sedum Wrightii*, Gray?
 Tanner's cañon - Aug.
- " 2703 *Oenothera pinnatifida*, Nutt.
 Parade ground, Ft. Huachuca, June.

- (7)
- 2704 *A. roosea*, Nutt.
Fort-Huachuca Canon. May - July.
- 2705 ~~Gaura~~ *Bergenia* ~~inflata~~ ~~Walt.~~ ~~Walt.~~
Parade grounds, Fort-Huachuca. June
- 2706 *Gaura coccinea*, Nutt.
Igo's ranch. Sept.
- 2707 *Mentzelia hispida*, Willd. (Ballou.)
High ravine of Tanner's canon, Sept. 30.
- 2708 *A. Hartwegii*, Benth
Ramsey's canon - Aug.
- 2709 ~~Cucurbita~~ *Apodanthera undulata*, Gray
Igo's ranch, July.
- 2710 *Hydrocotyle* ~~prolifera~~ ~~Walp.~~ ^{interrupta, Mohl}
"Las Cuevas", Sanvita Cal. June 24.
- 2711 *Berula angustifolia*
"Las Cuevas", June 24.
- 2712 ~~Cymopterus~~ *hirsutum montanum*, Nutt
Tanner's canon, July.
- 2713 = 2725 (like *Erigeron*)
Tanner's mill, Sept.
- 2714 *Eryngium discolor*, Watson - n. sp.
Sierra - in water & marshy places Sept.

- (10)
- No. 2715. *Lonicera* ~~*hispidula*~~, *gray dumosa*, Gray
 Fort Huachuca Canon, June.
- " 2716. *Aralia humilis*, Cav. Elder (Hints of *Sambucus*)
 Tanners Canon, Sentinel Mts, Ariz.
- " 2717 *Bouvardia* ~~*hurtelea*~~, *H.B.K.*
~~*var. alba.*~~
 Siemega, Tanners' Canon. Sept. 15
- " 2718 *Galium* *shellatum*, Kell
 Tanners' Canon July 12.
- " 2719 *Oldenlandia* *boconoi*, Gray - n. sp
 Road-grade, Ramsey's Canon, Sept.
- " 2720 *Dicranocarpos* *parviflorus*, Gray
 Connolly's ranch. Ariz.
- " 2721 } ~~*Mitracarpus*~~ *Spermacoce* *ambulata*, Cav.
 Connolly's ranch. Ariz.
- " 2722 }
 Connolly's ranch Ariz.
- " 2723 *Mitracarpus* *brevis*, Gray
 Connolly's ranch Ariz.
- " 2724 *Crocea* *wrightii*, Gray
 Connolly's ranch. Ariz.
- " 2725 *Houstonia* *rubra*, Cav. (Fls. very large & hard)
 Gray's ranch Ariz.

- 244 *Helidopsis* ^{*viridula*} ~~*viridula*~~ *viridula* (Coville)
- 7 " *Missonensis*, var. *montana* (Coville)
- 8 " *triplexii* " (Coville)
- > *Aster divaricatus* Spring var. *divaricatus* (Coville)
- 1 *Heterotheca lamorekii* heavy-scented. Ranges in a narrow range.
- 9 *Erigeron* *leucanthemoides* ^{not found} *leucanthemoides* on rocks on
- 2750 " *Mexicanus* ^{Leake of Guadalupe, Tex.} *leucanthemoides* *leucanthemoides* in field
- 1 " *arizonicus*, n. sp. " *leucanthemoides* " "
- 2 *Greenella discoides*, n. sp. " " " "
- 3 *Lonyza Covillei*! extreme forms *leucanthemoides* " "
- 4 *Leucanthemum* } *theaeoides* " " " "
- 5 " } *theaeoides* on bluffs. " " " "
- 6 " *angustifolia*, var. *leucanthemoides* " " " "
- > *Gnaphalium arizonicum*, n. sp. ^{creek banks, " "} *leucanthemoides* " "
- 8 " *Wrightii* *leucanthemoides* " " " "
- 9 *Ambrosia* ~~*leucanthemoides*~~ *leucanthemoides* ^{that magnificent specimen! usual, robust, 4 to 10 ft. high & 1 in. thick. stems stumpy dist. above. No. 2750. 2751. 2752.} *leucanthemoides* " "
- 276 *Rudbeckia laciniata* (Winge) A. N. S. *leucanthemoides* " "
- 1 *Linum pauciflorum* (Nutt.) A. N. S. *leucanthemoides* " "
- 2 *Helianthus petiolatus* (L.) A. N. S. *leucanthemoides* " "

- 2763 *Heliopeis peritiflora* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 4. *Lycium lauma bulbosa* ~~in~~ ⁱⁿ ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta}
- 5. " *multiflora* ~~in~~ ⁱⁿ ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta}
- 5.5 *Cosmos bipinnatus*, ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 6 *Bidens pilosa* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 7 " *procera* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 8 " *tenax* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 9 " = 2767 ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 2770 " *heterophylla* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 1. " *triplicata* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 2 *Peritoceros crinitus* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 3 *Peritoceros cordata* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 4 *Actinella Coplandii* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 5 *Erigeron Theobaldii* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 6 " *autumnalis* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 7 *Melampodium longicaule* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 8 *Chenopodium heterophyllum* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 9 *Senecio Hopkirkii* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 2780 *Sorechthella macrocephala* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 1 *Salvia* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ
- 2 *Sida* ~~at~~ ^{at} ~~caño~~ ^{caño} ~~v. Parícuta~~ ^{v. Parícuta} ~~in~~ ⁱⁿ

Page 5 of Compositae

- 2802 Hieracium rep? High slopes, Ill. ca.
- 3 " Mexicanum Near spring, Ill. ca.
- 4 " Fruticosa High shades, Danvers ca.

The very dear Sir, this is the Compositae, that I have to submit,

It is before some of the are sent to show more characters or new locality, but some of them are both new.

The first one, No 2729, Stevia ? is so pretty that I wish the privilege of naming it if distinct, as indicated, if the name is not as it is a species and not, occupied,

No 2788 Asplenium ? is of interest,

It is abundant where found, growing on the rocks. Root perennial as shown, Very heavy rooted

No 2789 is a Juniper, and 2797, also

Now we have to suspend all botany work & attend to the business of moving our herbarium to a better place in the city and the town away from the vicinity of the said road.

You shall have the rest of the Trichodesma and those of the Compositae this week, when I give you a detailed report and gratitude. Yours faithfully

Herbarium Plants (part 2) collected May-Nov. 1912, S. Mexico

- 2506. *Stachys affinis*, DC. Along stream side, near center
- 27. *Platanus longitri*, Wats. + ... Along stream side
- 28. *Chromolaena brachyphylla* Along stream side
- 29. " *sana*, var. *major* Along stream side
- 28. *Chilobolus ...* Along stream side
- 11. *Asclepias nyctaginiflora* Along stream side
- 29. *Asclepias brachyphylla* Along stream side
- 30. " Along stream side
- 31. " *leucomi* Along stream side
- 32. " *gracescens*, Wth. Along stream side
- 33. *Gonolobus polygonanthus*, Hook Along stream side
- 34. *Asclep. Mexicana* Along stream side

28/15 ~~Just~~ *Gomphocarpus hypoleucus*
Tampa Bay, Fla.

19. *Ascl. stenophylla*
Tampa Bay, Fla.

20. " *quinquedentata*
Tampa Bay, Fla.

21. *Go. stat. e. productus*
Tampa Bay, Fla.

22. *Lyctiana microcalyx* & *macrocalyx*!
Tampa Bay, Fla.

23. " *durata*, *longicaulis*, *pubescens*
Tampa Bay, Fla.

24. ~~Ascl.~~ *Bigelovii*, n. sp.
Tampa Bay, Fla.

25. *Cryptaea calycosa*
Tampa Bay, Fla.

26. *Sida* *colloides*!
Tampa Bay, Fla.

27. " *Macombii* var. *glaberrima* 5000 ft. alt!
Tampa Bay, Fla.

28. *Litho* *lobense*, Green
Tampa Bay, Fla.

29. " *multiflorum*
Tampa Bay, Fla.

29.30 *Budneria* *elongata* (L.)
Lithospermifolia, Green

Homachua Plants (part *composita*) June 3.

- 2831 *Homachua* *Sibirica* 2 fls. 1000 ft. ...
 32. *Convolvulus* *sepium* "fl. white" roots ...
 33 *Homachua* *Thurberi*
 34 " *Homachua* *intermedia*! in fruit
 35 *Homachua* *divinorum*, var. *longistylis*! fruit
 36 *Homachua* *muricata* var!
 37 " *cuneifolia*, ^{var.} n. sp. (fruiting var?)
 38 " *Mexicana*
 39 " *muricata*
 2840 " *leucomori*, var. n. sp.
 40 " *costata*, var. *longistylis*?
 42 *Homachua* *latus*
 43 " *Arizonicus* fl.

Jan 44

~~Prochyma~~ *Prochyma cylindrica*

45

Volcani - *Talpacoti* ...
High shades 8, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 98, 100

46

" *Fameid* ...
In certain ...

47

~~...~~ *Margyranthus luminosus*, Gr. n. sp.

48

" *lanceolata*, var. *lanceolata*

49

" *Palmeri*, Gray - var.

28 50

Saracha umbellata DC

51

Pentstemon *stenocephalus*, Gray

52

" *rubescens*, Gr. - n. sp.

53

" *linarioides*

54

Schrophularia *Californica*

55

Callitriche *minor*

56

Calophanes decumbens, Gr.

57

~~...~~ *conicus*, var. *Mexicana*

2858. Miconia arizonica, Gr. n. sp.
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

59. Galvia henryi, Gr
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

2860. Scutellaria virgata, Gr. !
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

61. Salvia apicata, R. & T.
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

62. Stachys coincisa
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

63. Ledebomia hydropicifera, Gr.
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

64. " Stachys puberula, toward plicata
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

65. Richardsonia arizonica, Gr. !
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

66. Oxybaphus angustifolius, Sweet.
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

67. " wrightiana, Gray
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

68. Boehmeria erecta, Gr.
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

69. Boehmeria viscosa, Lag.
"x a b c d e f g h i j k l m n o p q r s t u v w x y z"

1885 Mitocarpum breviflorum, Gray = 2723

1886 ~~...~~ ?

1887 ~~...~~ albomarginata, Gray

1888 " Pringlei, Engelm

1889 " Klumppii, Schreb

1890 " pilulifera, L.

1891 ~~Alternanthera~~ Achnanthes, R. Br.

1892 ~~...~~ Curtis's ranch: Santa Fe, N.M.

1893 ~~...~~ Palmeri, J. Gray

1894 ~~...~~ occidentalis, Watson

1895 ~~...~~ ...

1896 Microstylis purpurea - n. sp.

1897 Microstylis concolor - n. sp.

1898 ~~...~~ ? Partially only a small ... = 2445

2084, 26, 28 = 2883

- ✓ 2084. *Tradescantia* ...
- ✓ 2085. *Tradescantia* ...
- ✓ 2086. *Tradescantia tuberosa*, Green - probably a Mex^m species
- ✓ 2087. *Tradescantia* ...
- ✓ 2088. *Tradescantia volcanicus*, Kuhn
- ✓ 2089. *Tradescantia* ...
- ✓ 2090. *Tradescantia* ...
- ✓ 2091. *Notthoscordium striatum*, Kth
- ✓ 2092. *Notthoscordium* ...
- ✓ 2093. *Notthoscordium* ...
- ✓ 2094. *Notthoscordium* ...
- ✓ 2095. *Notthoscordium* ...
- ✓ 2096. *Notthoscordium* ...
- ✓ 2097. *Notthoscordium* ...
- ✓ 2098. *Notthoscordium* ...
- ✓ 2099. *Notthoscordium* ...
- ✓ 2100. *Notthoscordium* ...
- ✓ 2101. *Notthoscordium* ...
- ✓ 2102. *Notthoscordium* ...
- ✓ 2103. *Notthoscordium* ...
- ✓ 2104. *Notthoscordium* ...
- ✓ 2105. *Notthoscordium* ...
- ✓ 2106. *Notthoscordium* ...
- ✓ 2107. *Notthoscordium* ...
- ✓ 2108. *Notthoscordium* ...
- ✓ 2109. *Notthoscordium* ...
- ✓ 2110. *Notthoscordium* ...
- ✓ 2111. *Notthoscordium* ...
- ✓ 2112. *Notthoscordium* ...
- ✓ 2113. *Notthoscordium* ...
- ✓ 2114. *Notthoscordium* ...
- ✓ 2115. *Notthoscordium* ...
- ✓ 2116. *Notthoscordium* ...
- ✓ 2117. *Notthoscordium* ...
- ✓ 2118. *Notthoscordium* ...
- ✓ 2119. *Notthoscordium* ...
- ✓ 2120. *Notthoscordium* ...
- ✓ 2121. *Notthoscordium* ...
- ✓ 2122. *Notthoscordium* ...
- ✓ 2123. *Notthoscordium* ...
- ✓ 2124. *Notthoscordium* ...
- ✓ 2125. *Notthoscordium* ...
- ✓ 2126. *Notthoscordium* ...
- ✓ 2127. *Notthoscordium* ...
- ✓ 2128. *Notthoscordium* ...
- ✓ 2129. *Notthoscordium* ...
- ✓ 2130. *Notthoscordium* ...
- ✓ 2131. *Notthoscordium* ...
- ✓ 2132. *Notthoscordium* ...
- ✓ 2133. *Notthoscordium* ...
- ✓ 2134. *Notthoscordium* ...
- ✓ 2135. *Notthoscordium* ...
- ✓ 2136. *Notthoscordium* ...
- ✓ 2137. *Notthoscordium* ...
- ✓ 2138. *Notthoscordium* ...
- ✓ 2139. *Notthoscordium* ...
- ✓ 2140. *Notthoscordium* ...
- ✓ 2141. *Notthoscordium* ...
- ✓ 2142. *Notthoscordium* ...
- ✓ 2143. *Notthoscordium* ...
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- ✓ 2198. *Notthoscordium* ...
- ✓ 2199. *Notthoscordium* ...
- ✓ 2200. *Notthoscordium* ...

- 282. *Crossopogon* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.
- 283. *Abutilon* ~~retrofractum~~ *retrofractum* (L.) Mill. *retrofractum* (L.) Mill.
- 284. *Equisetum* ~~terrestris~~ *terrestris* (L.) Desf. *terrestris* (L.) Desf.
- 285. *Fernichilla* ~~colostoma~~ *colostoma* (L.) Kuhn. *colostoma* (L.) Kuhn.
- 286. *Hepatica* ~~Morchanbia~~ *Morchanbia* (L.) Kuhn. *Morchanbia* (L.) Kuhn.

287. *Melampus* No 288. *Melampus* (L.) Desf. *Melampus* (L.) Desf.

288. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

289. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

290. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

291. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

292. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

293. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

294. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

295. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

296. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

297. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

298. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

299. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

300. *Melampus* ~~linearis~~ *linearis* (L.) Link. *linearis* (L.) Link.

Varices from Guadalupe Mts.
Fritz. Coll. June - Oct, '82.

= *C. hispida*, Willd.

Carex ~~leucostoma~~, Boott, 1877.

Havocita Val. June 24. also along
streams of the Guadalupe Mts. July.

202 *Carex hispida*, Willd. (*C. echinata*, Durf.)
Sierra of Lammers' ravine July.

2 " In a spring of Guadalupe.
C. acutata July.

4 " *Carex deterrimensis* - more washed
much like *C. minima*
Lammers' canon July.

5 ~~*Carex*~~ *Cyperus Schweinitzii*, Torr.
Havocita Val. in a spring June 24, '82

209 ~~*Carex*~~ *Scirpus Olneyi*, Torr.
Lammers July.

2907 1/2 " *Elychnis rostellatus*, Torr.
occidentalis - probably
Igo's spring June 25.

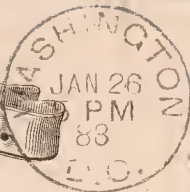
(The above in the package
may be named by Prof. Watson or
Boott - as you choose.

- 2915 J. G. Lemmon is *Muhlenbergia glomerata* var. *breifolia* Vasey
 2918 " = 732 C. Wright. Washington DC Jan 26 83
 2923 " *Stipa fimbriata*, HBK.
 2932 " (*Tripsacum Lemmonii*)

My dear Sir

Your card is received. Thank
 you for the name. There was no ticket with
 the specimen. It was with the *Chaenactis*
carphoclium which appears to have been collected
 in the Colorado desert. But ~~that~~ it is only supposi-
 tion as to the locality

Truly yours
 Geo. Vasey



NOTHING BUT THE ADDRESS CAN BE PLACED ON THIS SIDE.

*Dr. Asa Gray,
Botanic Garden,
Cambridge,
Mass.*

Plants of Arizona. (mostly,)

Collected Aug - Oct, 1883.

By J. S. & W. P. Serranow 1205 Franklin St. Oakland Cal.

(Polypetalae,)

No 3001, ~~Sisymbrium diffusum Gray~~ but fls. white, High ravine of Santa Catalina Mts, Aug, 1883.

2. *Drymaria spurculoides*, Gr. In corn field Igo's Quachuca, Dep.

2 1/2 *Silene Douglasii*, Hook. Bluffs, Webber Lake Cataract, Cal.

Sent you this before but it is

not described, Always slender, etc.
3. ~~Galium~~ *Galium confertiflorum*, Greene - at least in part
Wet slopes of high ravines in

the Santa Cat, Mts, Aug; also Apache Paf, Chiricahua, Dep.

4. ~~Amphipetale~~ *Vitis incisa*, Nutt. Peculiar succulent leaves, Santa Cat, Aug.

5. *Nauguelipha Torreyi*, Nutt. ! Santa Catalina Mts, Aug.

6. *Ingenhousia triloba*, DC. ? What shall we call it.

in our sets, I have fine spec, now (N.B. oblique petals)

7. ~~Abutilon~~ *Sida diffusa*, H.K. Dry bluff, Quachuca. Mts, Dep.
(*S. filiformis*, Moench)

8. ~~Sphaeralcea~~ Igo's ranch " " "

Sida spinosa, L., v. *angustifolia*, Griseb.

Always small, flowers gone.

9. *Sphaeralcea angustifolia*, Griseb. same locality as above.

10. *Galium* Santa Cat, on bluffs, Aug.

11. " Apache paf, Chiricahua Dep.

12. " " " "

13. " " " "

3014 Calliandra — ?
~~Acacia~~

Only a few plants seen on

high wet slopes of Santa Catalina Mts, Aug '83,

About 18 inches high, branching from the base,

15 Acacia constricta, Vahl. ^{Called A. constricta as also the next,}
This from plains around Guaymas, and the
foot hills of Santa Catalina Mts, Aug.

16 " ^{Both have always}
^{been included as for}
^{A. constricta, & it is very difficult}
^{to know the line between}
^{them.} Called A. constricta but they must be
dark
distinct. This has long slender branches and
shorter pods, never becomes so large a bush as
the one above, Babaconori creek, Dep.

17 Astragalus ^{Amoratus Gray} (near lunistratus) Igo's ranch, Huachuca Mts Dep.

18 Caracca ^{tenella Gray} ~~pedunculata~~ Sand washes of Santa Catalina Mts, Aug.
unlike the ^{leaf of the} Caracca of Huachuca, growing on high bluffs,
which also has nodulous roots, etc.

19 Calliandra ^{erriophylla, var.?} ~~atadepi~~ Huachuca, Mts, Dep. Is
this a good species, distinct from C. erriophylla,

20 Dalea ^{laevigata, Gray - var.?} ~~Pungit~~ Foot hills Santa Cat, Aug.
After collected it but supposed it D. laevigata,
or is there another? = your 34 (1440).

21, " brachystachya, Gray Babaconori creek, Dep. Always small, etc.

22 " " ^{a well developed form} Igo's ranch, Huachuca Mts, growing
with D. brachystachya, ^{stachya}

23, Desmodium ^{cineraceus, Gray} (large fls) Santa Cat, Aug.

24, " ^{gramineum, Gray} (linear lvs) One plant found, only, " " "
very rare

24 1/2 Lupinus ^{Boissieri, Gray} On cement slopes near
Mebber Lake Cal, & Sierra valley, Cal.

25

(I'll put the Ganopitotae on other
sheets for Dr Gray -)

(Gamopetalae,)

Compositae.

No 3025, *Aplopappus* near base of Howell and foot-hills Santa Catalina Mts., Aug.

26, *Gnaphalium*? In fruit only, on rocks(?) " " "

27 *Artemisia* Forms dense matted growth along bottom lands Rillito creek, near Santa Cat., Aug.

28 *Bidens* My *Bidens* are not all cleared of errors yet, This from a stream bank the Guadalupe Mts 3 ft tall & very large you called *B. Bigelovii* (No 2771 of last year)

29 " This also from Guadalupe Mts but on dry upland and always small you call *B. Bigelovii*, (No 333, of recent letter.)

(2767) " Is this *B. leucantha*, Somehow it was omitted in your report. Guadalupe Mts, Sep.

3030, *Franseria* Santa Catalina on a high pass. Only a few plants 2 ft high. Aug.

31, *Pectis* .. Probably *P. filipes* but a curious form. Never showed my rays, Santa Catalina Aug. low high bluffs of Rillito creek.

32, *Pyrropappus* --- Grand Igo's Spring, Guadalupe Mts. Same locality as last year, but better spec this time.

33, *Zinnia pumila*, Santa Catalina Mts, Aug.

34 *Parthenice mollis*, Lx. Never saw this in fruit before 2 to 5 ft high. Bluffs of cañon, Santa Cat. Aug.

35 *Senecio*? Babacomari creek near Guadalupe, Mts, Sep. Only one plant seen, Branching from the base.

3036. Gonolobus

Along streams Santa Cat. Aug.

37. Dichondra repens

Igo's ranch, Huachuca Mts. Sep.

38. Jacquemontia Pringlei

Bluffs of ravine Santa Cat, Aug.

Often collected, but supposed it was Evansii, occidentalis

39. Ipomea Reddingii (if new,) Santa Catalina, along

streams Aug, and Babacomari creek, Huachuca Mts. ^{Sept.}
Not described but near to the one referred to in
"Synopsis Fl. T. A." Page 213, under I. Wrightii as
discovered by Palmer on the Yagu river, & having
coiling, filiform peduncles, — which this has not.
As this is a
though very long and erect,
very large and beautiful species, if distinct I re-
spectfully request that it be named in honor
of Hon. B. B. Redding, late Fish Commissioner of Cal.
one of the most useful scientists ^{ever} residing on the
Pacific Coast. May I describe it and
have it figured for the Pacific Rural? to be first
read before the Academy of Sciences.

3040

? I cannot make this fit into any
order in our books, unless it is a new species of
Gordia in the Boraginaceae. If so it is in

the S 2, near G. globosa, but peduncles ^{hoop-bearing} long & slender!
and fls. orange! The branches tough as buck-skin!
Pot-hole ravine, Santa Catalina Mts. Aug.

Argemone mexicana ~~sp. nov.~~ must
41, Boraginaceae. I do not succeed in putting this into

any of the genera of "Edyn, Fl. T. A."
Foot-hills, near Cave Camp, Santa Cat, Aug.

(The plants were few, the branches tough as buck-skin,
and I mistook them at first for Lithospermum
angustifolium, but not that, and I find no
species with hairy outlets, etc., described.

42, Echinopsium Redowski, 2-3 ft high, Santa Cat, Aug.

43. (Schroph.) I fail to find a genus for this.

On bottom lands of Rillito creek, near Stick-
mud cabin, Foot-hills Santa Catalina, Aug.
Fls quite showy, purple.

*4 Cerpestis Chamadryoides, Stream banks Santa Cat, Aug.
Is this its typical or its var peduncularis?

3045 Cordylanthus Wrightii, Is. in Ashby's pap. or

the Chiricahua Mts. Sep. '53

Apetalae

- No 3047, *Eriogonum spiculatum* ^{Gray} High ravine, Santa Cat, Aug.
 48 *Boerhaavia paniculata*, Rich " " " " "
 49 " *viscosa*, Lag. Foot-hills " " "
 50 *Mirabilis oxycarpoides*, Gray " " "
 51 *Boerhaavia* ~~scandens~~ ~~spiculata~~? Cow bushes " "
 52 ^{*Jatropha cardiophylla*, Muell} *Boerhaavia cardiophylla*, In good fruit and with
 the sterile flo. on separate plants, Santa Cat, Aug.
 53 *Jatropha angustidens*, Muell. *Onidoscolus angustidens*, of Bot. Mex. Bond. A few
 plants on a high ravine south side Santa Cat, Aug.
 54 ~~*Jatropha angustiloba*, Muell~~ ^{*Manihot angustiloba*, Muell} near the above, Aug.
 55 " *Manihot Coahuilensis*, Muell. *Loeflingii*, (L.C.) Sand wash of Ailletta creek,
 south side Santa Catalina, Aug. A single plant.
 56 *Euphorbia pedunculifera*, ^{Ely} ~~Sp. In.~~ Stick-and-mud cabin south side
 Santa Catalina Mts. near Tucson, Aug.
 57 ~~*Chenopodium factidum*, L.~~ ^{*Chenopodium factidum*, L.} Igo's ranch, Guadalupe Mts, Sep.
 58 *Aristolochia* ^{*brevipes*, Bth., var. *acuminata*, Mraz} ~~*longifolia*~~, variable forms, Foot-hills of Santa
 Catalina Mts, and also well up the Mts, Aug.
 59 *A. labiate*, Along streams south side Santa Cat, Aug.
 60 *Martynia* with large flo. otherwise same as the other
 both on sands of plains near Tucson, Aug.
 Which is which?
 61 ~~*Cotlea*~~ ^{*Cotlea pappophoroides*, Kth} I cannot determine grapes with
 certainty, except in rare instances so send
 Guadalupe Mts,) on the few we have for this season.
 I hope our large coll. in the land of
 in shades) Dr. Glusker may be determined soon.

Carex trichocarpa, Muhl., Lam. 257, 1817. Culm slender, 2°-3° high; leaves narrow (2"-3" wide) long pointed, scabrous, the sheaths smooth; staminate spikes two or three together on a slender peduncle 2'-5' long, their scales appressed, mostly obtuse or nearly so, usually erose; pistillate spikes cylindrical (5" broad) mostly loosely flowered towards the base, the lower on exserted stalks; perigynium ^{conspicuously nerved} setose-hairy, broadly ovate at the base, tapering rather abruptly into a cylindrical beak which is tipped by nearly upright ^{short} teeth (), twice or more as long as the ovate scale. — Rather dry places throughout the Northern States east of the Mississippi. A form with lanceolate ~~perigynia~~ perigynia from New York (Sartwell & Dewey) is var. turbinate, Dew. var. imberbis, Carey, Perigynium smooth, teeth usually shorter, pistillate scales longer, and sheaths scabrous — New York (Sartwell & Dewey) to Illinois (E. Hall)

var. Deweyi. Leaves scabrous; staminate scales ^{smooth} very acute; perigynium ^{teeth mostly short.} ovate-lanceolate, ^{not} strongly nerved, spreading; scales very acute about the length of the perigynium. ^{Big Sioux & Yellowstone.} ~~Nebraska~~, Hayden, Bismarck, Dakota, A. B. Seymour, and Northward.

- 3062 *Panicum* — ? Santa Catalina along water courses, Aug
 63 *Pappophorum wrightii*, Watson " on sands "
 64 *Leptochloa mucronata*, Vth in shades "
 65 *Triodia pulchella*, HBK. " on dry bluffs "
 66 *Panicum*? " under bushes "
 67 ~~*Bromus ciliatus*, L~~ *Bromus ciliatus*, L
~~*Bromus ciliatus*, L~~ *Bromus ciliatus*, L? Guadalupe Mts, on bluffs, Sep.
 68 *Panicum* - *Abusum Babacomori* creek, near Guadalupe Mts. "
 HBK

3069 ? Here is the queerest thing
Hymenaria hanciflora, Watson
 we have met with this summer, sparsely
 found on the north side of a high ravine in
 the south side of the Santa Catalina Mts.
 Aug At first I thought it *Melvacium*
 but a glance dispelled that, see its large
 undulate-winged, prickly fruit, still accompanied by
 the five stamens and even anthers!
 Only 2 plants found of which this is the largest.

3070 *Haplophyton cirrucidum*, Got before in the
 Santa Catalina but not in fruit,
 very fine spec. Aug, Santa Catalina

C. Trichocarpa

var. *imberbis*, ^{Man} Gray, 867

var. *Deweyi*
C. leucocoma Dew Sill. Journ. XLV, 47, 1857

var. *aristata* RBr. Frank. Nar. Alpen. 764, 1823

C. murata, Dew. Woods Bot. 593, 1848

(Duplicate Report)

Plants sent to Dr. Gray May 13. 74.

Coll. from April to May 12th in Nevada val. (either near Waterman's residence & mill or Calico - a mining town.)

Cal. and near Grand Cañon of the Colorado at Peach Springs, Ariz.

Calico is 6 mi. N. of Daggett, Cal., Newberry Spr. is about 13 mi. east.

- 3114 *Streptanthus* Peach Sp. (not sent)
- 3115 *Linum* yellow. near Calico, May 11.
- 3116 *Astragalus*, Apr 27, Grand C.
- 3117 " (short pod.) Newberry Spring, Calico, May 10.
- 3118 " *Nuttalliana?* Calico, on dry summit, May 11.
- 3119, *Psoralea*, Calico, May 11
- 3120 *Dalea*, near Watermans on Mohave riv. May 10
- 3121 " " "
- 3122 " " "
- 3123 " near Needles, "
- 3124 " Grand Cañon Apr 27,
- 3125 *Oenothera* " " an annual!
- 3126 *Eupatorium* " "
- 3127 *Nicotiana occidentalis*, Mohave val, May 10 Decidedly a ♀.
- 3128 *Dryas* *Cooperi?* near Fort Mohave, Apr 24th
- 3129 *Senecio* near Ft. Mohave annual! Apr. 24th
- 3130 *Senecio* Grand Cañon etc. Apr 27,
- 3131 *Nemacladus* (small) Mohave May 10
- 3132 " (large), or above these plants at all stages of growth seem distinct in characters of stem, leaf & fl. etc.
- 3133 *Gilia setosifera* Ft. Mohave, Apr.
- 3134 *Phacelia rotundifolia* Grand C. Apr 27,
- 3135 " *pachyphylla* Ft. Mohave, Apr 12.
- 3136 *Nama* *corrugata* N. sp! near Calico May 11.
- 3137 " *rosea* N. sp! " same locality & date.
- 3138 *Eriogonum* near Calico May 11
- 3139 *Amsinckia* *vernicosa* var. near Calico May 11.
- 3140 *Aryctes?* some place & date.
- 3141 *Minuelus* *Mohavensis* N. sp! near Waterman's May 10 " Calico " "

8144 *Zoropastrum*. Near Calico, Nevada, May 12. 2-12.

Flagstaff, Ariz. July 15, '84

My dear Dr. Gray.

I wrote you a hurried note from town yesterday, and included a few brief notes concerning the plants sent you in the large package May 13.

As I look over late letters I see how much you need certain items inquired for if you have failed to get my first note - so I hasten to supply a few. They may reach you in time ~~space~~. none of our things are yet published.

I will only take up a few of the plants about which you have inquired.

No 3116. Astragalus Mohavensis ^{Nutt} Gray grows in large deepened meadows in a cañon south of Newberry Spring in Mohave val. May 10th '84.

3117 Astragalus acutirostris ^{Nutt} Gray n. sp. Above the Calico mines in dry rocks. May 11, '84
This is the one I inquired about doubting that it could be nuttallianus.

3119, & #146. Singular that I have never heard of these two Psoraleas, castorea & mephitica. In what are they published?

3120 Dalea ~ ? A very large ^{shrub} limbed, but low, 2-3 ft. Above Waterman's mill, Mohave val. May 11, '84.

Please note the notation that I collected the 415-2 Gray's capsule? several times morning and evening but never found the minute fls. open. Could not remove the locality. Don't think it can be any form of A. nuttallianus.

2

3125 *Oenothera*.

It puzzles me to call this annual plant growing on the sand at the side of the Grand Cañon, "*O. albicaulis*" when in Bot. Cal. that species is described "stems herbaceous from a perennial, running root-stock," a character which I've noticed abundantly in Cal.

Please examine this specimen again,

Grand Cañon ~~Atrey~~ 27, '84

(This one has loose bark, while the capsule is broader at base, than in *O. albicaulis* etc.)

X

Plants from northern Arizona and New Mexico including the Great Plateau of the South West, between the two rivers, Colorado & Rio Grande, and crossed by the Atlantic and Pacific R. R. on the parallel of 35° N. Lat.

Mostly from the great pine forest around the San Francisco Mts. Collected by Mr. & Mrs. J. G. Lemmon April & Oct, 1884.

- 3200 *J. vesia* ^{pinnatifida - n. sp.} A sp? Prince's dam mill near Flagstaff ^{Sept,} Ariz. In meadows, fls. all gone.
- 3201 *Aster* ^{ascendens, Lindl.} some locality & date, always small, & deformed.
- 3202 *J. vesia* ^{Lemmonii - n. sp.} Oak creek near Flagstaff on vertical rocks, ^{Sept.}
- 3203 *Helianthus* ^{Calif. var. Whalenii} on stream banks, "
- 3204 ~~*Stemoneura ciliatum*~~ ^{*Stemoneura*} A sp! Oak creek, in meadows June in fl. ^{Sept. in fruit,}
- 3205 *Abronia* ^{nana} near Beach Spring Ariz, June.
- 3206 *Astragalus* ^{arrectus, Gray} " "
- 3207 *Solidago* ^{multiradiata, var.} San Fran. Mts. " Aug
- 3208 *Cedronella* ^{micrantha, Gray} near Beach Spring " June.
- 3209 *A. pappus* ^{Parr.} side of Bill Williams Mt. " Aug.
- 3210 *E. rigeron* ^{macranthus, Nutt.} " "
- 3211 *Echinops* ^{pinetorum, Greene} " "
- 3212 *Sophora* ^{spicea, Pursh} Ash Fork June in flower
 ~~*Elytropis adscendens?*~~ (Davenport lake ^{Sept. in fruit,}
- 3213 *Solidago* ^{nemoralis, var.} Forest near Flagstaff, Ariz, - Aug
- 3214 *Stachys* ^{Rothrockii, Gray} shore of Davenport lake " "

- 3215 *Pentstemon* ^{Arizonicus, Gray} Bill Williams Mt., 8,000 ft., Ariz.
- 3216 *Actinella* ^{Richardsonii} near town of Williams Ariz. "
- 3217 *Allium* ^{mutabile, Mx} near San Fergu. Mts. De La Bergue park, " "
- 3218 *Calamintha* ^{Chenopodium, Bth} " "
- 3218 *Allium* ^{Ar. Halimifolium, Mx} Oak creek near Flagstaff, " "
- 3220 *Oxybaphus* ^{hirsutus, Hook.} De La Bergue park, " "
- 3221 *Astragalus fallax*, Watson " "
- 3222 *Eritrichium setosissimum* " "
- 3223 *Pentstemon hirsutoides*, Gr. " "
- 3224 *Polygonum ramosissimum*, Mx " "
- 3225 *Astragalus peapawus*, - n. sp. ~~Claytonia~~ near Cliff-dwellers ravine " "
- 3226 *Hieracium* ^{frondosum, Gray} De La Bergue park, " "
- 3227 *Pentstemon* ^{undiflorus, Gray - n. sp.} ^{mutabilis, Raf., var. (C. apricum, Schl.)} " "
- 3228 *Cerastium* (A. sp.) ^{cineraria, var. ? - same as 384 (1861)} Steele's spring " "
- 3229 *Emmenanthe* ^{villosa, var. carneocoma} Newberry's spring, Mohave val. Cal. ^{Gray} Feb.
- 3230 *Chrysoopsis* Indian village of Laguna N. Mex. Jul.
- 3231 *Gilia ripidula*, Bth, ^{var. acerosa, Gray} " "
- 3232 *Astragalus* ^{procumbens, ~~Alchamandus, Watson~~} (A. sp.?) " on hills " "
- 3233 " ^{picatus (A. sp.?)} " " " "
- 3234 *Valeriana* ^{Arizonica, Gray} ~~arborescens~~ Bill Williams Mt., Ariz. June.
- 3235 *Cleome* ^{obtusifolia, var. var. hirta, Gray} Newberry's spring, Mohave val. Cal. ^{Gray}
- 3236 *Eriogonum* ^{venifolium, Torr.} near Ft " Ariz April
- 3238 " ^{Thomasii, Torr.} " " " "

- testudiniformis*, 279.
- 3238 *Cymopterus* near Chamberlayne Spring, Mohave Co., Cal. ^{May 10} June
- 3240 *Oxybaphus angustifolius*, Sw., var. Peach Spring Ariz. June
3241. *Crittrichium* " " " "
- 3242 *Troximus pistaciifolia* (Ch. Sp.?) " 5-10 ft high " "
- 3243 *Myosurus copulatus*! " on hills " "
- 3244 *Phacelia inornata*, Gray - n. sp. " " " "
- 3245 *Lygium pallidum*, Miers low, full flowered " " " "
- 3246 ~~Streptanthus~~ *Thelypodium ambiguum* " "
- 3247 *Gracoviphallum parviflorum* (Lab.) near Flagstaff " Aug
- 3248 *Ansonia Palmeri*, Gray Fruxton Spring " June
- 3249 *Placidantum Nevadaense*, Wagon? ~~Senecio~~ near Peach Spring " "
- 3250 *Oxybaphus myrtagineus*, var. *pilosus*, Gray " "
- 3251 ³³⁶⁴ *Artemisia acaulis* ~~Lygium affinis~~ " " "
- 3252 (*Tricrag.*) near the Indian village of Laguna, near *Schinocarpus diffusum*, Gray Mex. on hills, very curious. Jul.
- 3253 *Asclepias involucrata*, Gray (same locality & date,)
- 3254 *Scirpus aristatum*, Engelm.
- 3255 *Sida* ~~sp.~~ ^{Gray} near Guzman. Ariz. July.
- 3256 *Senecio Douglasii* " " "
- 3257 *Pentstemon cristatus* " Mc Barty's station N. Mex. " "
- 3258 *Artemisia Nicholovii* (Comp.) San Francisco Mts, 10,000 ft. " Aug.
- 3260 ~~Artemisia~~ *Artemisia* ~~capitata~~ ^{capitata}, v. *linearis* near Laguna N. Mex. Jul.
- 3261 *Hymenocallis filifolia* " " "
- 3262 *Astragalus* ^{castanodoprinus}, n. sp. near Williams Ariz. "

- X.
- Tolmieanus*, v. *microdentus*
- 3264 *Senecio* San Francisco Mts., Ariz., Jul.
- 3263 } " *multilobatus*, ^{Peach Spring} ~~249~~ " June,
- 3263½ } " var? San Fran. Mts., " Aug.
- 3265 (*Senecio*, *Agrostella*, *Green*
comp.) " " "
- 3266 *Ranunculus*, ^{affinis, var. *coriophyllus*} De La Berge park, " "
- 3267 *Limosella* ^{agnatica} in meadows, " " "
- 3268 *Myosurus* *aristatus*? ^{bradi-leaves & shorter beaks} " " " "
- 3269 " *aristatus*! " " " "
- 3270 *Minulus* *floribundus*? " " " "
- 3272 *Stemmatomeria* *thurbeari*, Gray
~~*Saxifraga*~~ De La Berge park, " " "
- 3273 *Hyliaanthus* *quinqueovis*, var. *arizonica*
~~*Setosium*~~ Cliff-dweller's ravine, near Flagstaff " "
- 3274 *Lupinus* ^{meionanthus, Gray} near Flagstaff, (good forge) " "
- 3275 *Cimicifuga* ^{arizonica} Bill Williams' Mt., " "
- 3276 *Ernstera* ^{coronopifolia} near Cliff-dweller's ravine, " "
- 3277 *Gymnophappus* " Flagstaff " "
- 3278 *Astragalus* *Rusbyi* Greene! in Proc. Cal. Acad., Feb. '84.
Hills around San. Fran. Mts., Ariz. Sep.
- 3279 *Potentilla* *Hilliana* De La Berge park, " " "
- 3280 *Orthocarpus* *wherryi* " " " "
- 3281 " ^{purpureoalbus} *undescribed* & very distinct " " " "
- 3282 *Solidago* *myl. parviflora*
~~*Solidago*~~ N. side Mt. Agassiz " Aug.
- 3283 *Senecio* *fastigiatus* " " " "
- 3284 *Potamogeton* ^{pusillus} In a crater lake north of Mt. Agassiz, " "
- 3285 *Aritella* " " " "

- 3286 *Sisymbrium* Borders Crater Lake, north of Mt. Agassiz. Aug.
- 3287 *Stellaria* ^{umbellata, Turcz} N. slope Mt Agassiz. 10,000 ft. "
- 3288 *Cerastium alpinum*, L., var. " " "
- 3289 *Arenaria biflora*, ^{Watson} Summit " 12,000 "
- 3290 *Silene acaulis*, L. " 12,640 "
- 3291 *Saxifraga flagellaris*, Willd. " 12,600 "
3293. *Draba aurea*, Vahl - pods glabrous - same as n. 20, 1400, from Mt. Agassiz
- 3294 *Potentilla Wheeleri*! N. slope " 10,000 "
- 3295 *Saxifraga cespitosa*, L. ~~(Rosacea)~~ Summit " 12,640 "
- 3296 *Arenaria nana*, L., var. *hirta* ~~Dryas~~ " 12,600 "
- 3297 *Lycium Drummondii*, ^{Watson} S. slope " 11,500 "
- 3298 *Thlaspi alpestre*, L. ~~Draba nemerosa, L.?~~ " 12,600 "
- 3299 *Saxifraga debilis*, Engelm. ~~Alba~~ N. slope " 11,500 "
- 3300 *Lupinus* ^{bovicaulis, Watson} Near Kingman Ariz June.
- 3301 *Criogonum molle*, ^{Watson} " "
- 3302 *Allium* ^{insolatum, Watson} Near Peach Spring " "
- 3303 *Eritrichum* " " "
- (A few species of Gramineae follow omitted for package sent last week to Dr. Vasey.)
- 3304 *Poa annua* ~~bragroot~~ Peach Spring Ariz. June.
- 3305 *Luzula* N. side Mt Agassiz. " Aug.
- 3306 *Juncus spicatus* " " " "
- 3308 *Trisetum* " " " " "
- 3309

- 3309 *Arenaria macradenia*, Watson
~~*Stellaria*~~ N. slope Mt Agassiz, Ariz., Aug.
- 3310 *Asynella bignoniifolia* (Comp.) Peach Spring Cañon " June
- 3311 *Callitriche*^{verna} Spring val. Mt Ditzgreaves " Sep.
- 3312 *Potentilla*^{crinita, Gray} De La Bergue park, San Fran. Mts. " "
- 3313 *Clatonia*^{brachysperma, Gray} Sandy bank of stream Spring val near Ditzgreaves
- 3314 *Villica angustifolia*, Nutt. near San Francisco Mts. Sep.
 (some place and time)
- 3315 *Aphelopus*^{gracilis} Volunteer val, 8,000 ft alt. Ariz., Sep.
- 3316 *Chrysopsis villosa*, v. *foliosa* " " " "
- 3317 *Veronica* near Fort Mohave " April
- 3318 *Baeria dumosa*^{var. tenuis} (Comp.) De La Bergue park, S. F. Mts. " Sep.
- 3319 *Solidago*^{nana, Nutt} (small) " " "
- 3320 *Polygonum*^{ramosissimum, Mx} " " "
- 3321 *Phacelia*^{arizonica, Gray} near Davenport lake " "
- 3322 *Astragalus*^{amphioxys} " Peach Spring " "
- 3323 *Brickellia*^{linifolia} *Bohoviense*, Mohave val. Cal., May.
- 3324 *Antella* De La Bergue park, Ariz., Sep.
- 3325 *Eriogonum*^{inflatum, Torr.} Cruxton Cañon " "
- 3326 *Astragalus* (V. H.?) near Ark Fork, " Jul.
~~Resembles *A. hookerianus* but ascending and found in the open plain, at an alt. of only 5,000 ft. Ped not obtuse but pointed to to.~~
- 3326 *Astragalus*^{meisneri, Gray} Peach Spring on hills, Ariz., June.
- 3327 *Pentstemon* *Parrisi* " " " "
- 3328 *Astragalus ophorus* (not sent)
- 3329 *Pentstemon*^{crispatus} De La Bergue park, " Aug.
- 3330 *Tabernaemontana*^{brachypodium, Nutt.} very large x showy, near Indian village of Laguna, Ind.

- 3332 *Asclepias* near Laguna N. Mex. Jul,
- 3331 *Oenothera* ^{Wrightii, Gray} Ash Fork, Ariz. "
- 3333 (?) A vine several feet long climbing by petioles over bushes & fences near Indian village of Laguna ^{N. Mex.} not in flower in June.
- 3334 *Arenaria* ^{Hendersonii, Gray} de La Vergue park, Ariz. Sep.
- 3335 *Lupinus* ^{Sitgreavesii, Watson} S. slope Mt Agassiz 11,000 ft. Aug. very large & spreading, good forage.
- 3336 *Chamaejasme* ^{Coronopus} Peach Spring cañon Ariz. June,
- 3337 *Chrysothrix* ^{Gray} S. slope Mt Agassiz. " Aug.
- 3338 *Placelia* ^{crumata, Torr} Plains east of " in scoria " "
- 3339 *Eriogonum* ^{complanatum, Bth} Widely branched bush 8 feet high on top of Cove-waller's peak, east of Mt Agassiz, Aug.
- 3340 *Lycchnis* ^{Drummondii, Watson} N. side Mt Agassiz, Ariz. "
- 3341 *Yucca* ^{auriculata, Torr} " (rays brown) " "
- 3342 *Psoralea* ^{tangulata, var.} Plains east of Mt Agassiz " "
- 3343 *Astragalus* ^{procensus, Gray} " " "
- 3344 (?) " " " "
- 3345 *Placelia* ^{integrifolia, Torr} Often 8 feet high and widely branching.
- 3346 *Castilleja* ^{sinuata, McCarty} station A.P.R.R. N. Mex. July
near Flagstaff. Ariz. "
- 3347 *Brodiaea* ^{lemonae - n. sp} Oak creek near Flagstaff " Aug.
- 3348 *Erigeron* ^{incomptus, var.} Ash Fork, " June.
- 3349 *Placelia* ^{hispida, Gray} Ash Fork, Mineral Park, on Mts, " July.
- 3350 " ^{rotundifolia} " on plains " "
- 3351 *Asclepias* ^{Whitensis, Gray} near Kingman " " "
- 3352 *Astragalus* " Peach Spring " June
- 3353 *Astragalus* ^{Calyceus, Torr?} " " "

- 3353 *Palafoxia Coulteri*, Gray
Lepargyrea Ash Fork Ariz., July.
- 3354 *Astragalus* ^{Shottianus, Nutt.} *herbat* Nutt., " "
- 3355 *Antennaria dioica* Ash Fork, " "
- 3355½ " Near Williams " June
- 3356 *Agave* ^{Engel. (not sent.)} *Waterhousei* Peach Spring Canon & Grand Canon of the
- 3357 *Asclepias* ^{myrtifolia, Torr.} *Beals* Spring near Kingman Ariz., June
- 3358 *Physaria* ^{newberryi, Gray} Side of Cave-dweller's Mt. in scoria east of Mt Agassiz, Feb all gone Aug, What *Heaulia* seed *vepelt*!
- 3360 ⁼³²⁵ *Actinella acumbis* (Comp.) De La Vergne Park, 8,000 ft alt. Aug.

Here Dr. Gray & Prof. Watson are the numbers and notes of 150 plants, forwarded for names to-day (Nov, 13th 84.) in 2 packages

Perhaps I could study out a large part of them if time permitted but we have agreed to make an exhibit of Pacific Coast grapes & other plants at the N. O. fair and are very busy selecting, mounting & labeling.

Please send the determinations to me here (1205 Oakland,) and the letter will follow. We're busy finishing up field sketches for the fair, with joins in warmest regards to both.

Hurriedly but cordially J. G. S. S. S. S.

4180 } *Trifolium longipes* Nutt. Foot-hills of Bill Williams Mt.,
 along a ravine. June: '84
 4181 } " " Stream banks & meadows near Flagstaff, Aug. '84
 N.B. the reflexed fls.
 4182 } " ~~involucrum, wild~~ meadows San Juan Mts., Aug. '84
 4183 } *Trifolium* meadows (Spring valley, near Ft. Huerfano,
~~*Atriplex*~~ Aug. '84
 4184 *Arabis* Near Ft. Huerfano, Ariz. + 4 Hb. v. longipes
 4185 *Lysanthes* N. Ariz. Near Ft. Huerfano, Ariz. '84
 very remarkable with its leafy stems, its few
 small pods ciliate with short hairs etc.
 Collected with *E. pusillus*, = var. *glaberrima*.
 4186 *Streptanthus* Dr. H. W. Brown Ash Fork June '84
 4187 *Descurainia* } *v. alpina* Nutt. Peach Spring, June '84
 4188 } Mountain view station, near Williams, June '84
 4189 *Eriogonum* Colorado river west of Grand Canyon
 near Ft. Huerfano, Ariz. '84.
 Notice the persistent fls. with narrow
 segments, and the long, soon with-
 ering stems.
 Its distinct I desire it named for
 Dr. J. L. Ward, the surgeon in charge at
 Ft. Huerfano, and a man of much sci-
 entific bearing, aiding us very much.
 He is a brother of Gen. E. C. Ord.
 4190 *Eriogonum* ~~*Prunella*~~ Near Colfax, Huerfano desert, May '84
 4191 " *pusillum* 799 " Kingman, Ariz., June '84
 4192 " *stellatum* f. *flagstaffi* N. Ariz., Aug. '84.

June 1887
 San Juan Co. N.M.
 * * * * *

- No
- 4500 *Stachys* sp. in a stream bed of rocky
 Cañon near El Estero, June '87
- 1 *Hesperizonia* (*Calycadonia*) *sandy plain near*
multiflorata, var. *sparsa*
 to reston, June '87
- 2 *Alchemilla* *compacta* *level*
fimbriatula
- 3 *Senecio* *pluteus*, near "do", " "
aronicoides, var. with large head
- 4 *Belamcanda* *douglasii*? " " "
- 5 *Chamaenerion* *Chamissonis* *barren* *seed* *near*, *40* *miles* *west*
of *S. J.*, *about* *the* *altitude* *of* *above*,
- 6 *Stachys* *bullata* *near* *El* *Estero*, *to* *reston*
- 7 *Microseris* *linearifolia* *near* *El* *Estero*, *to* *reston*
 I think this a new species, growing with
var. venustum, var. *venustum*, on the *Passo de Hobbs* *Sp. N.*, June 1887.
- 8 *Senecio* *pluteus* *near* *El* *Estero*, *to* *reston*
- 9 *Senecio* *pluteus* *near* *El* *Estero*, *to* *reston*
- 4510 *Stachys* *bullata* *near* *El* *Estero*, *to* *reston*
- 11 *Streptanthus* ? (But with some of the *C. v. adleri*, a *land* *redra*,
Carletonia *humilis* *small* *or* *short* *anthers*, *dilated* *stigmas*, *very* *early*
mispl. *occumbent*, *A* *new* *sp.* *of* *Streptanthus*,
 found on our ranch at *El Estero*, *S. J. Co.*, *June* *'87*,
- 12 *Gilia* " " " " " "
- 13 *Gilia* *linearifolia* *near* *El* *Estero*, *to* *reston*
- 14 } *Gilia* *linearifolia* *near* *El* *Estero*, *to* *reston*
 } *linearifolia* *near* *El* *Estero*, *to* *reston*
 } *linearifolia* *near* *El* *Estero*, *to* *reston*

Common

On our ranch at El Estero de San Juan, 57

4515

Plagiobothrus

16

" *notosulcus*?

17

~~*Trichomyces*~~ *heterophyllus*, var. *cryptoplenus*

18

A. vagans, var. *oxyplegus*!

19

Laya glandulosa

#

4520

Leptomyces (*Leptomyces*)

#

21

Melicoides douglasii

22

Melicoides lindleyi

23

Melicoides bigelovii, var.

23

Melicoides bigelovii, var.

24

Melicoides elegans

25

Melicoides var. *Coulteri*

26

Melicoides ~~*douglasii*~~ *lindleyi*

27

Melicoides douglasii

28

"

29

Dracopis

4530

Peledonia *alpinoides* Greene

Specimen name

45-48

distans etc. etc.

49

arvensis, occidentalis, var.

50

distans arachnoides flowers purple & yellow on same plant!

51

Artemisia lycopoides

52

Eriophorum verticillatum

53

Alnus affinis *aphantocarpa, var. tenuis*
But different in habit.

54

Artemisia Fremonti

55

~~*Sarcocolla*~~ *Malacothrix Clevelandi*

56

Malacothrix inaequalis same as the one spotted

57

Sida hispanica

58

Cassia alata var. *holosericea*

59

Artemisia hispida = 4606

~~4560~~

4560

Artemisia ~~holosericea~~

61

Artemisia cuspidata

62

Malacothrix

63

Eriophorum foliosum, var. tenuissimum

64

Artemisia ~~holosericea~~ !

- 43 +2 *Thymus tenuis* ...
- 43 *Eriogonum* ...
- 44 *Eriogonum* { *with arctiflorum* } At Baron Schroeder's ranch 30 miles north S.G.C. on dry hills, very peculiar in the exposed part of its leaf. If this is *E. virgatum* I have not met with it before.
- 45 *Senecio* ~~*virgatus*~~ *eurycephalus* ... If as above then a far western locality.
- 46 *Microseris douglasii* ...
- 48 *Podetium vimineum* ... This form is a low spreading dark red one.
- 49 *Boerhaavia* { *viridis* } ... sandy place on S. ranch, Jan '87
- 49 ~~*Wormia tuberosa*~~ *Wormia tuberosa* var. *kymplopus* ... S.G.C. Co.
- 45-90 *Hollisteria* { ... } ... a good genus with its peculiar two lobed involucre, flowers a long time, from May to Oct.
- 71 *Microseris douglasii* ... the hills of Cholame, Jan. '87
- 72 *Pinnaculia brachyloba* ... ? ... ranch & Cholame, " "
- 73 *Amsinckia* ~~*specabilis*~~ *specabilis* *truncata* - large flowered
- 74 *Sisymbrium* ...
- 75 *Thaedia ciliata* ! ... leaves faint, ...
- 76 *Compositae perforata* ... Cholame
- 77 *Compositae* *californica* ...
- 78 *Compositae* ... Pacific Provenance ...

- 60 *Asplenium* — ?
- 61 *Adiantum vimineum*
- 62 *Asplenium glanduliferum*, Gray
graveolens K. Sch. var. *graveolens* (K. Sch.) Presl
very heavy scented, inner bracts, white, for 10.
- 63 *Eschscholtzia* K. Sch. on the hill, for 10
- 64 *Blasia* ~~*confusa*~~ (1844)
- 65 *Blasia distans*, B. H.
- 66 *Thelypodium* ...
- 67 *Blasia* *renana*
- 68 *Microceris* ~~*confusa*~~ *limbeyi*
- 69 *Microceris* *croceipes* !
- 70 *Microceris* ...
- 71 *Coelocladus* ... several forms, on Bishop Peak
for a other hills, also the town of ...
Prof. G. ... criticizes my name but I hold that it is appro-
priate as growing from side of Peak; as well as the ...
72 *Calochortus clavatus* (L. W. C.) ...
very stout, in situ, fades on drying.
- 73 *Coelocladus annuus* on dry adobe cakes ...
the 6-8 ft high, ...
- 74 *Adiantum kinella* near S. P. 3, on hill, ...
- 75 *Thelypodium* ...
- 76 *epileptum* ...

459 *Chorizanthe diffusa* San Luis 1858

460 *Bianzia Palmeri*

1 *Stachys stachyoides*

2 } *Phytolobos* *immsus* Choisy var " "

3 } " " " "

" *tenellus* Gray " "

" *canescens* " " " "

6 *Stachys* *repens* Pittsburg 1853

7 *Chenopodium fasciculatum* ... 1857

~~Proximon = 4549?~~

8 *Rhus* *circinifera* ... 1857

~~Proximon grandiflorum~~

grandulosa - synonym *heterostriata*

9 *Dicentra* ... 1857

10 *Hyssopus* *torreyanus* ... 1857

11 *Tricus* *ajacoides* ... 1857

15 *Andropogon* *altissimus* ... 1857

- 6 Phacelia distans San Luis Obispo, Cal.
- 7 " tanacetifolia " "
- 8 " conodr. 5-petala. Adobe Lakes, Cal.
- 9 " Chamissonis Escondido, Cal.
- 4620 Chorizanthe umbonacea San Jacinto, Cal.
- 21 Conostemum heterophyllum Sea Shore, Colles, Cal.
- 22 Conoclinium dubium Arroyo Grande, Cal.
- 23 Calceolaria ... back of ...
- 24 " ... "
- 25 " ... var. "
- 26 " ... "
- 27 Rigginia ... var. longianthera

There, I have been hurried about this package that several duplications have occurred and moreover I had no room to place the plants out and classify them. Hence all the orders in confusion.

We start this P.M. for San Diego to make arrangement for republishing the specimens of Lower Cal for a year or so, as an offer is before us. Please write always to Medical College, California for this is our permanent address.