

- 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. { flower had no time to describe
tree - as requested.
 - 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 sandridge 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 4 feet around.

Scalso 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 gorge.
- 1069 Butterfly valley
- 1070 High ridge near Reno, Nev.
- 1071 Gray's valley between warm-spring val. & Pyramid lake ^{sandy points 2,000 ft.} abundant on
- 1072 Volcanic scoria shore of Pyramid (This and the above reported "new")
- 1073 High ridge near Reno Nev. associated with 1070.
- 1074 Sierra val. not abundant,
- 1075 " " & Webber lake val.
- 1076 Indian ^{Big-meadow:} & 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 Lassen's peak.
- 1087 An *Astragalus* not before collected. Summit of Castle Peak, 8,000 ^{nev. co.}
- 1088 Sierra val. & Great Basin, root creeping.
- 1089 " " near Loyalton.
- 1090 N.E. Ross 8,600 ft, connected to Castle Peak, nev. Co.
- 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 " *Arabis* - ? ^{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 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 *Abacanthus*?
- 7 A bit of a solitary plant by the road-side, Sierra val.
- 8 Near Big Trees, Calaveras
- 9 " " " "

- 1120 Carson val. ^(and package) com
- 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 *Pentstemon*s have been sent before, but were not reported upon. ^{is not one of them, the supposed new one?}
- 8 } Both of Plumas Co., 1127 near Lassen, + 28, near Luning. is tall (2 to 4 ft) much branched, with few yellow & purple flowers.
- 9 American val. near Luning. (sent before) but unreported.
- 1/2 - Foot-hills " Big Trees.
- 1130 Haskell's peak near Sierra val.
- 1102 - By some mistake marked on Watson's report "*Glossopetalon Nevadaense*," Pyramidal lobes
- 1 Sierra val.
- 2
- 3 } *Silene* from foot-hills near Washoe.
- 4 }
- 5 }
- 6 }

1229 *Lilaea bridgesii* (Vahl) ^{near Webber's} meadow lake, sent that
 30 } *Cheilanthes gracillima* " " " } you say
 1 } " " " " " } note the
 " " " " " } locality,
 Sierra Valley, Sept. 3rd 1856,

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*
Leemonii, 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 10 miles. The *Gilia*
Larseni & the *Hulsea nana* var. *Larseni* ^{also *Gorydalis* Casiana} were collected
 only by me. I had the pleasure of a glance at

the Bot. Cal. at Santa Barbara, and notice several omnifrons
 I have found *Veronica Americana*, *V. subularia*, *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 where wanted. I will collect for seed again.
 Again thank you very sincerely & remain Yours &c. J. L. Lemmon

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

Lemmon

1186. *Trifolium* I to I leaved, which was
 noted on Howard 4 years ago ^{ago}, as ^{sub} ^{can} ^{not} ^{be} ^{described} ⁱⁿ ^{new} ^{Bot.} ^{Cal.} ^{locality} ^{only} ^{via} ^{the} ^{7.}
 First spreading ^{the} ^{advance} ^{turning} ^{downward}
 ago, while the flowers are ^{as} ^{usual} ⁱⁿ ^{west} ^{Cal.}

1187. *Trifolium* ^{Coll. in 1856} ⁱⁿ ^{Sierra} ^{Valley}
 uncollected in ^{the} ^{west} ^{Cal.} ^{locality} ^{only} ^{via} ^{the} ^{7.}
 western portion of Sierra valley, Cal. ^{Coll. in 1856}
 first reported as growing (I should have been sent often, to

1188. *Trifolium dentosum*. Coll. first in 1856 in ^{Sierra} ^{Valley}
 afterward at same point in ^{Sierra} ^{Valley} ^{Cal.} ^{Coll.}
 as a var. of it, ^{the} ^{mountain} ^{range} ^{is} ^{not} ^{yet} ^{known}, ^{to}
 show connection with ^{the} ^{mountain} ^{range} ^{is} ^{not} ^{yet} ^{known}, ^{to}
 instead of *A. Lemmonii*, ^{hence} ^{frequent} ^{sendings}

1189. *Hulsea nana* var. *Larseni*, ^{Coll. in 1856} ⁱⁿ ^{Sierra} ^{Valley}
 with ^{the} ^{base} ^{of} ^{the} ^{mountain} ^{range} ^{is} ^{not} ^{yet} ^{known}, ^{to}
 with ^{the} ^{base} ^{of} ^{the} ^{mountain} ^{range} ^{is} ^{not} ^{yet} ^{known}, ^{to}

communicated. ^{the} ^{name} ^{is} ^{not} ^{yet} ^{known}, ^{to}
 " ^{the} ^{name} ^{is} ^{not} ^{yet} ^{known}, ^{to}

1190. *Eriogonum* ^{Coll. in 1856} ⁱⁿ ^{Sierra} ^{Valley}
 volcanic area ^{the} ^{name} ^{is} ^{not} ^{yet} ^{known}, ^{to}

1191. *Ranunculus* ^{Coll. in 1856} ⁱⁿ ^{Sierra} ^{Valley}
^{the} ^{name} ^{is} ^{not} ^{yet} ^{known}, ^{to}
^{the} ^{name} ^{is} ^{not} ^{yet} ^{known}, ^{to}

- No 1192, *Aster* ^{Kingii} - sent in 25¹/₂ mts at v. coll. but omitted in Report. New River, etc., and some near Pyramid Lake.
- 1193 *Cleomella* ^{parviflora, Gray} " " " not yet reported, (1023, by you.)
- 1194, *Gilia* ^{intermixta} Webber Lake, Aug. '26,
- 1195 *Lophanthus* ^{obovatus, Gray} & other high localities
- 1196 ~~*Gilia*~~ ^{monophylla, Torr.} Pyramid mt, (No 898 at last sendings.)
- 1197 *Asplenium* ^{simplex, Vahl} Do-Semite Val,
- 1198 *Calochortus* ^{Leichtlinii, Hook.} Webber Lake & at res. etc. - same
- 1199 *Portulaca* ^{fusca, abnormal forms?} Sierra Val (smaller than *P. glandulosa*,)
- 1199 1/2 " ^{fulva} near Webber Lake (sent to be located.)
- 1200 " ^{gelida, var.} Peaks of Webber. Aug 24, '26, form of *P. viscaria*.
- 1201 *Polygonum* ^{shastense} Webber & Castle peaks abundant.
- 2 *Eriogonum* ^{marifolium} High peaks near Webber Lk, Aug 24, '26.
- 3 *Gilia* ^{longista} Webber & Castle peaks.
- 4, *Colum* ^{peruvianum} ^{deflexum, var.??} near Webber Lk. (Injured for by Dr. Gray.)
- 5 *Polygonum* ^{torreyi} " " Collected also by Dr. Parry Aug 24, '26. Also seen but, it was omitted.
- 6, *Atriplex* ^{torreyi} Sierra Val.
- 7 *Monarda* ^{iniflora} Webber peak, Aug 24, '26,
- 8, *A. Crucifera* from Mt Webber Lake, " "
- 9, *Toximon* ^{glanconum} " " & Sierra mt.
- 1210, *Polygonum* ^{coarctatum} near Webber & Donner lakes. (No 277.)
Coll. also by Dr. Parry. sent you 1823.

- No 1211 *Erigeron* ^{bubosa?} Not in new Ed., sent you last season (No 1098,) found in only one locality, Sierra Val, Early in spring, in alkali mud, unlike *Sanicula tuberosa*.
- 1212, *Monimus* ^{rubellus} near Webber Lake,
- 1213, " ^{umbellatus} " " " (Coll. also by Parry,)
- 14 *Claytonia* ^{lanceolata} (with the next,)
- 15, " ^{aphylla} near Meadow Lake, Alt. 8,000 ft,
- 16 *Portulaca* ^{pusca} Webber Lake (Is it the *perifolia*?)
- 17 - *Galium* ^{trifidum}, common
- 18 *Ribes* ^{auriculatum}, var. *variegatum* Is it *Andersoni*?
- 19 *Garcia* ^{Andersoni} Sierra Val, (Coll. also by Parry,)
- 1220 - *Arnica* ^{montana} Webber Lake.
- 1 - *Aster* ^{concolor} " "
- 2 - *Sedum* ^{obtusatum}, Gray Mt.,
- 3 - *Trichostema* ^{longipes} " val, low forms
- 4 - *Cibertia* ^{umbellata} near shore at Lake Sierrita long or elongated, thick leaves, bright crimson, also by my friend Dr. B. Living plants,
- 5 *Chamaenerion* ^{viride} " "
- 6, *Collinsia* ^{filiformis} " "
- 7 - *A. aff. lanceolata* " Lake & Sierra Val,
- 8 *Gilia* ^{trifolia} " "

Notes of Plants sent Sept. 18th, '26 to Prof. Bolander,

1232. *Silene*, ^{montana} ~~montana~~ Webber lake mts,
1233. *Emotlora* ^{dentata, var. pinnatifida} San Bernardino, Reported last winter as *C. dentata*
- 4 *Gilia* ^{dianthaoides} // High mts near S. Bernard,
- 5 a ^{Palmeri} ~~thought it w. sp. for a time, is it *G. demissa*? = 1167.~~
- 6 ~~*Corytheca*~~ // near San Bernard, - *Centrostegia leptoceras*
ayollan americana
- 7 *C.* surface of a stream near Santa Barbara, Mrs. S. E. Higgins,
- 8 *Gilia* ^{cotulaefolia} // Warm of Elwood Cooper near a " " J. G. S.
- 9 *A. crucifera* from summit of Lopez's peak, 1872, & 1875,
~~*Vizcaino-montana*~~
- 1240 } Which is *Artemocladus* & what is the other?
Nemacladus tubulatus, n. sp. - but long ago collected by Wallace.
- 1) *Gilia micromera* - new find
- 2 *Hulnea*, from near summit of S. Bernardino, injured by neglect
 while searching for a lost comrade 2 days, sent to H. Purry?
- 3 *Draba* ^{anna} injured at the same time as above,
- 4 *Cypripedium* ^{inferius} ~~anna~~ ^{anna} valley, rare,
- 5 *Erythraea* ^{parviflora} // on mts,
- 6 *Carex* ^{tenella} ~~tenella~~ ^{tenella} Butterfly, // Plumas Co., with *Darlingtonia*,
- 7 *Scirpus* ^{riparius} Pool on ranch of Col Hollister Santa Barbara,
- 1245 ~~or~~ *Carex* ~~Hollisteri~~ ^{Hollisteri} ~~tenella~~ ^{tenella} valley, *C. stipitata* of Bailey - 1854

The crucifer was sent to Prof. Bolander 8 years ago
 in a box.

My dear Cooper,

Again I send you a small package of plants to name,

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

So, 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." yet, 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~~ ^{Sargent} 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 Gnomia I sent Dr. Vasey. I cannot soon again collect such another fine lot.

My health is very poor, suffer with a cough & ind. acid. Nearly unfit for anything. If I recover, I will hibernize at Eschen lake again & study & experiment, assisted by flower books, and a costly microscope. A present from Steala Barbara, dried. Please refer to this with yours Pa. W.D. Bennett

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 novae ? (Cannot this be ^{Bandy hills,}
separated from the little, low, purple one ?
1270 Strophyllium This word, copied
from your report, so pleased Dr. Parry
that I used again to make sure, ^{Alkali flat, Nev.}
" 1 Trifolium Lemmonii, var. I saw
its head downwards, the fl. reverting upward
during extraction, Sierra Val, on horse ranch,

1272 Ranunculus gemmatus Better

Spec. those sent before, Fls flower after
1/2 in. across, abundant this season, S. Val.

" 3 Ranunculus retens? Very leafy, & smooth
springy, muddy places, Sierra Val.

" 4 Crepis occidentalis var, viridis B. This
matures 2 months before ^{same ground, Sierra Val.} the typical plant on

" 5, Draba alpina var alvida? Mt. Loda.

" 6 Puttemon Lemmonii, Better spec,
Abundant on Downville peak,

" 7 Geranium — ? " " near top,
Seems diff. from any described,

" 8 Astragalus Austrius Better spec, Acres
of it on summit of Mt. Loda, near Weber's.

" 9 Leucothoa Lewisii, in fruit, Downville peak,

1280 Lewisia gardneri var, pignae? " " white fl.

" 1 ? (I've nothing on cryptogams.)

" 2 — ? Curious sedge-like thing from
springy places, ^{Castroville} side of D. peak,

" 3. Sedge — ? " " "

(Who is studying the Leucina?)

1284 Cuscuta — ? Downville peak,

My dear Prof

Foregoing is
a list & notes of a few more plants
sent for various reasons as stated,

As strength permits I take short ex-
cursions, but hereafter must stay at
home on the gru vine 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 Gullings
hot-spring north side of Honey Lake
desert, Spyrognus also,

A 2 days trip to Mt. Loda revealed
several strange things & abundance of the
new Astragalus Austrius.

Another 2 days exploration of the
gold-hearted 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 Ft. Linn
 Aug. 1878

Disjunctive - not belong to California

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.} Chedoke Val.

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

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.} - ^{high to Calif.}
~~1402~~ scutellaria, 5 petaled, So. Sanite.

1404 Artemisia? Clark's Ranch,

5 Hemizonia near Merced,

6 Gilia, - floccosa? but petals yellow.

7 Chrysanthemum - ^{Palmeri} near San Louis Obispo

1408 *Chorizanthe diffusa* ~~B~~

9 " *membranacea* ?

1500 (Composite)

1 *Castilleja* In wet grounds, 4 feet,

2 *Lepingia* (but fls, yellow!)

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

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

5 *Bolandra* ^{Yo. - Semite}, 3 places.

6 ~~*Hemicarpha*~~ *occidentalis* ^{near} root-lily streams.

7 *Hemizonia* - ^{gland-tipped lvs,} ~~terete~~ leaves.

8 ~~*Carex*~~ *Opuntia* ^{infl.} ~~Yo. Semite~~

9 *Juncus polyneatus* ^{Yo.} ft. Bank San Joaquin

1510 *Juncus* ^{var. californicus} ~~var.~~ always 5 parted, Kings R.

1 *Caryophyllaceae* ^{Molly} ~~var. verticillata~~ Chowchilla Ranch.

2 *Lithum micranthum* near *Abriposa*

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

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

5 ~~*Sesuvium*~~ *portulacastrum* ^{Yo.} Tulare lake shore

6 *Polygonum nodosum* near *Abriposa* grows.

7 *Hemizonia* (*Calycadenia*) yellow,

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

8 *Chenopodium* ^{Boiss} ~~californicum~~ near Y.S.

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

1520 Composite Yo. Semite

1 *Potamogeton* ^{Yo. Ribbin} 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* ^{sessilis} - from Mt. Cloud
river, (seemingly with 1 berry,)
- o 2 ~~*Prunella*~~ ^{*Spiraea pectinata*} with finely-divided lvs,
near a snow bank of Shasta,
- 1 3 *Astragalus* ^{*Hookerianus?*} side of Scott Mt
near Shasta, but, pods pointed.
- # 4 *Calandrinia* ^{hans}, near Castle lake
west of Shasta. Belongs to the peni-
culate section. None in Bot., Cal.
- * 5 *Orchidaceous* plant, from ^{woods}
~~*Cephaelis*~~ near Shasta, (fls. white.)
- * 6 *Viola cuneata*! near Shasta
- * 7 *Dicentra* ^{*paniculata*}, between *formosa* *
^{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.
- * 9 ~~*Adiantum*~~ ^{*quadripartitum*}, ^{Spach}
Arctostaphylos, ^{n. sp.} between Mt. Mt. Cloud
river, fls. small & white.

California, May

- 7/4 40. Druidax. Mc Cloud river
 + 1. Allium ^{falcitrium, Gray} ~~Headwaters~~ ^{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 ^{puberulum} Scotch Camp
 near Dizon's, at Shasta,
 lip white, alae orange,
 1 4. Clintonia ^{uniformis} Scotch Camp.
 + 5. Cornus ^{pubescens, Nutt} Dizon's meadow, Shasta
 (in fruit).
 1 6. Cycladenia tomentosa, with
 the C. humilis on Cinder Cone
 of Shasta. Confirms the species?
 + 7. Caulanthus ^{Strophanthus} ~~puberulus?~~
 Sandy bottoms
 along the upper Sacramento,
 (lvs. similar from bottom to top.)
 1 8. Salochortus nudus ~~puberulus~~ Dizon's Shasta
 1 9. Habenaria ^{elegans} Scotch Camp. "
 1450 Lythronia Californica, Bol.
 " Bordenensis? Dizon's meadow,
 + 1 Pleuricospora - fimbriolata, but
 corolla lobes longer than calyx
 side of Shasta.

- 2
- " 1452 ~~Stipa~~ ^{Festuca} *Festuca occidentalis*, Hook
 Dipson's meadows,
 x 3 *Alnus* ^{incana, var. grancea} with leaves (ar-
 galls) among the anemone,
 Dipson's near Shasta,
 x 4 *Pinus* (*flexilis*) ^{Raysoniana} side of Scott
 near Shasta
 5 *Cornus glabra* Dipson, Shasta
 x 6 *Briaris Breweri* " meadows,

Plants of San Bernardino,
 County.

- 1457 *Erigeron* side of Grey back,
 x 8 *Draba corymbosa*, n. sp. " "
 x 9 *Jussiaea* ^{Horkelia Bolanderi, var. Parryi} in tough sod. " "
 depressed, white fls.
 * 1460 ~~*Adiantum calycosum?*~~ ^{*Oxytropis* - ?} 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 *Orontium Californicum* ^{apricinum?} An tired of wait-
 ing for 2nd vol. Bot. Cal. to
 tell me about the Apetalae,

- Psathyron Schottii*
- x 1463 ~~*Aphelappus*?~~ Side of Grey
back, 9,000 ft. alt,
Urodymia squamata
- x 4 ~~*Bizelia*~~ Woods near Grey back,
- x 5: *Thallictrum* ^{*occidentale*} " " "
- x 6 *Gleomella* ^{*psuifera, Torr*} ~~*psuifera*~~ Mohave 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. (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 aculeoscut,)
- x 5 *Silene*, Mt. San Bernardino
- x 6 *Lilium* *Parryi*, 2 to 5 feet
high, sweet-scented, Near S. Ber.
- x 7 *Calochortus* ^{*spicatus*} ~~*whitens*~~ San Bernardino.
- + 8 " *eplendus* "

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.

1489, Erigeron,
from the N.W. side on
the old gold mine, July
27, '78.

If any of these should
be found - please distinct I
desire that we be dedica-
ted to Hon. B. S. Redding,

How I had read the
Gronium - (which we cannot
name until you find the
word,) in my distribution
book & get the rest off in
a fortnight.

Am trying to go down in
Sierra in March & meet
Bro. C. & home.

Yours ever,
J. G. Lemmon

This time & study & moment.

My dear Dr. Gray,

Your favor
of the 2th at hand, inquiring
for habitat &c. of the new
shrubby Erigeron, &c.

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

When I have found the
plants and herewith send
them.

1489 Erigeron, truncatus, N. Sp.
found near ^{June 12, '78} Dixon's at
a ford of the upper Siskiyou,
about 8 miles west of the hotel.

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

The plant is certainly a shrub,
as suffruticose, root-perennial,
about 15 inches high, very many
stems from the same root,
quite abundant and striking,
(I 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,
(that reported from Cal.)

4 Astragalus — ? from
Shasta valley, Modoc Co.
Nov. 5, '89, ^{W. P.} Hammond, Plum-
mer. Prof. Watson thinks
this a form of A. lentiginosus.
But it seems impossible to
me. Please examine new

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

Surprise Val. Modoc Co.
6 Collinsia — Dealt, Oct.
July 13, 1879.

7, Xoopyrum ^{nuticium} from "Paris
valley" on west side of Mt.
Gray Peak, alt. 8,000 ft.
Differs widely from X. occi-
dentale, being taller, and
having often numerous foli-
oles very strongly serrated, colored
sepals large & showy.

Collected June 23, 1879.
8 Artemisia ^{truncata} ^{var. truncata} Summit of
Dealt ^{about} 8,000 ft. alt.
Always small as these spec-
ies, appearing soon after the snow
left and before lvs. were developed.
Too small for A. occidentalis.
None found in fruit.

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 & Roof 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 Prufic 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 curving branches forming a sugar-bowl shape. Dry hills in Buffalo Canon, Nev. to Surprise valley, Calif.

22. *Astragalus atratus*? West valley.
microcarpus
23. *Ranunculus* - Love wet grounds.
24. *Umbellifer* White-heads glen, Pyramid lake,
paniculatum mesocarpium.
- ~~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)
27. *Umbellifer* Surprise valley.
28. " Goose Lake valley.
- 29-33. " " Mountain meadows" Plumas Co.
paniculatum
30. " Goose Lake val. & Pitt river.
paniculatum
31. " West valley, on Pitt river, (for flowers or fruit)
paniculatum
32. " Near Pyramid lake. (We were too early)
33. " West valley, on S. fork, Pitt river.
paniculatum
34. *Crucifer*, Sand dunes, Humboldt desert.
Arabis
35. *Lathyrus* ? Sage between Indian val. and Quincy
36. " High peaks of Warner range, near Silver creek, Surprise valley.
Lathyrus
37. *Trifolium*, Peaks (6,000 ft.) west-side of Pyramid lake, though resembling *T. Andersonii*, this is very distinct, & earlier in flower though on much higher ground.
38. *Lupinus* ~~silvaticus~~? Surprise valley.
pusillus
(An extension of range.)

also in West valley & on the pass between

Willow creek valley & Susanville, Cal.

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

4. No 3. Betula occidentalis from Surprise val. Cal.

the whole trunk (12 & 15-foot high) red & glandular like the twigs,

5. Betula glandulosa Big Meadows, bark gray.

6. Cornus pubescens Buffalo cañon Modoc Co. (hairs attached by the middle)

7. Aphelopappus? Low, weak bush, with few flowers, Buffalo val. Nev. & West val, Lassen Co. Cal.

8. Leptopetalon Nevadaense! Finely in fruit on original locality the west bluff (shore) of Pyramid lake. Extremely bushy & crosses & stock into compact clumps & respect local. No one knows of other bushes.

9. Ephedra Large, robust, gray bark very distinct from E. antisiphilitica growing with it. West shore Pyramid lake.

10. Erigeron? — Peaks back of Whitelead Townsundia scapigera, Rab.

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

11. Erigeron ^{achroemum} from Buffalo cañon Lassen Co. May 1st (None matured)

12. Senecio Is this S. coronopus of Nuttall? ^{multilobatus?} or S.? (immature plants.)

13. Palaamarhiza, with tubular rays. ^{Hooker, multipinnatis?} (occasionally) & leaves twice pinnate. Peculiar for the insects stung or dead, found within the corolla.

14. Crepis ^{occidentalis} How can this be a var of occidentalis? so different, and grows with it. This from Sierra valley,

15. Troximon ^{glaucescens, Vri.} Eagle lake, Lassen Co.

16. Antennaria Is this dimorpha? ^{pubescence of athenes} not bi-uncinate ~~base~~ as I can select.

17. Crocodyrium multicaule Surprise valley, Cal.

18. Diphysocarpus pilosus Castilleja, Eagle lake, Lassen Co.

19. * crucifer from Surprise valley Cal.

20. Crucifer Long val, & Surprise, Cal. ^{Arabis lanata}

21. " Alturas plains. South fork Pitt river. ^{lsp. montanum}

22. Astragalus 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 horticulture honors ~~and~~ 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 umbellifers, 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—

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(2nd Sheet,)

Cal.,

18

- not like arboreus.
39. Lupinus ^{not like arboreus.} Yellow-flowered & dwarf, from American valley, near Quincy, ^{sup. phoeniceus?} ^{Quincy}
40. L. laxiflorus (N.B. bracts persistent)
41. "bracteatus? West val. Pitt river, ^{Lupinus, rug.}
42. "holosericeus? Indian val, ^{Calcaranthus, hill}
43. " — ? Near Quincy, Cal. Always of same size & abundant in the locality. ^{L. micranthus}
44. "pauciflorus? Surprise val. on dunes, ^{truncatulus}
45. " graysii. (Dert & show extension of range. No-dense to leafy.)
46. Erigeron ^{prostratus} from Eagle lake. Plumas Co.
47. "Illinois ^{Illinois} ranch near Quincy ^{for Quantilla}
48. Erigeron. Buffalo, ^{California} — ?
49. Collomia heterophylla Indian val
50. a small crucifer. Surprise val. ^{Sisymbrium incanum}
51. Phacelia Ivesiana ^{this?} Can it be away ^{away} 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 under 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 } Erythrichium Kingi? Dry sand dunes
common, annual or biennial.

53 } Erythrichium, 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 ^{arcticus} " Dry sand dunes
Surprise val. & near Susanville.

59 } Minulus ^{nitellus} same locality above

60 } Psilocarphus ^{Stylagliniflorus} Indian val.

61 } Aspidotylis ^{riveri} Surprise val.

62 } Piccia fluitans? Streams of high
lemnaticulca valleys, in the current.

63 } If this fern is Yousia Cystopteris it is
Miosorus ^{arostichoides}
different in form than any we have
heretofore seen. Forms large masses

on the lava beds above Pitt river, and
West valley to ^{above} Wilder & Marsh's ranch on
Madaline plain. It appears to be a
Chedokea, indusium marginis, especially
seen on east-gate fronts. 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 (Atlantic
+ B 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 the panicled Calandrinia.

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

I hope to get a detail
with Dr. Lorenson this next sea-
son, from the Harvard peo-
ple, or do you?

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

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Sierra Valley, California,

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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 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 reexamination, with a request to dedicate to Miss Sara A. Plummer, if a chance offered.

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

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 imparting, for favors 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. (299) *Zinnia tenuella*, Gray Pandora Ranch, N. Sta Catalina, Apr. 25.
- 142. *Asclepias egopifolia*, Gray Banks of Rio Grande, El Paso, Tex. May 23.
 Early buds to be found.
- 143. *Astragalus* ~~sp.~~ *Coburnii*, Pandora Ranch, N. Side Sta Catalina Mtn. - High foot-hills. 5000 ft. Apr. 25.
- 144. *Coursetia microphylla*, Gray, n. sp. S. slope of Sta Catalina, Apr. 3.
- 145. *Habenaria* - fruit ~~is~~ " with the preceding " "
- 146. *Galathea* - ? Fruit wanted Pandora Ranch, N. S. Sta. Cat. " 24.
- 147. *Cassia Corsini*, Gray " " " " " "
- 148. *Sisymbrium* *Tribulus maximus*, L. f. Sand wash at mouth of Cañon del Oro, N. Side of Sta Catalinas - Tucson Ar. - May. 4.
- 149. *Sisymbrium* *Sophora bicocca*, Nutt. Near Franklin & El Paso, Texas. May 27.
- 150. *Acacia* *Prosopis*? Parade ground Camp Bowie May 26.
- 151. *Petalostemon* *Pellaea*, Nutt. *Phacelia*, Nutt. *Chrysopsis*, Nutt. *Dr. Erd.* Sept. 1880.
- 152. *Passiflora* *Convolvulus*, Nutt. N. Side Sta Catalina, May 25.
- 153. *Mimosa biuncifera*, Nutt. Pandora Ranch N. Sta. Cat. Apr. 3.
- 154. *Tinospora* *Vanostylis*, Gray *Abegon*, *Muricata* Mts. Texas, May 20.
- 155. *Geranium* *Vanostylis*, Gray Summit - Sta Catalinas. Apr. 8.
- 156. *Prunus Capollin*, Gray 7.5 ft. diam. 41 ft. high. N. Slope of Las Arquebas. 6000 ft. May 26.
- 157. *Rubus deliciosus*, Gray Creamy white. 5-8 ft high N. Sta Catalina Mts. deep, cool Cañon 6000 ft. elevation. May 20.
- 158. *Castilleja* *Castilleja*, *muricosa*, Gray Summit - N. Sta Catalina Apr 27.
- 159. *Melia Azedarach*, L. ("Umbrella tree") El Paso, Texas. May 22.
- 160. *Rhus Toxicaria*, L. N. Slope Los Abegon Mts. May 20.
- 161. *Lycium* *Eriogonum*, n. sp. " Sta Catalina, 6000 ft. " 2nd
- 162. *Talinum* *Quercus* near Bowie Sta. Arizona, May 20.
- 163. *Haplophragma* *cinereum*, DC. Catalina. Apr. 5.
- 164. *Menodora scabra*, Gray Summit - Sta Catalina. Apr. 5.
- 165. *Baccharis gibbosa*, Gray Summit - Sta Catalina. Apr. 5.
- 166. *Conium* *hispidula*, Gray Summit - Sta Catalina. May 24.

Oakland, June 10th 1881,

Dear Professor, Nov. 15/81

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. P.

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

- No 110 *Delphinium* ^{agrum, Mx.} Is this Greene's N. M.?
- 111 *Viola Canadensis* 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* ^{dyroide, Gray} Same as above (on sand wash)
- 115 *Eleocharis* ^{populocarpum, Gray} 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 subrepens} El Rio. Cal. on plains. Mar. 25,
- 118 " ^{oleacea} Sand Wash near Santa Catalina May 10,
- 119 " ^{filosa, Mx.} " St. Bowie Ariz. " 20,
- 120 *Cerastium longipes*, ^{occidentale, Gray} Santa Catalina 5,000 Apr 10.
- 121. *Acer* (*grandidentatum*?) Along stream in 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 *Globosepetalon spinulosum*, Gray On summit of Organ Mt. El Paso. roots very like ...

- 123. *Lycopodium* ^{seoparia, Gray} ... 700 ft May 1
- 124. *Myrica* ^{puberula, Gray} ... Catalina ... 5000 - May 27
- 125. *Hungaria* ^{macradenia, Gray} Near base of south side of Santa Catalina Mts. May 5. It forms large masses.
- 126 *Ceanothus* ^{hendersonii, Gray} N. side Sta Catalinas ... May 23. Is it *C. cordulatus*?
- 127 *Galium* ^{microphyllum, Gray} N. slopes of Sta Catalinas May 5. Foot-hills. ...
- 128 *Ranunculus* ^{acris, Moench} ... slopes of Sta Catalina ... May 5.
- 129. *Milvaceae* plant ^{Abutilon crispum, Gray} ... base of Sta Catalina ...
- 130 " *Abutilon* ^{Islandicum, Gray} " " " " "
- 131 *Rubus* ^{Abutilon near A. texense = A. texense, Torr., var.} 2-3 ft h. ... " " " "
- 132 *Marrubium* ^{Hibiscus ... Torr. hills west of ... var involucratum, Gray} ...
- 133 " *Hibiscus Coulteri*, Gray. " " " " "
- 134 " *Sida hederacea*, Torr. " " Sta Catalina "
- 135 *Malva* ^{barbifera, Watson} ... side of Sta Catalina 5000 ...
- 136 *Leg.* ^{Zophoroides} Spring Creek Cañon, Sta Catalina ...
- 137 *Phacelus* ^{asynotifolius, Gray} ... foot-hills Sta Catalina " 25.
- 138 " *Phacelia* ^{texana, Torr.} " " " " "
- 139 *Passiflora* ^{Cissampelos ... Torr. hills, ...} ...
- 140 *Passiflora* ^{tenniflora, P. Gordon} ... between ...

Evolvulus discolor (Pursh) Benth.

- 24. *Chamaecrista* ... Apache Pass, Arizona, May 26 - 163
- 25. *Physalis pubescens* L. Care Camp, S. Catalina foot-hills. Apr. 8. 164
- 251. *Natura discolor* (H. & B.) Benth. El Rio on banks of Colorado Riv. Cal. Mar 29. 170
- 252. *Pentstemon* ... same place as above. May 20. 171
- 253. " *centranthoides* (Gray) Greene. (like *centranthoides*) Care Camp. May 24. 173
- 254. " *linarioides* (Gray) Greene. Care Camp. May 15. 173
- 255. " *spectabilis* (Gray) Greene. S. Sta Catalina Mts. 7 Apr. 174
- 257. *Antirrhinum* ... Care Camp S.S. Sta Cat. Apr. 10. 176
- 258. " *maurandoides* (Gray) Greene. (like *maurandia* but red flowers.) N. high foot hill Sta Catalina, Spring Canon Ranch east of Fort Huachuca May 10. 177
- 259. *Pennisetum ambiguum* Torr. ... Sta Catalina Mts. May 15 179
- 261. *Stemodia* ... Care Camp. May 15 180
- 262. *Stemodia* ... Care Camp. May 15 181
- 263. *Eupatorium* ... Care Camp. May 15 182
- 264. " *minor* (Gray) Greene. Care Camp. May 20. 183
- 265. *Didymopanax* ... Care Camp. May 15 184
- 266. *Dryopteris coccinea* (L.) Hook. Same place as above, also at Oracle Camp. May 10 185
- 267. *Erythraea* ... Care Camp. May 15 188
- 268. *Acunthaceae* ... Care Camp. May 15 189
- 269. *Acunthaceae* ... Care Camp. May 15 190
- 270. *Solidago* ... Care Camp. May 15 191
- 271. *Solidago polystachya* (L.) Benth. Care Camp. May 15 192
- 272. *Aristolochia* ... Care Camp. May 15 193
- 273. *Erigeron* ... Care Camp. May 15 194
- 274. *Solidago* ... Care Camp. May 15 195

Brouardria hookeriana, HBK. 2nd Sheet

- Sta Catalina Mts. Mar. 25. ... 170
- Sambucus* ... May 20. 171
- Cypripedium* ... N. side Dos Cabezas Mts. 172
- Pithecolobium* ... 173
- Oenothera* ... 173
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- Cerastium* ... 174
- Valeriana* ... 175
- Ludwigia* ... 176
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- Eupatorium* ... 184
- Stemodia* ... 185
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- Stemodia* ... 190
- Stemodia* ... 191
- Stemodia* ... 192
- Stemodia* ... 193
- Stemodia* ... 194
- Stemodia* ... 195

- 32
- No. 275. *Chorizanthe thurberi*, ^{Wagon} Western foot-hills of Sta Catalina Mts May 8.
- " 276 " ^{barbierii, Torr} Plains on N. Slope of Sta Cat. Mts. Apr. 5.
- " 277. " ^{complanata, Torr} Foot-hills at El Rio. Cal. Mar. 29.
- " 278. *Paronychia jamesii*, Torr. Top of Organ Mts. Texas May 15.
- " 279 *Sesuvium calosoides*, L. Pot-hole ravine, S.P. of Sta Cat. Mts. Apr. 5
- " 280. *Polygonum* ^{nodosum, Torr} Western ravine of Sta Cat. Mts. May.
- " 281. *Rumex* ^{hypoleucopetalus, Torr} The "Canya gra" of Tex. & Mex. rich in tannin. In ravines - and sand washes - about Sta Cat. Mts. at Pantano, Arizona & in Texas - May & June -
- " 282. ⁹⁰⁹⁰ *Isotria medeolae* ^{viridiflora, Torr} another species of *Hollisteria*? Paved grounds at Ft. Bowie. Ar. May 26.
283. *Euphorbia* ^{polycarpa, Torr} Ft. Bowie " "
284. *Croton* ^{texensis, Nutt} El Riata near Tucson May 15.
285. *Fraxinus* ^{viridis, Mill} S. 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* " Black seeded. Top of Organ Mts. Texas, ^{May 15} also near Phoenix (Shown to Dr. Englemann who did not name it.) Aug. 1880.
288. *Erigeron* ^{microphylla, Hook} Las Vegas & elsewhere May 27.
289. *Celtis* ^{reticulata, Torr} Camp Bowie " 30.
290. *Shepherdia* ^{Brenelia lanuginosa, Nutt} " "
291. *Tradescantia* ^{virginica} (Pae & Brown) N. Slope Sta. Cat. - 28.
292. " ? (pink ") N. P. Sta Cat. Pandora ranch. Apr 28.
293. (Lil) *Androsace* ^{benigniflora?} " " " " " " "
294. *Calochortus* ^{virginicus, Torr} Camp A. " " " 15.
295. *Valeriana* ^{virginica, Torr} Camp Rucker. Coli. by Mrs. Dr. Dr. Aug. 1880
296. *Allium* ^{virginicum, Torr} Pandora ranch N. P. Sta Cat. Apr. 28.
297. *Azore* ^{virginicum, Torr} Organ Mts, El Paso Texas May 17.
298. " *Shottii* - Sta Catalina S. Slope. Mar. Apr. May
- Large pale yel. fragrant flrs - like *Sisymbrium* 4-6-8-10 ft. high - M of the Drapp plants of Douche & much used!

299. Polanogiton ^{multicaus} St. Eray creek, near Tucson, May 21.
 300. Callitriche virginica, h. " " " " " "
 301. Pinus ponderosa - a sport in 5 lvs. A. Sta. Cat. Mts.
 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 Liabland,

By the way were my new discoveries of last year (Saphonia Lemmonii, Aeneas Lemmonii, &c., named by Dr Eray,) 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-mate 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? (I'd like to send all our autumn collection, (as now) in a lot, or to forward package after package as oftn. as collected)

Our mother joins in profound regards,

J. & S. P. Lemmon.

- 369 *Hieracium* top of Mt. E., Rucker val.
 370 *Aster Ericaefolius* near Ft. Bowie, Apache P.
 1 *Hymenothrix brightii* " " "
 2 *Grindelia squarrosa*, Camp Rucker, Rucker val.
 3 *Aster canescens* Hermitage, Rucker val.
 4 *Verbesina pedunculata* Apache Pap, in Rucker valley
 5 " " " " "
 6 *Hymenothrix Wislizeni* " " "
 7 *Oniscus* near Des Cobasas Peak.
 8 *Cosmos bipinnatus* floor of Rucker valley.
 9 *Taraxacum micrantha* streams of Apache Pap.

- 380 *Solidago* Hermitage, Rucker val.
 1 *Verbesina* Apache Pap
 2 *Berlandiera* stream banks of Rucker valley, lost my large specimens, they were 2-3 feet high, robust base, leaves not grate oblanceolate 10-18 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 the upper part of the valley for a future stock range. He lives for security in the mouth of a tunnel. He showed his quarters with us for three weeks, enabling us to make good collections.

Apache Pap is 40 miles north of Rucker & 15 south of the R.R. 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 east year.
 No. 305 *Brickellia* near Rucker valley.
 " 6 " " " "
 7 *Encelia* Flaming near " "
 8 *Brickellia* Hermitage, " "
 " 9 " (Gummerson's, Greene) " "
 310 " *grandiflora*, Hermitage. " "
 11 " " Mts E. of " "
 12 " *Fendleri* " " " " "
 13 " *betonicifolia* " D. " " "
 14 " " " A. " " "
 15 " " " " " "
 16 " *grandidentatum* " E. " "
 17 " " " A. " "
 18 " *Carmentaria* " D. of Bowie's " "
 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 " "
 *
 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* *enthama* Ft. Bowie, Apache Mts.
 1 *Galinsoga* Plains near Apache Paps,
 2 *Aidens* in Spring, Hermitage, Rucker val.
 3 " near Ft. Bowie, Apache Paps,
 4 " " " " "
 5 *Heterospermum* *tagetinum* " " "
 6 *Danthonia*, (N. sp?) streams, Rucker val.,
 7 " *Sherti*, Apache Paps. " "
 8 *Schkuhria* *Hopkirkii* ^{Plains near} " " "
 9 *Aster* *multiflorus* in Spring, Hermitage " "
 340 " " at " " "
 1 *Actinomeris* *angustifolia* Mts. N. of " "
 2 " on limestone rocks, Ft. Bowie
 3 *Viguiera* *laxa* " " " "

- 344 from Apache Paps,
 5 *Gymnosolmis* *multiflora*? Rucker val.,
 6 top of peak S. of " "
 7 *Hymenothrix* *arizalensis* Apache Paps,
 8 *Senecio* *Douglasii*? " "
 9 *Anthoxanthum* *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 *Hymenathrum* Mts. N. of Apache Paps,
 7 *Pectis* *longipes* (Perennial!) " "
 8 *Artemisia* *Ludoviciana* Rucker val.,
 9 *Perezia* *Arizona* ^{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 " "

X *Coronopus* *laeta*
X =249 }
X =404 }
X =400 }
X v. *glabella*
X v. *angustifolia*
X =255
X *laevigata*, Bth
X
X *Aubletia*, h
X *canescens*, v. *Merriamii*
X n. sp.
X *Jamesii*, Torr
X =236
X =232
X =234
X *Mexicana*, Sap
X *orbinea*, Bth

X *Salvia Grahamii*
X *Arizonica*, Gray
X *Mex*, v. *cana*
X
X *coccinea*, *hidradia*
X *mexicana*
X
X *purpurea*, Cav
X *pa...*
X
X *Emphorbia filobata*! Rucker val
X " *cuproherma*, Mill Black M. Ashe Pt
X " *dentata*, Mx Rucker val
X " *flouida*! Engl " "
X " *revoluta*, Engelm " "
X " *hypericifolia* *serpyllifolia* " "
X " *serrulata* *serotina*, Mx Pleins " "
X " *heterophylla*, V. Mx. Black M. Ashe Pt
X " *adenoptera*, Bth? Rucker val
X " *serrulata* *viridiflora* " "
X " *resoluta*, F Ashe Pt
X " *hetericifolia* " "
X " *serpyllifolia* " "
X " *setrocha* *liata*, *prostrata*, Mx Rucker val

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

Cnicus Edwardii, Gray, var. ~~sericeus~~

588. *Astragalus*, A., side of

Santa Catalina Mts., May '81.

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

590. ~~*Galactia*~~ - ~~two poor~~ = 146
~~*Astragalus*~~, Santa Catalina, May '81

Emoryi, Torr., var.

591. *Apharalcea*, Benson, Ariz. juv.

Emoryi, Torr., var. *Wrightii*

592. " *Maricopa* "
Emoryi, Torr. (~~two poor~~)

593. " Santa Catalina, May.

" *Lophosia tenuis*, Gray
594. " (of former sending) *Galactia*? on
plains near Apache pass. Sep 21, '81.

" 595. "~~*Lophosia*~~ *Chiricahua* = Mts., Sep. '81.
Cnicus Edwardii Gray - new var. *platella*

594. ~~*Astragalus*~~ *filiformis* & *S. pinetorum*, var.
~~*Astragalus*~~, Apache pass. Sep.

595. *Galactia tephrosodes*, Gray
Aphrosia? - Santa Catalina, May.

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

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

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

599. *Arauca hastata*, ^{small flowers} Apache pass. Sep.
Always appeared different from
A. hastata.

Fichoua repens, Forst.

- No 600 ~~Viola~~, Like *V. sarmenacea*
 Formed large mats, Rucker valley
 in the *L. hirsutissima* lot, Sep.
601. *Polyala* ? or *Carlo-Brigittonia* ?
 Santa Catalina Mts, May, P.O.
- 602 Top of Argon Mts, Texas
 June 10. Prof. Watson called it
L. traela, but it looks diff.
- 603, ~~*Hypoxis*~~ *Coulteri* Gray
 Santa Catalina
604. *Desmodium* *cinnamomeum*, Gray
L. hirsutissima
605. " *babingtonii*, Gray
 Apache pap.
606. *Astragalus* *diffusus*, Gray
 Santa Catalina Mts. *V. Nuttallii*
 (See the villous heads) Apache pap.
607. *Galaxia* *wrightii*, Gray
 Apache pap.
608. *Microstylis* *montana*, Roth.
~~*Galaxia*~~ *L. hirsutissima* on the
 high shades of peaks.
609. *Labiata*, *L. hirsutissima*
610. *Berlandiera* *tyruba* var. *gracilis* near water
 Rucker valley
Chiricahua Mts. (See the large nearly
 entire leaves. They were very
 numerous, forming a large rosette. Most
 of the plant, bore leaves only.
- 611 *Lonicera* *juncea*, Gray
 Apache pap., Sep.
- 612
613. " Coast form of *L. mollucata* ?
614. *Comp.* San Antonio creek near
 Tucson, very strong scented.
615. *Galium* *rotundifolium*, Gray, ined.
 Apache pap.
- 616 " *aspermum*, Gray
L. hirsutissima, Mts.

East of Arizona plants of 1883. Coll. principally in the
Huachuca Mts. from May to Nov. by J. G. & S. A. P. Lemmon.

- No. 2617. *Clematis ~~monensis~~ ^{ligusticifolia Nutt.!}*
Tanner's Canon, July 24. Tipped flowers!
- " 2618 " *ligusticifolia Nutt.* July
Care Canon - Oct.
- " 2619 *Thalictrum Fendleri*, Engelm.
Tanner's Canon - Sept. 4
- " 2620 " *Same*
Siemega - Oct.
- " 2621 " *Fendleri?*
Tanner's Canon Sept.
- " 2622 " *Fendleri?*
Tanner's Canon Sept.
- " 2623 *Ranunculus siphocampylodes*, Torr.!
Staven's Ranch, S. side of mts. July 23.
- " 2624 " *same*
Igo's ranch July 23.
- " 2625 " *macranthus*, Chew!
Igo's ranch, July - 24th
- " 2626 " *affinis - var.?*
Foot Huachuca Canon & Tanner's July Aug.

No. 2627. *Agriëgia clysantha*, var !
Ft. Huachuca canon. Tanner's along stream June 21.

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. fruct 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 micranthum*, Watson
June 12.

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

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

No. 2638 { *Achyspermea*, 709
~~*virg. b. notulosa*~~ var.
Cleome integrifolia, Nutt. Tanner's Canon Aug

No. 2639. *Tanum* *tes. mexicanum*, Greene (Flax-like plant.)
Tanner's Canon. June - Aug.

No. 2640. *Polygala* *hemicarpa*, Gray! ^{hetero}
Care cañon. July 23.

No. 2641 " *L. Theimeri*, var. = 497
Babacomori creek. May.

No. 2642 *Silene* *lasciniata*, var., var. *Greggii*
Tanner's cañon. July - Oct.

No. 2643. *Cerastium* *mutans*, Raf.
Above Tanner's Mill. Alt. 8000 ft.

No. 2644. *Drymaria* *effusa*, Gray! (but not "smooth")
Carr's Canon. Huachuca Mts. Sept.

No. 2645. *Samolus* *valerandi*, L., var. *Americanus*
~~Coleo~~ 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 Canon Creek. Oct.

- No. 2650. *Acer grandidentatum* Nutt.
Tanner's Canon - abundant in July.
- " 2651. *Geranium* ~~*caespitosum*~~ *Mexicanum*, HBK.
Tanner's Canon - July.
- " 2652. " ~~*caespitosum*~~ *freymontii*, Engelm.
Tanner's Canon - Aug.
- " 2653. *Opalis decaphylla* - A.B.K.
Tanner's Canon - Aug.
- " 2654. " *violacea* L. - so called?
Tanner's Canon Aug.
- " 2655. *Astragalus humistratus*, Gray
Slavens ranch. July 12.
- " 2656. *Astragalus hypoxylus*, Watson - n. sp.
Maloney's ranch. July 12.
- " 2657. *Astragalus Thurburi*, Gray
Fort Huachuca Canon. July.
- " 2658. *Astragalus Hartwegii*, Wenth
Igo's ranch, Kabaconari Creek, July.
- " 2659. ~~*Cassia*~~ *Gnemonum* - near *biphylla* (in fruit) flavo nudid.
Montezuma Canon. Sept.
- " 2660. " ~~*Manglandia*~~ *leptocarpa*, Wenth
Plains near mouth of Tanner's river. July 23.

- 2661. *Calliandra reticulata*, Gray. & var.
Maloney's ranch, July 12.
- 2662. " *humilis*, Benth.
Near Fort Huachuca, July 12.
- 2663. *Cologania longifolia*, Gray (erect.)
Tanners Cañon, Aug.
- 2664. *Clitoria Mariana*, Linn.
Tanners Canon. July - Sept.
- 2665. *Cracca* ~~*sericea*~~ ~~*Edwardii*~~, Gray. n. sp.
Sierra at right of Tanners Canon, (west), Aug.
- 2666. *Cracca Edwardsii*, var. *glabella*
Tanner's Canon, Connolly's Cabin, Aug.
- 2667 = 2665 " " var. *sericea*, Gray. ?
Tanner's Canon. Aug.
- 2668. ~~*Hedyssa*~~ *Nissolia Michizeni*, Gray
South point of Huachuca, Sept.
- 2669. *Hosackia rigida*, Benth.
Camp Huachuca, July.
- 2670. " *oblongifolia*, Benth.
Miller's Canon, near Tombstone, Ariz.
- 2671. *Indigophera sphaerocarpa*, Gr.
Tanner's Canon - Aug.

- 2672 *Galea laevigata*, Gray -
Tanner's canon. Aug.
 - 2673 *Galea polygonoides*, Gray ?
Tanner's canon - alt. 5,000 ft. Oct.
 - 2674 " *calycosa*, Gray -
Barricomaari creek, May.
 - 2675 " *lachnostachys*, 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 " *Cordia*, 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*, ~~Gray~~ DC.
Tanner's canon, Aug. Oct.
 - 2681 ~~*Galactea summistriatus*, HBK. (*Calopogonium stratum*, DC.)~~
Cologania summi, Gray, n. sp. near *C. humipes*, Hook.
Tanner's old mill canon, Aug.
 - 2682. *Tephrosia tunella*, Gray
Camp in Tanner's canon. Aug.

- (7)
- No. 2682 1/2. ~~Gelectra~~ *Phaseolus acutifolius*, Gray (*P. parvulus*, Torr.)
 Tanner's Mill. Aug.
- " 2683. *Lupinus ~~arizonensis~~ concinnus*, Agardh, var. (?)
 collected also by Pringle in the 50's in 1844.
 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. " *bimacifera*. Benth.
 Tanner's cañon. June. Cal.
- " 2692. " ~~flavosa~~, Benth.
Mimosa Lemmonii, Gray, n. sp.
 Fort Huachuca cañon. June

- 8)
- No. 2693 *Mimosa* = 2692, in fruit.
 Care cañon at Duncraggan, Sept.
- " 2694 *Phaseolus Wrightii*, Gray.
 Tannier's cañon July - Sept.
- " 2695. *Robinia Neo-Mexicana*, ~~Gray~~ Gray & Var.
 Fort cañon & Duncraggan July & Sept.
- " 2696. *Trifolium involucreatum*, Willd.
 Tannier's cañon. July 12.
- " 2697 " " ~~var.~~
 Igo's ranch, July.
- " 2698 *Cercocarpus parvifolius*, Nutt.
 Connolly's ranch, Sept.
- " 2699 *Potentilla Thurberi*, Gray
 Tannier'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?
 Tannier's cañon. Aug.
- " 2703 *Asotera pinnatifida*, Nutt.
 Parade ground, Ft. Huachuca, June.

- (1)
- 2704 *Oenothera rosea* Nutt.
Fort Huachuca Canon. May - July.
- 2705 *Gaura* ~~uniflora~~ *Bergineae* ~~uniflora~~ ^{uniflora}
Parade grounds, Fort Huachuca. June
- 2706 *Gaura coccinea*, Nutt.
Igo's ranch. Sept.
- 2707 *Mentzelia hispida*, Willd. (Bull. Univ.)
High ravine of Tanner's Canon, Sept. 30.
- 2708 *Oenothera Hartwegii*, Benth
Ramsey's Canon - Aug.
- 2709 ~~Cucurbita~~ *Apodanthera undulata*, Gray
Igo's ranch, July.
- 2710 *Hydrocotyle* ~~prolifera, Nutt.~~ *interrupta*, Mohl.
"Las Cuevas", Sanvita Cal. June 24.
- 2711 *Berula angustifolia*
"Las Cuevas", June 24.
- 2712 ~~Cymopterus~~ *Ligusticum 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.

2715. *Lonocera* ~~*ispida*~~ ^(?) *dumosa*, Gray
 Fort Huachuca canon, June.
2716. *Aralia humilis*, Cav. Elder (Hints of Sambucus)
 Tanners Canon, Sentinel Mts, Ariz.
2717. *Bonvardia* ~~*hirsuta*~~ ^{*triphylla*, Salisb.} ~~H.B.K.~~
~~var. alba.~~
 Sierra, Tanners' Canon. Sept. 15
2718. *Galium stellatum*, Kell
 Tanners' canon July 12.
2719. *Oldenlandia borealis*, Gray - n. sp
 Road grade, Ramsey's Canon, Sept.
2720. *Dicroanocarpus parviflorus*, Gray
 Connolly's ranch, Ariz.
2721. ~~*Mitrasacrum*~~ *Spermocoe entulata*, Cav.
 Connolly's ranch. Ariz.
2722. }
 Connolly's ranch Ariz.
2723. *Mitrasacrum breviflorum* Gray
 Connolly's ranch Ariz.
2724. *Crocea Wrightii*, Gray
 Connolly's ranch, Ariz.
2725. *Houstonia rubra*, Cav. (Also see large box)
 Gray's ranch Ariz.

1. 1. x 20 *Houstonia Wrightii*, Gray

Anacapa 3 miles July

1. 2. 9 27 *Valeriana edulis* Nutt.

High slopes of Anacapa Mt., Aug.

2. 27 28
contamination of 1927
old ones
I ought never
to have changed
H.

" A Mexican sp. - near *V. subbifoliosa*, HBK. (subson)
~~to Houstonia~~
"Conservatory" Canon, July-Sept

The dead ... I have a ... own *Thurbergia*
plants down to ... Some are ... to ...
the improved character over specimens met with last
season in the ... cultures to show ...
known range ... You are at work as diligent as ...
ble, but often interrupted by sickness. ...
disturb our circulation and we are very ...
Add ... we are suddenly ...
The herbarium room is wanted for a boarding house and
we must move all our weeds & things to another place ...
yet ... This will do us ... I fear ...
in the ... will be a great improvement, as we will be
to secure more light of its own to keep us warm in
winter. At present we are shaded by a big house, & shade in
Oakland portends death ... We shall try to remove
in about a month. Meanwhile we shall get our plants
off ... boards ... our ...
-lock ... for distribution. It may be that ...
could do much with our former collections of plants
after ... - those which we failed to reach last winter
until after we remove the herbarium - then if they are
not ruined we shall work upon them.

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The ... of your ...
rests of ... Dear Dr. I think of what will
become of us if you should fail utterly.
Love ... with you in wishing you a pleasant
I have no giving. We are too busy to accept ...
out ...
Sincerely ...

Compositae from Tehuacan area
Triana

Collected May. Oct, 1851

By J.G. & V.P. Simon

2729 *Aster amabilis*! ^{new} ~~was~~
be new. Only a few plants
planned for the area.

2730 *Aster Plummerae*! ~~new~~
1 " " var. *alba*! ~~new~~

2 " *urubata*, Cav. var. ~~new~~

3 " *serrata*, Cav. var. " " "

4 *Eurythmum occidentale*, var. ~~new~~

5 *Brikelia mightii*, var.

6 " *grandiflora*, var. *petiolaris*.

7 " *pringlei* "

8 *Xanthocephalum gymnospermoides*
turned up in the area with
the "Golden Glow" ~~new~~
I found it in the area but did not collect it.

9 *Chrysopsis villosa*, var. *Ruttenii*

2740 *Brikelia squarrosa* ~~new~~

1 *Senecioidea anthamiae*, var. ~~new~~
Aster Potosinus

2 ~~new~~

3 *Xanthocephalum mightii* ~~new~~

- 1. *Helictes* ^{V. incana} ~~Missouriensis~~ ^{Arizona}
- 2. " *Missouriensis*, *procumbens*
- 3. " *triplicatus* "
- 4. *Aster divaricatus* Spring
- 5. *Heterotheca lamrockii* Gray, subsp. *lamrockii*
- 6. *Erigeron* ~~lanceolatus~~ ^{not found}
- 2750 " *Mexicanus* ^{plants of this species} *lanceolatus*
- 1. " *arizonicus*, n. sp. " *missouriensis*
- 2. *Greenella discolor*, n. sp. "
- 3. *Lionysa* *laevigata*! *arizonensis*
- 4. *ambrosioides* } *thesioides*
- 5. " }
- 6. " *angustifolia*, var. *californica*
- 7. *Gnaphalium arizonicum*, n. sp. *arizonicum*
- 8. " *Wrightii* "
- 9. *Ambrosia* ~~arizonica~~ ^{not magnificent} *arizonica* ^{best}
small, robust, 4 to 10 ft. high, with
at base, in dense clumps.
- 10. *Lutetia laciniata* Gray
- 2760 *Heliopsis* *tenerrima* *arizonica*
- 1. *Linum peruviana* Turcz. *arizonicum*
- 2. *Thymus petolaris* Nutt. *arizonicus*

- 2763 *Heliotropium peruvianum* ...
- 4 *Cynin tenuis* ...
- 5 " *multiflora* ...
- 5.5 *Gouania* *bifurcata*, var. *peruviana* ...
- 6 *Bidens pilosa* ...
- 7 " *procera* ...
- 8 " *tennis* ...
- 9 " = 2767 ...

- 2770 " *heterophylla* ...
- 1 " *triplicata* ...
- 2 *Leptocarpus* *truncatella* ...
- 3 *Pericoma* *caudata* ...
- 4 *Actinella Cooperi* ...
- 5 *Leptocarpus* *theropod* ...
- 6 " *actinocaulis* ...
- 7 *Melampodium longicaule* ...
- 8 *Chenopodium* *heterophyllum* ...
- 9 *Dentaria* *Hopkinsii* ...

- 2780 *Sarcobolus* *macrocephalus* ...
- 1 *Sarcobolus* ...
- 2 *Sarcobolus* *lewisii* ...

- 2783 *Pectis unguiculata* (L.) A. N. S. P.
- 2784 *Colemania* ^{Florida, var.} _{Florida}
- 2785 *Yucca* *beamanii* (S. Wats.)
- 2786 " *brachyloba*?
- 2787 " *colorata*, v. *modesta*
- 2788 " n. sp. ^{var. *trispiculata*}
- 2789 " *Hesperia* ^{var. *trispiculata*}
- 2790 *Shepherdia* *microcarpa* (L.) A. N. S. P.
- 2791 *Linum* *undulatum* (L.) A. N. S. P.
- 2792 " *undulatum* ^{var. *microcarpum*}
- 2793 " *arizonicum* (L.) A. N. S. P.
- 2794 " *undulatum* ^{var. *microcarpum*}
- 2795 " *kelloggii* (L.) A. N. S. P.
- 2796 *Melospiza* *hispidissima* (L.) A. N. S. P.
- 2797 *Perezia* *arizonica* (L.) A. N. S. P.
- 2798 " *ombotom* *lillei*
- 2799 *Pyrrhophloeus* *lillei*
- 2800 " *flavens*
- 2801 *Balaocotyle* *fundleri*
- 2802 " *fundleri*

Page 5 of Compositae

- 2802 Hieracium rep.? high slopes, etc. etc.
- 3 " Mylaeum? rep. steep, low 71
- 4 " fruticosum high shade, rep. etc.

The ... Compositae, that I have to submit,

... before some of them are sent to show more characters or new localities, but ... of these in both cases,

The first one, No 2729, Stevia ? ... fully that it will be the privilege of naming it of distinct, as indicated, if the name is ... as a species and not a variety,

No 2750 Asclepias ? ... of interest,

... abundant ... rep. ... rep. ...

No 2759 ... rep., and 2757, also

Now we have to suspend all botany work ... Compositae, this ... gratitude ...

Herbarium Plants, (no. 1-5) 1872
collected May - Nov. 1872, by J. H. R. & C.

2806. *Cobelia glandulosa* A. DC.
Along stream, ...
7. *Platanus longifolia*, Watson
Stream of ...
8. *Microseris brachyphylla*
Hanging ...
9. " *sum*, var. *major*
...
10. *Sarlibertia undulata* A. DC.
...
11. *Asclepias nyctiginiflora*
...
12. *Asclepias brachyphylla*
...
13. " "
...
14. " "
...
15. " *glaucescens*, Wth.
...
16. *Gonolobus polygonanthus*, Hook
...
17. *Asclep. Mexicana* ...

28/1 ~~Comptosia~~ *Comptosia hypoleuca*

19. *Ascl. stenosiphia*

20. " *quinquedentata*

21. *Gonolobus productus*

22. *Gentiana microcaerulea* !

23. " *torrata*

24. ~~Ascl.~~ *Bijlovi*, n. sp.

25. *Cypripedium calycosum*

26. *Gentiana* ~~collina~~ !

27. " *Macombii* very fl. fine

28. *Lithospermum* *lobense*, Green

29. " *multiflorum*

28.30 *Buddeja* *elongata* fl. white
Lithospermum *lithospermifolia*, HBK

H. natchua Plants, (part to improve) 3.

- 31 *Bentonia* *Sibirica* 3 fls. ...
- 32 *Convolvulus* *sepium* "fls. white" ...
- 33 *Ipomoea* *Thurberi* ...
- 34 " ~~...~~ ! ...
- 35 *Convolvulus* *linthimeri*, var ...
- 36 *Ipomoea* *muricata* var ! ...
- 37 " *cuneifolia*, ^{var.} n. sp ...
- 38 " *Mexicana* ...
- 39 " *muricata* ...
- 40 " *linthimeri*, var. n. sp ...
- 41 " *costata*, var. ...
- 42 *Convolvulus* *tortuosus* ...
- 43 " *Arizonicus* (fls. ...)

J 32 44. ~~Proch...~~ *Prochomenia cylindrica*

High shades 8,000-10,000 ft. ...

46. " *fameosa* Torr. (When ...)

47. ~~...~~ *Margyranthus Lemmonii*, Gr. n. sp.

48. " *lanceolata*, var. *lutea*

49. " *Palmeri*, Gray - var.

28 30. *Saracha umbellata* DC.

51. *Pentstemon* *shenophyllus*, Gray

52. " *abrescens*, Gr. - n. sp.

53. " *linarioides*

54. *Schrophularia* *californica*

55. *trachelium* *minor*

56. *Calophanes decumbens*, Gr.

... *conicus*, var. *bohemiana*

2055, Cena Arizona, Er. n. sp.
Cena Arizona

59, Valeria Henoyi, Er
"Valeria Henoyi" Er. n. sp.

2860, Scutellaria "virgata", Er. n. sp.
Scutellaria "virgata" Er. n. sp.

61, Salvia apicata, R. OT
Salvia apicata R. OT

62, Stachys coimensis
Stachys coimensis

63, Leucocoma hyssopifolia
Leucocoma hyssopifolia

64, " Stachys ? Dubata, toward plicata
Stachys ? Dubata, toward plicata

65, Leucostoma ...
Leucostoma ...

↓ 66, Oxybaphus angustifolius, Sweet.
Oxybaphus angustifolius Sweet.

↓ 67, Walpatria, Gray
Walpatria Gray

↓ 68, erecta, L.
erecta L.

↓ 69, Boehmeria viscosa, Lag.
Boehmeria viscosa Lag.

J 20. *Mitracarpum breviflorum* Gray = 2723
Tanner's Canyon

J 21. *...* ?
Fort & Tanner's Canyon

J 22. *C. perbella albomarginata*, Gray.
Tanner's Canyon

J 23. " *...* ?
Pringle's, Taylor

J 24. " *...* ?
"Lateral" in Tanner's Canyon

J 25. " *fulviflora*, L.
Tanner's Canyon

J 26. *Alternanthera aegyptiaca*, R. Br.
Tanner's Canyon

J 27. *Zeloxis cuneata*.
Tanner's Canyon

J 28. *...* Palmeri fl. apparently
Tanner's Canyon

J 29. *...* occidentalis, Watson
Tanner's Canyon

J 30. *Xyrythachne ...*
Tanner's Canyon

J 31. *Microstylis purpurascens* (Nutt.) ...
Tanner's Canyon

J 32. *Microstylis compta* (Nutt.) ...
Tanner's Canyon

J 33. *Chalimma* ? Partial, only a stub ... - 2445
Tanner's Canyon

- 24. *Crawfordia* ...
- 25. *Marsilia* ... *vestita*, Hook. & Grev.
- 26. *Equisetum* ...
- 27. *Linnichella* ...
- 28. *Asplenium* ...
- 29. *Asplenium* ...
- 30. *Asplenium* ...

The *Pl. Louis* No 2885 was the first ...
 ... each becoming ...
 ... No 2927 ...
 ... first ...
 2830 ...
 2835 ...
 2845 & 2846 ...
 to prepare ...
 2854 ...
 2871 ...
 2876 ...
 2880 ...
 ...
 ...
 ...
 ...

Specimens from Guadalupe - Vets.
+ Fritz. Coll. June - Oct. '82.

= *C. hispida*, Willd

2901, *Carex* ~~*serotina*~~, Boott, 1879.

Havaita Val. June 24. also along
streams of the Guadalupe June - July.

2902 *Carex hispida*, Willd. (*C. echinata*, Durf.)
Sierra of Lammers' ravine July.

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

4 " Could determine it - more washed
much like *C. varia*
Lammers' canon July.

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

2909 ~~*Cyperus*~~ *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 Mr
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. Serrmon 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 Buachuca, 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
West slopes of high ravines in

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

4. ~~Ampelopsis~~ *Vitis imbricaria*, Nutt. Peculiar succulent leaves, Santa Cat, Aug.

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

6. *Ingenhousia triloba*, DC
~~triloba?~~ 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, Buachuca. Mts, Dep.
(*S. filiformis*, Moench)

8. ~~Sphaeralcea~~
Sida spinosa, L., v. *angustifolia*, Griseb.
Igo's ranch " " "
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 — ?
~~Asclepias~~

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,}
It is from plains around Tucson, and the
foot hills of Santa Catalina Mts., Aug.

16 " ^{Both have always}
^{been included as A. constricta}
^{to name the same but}
^{the latter}
Called A. constricta but they must be
distinct. This has long slender branches and
shorter pods, never becomes so large a bush as
the one above, Babacomori creek, Dep.

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

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

19 *Calliandra* ^{eriosphylla, var.?} ~~at Igo's~~ Huachuca, Mts, Dep. It
this a good species, distinct from C. eriosphylla,

20 *Dalea* ^{laevigata, Gray - var.?} ~~laevigata~~ Foot hills Santa Cat., Aug.
After collected it but supposed it A. laevigata,
or is there another? = your 34 (1868).

21 " *brachystachya*, Gray Babacomori creek, Dep. Always small, &c.

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

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
Meber Lake Cal, A Sierra valley, Cal.

25

(I'll put the Ganopitidae on other

sheets for Dr. Gray.)

(Gamopetalae,,)

Compositae.

No 3025, *Aplopappus*

Near Camp, Howell
and foot hills Santa Catalina Mts., Aug.

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

27 *Artemisia* Forms dense underground mat
bottom lands Rillito creek, near Santa Cat., Aug.

28 *Bidens* My *Bidens* are not all cleared
of errors yet, This from a stream bank of
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. bucautia*, 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 any rays, Santa Catalina Aug.
low high bluffs of Rillito creek,

32, *Pyrropappus* — around 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*, L., Never saw this in fruit before
& 5 ft high, Bluffs of cañon, Santa Cat., Aug.

35, *Senebiero*? Babacomari creek near Guadalupe, Mts, Sep.
Only one plant seen, Crawling 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. ^{Dep.}
Not described but near to the one referred to in
"Synopsis Fl. N. A." Page 213, under I. Wrightii as
discovered by Palmer on the Yagui river, & having
coiling, filiform peduncles, - which this has not
though very long and erect, As this is a
very large and beautiful species, if distinct I re-
spectfully request that it be named in honor
of Hon. B. B. Redding, late Irish 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

its S 2, near G. globosa, but peduncles long, slender, ^{hoop-bearing}
and fls. orange! The branches tough as buckskin!

Argemone mexicana ~~sp. nov.~~ Santa Catalina Mts. Aug.
41, Boraginaceae. I do not succeed in putting this into
any of the genera of "Edyn, Fl. N. A."

Foot-hills, near Cave Camp, Santa Cat, Aug.
(The plants were few, the branches tough as buckskin,
and I mistook them at first for Lithospermum
angustifolium, but not that, and I find no
species with hairy outlets, &c., 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.

44. Cerpestis Chamodryoides, Stream banks, Santa Cat, Aug.
Is this its typical or its var peduncularis?

3045 Cordylanthus Wrightii, L., in the paper, or
the Chiricahua Mts. Sep. '83

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.
Conioselinum angustidens, of Bot. Mex. Bond. A few
 plants on a high ravine south side Santa Cat, Aug.
 54 *Manihot angustiloba*, Muell
~~near the above,~~ Aug.
 55 *Manihot* *Cochapimensis*, Muell.
Loeflingii, (L.C.) Sand wash of Aillista creek,
 south side Santa Catalina, Aug. A single plant.
 56 *Euphorbia pedunculifera*, ^{Ely} Stick-and-mud cabin. South side
 Santa Catalina Mts, near Tucson, Aug.
 57 *Chenopodium factidum*, L.
~~at the~~ Igo's ranch, Guachuca Mts, Sep.
 58 *Aristolochia* ^{*brevipila*, 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 *Coffea pappophoroides*, Kth
~~is a~~ I cannot determine grapes with
 certainty, except in rare instances so send
 Guachuca Mts,) on the few we have for this season.
 I hope our large coll. in the hands of
 in shades) Dr. Schuber 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 ^{teeth} 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.} ~~Abbrast~~, 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*, Kth 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 on bluffs, Sep.
 68 *Panicum* ~~*thunbergii*~~ *thunbergii* ^{HBK} *Batacomori* creek, near *Batacomori* ^{HBK} "

3069 ? *Hymenocallis paniciflora*, Watson
 Here is the queerest thing
 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 *Malvaceae*
 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 cirrroidum*, Got before in the
 Santa Catalina but not in fruit,
 very fine spec., - Aug, Santa Cat.

C. Trichocarpa

var. *inulcorbis*, ^{Man} Gray, 1867

var. *Deweyi*

C. leucocoma Dew Sill. Journ. XLV, 47, 1857

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

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

8144 *Soropodum* near Calico Nevada May 12

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

8144 *Soropodum* near Calico Nevada May 12

8142 *Stemmatodes* Fort Mohave

8143 *Stemmatodes* Fort Mohave

8144 *Stemmatodes* Fort Mohave

8145 *Stemmatodes* Fort Mohave

8146 *Stemmatodes* Fort Mohave

8147 *Stemmatodes* Fort Mohave

8148 *Stemmatodes* Fort Mohave

8149 *Stemmatodes* Fort Mohave

8150 *Stemmatodes* Fort Mohave

8151 *Stemmatodes* Fort Mohave

8152 *Stemmatodes* Fort Mohave

8153 *Stemmatodes* Fort Mohave

8154 *Stemmatodes* Fort Mohave

8155 *Stemmatodes* Fort Mohave

8156 *Stemmatodes* Fort Mohave

8157 *Stemmatodes* Fort Mohave

8158 *Stemmatodes* Fort Mohave

8159 *Stemmatodes* Fort Mohave

8160 *Stemmatodes* Fort Mohave

8161 *Stemmatodes* Fort Mohave

8162 *Stemmatodes* Fort Mohave

8163 *Stemmatodes* Fort Mohave

8164 *Stemmatodes* Fort Mohave

8165 *Stemmatodes* Fort Mohave

8166 *Stemmatodes* Fort Mohave

8167 *Stemmatodes* Fort Mohave

8168 *Stemmatodes* Fort Mohave

8169 *Stemmatodes* Fort Mohave

8170 *Stemmatodes* Fort Mohave

8171 *Stemmatodes* Fort Mohave

8172 *Stemmatodes* Fort Mohave

8173 *Stemmatodes* Fort Mohave

8174 *Stemmatodes* Fort Mohave

8175 *Stemmatodes* Fort Mohave

8176 *Stemmatodes* Fort Mohave

8177 *Stemmatodes* Fort Mohave

8178 *Stemmatodes* Fort Mohave

8179 *Stemmatodes* Fort Mohave

8180 *Stemmatodes* Fort Mohave

8181 *Stemmatodes* Fort Mohave

8182 *Stemmatodes* Fort Mohave

8183 *Stemmatodes* Fort Mohave

8184 *Stemmatodes* Fort Mohave

8185 *Stemmatodes* Fort Mohave

8186 *Stemmatodes* Fort Mohave

8187 *Stemmatodes* Fort Mohave

8188 *Stemmatodes* Fort Mohave

8189 *Stemmatodes* Fort Mohave

8190 *Stemmatodes* Fort Mohave

8191 *Stemmatodes* Fort Mohave

8192 *Stemmatodes* Fort Mohave

8193 *Stemmatodes* Fort Mohave

8194 *Stemmatodes* Fort Mohave

8195 *Stemmatodes* Fort Mohave

8196 *Stemmatodes* Fort Mohave

8197 *Stemmatodes* Fort Mohave

8198 *Stemmatodes* Fort Mohave

8199 *Stemmatodes* Fort Mohave

8200 *Stemmatodes* Fort Mohave

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 masses in a cañon south of Newberry Spring in Mohave val. May 10th '84.

3117 Astragalus acutirostris ^{Nutt} Gray N. Y. 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 Salsola ~ ? A very large ^{shrub} limbed, but low, 2-3 ft. Above Waterman's mill, Mohave val. May 11, '84.

Please note in Watson that I collected No 4152 Caryophyllus ^{Wats} ~~Wats~~ the minute fl. of an. Could not prove the locality. Don't think it can be any form of C. 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, '44

(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. L. Lemmon April & Oct, 1884.

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

- 3215 *Pentstemon* ^{bridgii, Gr} Bill Williams Mt., 8,000 ft., Ariz.
- 3216 *Actinella* ^{Richardsonii} near town of Williams Ariz. "
- 3217 *Allium* ^{mutabile, Mx} near San Ferg. Mts. De La Bergue park, " "
- 3218 *Calamintha* ^{Chenopodium, Hth} " "
- 3218 *Allium* ^{Ar. Hallii, 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 peapowus*, - n. sp. ~~Castroville~~ near Cliff-dwellers ravine " "
- 3226 *Hieracium* ^{frondosum, Gray} De La Bergue park, " "
- 3227 *Pentstemon* ^{undiflorus, Gray - n. sp.} " "
- 3228 *Cerastium* ^{mutabile, Rab., var. (C. apricum, Schk.)} (A. sp.) O'Keefe's spring " "
- 3229 *Emmenanthe* ^{sinuata, var. ? - same as 384 (1881)} Newberry's spring, Mohave val. Cal. ^{Gray} Feb.
- 3230 *Chrysoopsis* ^{villosa, var. canaliculata} Indian village of Laguna N. Mex. Jul.
- 3231 *Gilia ripida* ^{var. racemosa, Gray} " "
- 3232 *Astragalus* ^{procumbens, ~~Michauxii, Watson~~} (A. sp.?) " on hills " "
- 3233 " ^{picatus (A. sp.?)} " " " "
- 3234 *Valeriana* ^{Arizonica, Gray} ~~serotiflora~~ Bill Williams Mt. Ariz. June.
- 3235 *Cleome* ^{obtusifolia, Torr., var. hirta, Gray} Newberry's spring, Mohave val. Cal. ^{Gray}
- 3236 *Eriogonum* ^{veniforme, Torr.} near Ft " Ariz April
- 3238 " ^{Thomasii, Torr.} " " " "

- torbinthinus, 279.*
- 3238 *Cynopterus* near Chamberlayne Spring, Mohave val., Cal. ^{May 10} June
- 3240 *Oxybaphus angustifolius*, Sw., var. Peach Spring Ariz. June
3241. *Crittrichium* " " " "
- 3242 *Troximus* ^{pistacifolia} (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 *Fraxoclypeum pauciflorum* (Lab.) near Flagstaff " Aug
- 3248 *Ansonia* ^{Palmeri, Gray} Truxton Spring " June
- 3249 *Placidantum Nevadaense*, Watson? ~~Senecio~~ near Peach Spring " "
- 3250 *Oxybaphus myrtagineus*, var. *pilosus*, Gray " "
- 3251 ³³⁶⁴ ~~*Artemisia aculeata*~~ *Artemisia* " " "
- 3252 (*Tridax*,) near the Indian village of Laguna, New *Schinocarpus diffusum*, Gray Mex. on hills, very curious. Jul.
- 3253 *Asclepias involucrata*, Gray (same locality & date,)
- 3254 *Linum aristatum*, Engelm.
- 3255 *Sida* ^{leptocarpa, Gray} near Guzman. Ariz. July.
- 3256 *Senecio Douglasii* " " "
- 3257 *Pentstemon* ^{crispatus} " Mc Barty's station N. Mex. " "
- 3258 *Artemisia* ^{Nyctelovii} (Comp.) San Francisco Mts., 10,000 ft. " Aug.
- 3259 ~~*Artemisia*~~ *Artemisia* ^{leucophaea, v. linearis} near Laguna N. Mex. Jul.
- 3261 *Hymenocallis filifolia* " " "
- 3262 *Astragalus* ^{castanodoprinus, n. sp.} near Williams Ariz. "

- 4.
- Tolmiecanus, v. microdentatus*
- 3264 *Senecio* San Francisco Mts., Ariz., Jul.
- 3263 } " *multilobatus*, ^{Peach Springs} ~~249~~ " June,
- 3263 1/2 } " var? San Fran. Mts., " Aug.
- 3265 (*Senecio*, *Agrostinella*, Green ^{comp.}) " "
- 3266 *Ranunculus*, ^{affinis, var. *coriophyllus*} De La Bergue park, " "
- 3267 *Limosella* ^{agratica} in meadows, " " "
- 3268 *Myosurus* *aristatus*? broad-leaved & shorter beaks " " "
- 3269 " *aristatus*! " " " " "
- 3270 *Minulus* *floribundus*? " " " "
- 3272 *Stemmatomeria* *thurberei*, Gray ~~*Saxifraga*~~ De La Bergue park, " " "
- 3273 *Hyliaanthus* *quinquevovis*, var. *arizonica* ~~*Stemmatomeria*~~ Cliff-dweller's ravine, near Flagstaff " "
- 3274 *Lupinus* ^{melananthus, Gray} near Flagstaff. (good forage) " "
- 3275 *Cimicifuga* ^{arizonica} Bill Williams' Mt., " "
- 3276 *Erigeron* ^{coronifolius} 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* *Hippiana* ^{admir.} De La Bergue park, " " "
- 3280 *Orthocarpus* *wherryi* " " " "
- 3281 " ^{purpureoalbus} ~~undescribed~~ & very distinct " " " "
- 3282 *Solidago* *multiradiata* ~~*Solidago*~~ N. side Mt. Agassiz var. *ecopulorum* " 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*, ^{Wats on} Summit " 12,000 "
- 3290 *Silene acaulis*, L. " 12,640 "
- 3291 *Saxifraga flagellaris*, Willd ~~Edmon~~ " 12,600 "
3293. *Draba aurea*, Vahl - prods 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*, Wats ~~Silene~~ S. slope " 11,500 "
- 3298 *Thlaspi alpestre*, L. ~~Draba nemerosa, L.?~~ " 12,600 "
- 3299 *Saxifraga debilis*, Engelm. ~~Alba~~ N. slope " 11,500 "
- 3300 *Lupinus* ^{bovicornis, Watson} Near Kingman Ariz June
- 3301 *Criogonum molleatum*, Watson " "
- 3302 *Allium* ^{cristatum, Watson} Near Peach Spring " "
- 3303 *Eritrichum* " " "
- (A few species of Gramineae follow omitted from package sent last week to Dr. Vasey.)
- 3304 *Poa annua* ~~bragroux~~ Peach Spring Ariz. June
- 3305 *Lolium* N. side Mt Agassiz. " Aug.
- 3306 *Juncus epicaea* " " " "
- 3308 *Trisetum* " " " "
- 3309

- Arenaria macradenia*, Watson
 3309 ~~*Stellaria*~~ N. slope Mt Agassiz, Ariz., Aug
- 3310 *Actinella bigmis* (Comp.) Peach Spring Cañon " June
- 3311 *Callitriche* ^{vena} Spring val. Mt Ditgreaves " Sep.
- 3312 *Potentilla* ^{cristata, Gray} De La Bergue park, San Fran. Mts., " "
- 3313 *Clavine* ^{brachyphorum, Gray} Sandy bank of stream Spring val near Ditgreaves
- 3314 *Villica angustifolia*, Nutt. ^{Nutt} near San Francisco Mts., ^{Sept} (same place and time)
- 3315 *Aphelopus* ^{gracilis} Volunteer val, 8,000 ft alt, Ariz., Sep.
- 3316 *Chrysopsis villosa*, v. ^{villosa} " " " "
- 3317 *Neobena* near Fort Mohave " April
- 3318 *Baeria dymyocaulum* ^{var. nutt} (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*, Bohove 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* ^{maximus, 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* ^{brachypodum, Nutt} ~~*brachypodum*~~ very large x showy, near Indian village of Laguna, Jul.

- 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 ^{St. Max} not in flower in June.
- 3334 *Arenaria* ^{Hendersonii, Gray} de La Vergne 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 *Chrysantha* ^{leucostachya, Gray} S. slope Mt Agassiz, " Aug,
- 3338 *Placelia* ^{crumata, Torr} Plains east of " in scoria " "
- 3339 *Eriogonum*, ^{acymbosum, Bth} widely branched bush 2 feet high on top of Cave-dweller's peak, east of Mt Agassiz, Aug.
- 3340 *Lycchnis Drummondii*, ^{Watson} N. side Mt Agassiz, Ariz. "
- 3341 *Targuiomya aurantiaca* " (rays brown), " "
- 3342 *Psoralea* ^{tangesiata, var.} ~~floribunda~~ Plains east of Mt Agassiz " "
- 3343 *Astragalus procerus*, Gray " " "
- 3344 (?) " " " "
- 3345 *Placelia* ^{integrifolia, Torr} Often 2 feet high, and widely branching.
- 3346 *Castilleja* ^{sinuata, McCarty} station A.P.R.R. N. Mex. July
^{Gray} near Flagstaff. Ariz. "
- 3347 *Brodiaea* ^{lemoniac - 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} ~~Plumbago~~ near Kingman " " "
- 3352 *Astragalus* " Peach Spring " June
- 335-2 *Calyceus*, ^{Torr?} " " "

- 3353 *Palafoxia Coulteri*, Gray
~~*Gefringia*~~ Ash Fork Ariz., July.
- 3354 *Astragalus* ^{Shottianus, Nutt.} ~~herbat-Nob.~~ " "
- 3355 } *Antennaria dioica* + 22 Fork. " "
- 3355 1/2 } " Near Williams " June
- 3356 *Agave* ^{Engel. (not sent)} ~~Walters~~ Peache Spring Canon & Grand Canon of the
- 3357 *Asclepias* ^{mychaginifolia, Torr. Colorado} Beale's Spring near Kingman Ariz., June
- 3358 *Physaria* ^{Newberryi, Gray} Side of Cave-dweller's Mt. in scoria east of Mt Agassiz. Fls all gone Aug. What beautiful seed vessels!
- 3360 ^{= 325} *Adiantum acuminatum* (Comp.) De La Vergne Park, 8,000 ft alt. Ariz.

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. I'm busy finishing up field sketches for the fair, & he joins in warmest regards to both.

Hurriedly but cordially J. L. Lemmon.

4167 *Strepantopus* - Peach Spring, June '84
 Is this the true *S. cordatus*?
 4168 " *Strepantopus* - Peach Spring, June '84
 Is this the true *S. cordatus*?
 4169 *Strepantopus* - Peach Spring, June '84
 Is this the true *S. cordatus*?
 4170 " *Strepantopus* - Peach Spring, June '84
 Is this the true *S. cordatus*?
 4171 " *Strepantopus* - Peach Spring, June '84
 Is this the true *S. cordatus*?
 4172 *Stanleya* - Fragments of a large plant
 Coll. in Mt. E. Cal. some time ago.
 4173 *Suaeda* - near Warner's, Mojave desert
 10/11/84. Of the annual
 many-seeded group but peculiar.
 Notice the broad pods villous-ciliate
 at the upper edge. Very beautiful
 abundant and very constant.
 4174 *Ernothera* *primitiva* - Peach Spring, June '84.
 4175 *Calochortus* *Kennedyi* - " " " " Does
 this same sp. appear in Warner's
 desert, and on the high foothills
 of Santa Catalina, and of Bill Williams?
 If so a very constant form.
 4176 *Prosopis* *trachycarpa* - Bill Williams' Mt., Aug '84
 Fruit white. Near D. W. Graham's Mt.
 4177 *Petalostemum* *candidum* - Peach Spring, June '84
 4178 *Ribes* *cereum* - near Williams', on exposed hills
 June '84
 4179 " - ? - Bill Williams' Mt., June '84
 4-6 ft high, very robust,

Plants sent to Prof. Watson, Apr. 12, '84
 (Collection of 1884, mostly.)
 4169 *Strepantopus* - Peach Spring, June '84
 Is this the true *S. cordatus*?
 4170 " *Strepantopus* - Peach Spring, June '84
 Is this the true *S. cordatus*?
 4171 " *Strepantopus* - Peach Spring, June '84
 Is this the true *S. cordatus*?
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 4179 " - ? - Bill Williams' Mt., June '84
 4-6 ft high, very robust,

4180 } *rifolium* ^{impigus} Foot-hills of Bill Williams mt.
 along a ravine. Aug. 84
 4181 } " ^{Ch. brown banks} meadows near Flagstaff, Aug. 84
 N.B. the reflexed fls.
 4182 } " ^{involucrum wild} meadows San Francisco, Aug. 84
 4183 } *rifolium*
~~*Atriplex*~~ meadows Springdale, near Ft. Huerfano,
 Aug. '84
 4184 *Arabis* Near Ft. Mohave, Aug. 84 Hiv. long
 4185 *hysanocarpus* N. Sp. near Ft. Mohave, Aug. 84
 very remarkable with its waxy stems, its few
 small pods closed with long, thin
 collected with *rifolium*, = var. *glaberr.*
 4186 *Stroptanthus* bl. ... Ash Fork Aug. '84
 4187 *Vesicaria* } *V. alpina* Nutt. Peach Spring, June '84
 4188 " } Mountain view station, near Williams, June '84
 4189 *Eriogonum* ^{Phymnula} Col. near ... desert - closed
 near Ft. Mohave, Aug. 84.
 notice the pinnate fls. with numerous
 segments, and the long narrow involucre
 almost white.
 Its distinct I described named for
 Dr. J. L. Ward, the surgeon in charge at
 Ft. Mohave, and a man of much sci-
 entific training, and very much
 to be a button of Gen. E. C. C. ...
 4190 *Eriogonum* ^{Phymnula} near Col. near ... desert, Aug. 84
 4191 " ^{pusillum} " Kingman, Ch. Ariz, June, 84
 4192 " *stellatum* f. Flagstaff, Ch. Ariz, Aug. 84.

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 along a ravine. Aug. 84
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 4191 " ^{pusillum} " Kingman, Ch. Ariz, June, 84
 4192 " *stellatum* f. Flagstaff, Ch. Ariz, Aug. 84.

No
4500

Stachys ...
Canyon ...

1 16 *Calceola* ...
multiflorosa, var. *sposa*

2 *gimnistrum* ...

3 *aronicoides*, var. with large head

4 *us douglasii*?

5 *Chamissonis* ...

6 *butasa* ...

7 *linearifolia* ...

8 *venustus*, var.

9

4510

11 *Strelitzia* ? ...
Carlandra hummeri ...

12 *Gilia* ...

13 *Gilia* ...

14 *Gilia* ...

conspicuous 2

4515 *Platystrophia* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

16 " *not* *fulvous* ? *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

17 ~~*Platystrophia*~~ *not* *fulvous* *var* *Cryptoplasma* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

18 *A. vagans* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*
Leite *et* *oxyplegans!*

19 *Gaya glandulosa* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

4520 *Leptogium* *(L.)* *var* *fulvum* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

21 *Microrosaria Douglasii* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

22 *Microrosaria Lindleyi* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

23 *Microrosaria Bigelovii* *var* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

23 *Microrosaria Bigelovii* *var* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

24 *Microrosaria elegans* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

25 *Microrosaria* *var* *Coulteri* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

26 *Microrosaria Lindleyi* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

27 *Microrosaria Douglasii* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

28 " *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

29 *Microrosaria* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

4530 *Perlaea* *exilis* *in* *our* *range* *at* *4000* *ft* *in* *the* *Sierra* *de* *San* *Diego* *Co* *Calif* *USA*

P. alsinoides *Emery*

4531 *Platystrophia linearis* ? (Lepidoptera) ...

32 ...

33 *Mysium calycinum* ... Yellow ...

34 *Lessia viscidula* ...

35 *Pastinaca spinis* ...

36 *Lessia glandulosa* ...

37 *Califa* ...

38 *Aploparaphid* ...

39 *Godetia* ...

4540 *Lophylotoma* ...

4 *Garinus* ...

Evax car ...

pusii ...

Thaccia ...

set ...

Godetia ...

Clusiodon ...

45-48

... ..

49 *... ..*, *occidentalis*, var.

50 *... ..* *arachnoides* scarcely visible
Flowers purple & yellow on same plant!

51 *... ..* *lycopoides*

52 *... ..*

53 *... ..* *aphantocarpa*, var. *tenella*
But

54 *... ..* *Fremonti*

55 ~~*... ..*~~ *Malacothrix* *Clevelandi*

56 *Malacothrix* *inca*

57 *... ..* *huiana*, n. sp.

58 *Castilleja* *viridis* *Hillebrandii*

59 *... ..* *hispidissima* = 4606

~~4560~~

4560 *... ..*

61 *... ..* *cuspidata*

62 *Malacothrix* *... ..*

63 *... ..* *foliosus*, var. *tenissimus*

64 *... ..* *ancip* !

- 4 - 2 *... tenuis* ...
- 83 *... 2x* ...
- 84 *Eriogonum* cithariforme } At Baron Schroeder's ranch 30 ... north
D. & C. on dry hills, very peculiar in its
exposed ... of its ... by this is *E. virgatum*
I have not met with it before.
- 85 *Senecio* eucalyptus ... ranch, Dec '87,
If as same than a far western locality,
- 86 *Microseris Douglasii* ... ranch ...
- 88 *... vivinus* ...
- 89 *... a* } more common ... sandy places ... ranch, Dec '87
... v. ...
- 90 *Wormia ...* ... ranch, Dec '87
- 45-90 *Horisteria* ... especially on the hills - enclosed it.
No doubt a good genus with its pe-
culiar two lobed involucres. Flowers a
long time, from May to Oct.
- 91 *Microseris Douglasii* ... hills of ... ranch, Dec '87
- 92 *Panicum* *trachypoda* ... ranch ...
- 93 *Amsinckia* *specabilis* ... large flowered
- 94 *... ..* ...
- 95 *... ..* ! ...
- 96 *... ..* ...
- 97 *... ..* California
- 98 *... ..* Pacific ...

- 1 *Gudelia viminea*
- 6 *Eschscholtzia glandulifera*, Gray
graveolens A. Sp. very heavy scented, inner bracts, white, etc.
- Eschscholtzia* ...
- 1 *Edulis* ~~*confusa*~~ 1844.
- 1 *distans*, Bth
- 1 *Thelypodium* ...
- 1 *rennis*
- 1 *Bicroceris* ~~*confusa*~~ *limbeyi*
- 25 *crocarpa*!
- 26
- 27 *Conoclinium* ... several forms, on Bishop Peak
found other hills, about the town of ...
Prof. G. ... criticizes my name but ...
found no growing from Bishop Peak, as well as ...
7- *Calochortus clavatus* ... very stout ... in drying.
- 7 *Conium maculatum* ... on dry adobe lakes ...
- 4480 *Gudelia tenella* ...
- 1 *Thalassium* ...
- 81 *epileptum* ...

- 459 *Chorizanthe diffusa* San Luis 24. 5. 80
- 4600 *Chorizanthe Palmeri*
- 1 *Chorizanthe strobiloides*
- 2 } *Hygiobolus* *Chorizanthe* var " "
- 3 } " " " " "
- " *tenellus*, Gray " "
- " *canescens* " " " "
- 6 " *Chorizanthe* *Pittoria* etc 3. 1887
- 7 *Chorizanthe fasciculata* Gray 1887
- 8 ~~Chorizanthe~~ *Troximon = 4549?* Gray 1887
- 9 *Chorizanthe* *circin* var *Chorizanthe* Gray 1887
- 10 ~~Chorizanthe~~ *Troximon grandiflorum* "
- 11 *grandulosa* - *var* *hirsutiflora* "
- 12 *Dicentra* *Chorizanthe* " "
- 13 *Chorizanthe* *Chorizanthe* " "
- 14 *Chorizanthe* *Chorizanthe* " "
- 15 *Chorizanthe* *Chorizanthe* " "

- 16 Phacelia distans San Luis Obispo, June
- 17 " tanacetifolia " "
- 18 ^{convolv. 5-petalioides} " adobe lakes, San Luis Obispo, "
- 19 *Lewiniana Chamissonis* Cholame, "
- 4620 *Chorizanthe membranacea* San ranch, "
- 21 *Antennaria heterophylla* Near San Luis Obispo, Cal, "
- 22 *Ronobryum undulata* Arroyo Grande " "
- 23 *Calceolaria* " " "
- 24 " " " " " "
- 25 " *knuta* var. " " "
- 26 " " " " " "
- 27 *Rigginia leptocladia* var. *longicaulis* " "

There, I have been surprised about this package that several duplications have occurred and moreover I had not 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 arrangements for republishing the peninsula of Lower Cal for a year or so, as an offer is before us, please write always to Medical College, Catalina, for this is our permanent address.