

LIBRARY
NEW YORK
BOTANICAL
GARDEN.

P. Vaclavsky Esq

Dear Sir

You will find

a number of sets of the Plants you desire at Messrs Wiley & Putnam's, booksellers of your city, who sell them in commission. By applying to them you will save yourself time and expense of transportation from here.

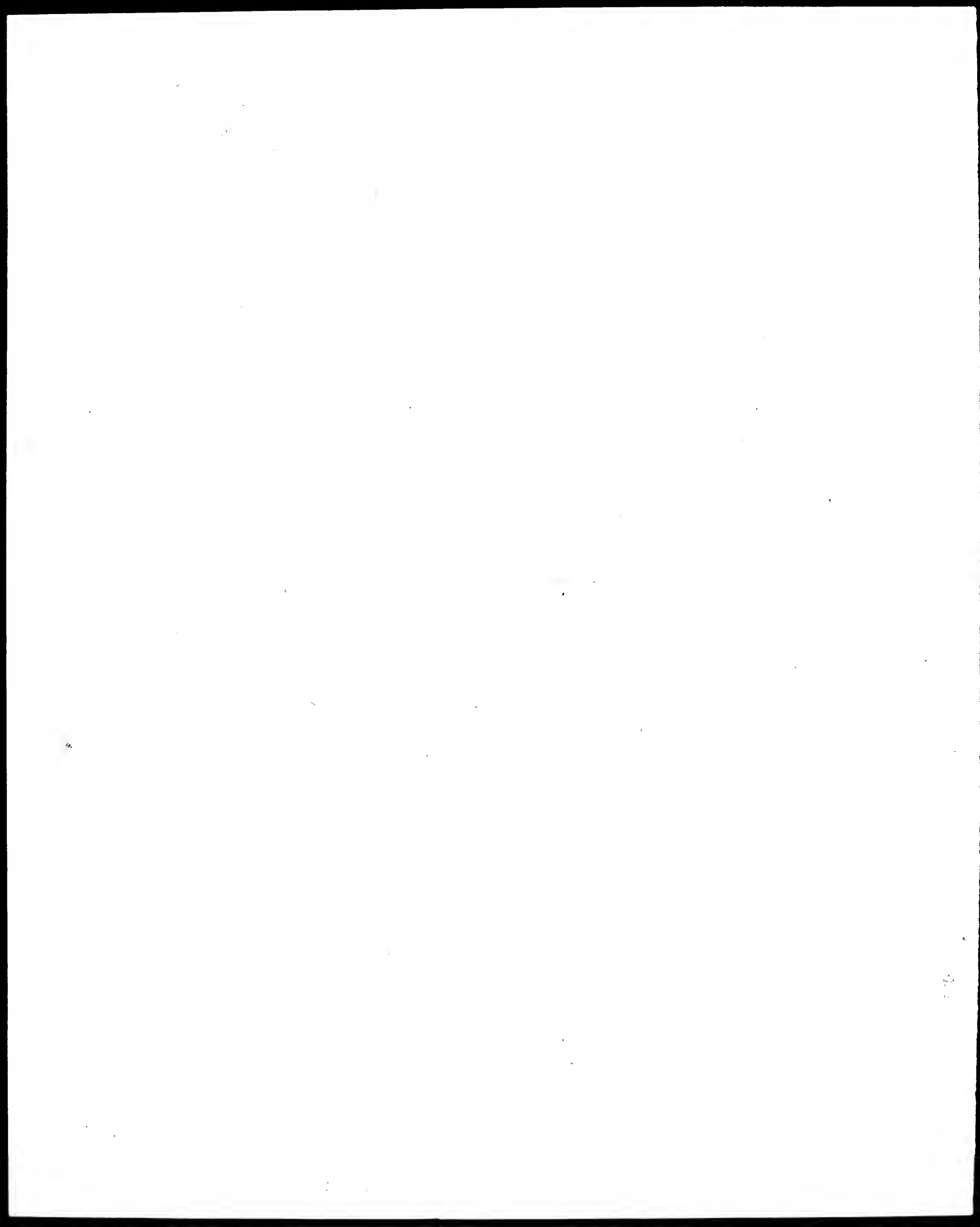
A descriptive Catalogue of these plants has been published in the January No of Silliman's Journal. If extra copies of it should not be in the hands of Messrs W & P. you can undoubtedly obtain one ^{one} them in a few weeks, as they ought to be added to the sets.

Respectfully yours

George Engelmann

St Louis Mo Jan 22 1844

from the J. Crooke Collection



Wed. July 19

St Louis July 8th 1844

Dear Sir

I am glad, you received the small parcel of plants sent to you, nearly a year ago! In September last I sent a box containing different parcels of plants to Messrs Wiley & Putnam; the box contained also letters, dated August 26th for you and others. Some of the parcels have come to their destination soon, others only in the last months, and some not even yet, so far as I know — Your parcel was directed to Carey & Co. 90. Pine street N. York —

I am very grateful for the small, though quite sufficient specimen of *Cusc. umbellata*. As it is of importance for our flora, I will try to get a few flowers of Humboldt's specimens from Berlin or Paris, to be able to compare them. At present I have only what Choisy copies from Kunth — he not having seen the plant himself. His description is very incomplete but agrees as far as it goes with Dr James' Plant, except that in this the lobes of the corolla appear not to be reflexed, but erect or somewhat open, and the filaments are not linear but subulate from a broad base; size of flower, length of pedicels etc agree —

Dr James' plant is nearly related with my *C. Polygonorum* and *C. pentagona*, also somewhat with *C. americana* (the West Indian). They are distinguished by the finer texture of the flower, principally the corolla also the capsule, and by the depressed ovary and capsule, without any thing like a stylopodium. Some have the dry corolla covering the capsule (*C. americana* from the West Indies, *C. Cephalanthi* [Missouri], and *C. cuspidata*, Texas)

In others the dry corolla remains at base of the Capsule as in your plant, as I believe not having seen a capsule (Can you ascertain it from actual observation? I judge from the shape of the corolla) in my *C. Polygonorum* and *C. pentagona*. *C. californica* also probably belongs here. — All the other North American species, known to me (except *C. verrucosa*) have a stylopodium, and a more solid, concave texture of all parts of the flower. — Your plant is distinguished from *C. Polyg.* & *C. pentag.* by the few flowered corymbs and long pedicels, also from *C. Pol.* by the 5 parted flowers, their small size, the well developed scaly appendages and the filiform styles; from *C. pentag.* by the acute calyx lobes, the longer filaments, the different shape of corolla etc.

What species of *Cuscuta* have you in New York, I know only *C. Gronovii* (my *virginica*) and *C. Saururi* (a bad name) in western New York, and the (doubtfully imported) *C. Epilinum*. — *C. G.* & *C. S.* you may perhaps consider identical and I think your suggestion as to the difficulty to ascertain the limits of some of my species, must refer to these ^{two} plants. Still I think I can always distinguish them well, and have not found yet any intermediate forms here, where they are both common. *C. S.* I have also received from Kentucky abundantly. — I am sorry that no copy of the *Annals* of the N.Y. Lyceum is within my reach, so I can not ascertain what you have said about *C. umbellata*; — it is certainly different from any of mine.

Requesne's two plants are perhaps *C. glomerata* Choisy (my *Lepidanche*); ~~the~~ the stemless state of the plant in flowering, sessile flowers, capitate dens whorls in one and large simplex and glomerations in the other, the long styles in both appear to indicate it, also the names *paradoxa* & *acaulis*; but I have seen no *Cuscuta* yet without appendages! and am anxious to see one or two South American ones, described as destitute of them; — then

C. parviflora is said to have a 5 parted flower, and 4 lobes of the corolla and 4 stamens! *C. acutis* is said to have a corolla campanulate and unceolate! None of our Rafin. describes another species in Spreng. flowers in June to Choisy: *C. aphylla*, floribus sessilibus glomeratis, 4-fidis stigmatibus capitatis. Herb. super compositis ad Wabash. I can not ascertain that!

I will assist you as well as I can in your Monogr. of the *Asclep.*, and with so much greater pleasure, as I take a great interest in that tribe and have already made drawings of the flowers of different species here.

We have here *Asclepias tuberosa*, *incarnata*, *purpurascens*? *syniaca*, *verticillata*, *obtusifolia*, *amplexicaulis*, *Acerates longifolia* and *viridiflora*, *Euslenia alba*.

Some other species grow some distance from here, in the lead bearing hills of the South West. If you want drawings of any of them, you will oblige me by naming the species, and it would be best to give me a rough sketch of some species, you have already drawn so that I can see how you wish to have it executed.

Drawings of *Acerates* ^{parts} *viridiflora*, *longifolia*, *lancoata* and a new? species which I have called *A. Geyeri* (collected by Geym for Fremont on the Des Moines River) I have already made, also of *Asclepias paupercula*, *Podostigma*? and one or two others from dried specimens. — *A. Geyeri* is remarkable for its long cylindrical root $\frac{1}{2}$ to $\frac{3}{4}$ inch thick.

Dr Wunderly has been warmly recommended to me by my friend A Braun in Karlsruhe, and I have some fine plants collected by him in the South of France. His scheme to go to the far west is impracticable, at least this season.

You have heard of the unheard of inundations, which have also prevented me from a trip to the South west of our state. — The travellers in the west have suffered much by

them? Fremont if not detained in the Mountains was probably kept back by the floods. We know nothing yet from him, except that notice from California.

I can try to get drawings of *Asilep.* from Mr. Lindheimer in Texas, who is a very fair draftsman, if you will indicate the species etc. - He has sent me nothing yet, which is not also in the Southern States.

I have not got any specimens or fragments yet from Dr. Gray from your herbarium, so far as I recollect, some 3 years ago he sent me some *Quercutinea* from his own. But I shall ask him for them.

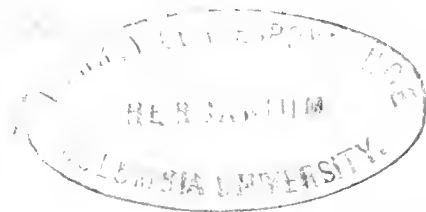
I remain, very respectfully

young
J. Engelman

Prof. J. Torrey
Princeton

W

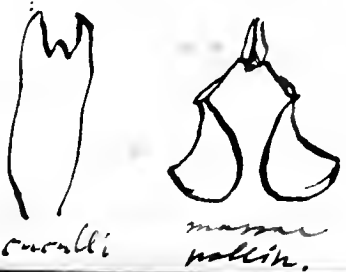
Prof. John Torrey
Princeton
New Jersey



St Louis Dec. 12th 1846

Dear Sir

Your letter of August 2^d reached me in due time, but it found me in a season of sickness, when professional business occupied every moment and left me no leisure for botanical studies. So it was left unanswered for a while, and nothing was done in regard to *Asclepiadaceae*. I find that we have only two here, not included in your list of New Jersey plants of this family: *Acerates longifolia* and *Enslenia albida*; perhaps also *Asclepias amplexicaulis*, but this last I could not find again since some years. — In the Southern parts of the State we have some more, some species of *Gonolobus*, and the large flowered *Acerates paniculata* Deane (is that an *Acerates*? I doubt it if my plant is really Decaisne's), on the northern state line, or perhaps rather in Iowa we have a species of *Acerates* which I think is undescribed by Decaisne, but must be near his *A. angustifolia*, it was collected by Mr Geyer 1841 when he was on the Des Moines River — Company of Lieut. Fremont; I obtained from him a poor specimen, and a few others came with Mr F.'s collections to Washington, I named it then after its discoverer *A. Geyeri*



Acerates, radice cylindrica, tuberosa, caule erecto simpliciori, foliis alternis linearibus, margini scabris umbellis pedunculatis, pedunculis pedicellis paulo brevioribus, involucris gyroribus aequantibus, apice 3 dentatis, dente intermedio brevissimo.

Amongst the Texas plants, received a few months ago was also a species of *Asclepias* (*Otaria*) which is not described by DeCaisne, and has therefore probably not been collected by Berlandier or Drummond. It appears to be nearest to *A. longicornu* Reuth. I have not had time yet to examine it more carefully.

Amongst the Texas plants sent to Dr Gray a few weeks ago is also a complete specimen of this species for you, with fruit etc, it has a tuberous root. There are also several species of *Gonolobus* not yet examined by me. —

You will do me a favour by making a rough sketch with the pen in your next letter of some a copy of some one of your drawings of some a species, with all the details, in short a rough copy of one plate, so that I can see the size, and the manner of exhibiting the different parts of the flower etc, and that I can make my drawings next season accordingly. I will promise you *Arenaria longifolia* & *Euscleria* at all events, if I live and have my health.

Only a few weeks ago I learnt that Dr Brinkley had been some time in Milwaukee Wisconsin and had returned from there to Europe, with the intention of coming back and settling in that part of the country; so it appears, if I am correctly informed, that he has given up his bold and tour westward. Perhaps you have seen him on his return.

Fremont writes me that you have seen his plants, and that they are in a miserable condition. He promised me duplicates, but I suppose there are none to spare. I have got letters from Geyer from Fort Colville, Oregon from April last; he will not send any plants here, but take them to England. — Mr. Lidder's had collected nothing last spring, when Fremont saw him on the Columbia, he had lost every thing in the river. I have no further news from him. Lindheimer is collecting in the west of Texas, and a large box must be on the Mississippi now from him, if not lost in some snagged steambot.

If you will name those plants of Lindheimer, which you wish especially I will try to procure them for you just give me the numbers if you can get at them. Dr. Gray must have now near 300 numbers, and I hope to get a hundred more in the next box. As Mr. Lidder does not make a general collection, I think plants from other parts than Texas would at present be of no interest to him.

Of Rumices I know nothing, I have long ago however distributed an apparently new species allied to *R. acuticella*, also divisions, growing here, and I find also in Arkansas & Texas, I had named it *R. angustifolius* (near *R. angustifolius* Ledebour from Siberia) if it should not be known to you, I will send you specimens.

Amantaceae & Chenopodiaceae I have not studied principally because I have no work, which I could use. The same is the case with the interesting families of Gramineae & Cyperaceae. A want of books has always

Deterred me from attacking the numerous material in my hands. I shall be much obliged to you for your monograph so kindly offered, and it shall be an incentive to study the *Euphorbia* next season.

Your offer of specimens and books to study one or the other family is very kind, and I shall apply to you, whenever I should be in want of them. Meanwhile receive my heart-felt thanks

very truly
yours

George Engelmann

25

Prof John Torrey M.D.

30 Mr Douglas Street

New York



of *Physalis* I believe we have ^{at least 3} distinct species, but a good many varieties, 2 are annual, and 2 perennial; the 2 annual are very distinct; but the 2 perennial might possibly be varieties; all the Southwestern species known to me, I consider as varieties, mostly of *P. viscosa*, Styles Stamens shape and Venation of fruiting calyx appear to afford the best characteristics. Has the 9th vol of DeCandolle *Prodromus* not yet arrived?

St Louis May 13th 1845

My dear Sir

I am much obliged to you for offering me an opportunity to get acquainted with so zealous naturalists as your young friends appear to be. They staid here longer than they anticipated, and I had an opportunity to see them often, we also made a few botanical excursions together, and collected the few early rarities hereabouts. You will probably have learnt from them that they intend to extend their trip to the shores of the Pacific and to California. If their luck is equal to their zeal and their confidence, they will bring back rich treasures.

My best thanks also for the interesting parcel of pamphlets etc, of which the most valuable for me is your *Cyperaceae*; I have had no proper means before this to study this interesting and difficult order. I am glad that you also have sanctioned the use of the minute and often microscopic characters; I find them often, of much more use than those commonly used. So with the *Euphorbiae stipulatae*, which I have studied lately; they are beautifully distinguished by their seeds! What is *E. maculata* L? Some take it as a variety of *E. hypericifolia*, others name your *E. depressa* (= *E. thymifolia* of many authors) so; but Linnaeus calls it an assumed plant. *E. hypericifolia* is the only one known to me with black seeds in that section. All those with serrated leaves

in this section have rugose or otherwise uneven seeds, and those with entire leaves (as *Epolygonifolia* etc) have smooth seeds! I know only one exception, a plant from the foot of the R. Mts which I have called *deltoidea*, it has entire leaves and rugose seeds.

I know nothing new about *Cuscutae*, and have learnt nothing yet about *C. umbellata* from Berlin, where specimens must be preserved.

My *Asclepias Lindheimeri* (perhaps too near *A. longicornis*) of which I have sent you specimens by ~~Dr~~ Gray, is flourishing finely with me, and if it should bloom well, I shall take a drawing of it for you. Have I told you of an *Asclepias* which grows in this neighborhood, though very rare, near *A. amplexicaulis*, but well distinguished? a larger plant, with larger flowers, the corona much longer than the columnella etc. —

I have also six *Cactus* from Texas growing, of which three or four will bloom this summer, some apparently undescribed.

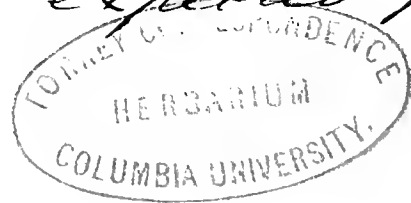
I have put aside for you all the texan plants you desired, except the *Tristochia*, of which there were only a few specimens, which I could not retain from the regular subscribers. I shall send them by private hand in a day or two. Please consider them as a present from Mr Lindheimer. — If you could give me always a list of those texan plants amongst Lindheimer's collections, which you desire for yourself before the distribution of the plants into sets, I can

most always lay aside a specimen for you.

I forgot to thank you for the few bits of Californian plants; from that remote region every thing is most interesting. You can have no idea how near we here consider ourselves now to Oregon & California; we mentally travel with those thousands of emigrants, and ~~begin~~ to think the Rocky Mts not much farther off than the Alleghenies. The interest we take in the country gives a new value to its natural productions!

I shall request my friend, Mr Plump, who takes the parcel with him, to leave it at Wiley & Putnam's.

It is pity that Fremont is so selfish or narrow minded or the Department so niggardly not to send any naturalists out with him. What an opportunity and what a field! — F. is expected here every day.



Very respectfully
yours

George Engelmann

J. J.

Prof John Torrey

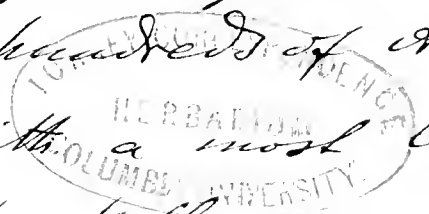
*Princeton
N. Jersey*

St Louis Octob 25th 1845

Prof J. Torrey

Dear Sir

Some time ago I sent you by Mr deCente the only drawing I could make this summer for you, Acerates longifolia. Endemia I had collected, but found in this very sickly season no leisure to figure. The new Asclepias, similar to A. amplexicaulis, which I had called Aglaemima I could not find; the large plain of the American bottom, a bottomland of the Mississippi opposite St Louis, where it has been collected by me near 12 years ago had been overflowed last year, and hundreds of acres of the lower parts are now ^{since} covered with a most luxuriant growth of Iva ciliata, which kills every thing else. other parts are under cultivation; so that it will be difficult to discover this interesting plant again.



At the time I collected it, I was struck with it as being one of the latest species of the genus in flower.

I hope you have safely received the Texas plants sent to you some time in April or May.

I have a few days ago had the pleasure to look through Capt Remont's Collection made in June & July; I understand Dr McDowell is to deliver it to you. — Among these plants of the families described in your flora, I have been most interested in your Cucumis perennis, which Dr Mc informs me is common on the upper Arkansas; a new Diosdia and a large and probably new Gnaphalium with a copious pappus. There are 4 species (all described?)

of *Meufelia*, an interesting *Heliotropium* with large flowers and others.

Your most acceptable present, the *Cyperaceae*, has had the good effect of inducing me to study this so far by me neglected family, and I have been lucky enough to find two species of *Cyperus*, not described by you; and also abundantly your *C. acuminatus*.

We have here *C. diandrus* (rare.) *C. diandrus* var. *Castaneus* (common)
C. Michauxianus *C. strigosus*. (also a var. with large leafy involucre)
C. repens, *C. filiculmis* *C. inflexus*, *C. acuminatus*, *C. ovalis*,
C. erythrorhizus. —

C. ovalis, *C. Baldui*, *C. tetragonus* and a fourth one for here included in paper No. 1. belong evidently to one group, with 4 angular spikes; the last is the looser and with most flowers in the spike, largest nuts etc; rhizoma tuberosus and creeping, in sandy soil.

C. Michauxianus and my new one No. 2 also belong together in the structure of the spikelet; articulated fragile sheath etc; ~~nut~~ included entire in the interior scales, in mine, only lower part in *C. Michx.* The new one ought to be called *tenisiflorus* or *tenisipicus*. I have found it on the muddy banks of a sluggish stream with *C. Michx.* & *C. erythrorhizus*; all three annuals! *C. Michx.* & *C. erythr.* grow every where together here, ^{on the banks of the Mississippi} and frequently many depressed stems, 3-6 inches long from the same ~~base~~ base; they are rarely tall & erect.

No. 3 is a variety of *C. strigosus*? not the same, but spikes & scales different; found with very large compact umbels and very small, loose ones, might be your

C. stenolepis, if the spikes were not many flowered.

Our *Elychnia aciculata* has certainly terete stems and base stoloniferous, and creeping; not half as large, as the European *E. aciculata*; but stems stouter, spike many flowered.

I find here with the common form of *Triphlostylis autumnalis* one with base of the style persistent! No 4

Scirpus debilis? spikes elongated, not deeply rugose, no setae - No 5.

Scirpus lacustris distinct from the European plant - styles two, not three, not half as large.

Our *Scirpus pungens* does not appear to be the same as *Sc. triguetus*, which I have collected on the banks of the Rhine, which has an effuse panicle etc.

Asclepias Ludkeimani has been thriving well with me, but the flower buds always fell off before coming to perfection. I shall send a tuber to Dr. Gray perhaps he will succeed better.

I have letters from Mr. Ludkeimer till August. He appears to have found many new things. He is botanizing west of the Guadalupe river, not far from San Antonio.

By the next opportunity I shall send you specimens of those *Cyperaceae* and a few other plants, that might interest you.

Very respectfully

yours

George Engelmann

over



I forgot to mention an undescribed *Eleocharis* on the margin of
lakes, creeping rhizoma, culms 1-2 feet high compressed, No 6
4 bristles, 2 stigmas, near *E. intermedia*?

11

Prof. A. Torrey

Princeton

New Jersey

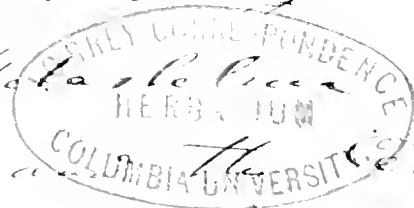


St Louis, August 7th 1847

My Dear Sir

Your letter dated May 27th etc was received a few days ago, and I was glad to see from it, that the different things sent to you have all arrived safely.

Lindheimer is doing well in the western part of Texas near the southern confluence of the Colorado, where the moistuous region of the cretaceous formation becomes varied by granitic hills, and where undoubtedly the vegetation is also much diversified. His collections of 215 & 216 are now in my hands, a set of them in the hands of Prof Gray, and if I understand him rightly he was to communicate the *Asclepiadeae* to you; I have examined that family and made drawings of the flowers and there put a few many new things amongst them e.g. a *Conium*, a *Althaea* like *Althaea* a cotton a new *Anantheis* (or two) and the certainty that ~~some~~ against DeCandolle's opinion this genus must be restituted.



This brings me directly to Dr. Willigenby; about whom you make enquiries. He, though no botanist, has done wonderfully. I had given him up for lost, having heard nothing from him for 6 months, when I learnt by a letter from Chickadee, that he had been a prisoner to.

The Mexicans from 5 or 6 months in the interior of
the State of Chihuahua, but had been liberated
by the glorious battle of Sacramento, — a few
weeks afterwards a large box arrived here, direct
from Chihuahua — with minerals, plants, living Casti-
souls and human skulls what so! Unpleasantly
the box he sent from Santa Fe last year never
came here — but this containing his collections
from Santa Fe to Paso and Chihuahua was in
fine order — the plants superb, most of the Casti-
living — and now finely growing with me. — Five
weeks ago he came himself as surgeon to Col
Doniphan's Missouri troops. On the way from
Chihuahua to Saulte & Matamoros he has
also made many collections, which owing to
the rapidity of the march, the arduous duties
of the surgeon and the rainy season, were
not as fine and interesting as the ~~last~~ former.
— Dr. Wislizenus has given abundant proof of
his ability & energy and ~~intends~~ to go again west
(and south) if he can get an appointment as
surgeon, as he has spent his means in the
last trip. — He is one of our best surgeons here
an accomplished physician and if put on
his proper place he should be put ahead of
four fifth of our army surgeons — I speak
from your experience — Having had to attend

to a number of unfortunate, sick or crippled
volunteers. — He has made himself a man
sufficiently acquainted with astronomy, has
had the good fortune to carry safely an excellent
Barometer all the way with him and back, making
constant use of it — also other instruments —
and is altogether the best man that could be
sent west by the *Marion* — He and some of
his friends have already applied to him, but
if you would put your weight in the balance
too, you might do him good service.

Fendler is active, I learn, but has not
yet left April here, have not yet



I have got some collections from Monterey & Saltillo
but nothing else from Mexico yet. —

I frequently wish to be nearer you & Gray, and
the large collection, & libraries — but I think my
situation here is also good, in the centre of
western life and enterprise. —

I would be very willing to undertake some
family for flora, and thank you for your kind
offer — but I am entirely behind the mass
of things, I have undertaken, and can do nothing
more. — My increasing professional business
leaves me little leisure — that is filled up
with botanical studies. I have here some Hooker's
the Munich & Vienna collections of *Carpenter* — several

other private Coll. also fragments of the Paris & Berlin
Herbaria - and must work them out. - I must
distribute Lindheimer's older Collection, examine his
new ones - those of Feuille as soon as they arrive,
those of Wislizenus - must also be studied.

I have lately paid much attention to Alismaceae
and should like to work this small order out
by the time you come to it; I substitute Richard
Edinodorus, and strongly suspect, that some European
Alisma (A. ranunculoides e.g.) belong to it; at
all events 3 species that grow here.

Another family in which I take a great interest are
the Cacti - and I am cultivating now probably 30
species of Texas, N. Mexico & U.S. - Of course I can
not trouble myself with the cultivation of more southern
plants, but I should like to get a complete
collection of those near us - which for the
most part are new and unknown to Gardner
or Botanists. I believe I have now also Nuttall's
Mammillaria similis (from the upper Missouri)
and shall cultivate it, and ascertain ~~its~~ where it
belongs to. - Do you know his Cactus, ferax?
"joints very large, fruit as large as a hen's egg" -
I have one from above, which has small joints
(3 inches long) and small young fruits, but may
be the ferax (or O. missouriensis).

If you can help me to increase my Coll. of Cactae
from the borders of the Rio Grande, Chihuahua
N. Mexico - Oregon or California, I should be
very much obliged to you.

W. W. W. has also sent a Prosopis, similar to your
specimens P. odorata but very distinct.

I am glad that the Plants of the Exploring Expedition
have finally come into your hands - I shall

Your *Cuscuta* from the Mountains of Kurdistan is identical with
a specimen, which was sent to me from Germany as *Cuscuta*
ciliaris Hetschy - Both are on *Alhagi Maurorum* DC, and perhaps
both from the same locality and the same collector? Mine is
from Mossul on the Tigris, coll. by Hetschy 1841

C. Ciliaris H. is a good and very distinct species; one of the
few Asiatic ones with capitate stigmata - I am very anxious
therefore to see a ripe capsule - to ascertain whether this
is bracte like the American or circumscissile like the
European species. I have only flowers. But Choisy
in DC Prod confounds it with *C. pedicellata* Ledeb.
which I have from the author, and which is widely
distinct - but he says also under the same name,

pag 453

C. Babylonica : Kurdistan Berg (mountain) Juss. Hetschy
- Is that your plant - as you say: from the Mountains
of Kurdistan; if so - Choisy is wrong, for yours and
mine are absolutely identical - I have never
received an answer from Berlin, and don't know
whether I shall be able to compare *Stenoblepharon* *Cuscutae*
in relation to your *C. umbellata* - Fremont's plant
from the same region (1844) is my *C. neesopetala*, which
I have also from Florida. Hooker has sent me all
his *Cuscutae*, and promises to intercede for me
in Berlin; I ought to be able to compare *Stenoblepharon*
authentic specimens, as the descriptions do not go
a great length to identify *Cuscutae*. Choisy's are
very poor.

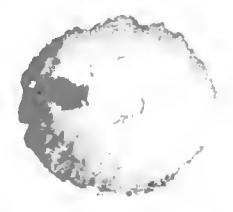
I have now the hope to get characteristic fragments of all
Cuscutae of the Berlin Herbarium; they have been promised and

I expect them every day. The doubt about your Casrate umbellata
will be cleared up then.

W

Prof John Torrey

Princeton
N Jersey



"Black. obtusata?" Nov 13. 50.
reg. 2. var. h. var. 1/2 in. long. 1/2 in. diam.
var. obtusa 1/2 in. diam.

St. Louis, Octob 5th 1847

My dear Sir,

Your letter of Aug. 20th is more than a month
in my hands - it would have been answered long ago
if that month was not just the most busy for a medical
practitioner in our region.

I have waited in vain for those drawings of Cacti - they
have not come to hand - but Mrs. Emory sent me seed of 3
Cacti collected west, from Santa Fe. I have got new
species again, and almost every one that brings any
thing from there, brings also new species. The northern Cacti
are almost unknown. Have I told you that I have
now also a specimen of what must be Nuttall's *Mammilla*
simplex from the upper Missouri - very near my Texan *M. similis*.
Dr. Fendler has just returned from Santa Fe with rich
collections; want of means - failure of letters furnishing
means - have driven him back. - He, Wislizenus,
and Gregg have sent many *Asclepiadaceae* - which appear
very interesting.

Dr. Wislizenus has heard nothing yet from Washington
but as the war appears now to continue, I hope he
will have an opportunity suitable to his enterprise
next spring. - I was pleased to see Dr. Helstead's
name honorably mentioned in Gen. Shields' report of
the battles before Mexico.

Do you know, what Mr. Gambel, the ornithologist
from Philadelphia has done in New Mexico etc. in regard
to Botany? What has become of his collections? He

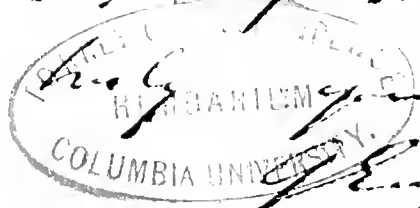
collected so far as I know for Nuttall.

My little *Echinodorus* sent to you one or two years ago is very distinct from your *Alisma Gypsi*, which is a true *Alisma* it has also 9 stamens, very slender filiflowers & simple umbell etc. — *Echinodorus* I think ought to comprise all *Alisma* with a globose head of capells; *Alisma* has them verticillate; *E.* has mostly more than 6 stamens, though the European *A. parviflorum*, *var. auriculatum* & *retrosum* appear to belong here also; capells ribbed *A.* has 6 stamens, capells verticillate, compressed, ⁽¹⁻²⁾ concave on the back, smooth on the sides, style persistent but blunt, ventral, in *E.* pointed and ^{rather} more terminal.

Najas & *Callitriche* are so far entirely unknown to me, and I have not had occasion to examine them; I am much obliged to you however for your interesting communication, and shall try to study ours next spring. —

I am anxious to hear about the Description of the Exploring expeditions — send me, if you can fragments of all the species — known or new — they will be important to me. — I had formerly applied to Mr. Rich but was refused. —

Very truly yours
Phyllis



St. Louis Nov. 29th 1847

My dear Doctor

allow me to introduce
to your acquaintance my friend Dr A.
Wislizenus, who is already known to
you by former letters from me as the
explorer of the natural history of
New Mexico and Chihuahua. Though he
is no botanist or chemist in the strict
sense of the word, still he is an accurate
observer, and will be able to give you
much interesting information about the
botanical and mineralogical riches
of the countries traversed by him.

Any favor extended to him will
be gratefully acknowledged by
your friend and serv^t

Prof John Torrey
Princeton N.J.

George Engelmann



Prof John Torrey

to introduce
Dr A. Wiligenus

Princeton
N.J.
New York

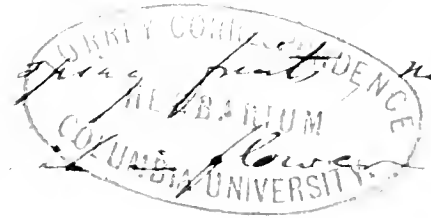
Am. March 18th

St Louis Jan 19th 1848

My dear Sir

yesterday I received your kind communication of Jan 3^d. I am much obliged to you for the interest you take in my pursuits, as regards botany, and for your efforts to obtain for me material, which would be valuable to me. As regards Carter, I have no doubt the largest ^{living} collection of the northern forms of *Cacti*, that exists any where, and am doing all I can to complete it. From Yeger's notices in Hooker's Journal I see, that some undescribed and to me unknown species must exist on the upper Platte & Missouri; I have got three forms from there last year. *Mamm. visipara*, *Mamm. simplex* Nutt (now *Lin.*), and an *Opuntia* which I would take for *O. missouriensis* if it had not small dry ^{spring fruit} nothing like the "hen's egg" size. I hope to see ^{it} ~~in~~ ^{flowers} this coming season. — A few days ago I got amongst a few other species from Prince Salin (Germany) a *O. missouriensis*! It has never flowered in Europe! — *O. fragilis* I have not been able yet to obtain, but shall get it probably from the same source! Dr. Wislizenus has supplied me with the largest variety, and also Mr Lindheimer.

In my botanical appendix to Dr. W's report you will find some investigations in the generic distribution of *Cactaceae*. I find remarkable characters in the seeds, which appear to have been overlooked so far; they are distinguished somewhat after the manner of the *Croisifera*, with accumbent or incumbent cotyledons (where the embryo is curved), and they have an albumen much more generally



and often conspicuously, than the books will admit. But you will see all the results of my studies on this family in a few weeks, in Dr W's Report.

In Curcutae I have done nothing lately. Dr W. has not collected any; but Fendler has brought you *C. umbellata* in fine specimens from Santa Fe!

I should have liked to submit my paper on Dr W's plants to you or to Prof Gray, but every thing was so much hurried that I had not finished it, before the Dr left base. I have no doubt that many of my new things are not new to other botanists! But having compared Trement's Report, I was aware of the proximity of *Wislizenia* and *Oxystylis*, but considered them distinct on account of the long style of the ovary and other characters mentioned by me; but that may not be sufficient to distinguish them. — Another new genus, which I described in that letter to Dr Gray, *Bilobium*, I have discovered only a few days ago to be almost identical with Harvey's Californian *Dithyrea*. — Singular enough it is that Dr W. has found also an *Erigeronum* very near you *E. inflation* but probably sufficiently distinguished, and — very remarkable for an *Erigeronum* — with dark red flowers.

Dr W. has collected few or no duplicates, but I can spare now and then a branch, and will send you one of *Oxystylis* or *Wislizenia*; — I hope however to cultivate it, as I have ripe seeds, and can then send better ones. NB. that *Bilobium* must be your *Hesperis* sp? — *Finnis* plant, if I judge rightly. —

Fendler has collected beautifully, I hope that he can be made to go again, if well supported. I was much pleased to find a number of your plants of James in his collection, e.g. fine specimens of *Peurhappia*, *Eriogonum umbellatum*, *Tenoreia laciniatum*, *Yucca villosa*, *Panicum flexile*, etc.

My leisure time is so sparingly measured out to me now, that almost all my botanical labors are confined to the distribution and partial examination of the Texas and Santa Fe plants, which get into my hands. But I must also finish my examination of the Caucasus, and will continue to study Cactaceae. If after all that any time for more is left me I shall be very happy to avail myself of your kind offer to communicate specimens from your Herbarium for examination.

And now, before closing permit me to ask you when you will or can do something to further your American flora? This question, I have no doubt has been put to you and Dr Gray so often by all lovers of botany in this country and by many elsewhere, that you must have become tired of it! — But the necessity for it is every day felt more deeply!

Very sincerely

Gray



for Dr. J. J. Torrey

New York



St Louis March 23^d 1848

My Dear Doctor

About two months ago I had the pleasure to address a few lines to you, especially about the 'Diligence' Report. I have since learned from Dill^e that you gave my paper a hasty examination. I wish you had more thoroughly used your critical judgement about it. I have since got Col Emory's figures of Cacti, but they are very unsatisfactory for a botanical examination, - I have however attempted something like a description.

My wish at present is to interest you in Dr Josiah Gregg's undertaking, who is at this moment at Saltillo and who as you know is an old traveller in Northern Mexico, and who has lately taken up the study of natural history and especially botany with a great deal of zeal and will undoubtedly make valuable observations and collections in those interesting and little known countries. Dr Gregg desires the War Department to afford him the same facilities as were afforded to Fendler and were tendered to Lindheimer, namely a free transportation of his baggage, collections, instruments etc, especially of the collections, which can be done very easily as they would almost always go with return trunks, which are empty for the greater part. It would enable Gregg to collect more largely, the advantage of which I need not explain to you. The peace movement may

soon put a stop to the marches of military forces in Mexico, but as long as our troops are there, the science may as well profit by them.

Does Dr. Helsted pay any attention to Cacti? I wish he would improve his opportunities by directing his observations to their growth, flowering, fructification, etc.

Schiedeman has again sent a collection of interesting plants from Northwestern Texas, the granitic region of the upper Colorado. It is remarkable that a number of his plants are identical with New Mexican species and recede more and more from the vegetation of the Gulf coast. He has also sent two Cacti, which I consider new, which I at least had not seen before, an *Opuntia* and another "Echinocereus".

I remain, dear Sir, very truly

Yours
J. Engelmann



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Prof John Torrey

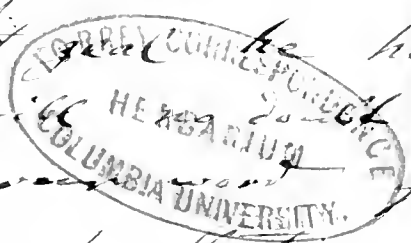
Princeton

N Jersey

St Louis April 3rd 1848

My dear Sir

your agreeable lines of March 18th reached me yesterday. You don't know, whether you wrote to me or not lately. Your last letter to me is dated Jan 3rd. I wrote to you Jan 19th in answer, and again about 8 days ago in behalf of Dr Gregg; who desires from the government facilities of travelling and transportation. As you have seen his collections and know with what zeal he hunts up every thing he thinks interesting, you will try to interest those, who have particularly on your mind, granted similar favors to tender. — Dr Gregg's next collection will be better yet, as he now knows better how to collect. I keep up a correspondence with him and have tried to instruct him as much as possible. He will also number his next collection so that we may understand one another and he us when we speak of this or that of his plants.



Col Emory wrote me that he had collected fragments of most of the Cactaceae, figured by Stanley, and that they were sent to you. ~~As they~~ If they should still be in your hands you would oblige me very much if you could send them to me, so that I could complete as much as the material will permit my notes on his Cactaceae. He has sent me on your intercession, his drawings you know. They are beautifully executed but entirely without botanical accuracy or botanical detail, so that it is sometimes even uncertain to say to which genus the plant in question belongs. I have tried my best to do something with it, and have ventured to describe them as well as possible, some I have recognized as old friends; one, with fruit, a true *Cereus* (I have hardly a doubt but that it is *C. Greggii* w. Report), but such a strange shaped fruit that I am inclined to doubt almost the painter! A stipitate oval long acuminate fruit! — — The figure of the

large cactus from California I did not get, but fortunately had a few seeds, which enabled me to recognize it as a true *Cereus*. — If I could get a few fragments of the plants only, a bunch of spines or so etc etc, I could give a much better account of these plants. I have instructed Col Emory how to observe the Cacti, and I have no doubt he will pay more attention to their characters in future — though the species he may meet between Vera Cruz and Mexico are not as interesting to us as those of the regions bordering on our confines.

Dr Willigenus was detained in the printing of this report most miserably, but will probably be done with it before the ~~end of~~ middle of this month — so he writes me. Your notes and suggestions in regard to my appendix are very thankfully acknowledged by me and I hope you will always freely tell me of any mistakes I may have made or suggest any alterations you may think proper. —

I have my great doubts about *Willigenia*, and am afraid that it must be referred to *Oxystylis* as a second species. — You don't mention a stripe of the fruit in *Oxystylis*, but even if there be none, that alone could probably not distinguish both plants generically. —

I will have extra copies of my appendix to *B.W.*'s report sent to all my botanical correspondents in this country and Europe.

I shall be glad to see Fremont here. I hope to get some of his duplicates, after they have passed through your hands. — If there is any thing of *Cactaceae* and *Cuscutae* in it, which he promised me to collect with particular care, I should offer you to take hold of them and describe them for your work — on Fremont's plants — for a work it will become!

I have before me Hooker's plate of *Desmanthus Geyeri*. It is totally different from my *Bilobium*. But *Bilobium* stands to Harvey's Californian *Geyeri* very nearly as *Dithyrea* in Hook. Jom. Bot

Verilignia does to *Uxytylis*! — It is so near it that I have written to Dr. W. if it is yet time to allow it in printing, and mention it as a second species of *Dithyrea*. — Is your *Heris* n. sp. actually *V. Geyeri*? I thought it must be my *Dithyrea*! which is very near *Biscutella* and not *Vesicaria*. — At first glance the shape of the flat silicle and the short style with the large cordate stigma distinguish it — one horizontal seed etc.

Where does Nuttall publish his N. Mexican and Californian plants? I should like a copy if possible. — And what are the principal works where the plants of northern Mexico are published? I ask in reference to Gregg's and *Verilignia* plants. I have mentioned only a few of them as you know — principally from fear of collision with others.

I should like to learn your opinion about my 6 new pines — are they really new? — The analogy of the 5 leaved pine of ^{N. Mexico} *Chihuahuana* (you *P. flexilis*) and that of *Chihuahuana* (*P. strobiliformis* W. rep.) with *P. Strobil.* is very interesting; but they are very distinct.

Your proposition in relation to the Exploring Expedition plants is very flattering, but after mature consideration I am obliged to decline it. If I followed my inclinations I would accept at once but my botanical knowledge is ^{so imperfect} such that I would have to study a good deal ~~more~~ only to begin to be able to do justice to the work; I would further have to give up at least to a great extent my medical practice which now occupies my time almost entirely, and just begins to become lucrative. And then the necessary trip to Europe would destroy it entirely. — But still I should like it so well! I feel very much as I did when my old friend Micollet 1838 proposed to accompany him on his northwestern tour.

I thought I had to decline it, though I should have liked to have gone so much! — —

You ask what is to be done with Gregg's plants? Would it not be well to put all those collections together which have been made in Mexico during the war and which can be obtained, Gregg's, Willigen's, Halstead, etc. and distribute them, as those of the Exploring Expedition are to be distributed, for description? — I don't know though whether that would be feasible, and whether it could be done well, without comparing European herbaria, where so much of the Mexican flora is to be found. — It would add a very good chapter to our "Conquests in Mexico"!

I also receive Hooker's journal irregularly and very late. I am astonished that Geyers collectors do few new things.

remains dear Sir, very truly

Yours

Engelmann

Prof / Torrey

Proctor N



St Louis Mo. Dec 7th 1848

My Dear Doctor

Last night Dr Holdsted delivered you
welcome parcel and letter, and requests me to make
every thing ready by this morning. The package
is done, but not as rich as I wished it to be.
You will find however a few plants there, that may
interest you. I have also selected all the plants
of the balance of Frederick's, in my hands, which
I thought might interest you - in the printed catalog
you will find names, dates etc; I have them not
at hand at present.

You will oblige me, my dear Doctor, by sending
the included package to Dr Gray. - the little
paper to Mr Durand.

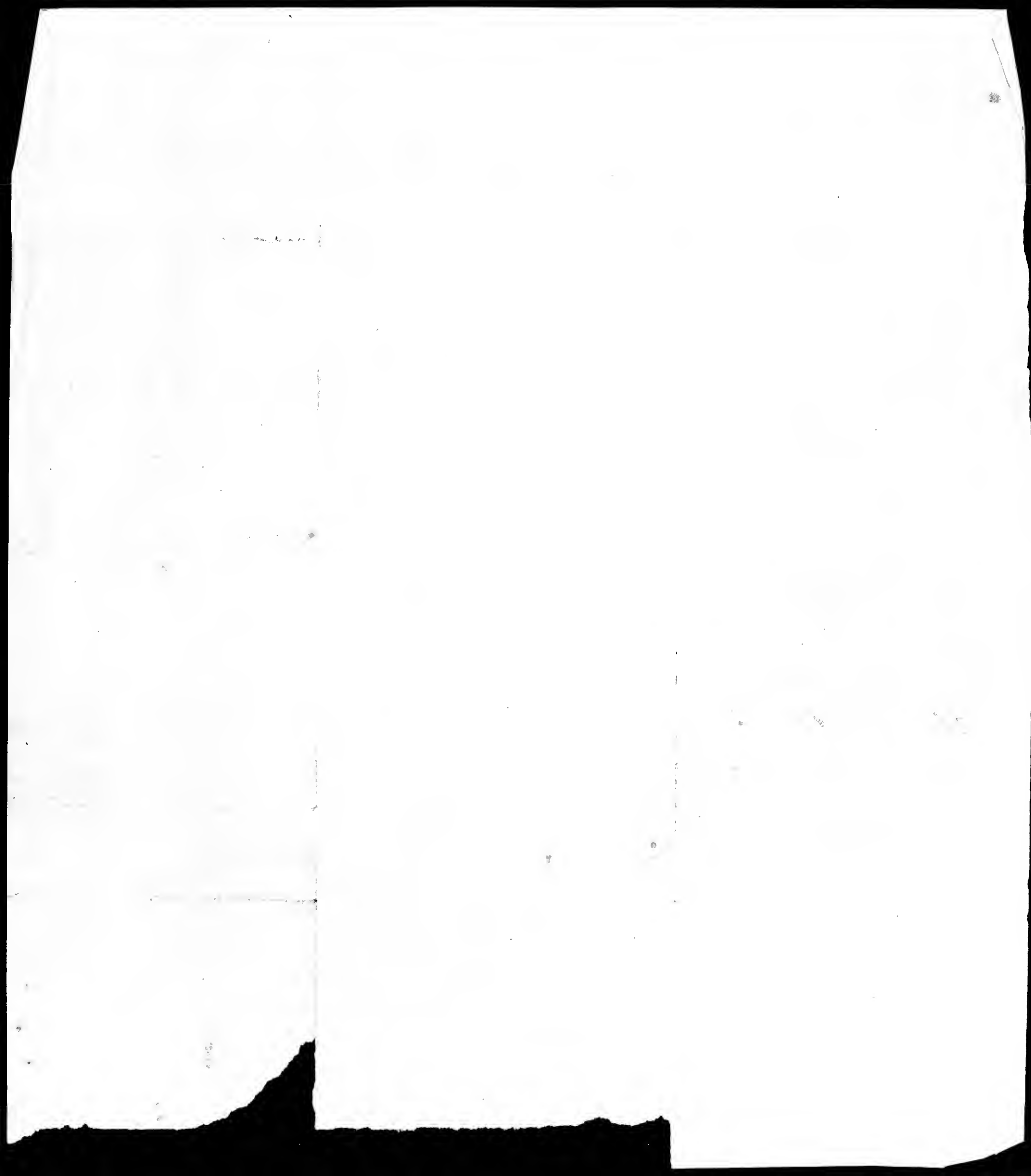
The label of *Oxytylis* was there but not
the plant! - You will find among mine
a fragment of *Wislizenia*.

Excuse haste and abruptness; I am
- in great hurry

Very truly



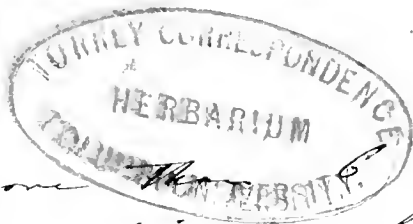
J Engelmann



J. Hooker's Journal of Botany: March 1847. I find a description & figure of *Amorimia* - I certainly have it not - ^{surely Gray's} Is it the same as Jagg's?

St Louis Aug 7th 1849.

My dear Sir



more than ~~the~~ months ago I received the fine collection of California plants, of Fremont's Collection you had sent me through Dr. Halsted. My intention was to examine them soon or at least those, belonging to families with which I had made myself familiar. Some fine Euphorbiaceae were among them and others particularly interesting to me.

The Catalogue which you find in this letter was made out, and it was my intention to send it as soon as I could say something more definite about the plants. But that time never came as yet! At first I was very busy in distributing Lindeheimer's plants, and before I could finish them, the Cholera was upon us, and since then I had to say good bye to botany.

That terrible disease which more than decimated the inhabitants of St. Louis kept me for three months almost constantly at work, and I often wonder how I remained so well under that continued and almost incredible physical and mental labor, under all the fatigues and exertions. -

I only yesterday began again to write to my friends and correspondents and I must beg all as I do you, not to take offence

at my long apparent neglect. — I have to day
only time to say that I am living and well
and hope to renew my botanical labors with
increased zeal, as leisure is granted.

I have reserved an interesting collection
made by Dr. Gregg from the Rio Grande to
Saltillo & Mexico City. He is gone to
California since May last. — There are
a number of duplicates a set of which
I hope will prove acceptable to you.
They shall be put out as soon as I have
leisure. —

Fendler had gone toward the Salt
Lake, but meeting with misfortune, crossing
his salt by flood, he has just returned.

Among Gregg's plants is one which
may prove the *Amoreuxia* — I shall see.

Very truly
my dear Doctor

Yours

Prof J. Torrey
New York

J. Engelman



I enclose an attempt to distinguish 3 *Clomellae*
I see one with ~~least~~ ^{help to} among Gregg's. I don't know
yet whether it will unite or distinguish the two
mexican forms.

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Prof. J. Torrey
Princeton
New Jersey

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St Louis Oct 10th

My dear Sir

Your welcome and interesting letter of Sept 13 has been in my hands about 10 days and would have been answered sooner, if Dr Gray had not urged me to send my manuscript on some of Fendler's plants, which I had to finish first.

Together with Fendler I have studied Writzig's, Gregg's and Lindheimer's *Asclepiadeae*, and I believe have trespassed on your grounds a little in that. I find many new species amongst them, and partly of genera not yet represented in the Flora of the U. States - as *Roulinia*, *Metastelma*, *Sarcostemma*; also a number of new *Asclepiades*; Writzig has collected a fine specimen of young *A. speciosa*, and several new ones, and so has Fendler. - Have you examined Gregg's? Among his I find a new *Asclepias* from Saltillo, which has also been collected by Writzig about Paso and Chihuahua, and a new *Sarcostemma* also coll. by W. about Chihuahua; he has also collected at Ojita April 4 an *Anemone*, which I have received for all the collectors very different from *A. paniculata*. Lindheimer has sent a 3^d species of this genus, which I propose to reestablish; it must not be confounded with *Aconites*, as DC. does. - Fendler and Writzig have both collected a pretty *Asclepias* with terminal sessile umbels, which have a sort of involucre! I shall send in a few days full descriptions to Dr Gray and ask him to submit them to your criticism.

I am also working at the *Euphorbiae* of those regions. - I have now 26 different forms (I will not yet say species) of *Euphorbia stipulata*, most of them west. Fendler has sent a good many of them, Lindheimer some Writzig overlooked them, but Gregg has done finely! Under the name "*Golondrina*, a sort of Milkweed" he has sometimes under one label sent several fine species - some smooth & glaucous, others hairy, look at "*Golondrina Valley near Chihuahua 28 & 29 April 47*"; the same

in the collected Valley of the Nazas, 15 April mixed with
others — I named *E. stipulacea*, as the stipules are so
conspicuous; seeds smooth. — A very similar one is *E. Greggii*
also on the Nazas, 15 April, with forelobe rugose seeds — as mixed
with both was one named *E. hernandoides*! — A very pretty composit
species is from Monterey, coll. in February, which you probably have
not got; and another was mixed with some other plants collected
at Carralito 29 May — somewhat near *E. maculata* (your *depressa* —
— is it certain, that that is Linnæ's *maculata*?) but with bipinnate
leaves, and perennial; seeds also somewhat different. — The umbellate *Euphorbia*
sent by Gray from different places is perhaps not different from *E. arborescens*
Plant. Lich. — Another almost leafless curious species sent from
many places has also been obtained by Wats. It is near *Cyatho-*
phora, but distinct with tuberos roots etc, I believe undescribed.

My best thanks for the trouble you have taken in copying
Zuccarini's *Cowanina purpurea*. I can not doubt that it is the
plant in question, of which you must also have specimens; but
I have examined it again, and repeat that the calyx is very distinctly
and considerably imbricate. — I find that Zuccarini has described
many plants from northern Mexico — where has he obtained them
and where are they described. Besides the *Roebertiina* this *Cowanina*
the *Dasyglossum* there may be others of Gregg's & Wats. plants
described by him. —

I should like to see a flower of your *G. Fremontii*; it may yet
be different from my *G. pentagynum*; at least Fendler has sent a
plant, named by Gray *G. pentagynum*, but which I find very different.
G. pentagynum. erectum, pedicellis defloratis erectis glanduloso-pubescentibus; fila-
mentis stylis ima parte solum connatis inaequantibus, rostro glanduloso pubescent.
G. (Fendler's) diffusum, pedicellis ^{glandulosis} elongatis, pedicellis defloratis declinatis, retrorso
pubescentibus; filamentis calycem et stylis tantis parte connatis superantibus
rostris pubescentibus.

My idea certainly was to write a joint article on western
pines; I could not do it alone, as I have no knowledge of
the eastern pines, nor of all that has been done by others, to
attempt it; but I will do what I can to assist you, or do all
the labor, which you think proper to charge me with; I may also
attempt the drawings; but will not promise much before I
have tried.

I have not the least objection to give up the *Sapotereae*
for the "Amarogosa" — but what do you make of it?
There appears to be so many promiscuous things in those
chapters! — The yellow flowered shrub from San Lorenzo May
is also quite unknown to me.

I have written to Col Emory that you intended sending
me his *Carbacene* — he thought he had better see them

again and take up his memory for more data. I don't know whether that would be of much use.

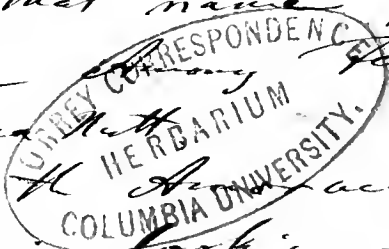
Fremont was here last week, and went west. I have written for him a full instruction about many things, especially Cactaceae, what to examine and inquire into how to figure and collect. If you think it would be useful I can send a copy to Emory and Walstead. Gregg's Cactaceae - it least my specimens are difficult to name or describe as he collects the flower only and that, very poorly. As you know many Cactaceae are only known without flower and almost all can be distinguished without it; but the reverse is not the case - at least has never been attempted. I shall be glad however to see and examine your specimens, and name them if I can.

Speaking of Euphorbia - could I see your Euphorbia? at least the stipulata? - Is not what you supposed to be *E. portulacoides* the same plant, which I named *E. Greggii* in Plant. Lindl. - common in all collections for the upper Missouri, Santa Fe etc, distinguished by the large petaloid appendages? - But what then is Pursh's plant of that name for Pennsylvania, "*pedunculis foliis aquaticibus*"? - *E. hexagona* Nutt. - *E. acuticarpa* Steud. plants are specimens of the curious *E. hexagona* Nutt.

I can find no specimen of *E. acuticarpa* among my set of Gregg's plants. - But in looking over Gregg & Wislizenus plants to find it, I hit upon two plants, which I had put aside, not knowing at the moment where to place them, and found them to be two smooth & glaucous species of *Sarcocolla* as now defined; the one from El Paso, the other from the Lower Rio grande, both apparently undescribed.

If you send me any pines, don't forget to send the cones along. - Please to let Dr. Gray know that you are sending me a package, he will add several things.

As regards Pines or Coniferae in general I repeat that I shall with pleasure undertake any part you would assign to me; but I have never studied them yet! Never examined a Pine I believe, before the new species of Wislizenus forced me to do it. - The second consideration is my time! If it must be done soon - I can not undertake it as all my leisure time will be already occupied for some time to come. - You must do as



you think best. —

The best, though not cheapest way would be by Adams Express, which connects with Greens Express, who have an Agency here — I have several times sent to Dr Gray boxes or packages by that line. — If you know of a cheaper and as safe way, I would of course prefer it.

What do you say about Sagittariae? It is unfortunately so difficult to obtain the ripe fruit, and that appears to me to be of such great importance in determining the identity or difference of species, I have now been enabled to compare ripe fruit of the European *S. sagittifolia* and find it certainly very distinct from ours. — The stamens offer also an unlooked for character. In some species they are subulate and smooth, in others shorter, more or less conic and glandular. — I am so far certain only of 5 species in the U. States, but my collection is limited and there may be many which I have not yet got. It appears difficult too to identify the species of the different authors. Is *S. simplex* actually always divaricate? Then it can not be the plant I have always taken for it.

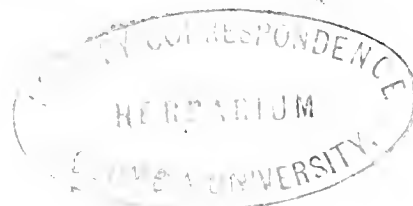
The Sagittariae offer a ^{fixed} field, but I am afraid ^{they} can not be studied satisfactorily, but in the field in the fresh specimens and a large number so as to observe all forms and variations.

I remain very truly, my dear Sir

Yours

Prof J. Torrey
Princeton N.J.

J. Engelman



Can you satisfactorily distinguish *Quercus tinctoria* and *Q. covillei*? Here both trees appear to have so many intermediate forms, which defy the attempt to class them.

Cambridge Oct 10th 1856

My dear Doctor

You will have wondered what has become of me — but probably our friend Gray has informed you that I am still here! With the exception of about 2 weeks strolling about the country I have been steady at work; but I am a very slow worker, and have only this week finished my *Cacti*; and have now begun with *Scrophularia*, in which genus your collection kindly sent some time ago has ^{considerably} ~~materially~~ increased the material to be worked up. I find it a greater labor than I had anticipated, and more ~~difficult~~ ^{troublesome} ~~arduous~~ ^{annoying} than

I thought, in a general view
the characters are so
striking — just the reverse
of the everlasting sameness
and uniformity but
greatest vacillation of
the Cactaceae, especially
the Opuntia. —

I had hoped and expected
to be in New York before the
end of last month — but
am determined now to work
it out — even if my departure
to Europe should fall in
November or even later, —
but I have given up to
work out *Asclepias* — see
before I leave, for which
I have brought good material
with me. —

Among your plants was
a parcel, labelled "to be sent
to Dr Engelman", plants in dark
gray paper; ~~and~~ this
as a present or as a
loan?

You note that you have
described my Euph. *Wrightii*
in Thoreber's collection — where
published? or not yet published?
and what is your name?
and where do I find
a note of *Euphorbia* published
by you some time ago?
I believe *E. Wrightii* has
been published by Bentham
as *E. radians* some time
ago.

I am afraid *Euph. Geyerii*
(the up-Missouri petaloid species)
and the Texan *E. arcuaria*
have to come together!

I am delighted with the
prospect of meeting you

in New York and of spending
a few days with you; but
when it will be, I have
no means of calculating
yet, -

Very faithfully
yours

J. Chapman

Recd. July 29.
Ans'd. 30.

Paris July 4th 1857

My dear Prof Torrey

When I arrived here in December last I immediately enquired about your engravings and drawings, and wrote to you about their state of forwardness. Have you ever got that letter? I doubt it, as Guy did not get his, sent about the same time. Since a few weeks I am again in Paris, and learn that M^{lle} Tailland has finished all the engravings she had in hand - and that the plates have been forwarded to you. Prof Decaisne says that he despairs ever hearing from you again, as you never acknowledged the receipt of the former batch sent to you, and which I saw in New York at the printers. Please write to him, if you should not have done so already; He says he has not heard from you since years.

And how have my Castoree of the Rail road expedⁿ in you on? How did that lithographer in New York

Do his work, and how Prestele?
Could you not send me a copy
of the plates, and of the text too
if printed? I am very anxious
to see both;— and must say I am
a little fearful about both. My hope
for the text is in Gray who will have
seen and corrected it, and for the
plates in you.

I have not heard how they progress
with my Boundary Catechism in Washington.
Here I find it pretty difficult to
get along fast enough. I have only
about 14 plates finished, and 12
more are in the hands of engravers
while 10 remain as yet in my
hands. They are done in first rate
style, and will please you and
Col Quoy. How is he progressing
with the rest of the Boundary Report,
Natural history and all?

Mrs Engelman sends her
love to your ladies, and so do I.

Will you write me? Can you
find time for it?— How are Adelp-
radreas?— I continue busy with
Cuscutaceae and also with Euphorbiae
about both of which I have written to Gray.

Ever truly yours

G. Engelman

Prof Torrey

New Aug 25, 57

My dear Boston

Excuse pen and ink —
I have a traveller and I can not
give it better than I have it!
Thank you for your kind letter
and ready answer — certainly
unlooked for.

Last Sunday I spent with Mr
Scheer at Northfleet, — nothing
very profitable for Castanea there
— but there and I believe at Hooking
also I for the first time saw
a pair of the bounding Curlew
by Nashelle, (which you might have
sent me direct!) They, on the whole,
pleased me much, some things I
would have altered, if I had had
a proof; but with Akerman's (?)
work I am not satisfied at all
This *Pohia. Whipplei* is as pale
as death, why you can hardly see
what it is — the engraver seems
to have been afraid to make a
black line or dot! —

I shall be much obliged to you

for those Colan. publications, also for 2 or
3 copies of Prestes Carter's plates. —
I want 200 copies of them with the
text. Is that printed? I have
seen the manuscript in the printers
hands in Wehrharts last Novemb. — I
mentioned it soon — but would you
or Gray to do so more, if not
printed yet — it wants revision
badly. Write to Brizelon if you
please. —

Please send me the few copies of
Ail R. Carter soon. Frankfurt on the
Maine, Germany, is always my doctor
for 5 or 6 months to come yet. —

Since I wrote you I have seen
Ail R. Carter; he says he sent you
60 odd plates drawings and has some
 dozen more to do, which will not be
finished before end of the year.
but the plates have been sent long
ago — Enay writes me about them
— but I get his letters only here as you
if I had had them in Paris I could
have done something, or enquired
about those things — there seems to
be a general misunderstanding. —
my respects to your ladies,
ever truly yours J. E. Gray

1
St Louis Octob 23^d 1858

My dear Doctor

It was very stupid
in me not to have answered
your kind and early communi-
cations; I might have told you
to forward the package to Gray
who was sending me a whole
lot of things. These have
come now, and the opportunity
is thus lost.

I have also neglected to
write to Mr Thurber and to
Mr Buckley;

But some little excuse
should be found in my present
distracted state. I have
moved to my house only a
week ago, and am in the
midst of every kind of
confusion; while for the first
six weeks of my stay here
I have been moving about

from Hotels to Boarding houses
and back, have been smoked
burned and washed out (with
out, happily, losing much)
and have been in constant
contact and therefore, trouble
with mechanics repairing
and refitting my house — and
I am not through with it yet.

Tell Mr. Thurber that I
have collected the *Arctostaphylos*
abundant but not met
with the *Eragrostis*. My first
business, when my herbarium
is in a little order (It is
boxed up yet) will be to
send him the grasses.

Prof. Gray sent me the other day
a note of Dr. Darlington about
the tubers of *Sagittaria variabilis*
born at the end of stolons, and
from the size of a pea to that of
an egg. I have seen them also

as large as filberts; *S. graminea*
(simplex) bears them also. But
another question here obtrudes
itself. Is this not the case with
all the perennial *Sagittariae*
and are there not some *Sagittariae*
annual? Is *S. pusilla*
and my *S. calycina* of which I
gave you a specimen 2 years ago
annual? This latter *S.*
I have found again this fall
but the ground high water in
the summer, which also injured
Nymphaea and *Nelumbium*,
seem to have prevented the plant
from growing (or germinating?)
till late in summer; all the
plants that I could find — and
there were hundreds of them —
were small, most of them with
lanceolate leaves or with phyllodia
only, and with few, often only
with single flowers!

I had proposed to myself
to do a great deal before
I would get involved in the
practice of my profession - but
I have not found time for any
thing and at the same time
my professional ~~labors~~ services
are already frequently required.

I shall send my gratitude
to Mr Thurber and when he
returns then you will perhaps
have the kindness to send me
the package along with them.

I shall be much obliged to you
for some copies of your
today report, and if you
would permit me to pay for them
I would take half a dozen.

Dr Newberry promised to
send me his Euphorbia
Cuscuta, Cactaceae etc.

If Thurber will do the grapes
he has a deal of work before
him! my respects to him
Ever yours
G. Engelmann

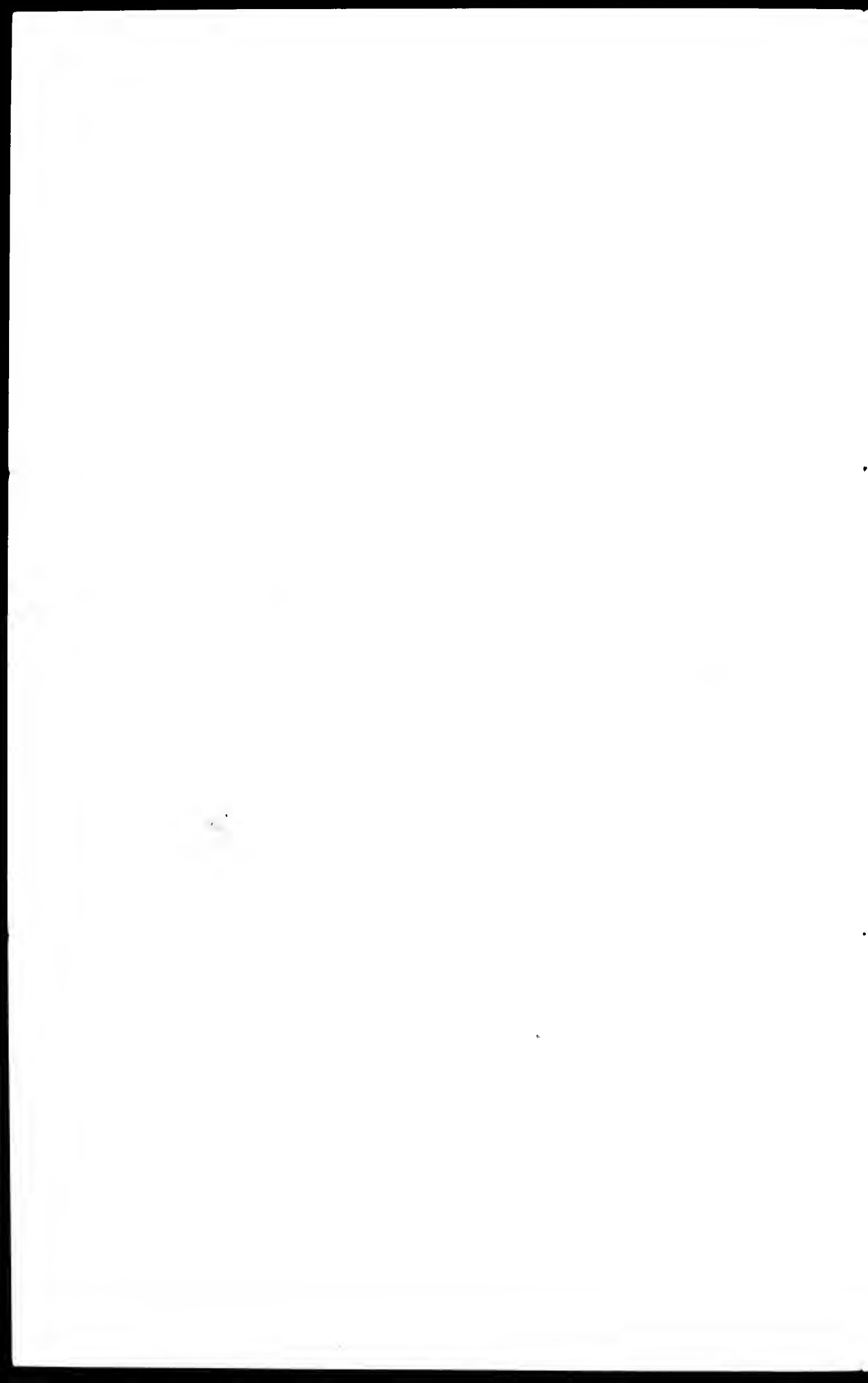
St Louis Sept 1st 1860

Prof J. Torrey

Dear Sir

permit me to
introduce to your acquaintance
my brother Henry Engelmann,
who on his way to Washington
is passing through your
city.

Though no botanist, my
brother has done a good deal
in collecting plants on his
expeditions to the Rocky
Mountains, and Utah, and
as I believe I have told
you before, was the main
cause of the discovery of.



the true nature of the
Buffalo grass, He also brought
living specimens of both
sexes and of the *Panicum*
oligostachya, which now flourish
with me.

My brother is chemist
and assayer and would
be much pleased if you
could permit him an
insight into your secrets
in Wallstreet.

I am still at Paphosine.
Boissier who is doing them
for the *Prodromus*, has several
new species of our Flora.

Very respectfully and truly
yours

J. Engelman



Am^d.
Dec^r: 31/66

St Louis Octob 26 1861

My dear Doctor

Though our
correspondence has been
carried on very negligently
and has stopped, I believe, for
a couple of years — as if
years were as days only —
I very often had the good intention
to write and to tell you how
we have come on here and how
we have gradually become naturalized
again in Missouri, and so much
so that we feel and hope with
four fifths of our Mercurians for
a speedy termination of their
futile war. But no more of
this now.

I am led to write you just
now on account of the nice botanical
collection brought home by Dr Parry,
an (incomplete) set of which
he has communicated to me.

Among other things he has sent
some *Pines*; is also my brother

and Dr Hayden had done,
so that I have now a pretty
complete set of Rocky Mountain
Pines (of Californian ones I
have next to none).

New doubts arise about some
of the species.

This little group of Nutpines
requires revision. My brother
has brought you *P. monophyllos*
from the mountains about Salt Lake.
I think it is different from *P. edulis*,
but as at present informed, I am
inclined to believe that your
P. Llaveana is not Schiede's plant,
which has 3 leaves in a sheath, nor is
Dr Newberry correct in referring his pine
to *P. cembroides*.

I guess — and it is mere guess-
work so far — that they might be
arranged thus:

1. *Pinus monophyllos* Torr & Freeman 1 leaf
2. *P. edulis* Eng 2 leaves
3. *P. cembroides* Juss. 3 leaves
Syn. *P. Llaveana* Schiede
P. ostenosperma Eng.
4. *P. Parryi* (*P. Llaveana* Torr non
Schiede) 5 leaves.

P. Llaveana & *P. cembroides*, are described in the original
with usually 3 leaves!

The cones of these 4 pines are difficult if not impossible to distinguish - but I believe it ~~not~~ probable that the number of leaves should vary so much in a single species, - if, however, no other good characters should be found, we would have to unite all four of them, hard as it may seem!

As to Newberry's *P. reuboides* I have a notion that it is nothing but a stunted alpine form of what I have taken all along for *P. flexilis*, though among the numerous forms, brought home by all travellers, I have seen no such small cones; the scales however and the nuts are not different.

But the question arises whether what Nuttall and I have all along taken for *P. flexilis*, is not something else? And I wish you would, as you no doubt are able to, decide and solve my doubts - which Newberry seems to share; you say "cones erect" and ^{you} compare the scales with those of *P. rigida*! - While my *flexilis* is said to have pendulous cones which can not at all compare with *P. rigida*. But the branches are certainly flexile. I do not have James' work - and can not compare his description.

Have Lewis & Clark's pines named by Rafinesque, ever been identified?

Dr Parry has collected another very pretty, and I believe new, alpine Pine, which I think would properly be named *P. aristata*, the mucro of the scales terminates in a long and conspicuous awn! which gives the cone a very peculiar appearance and it last disappears (in old specimens) leaves at 5's, very resinous cones short, paterulous or erect; seeds small with large wings or else I would take it for James' *P. flexilis*. It must be the Pine mentioned by you in Fremont Reports p. 97. and Gunnison's Report p. 130. I can not identify it with any other described Pine nor does it even resemble to any of ours so far as I can see.

Could you let me have a single leaf or bunch of leaves of your Fremont's Pine and Gunnison's and James' original *flexilis*? — If you could, I would be much obliged to you. — Also your *P. blaviana*

Parry says that *Pinus flexilis* does not reach the highest elevations while *Pinus aristata* is confined to the alpine summits and is often quite prostrate; just as Newberry describes his *P. oregonensis*.

8

This close analogy or rather connection
of those to mulpines shows that the
division of Pines into sections, part-
ially or wholly characterized by the
number of leaves, is untenable,
and it reminds me of the division
of Cactaceae after the form of their
Spines, on external appearance, while
a better knowledge of their organs
of purification leads to ~~the~~ a very
different classification. Thus the
globose *Echinocactus Williamsii* is
no doubt an *Anhalonium*, etc etc.

My brother had brought some nice
Cactaceae from Utah, several of
them very striking new forms; I
had figured and described them
but they have other things to do
at Washington but to print
Scientific Reports!

In his report I have also
re-examined *Ephedra* and think
that I have a Nevada species
distinct from *E. antisyphilitica*,
and I consider your species, indicated
by you in *Euonymus*'s Report as
well distinguished; I have the same in

Wright's Collection from the Rio Grande below Santa Fe, and I suppose Wright's singular plant with membranous fruit must be the same, but I doubt with you that that is a normal state.

I wish to study *Characeae* structurally, morphologically and systematically, but the opportunities are comparatively small here. Besides that, you will be astonished to learn it, I have fallen upon the meadows and wildness and exceedingly regret the impossibility to communicate with our friend Curtis, who could enlighten me on many points.

You know that that *Sagittaria calycina* has also been found in Maine in Delaware, and now in northern Illinois. So it is probably diffused all over the country, but has been overlooked.

Dr Newberry who was here a few weeks ago informs me that you have the Smithsonian Collection in your hands, and promised to see that I should get a set of the Spec. of Plants especially the *Characeae*.

Ever truly yours
G. Engelmann

Prof Torrey

St Louis Febr 5th 1862

am. Feb 24

My dear Doctor

You see, I am not to be put off by silence. Here I am again.

Those nutpines trouble me a great deal, and I should like to clear up some of the difficulties or all, if possible.

About the same time I wrote to you, I also addressed a letter to Prof Braun of Berlin, and he had the kindness to send me a few bunches of leaves of the original *P. Slaviana* and also of *P. umbrodes* (though not the original). I shall get from Dr Parry his specimen of your *Slaviana*, but to conclude I must have a few leaves or a branch of Newberry's *P. umbrodes* to compare. Would you have the

Kindness to send me in a letter
a fragment, however small?

Have you got specimens of
what we take for *Juncus*? and
your *P. flexilis*? I still think
that Newberry's plant must be
an alpine form of the same.
I have got cones and specimens
of several collectors, and can let
you have some, if agreeable
to you.

I have among Parry's and
other plants a batch a new
Juncus, and one of them
(if not the new ones!) is your
J. Fremontiana, and not
different from the Siberian
J. humilis, which the description
in DeCandolle would leave in
doubt, but my ~~Siberian~~
Siberian specimens prove
to be so without any doubt.

Is Mr Thurber in New York
and what is he doing?
Is he going along with his

Work on western Botany ?

You had the kindness many
years ago to send me specimens
of Fremont's collection, numbers
or lettered. Have you named them
since, and how could I
obtain your names. The Akers
would interest me now especially.

My intention was last year
to visit New York Philadelphia
and Cambridge to study my
brother's Utah plants etc, but
things prevented me and I
do not know now when I
shall get there — Johnson's
meeting being a most wise
step with us.

Ever truly

Yours

J. R. Mearns

