Rec'd May 26
Ans same day

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. March 23d 1878

My dear Dr Engelmann.

The box of cuttings for you
referred to in the enclosed card
I have sent off to day without
opening. In their intended for
me and in a good, fresh
condition. I enclose some
seedlings raised from your
seed of Cattleya intermedia.
Either the person who collected
the seed made a mistake
it
or this is a variety of the ordinary

others, which does not even

reproduce itself from seed.

But I suspect the first

supposition is correct, as in

two large pots of seedlings

I don't detect a single one

with entire leaves.

We have had a most favorable

winter for all sorts of plants

and the earliest Spring I

remember.

Always faithfully yours,

C. S. Sargent.

Do you know anything about
the boreal bats of Cinnya
microcarpa? They ought
to be looked at.

MISSOURI BOTANICAL GARDEN
ARCHIVE LIBRARY PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec^d April 15
Ans —— 16

BOTANIC GARDEN,
HARVARD UNIVERSITY,

Cambridge, Mass. April 12 1878

My dear Dr Engelmann,

What does your herbarium or your observation show to be the western limit of Prunus serotina? Are we have no specimens from west of the Mississippi, or do I find it mentioned in any of the lists or Catalogues of the plants of the trans-Mississippi States. But some of my western correspondents pitch into me for saying that it does not cross the Mississippi. & they say that it is common in Nebraska & even in western Kansas along the banks of streams. I should expect it

in Iowa & Minnesota & possibly
in Missouri. but no further west.
If it does go into any of these States
we should have specimens here.
as the range of our plants, especially
of the trees, is an interesting and
important one. Before I received yours
of the 26 March. I had learned from
Lecoyer. & had done what I could
for him in the way of Thalictrum
which was not much in the way of
new species. I am watching your seedling
Celtis with much interest. — and if the
~~leaves~~ later leaves become entire. a good
deal of astonishment will be mixed
with the interest. — Still I quite agree
with you that I don't know enough about
our trees. but no one can do more than
try to learn. which I do most assiduously.
I send a few seeds of Sciadopitys for you

which we may not have seen here. [illegible] try and

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Rec. April 24
Ans same day

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. April 21 1878.

My dear Dr Engelmann,

Thanks for your information about P. serotina. I knew the Texas specimen labelled in your hand writing, but with that exception there is nothing in the Herb. for west of Fountaindale, Ill. (Bebb). The Herb is wretchedly poor in trees. Did Dr Gray tell you, or Dickenson here to us, ~~there~~ that we have no ~~good~~ flowering specimens, or indeed leaves of any sort of Carya sulcata; and nothing but leaves of C. olivaeformis!

I share with you the most interesting of the specimens referred to in the

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Enclosed: What do you think of C. microcarpa? And please notice particularly No 2. The "stellate pubescence" is very different. ~~for what~~ to account for what any alba in this neighborhood has. as I have asked Commons to look at other trees and see if it is exceptional. I will let you know when his letter comes.

Look too at No 7. I have always taken this tree with its unusual exfoliating bark to be alba. but I don't see any difference between the buds of it & No. 6 about which there is no question. Indeed I am rather ~~surp~~ disappointed at not finding better characters in the buds of alba & tomentosa. The size seems the principal thing. and the size of terminal buds so dependent on the vigor of growth of the plant; as not to amount to much. See how small the buds of 5 are.

Yours very truly
C. S. Sargent -

Recd May 13
Ans same day

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. May 9th 1878.

My dear Dr Engelmann.

I am really very much obliged for the Elm seed.

If it germinates you shall have the seedlings as you desire. The buds of C. alba from Cambridge were from the large tree on the terrace, the plant from which I sent you buds a year ago this spring, and probably the ~~same~~ tree for which you collected the specimens in 1856. as I have never known any other large in the garden. The enclosed leaf shows that ~~it~~ this tree is alba. (if I understand your character). although some of the trees

of alba at Brooklin was much

more heavily "white fungus" than

this. The character you give for the

young leaves of alba & persica

holds good on as many of the

plants of the two species as I have

had time to examine. Note that

persica is about a week earlier

than alba in leafing out. the two

trees growing side by side & under

exactly similar conditions. You say

nothing of the pubescence on the old

shoot (last years) of common alba.

None of the plants in this neighborhood

show anything like so much. Can't

Mr Eggert get us plants of Erigenia

which is not in the Garden? I suppose it

dies down early & must be got before

the leaves disappear.

Faithfully, C. S. Sargent

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

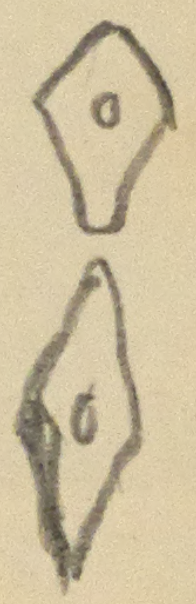
By mail.
1 microsperma
2. Algonquiana.
3. Menziesii. glaucous Colorado.
4. " green.
5. Sitchensis.

Rec June 13
" 14

BOTANIC GARDEN,
HARVARD UNIVERSITY,
Cambridge, Mass. June 10 1878.

My dear Dr Engelmann.

I can't help you much about *Abies microsperma*. for I have never seen an old plant of it. or indeed any but my own. which as you know is very small. There is no specimen in herb. nor is there of *A. Algonquiana*. nor, by the way, of your form *fallax* of *A. subalpina*. Heaven only knows whether my plant is rightly named. It came from some European nursery. which is rather good proof that it is not right. for when they send out a plant with its right name it is the exception which proves.

the rule that such persons are
habitually incorrect either through
ignorance or something worse.
last 2 years' leaves
As you know last year's leaves ~~in~~
this plant were ◇. Now those
of this year begin to appear ⬭

which you find in your St Petersburg
specimen. Is this because they
are younger, and will they thicken
up into ◇ as the season goes
on? This we must watch &
see. Notice that in this plant
the leaves have stomata above
& below, but not very numerous
on either side. In Alcoquiana
they are very numerous above
(of course) and none below.

why?

Judging by the leaves alone. they
can hardly be referred to the same
species as my A. microstemma.

Is A. Menziesii to Colorado.
the Stomata are on both sides
again: but more abundant above
than below. The leaves I enclose.
Show Stomata (Ithink) on both
sides but more above than below.

While those of Alaska. have none
below. but very numerous
above. On a plant I got some
years ago from Leiden of Gent
under the name of A. Hutchinsii
the Stomata are very numerous
above. and few below. May this
be the true A. Menziesii. Those

but a single plant of A. alcoquiana.
about six feet high. and never have
raised any seedlings - to my plant
I can pass no square name. or any
different. for those sent.

If Hooker. includes a Persons have an
imported Mexican. it must be
in the Prairie.. as no body has the
Rocky but plants. & sent from me. I think
I know of a plant in Newyork State &
have written for a specimen. If I get
it will send it. In regard of any of the
Agaves flowering. then yes. Maculosa
we grow
he grow very well. but not so Virginica
that does nothing. I should like more
of them much. if seeds. I have never flowered
it. Yucca Whitfolia in you used
in flower. & sent into garden annual.
I enclose a few seeds of A. Yezoensis.?
sent me for Japan.

Faithfully. C. S. Sargent

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS 3

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd 21 Aug

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. August 16 1878.

My dear Dr Engelmann,

Perhaps this will find you at home again - I hope not. if there is hot and disagreeable in St Louis to day as it is here. and then there is Yellow Fever. which may give a wide berth to - At any rate if you are not at home. this will work well enough. I enclose here of my P. microsperma? that you may see that the compressed leaves of the early summer are taking the ◇ shape of those of last year growth. What is this like? You might to have guessed it by this time. You say that the base of the leaves in longitudinal sheets under side of of P. decompositum. are twisted.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Are they as per enclosed? I don't see it. or if these are very little. You say "why do you say that 'of course' the stomata of Abies grandis are numerous above? They are almost always more on lower side." Are they? For I don't see the [illegible] at base. I call the rounded side of the leaf the lower & the white side showing the mid-rib the upper. Am I right? I expect on Sept 12th to start for Nevada. Hope to see you either going or coming. I expect to be about two weeks in the hills 50 miles South of Eureka. I should expect to find there P. monophylla. & Jun. var Utahensis of the western Juniper. & perhaps A. subalpina. if I get high enough. What else can I hope for? I expect to make a short run in California. What can I do for you? Any suggestions or advice will be gratefully received by your faithful. C.S.S.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd Nov 6 th
Ans 8 th

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Nov 3 1878

My dear Dr Engelmann.

Here are some seedling Sciadopitys.

Showing but two cotyledons. (all the seedlings are the same;) which I suppose (They are for the seed you thought would not germinate) thinking you may not have seen them.

This differs as other trees from placing this plant near Sequoia.

Pentstroe. does not seem to have this character. so did Murray the author

the only botanist I remember who has found about Sciadopitys. But I know of some one who has considered the leaves morfologically. as you told me. I shall be obliged for the reference & notice what I take to be

F. Mohl Prof Jena Jan 1878

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Stomatae, this time on the under side.

I bring back from Nevada Excellent specimens of Pinus ~~[illegible]~~ aristata. P. Edulis. P. flexis. + Juniperus Californica var Utahensis. the only Conifers I found in Central Nevada. Any of these are very much at your service. The two latter are very common. but I found only a few plants of P. aristata. on Prospect Mt. Eureka. growing on the north west side of the Mt. from 7.500 ft alt. up to the very summit 8.000 feet. This tree was once quite common on this Mt. but nearly all have been cut. the timber being the best Central Nevada supplies for props for the mines. This tree is known as the "Fox-tail Pine" in the neighborhood. but many persons in Eureka. Spake fol

be a Spruce. when it. at a little distance
it gently undulates. owing to strictly
horizontal habit. & the last that it
holds it [illegible] lower branches. like the
Spruces. The trees I saw were from
15 to 30 feet high. sometimes forking
from the base. but generally with perfectly
straight stems. the largest of which
were 2 feet through 3 feet from the
ground. My notes say "Bark roughish.
in the young trees smooth, on the rest
thickly furrowed. & scaly — bark of the
branches white smooth. & mottled with
the black scars of the fallen leaves —
Cones sometimes in pairs. more often
single" — The seeds had all
dropped from the cones on the 21 of
September. Silent Ennek a there
has no P. flexilis. but further South.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

in the Monitor Range of Nev. it was

common & sawed into fine lumber.

This is the tree which gives the name

to the "White Pine" Range. White Pine

district &c. in Nevada. The Juniper

makes fair fuel but the Nut Pine

is preferred & the latter is made

extensively into charcoal, of which

enormous amounts are used in the mines

coal being too expensive. Both P. aristata

& monophylla are decidedly worth cultivating.

The former has a sort of a tropical

Araucaria sort of look & is certainly

very distinct in appearance from any

Pine I have ever seen. I could not find

your Opuntia ~~Heliosa~~ pulchella. & if you have it growing

I should be much obliged for a little bit.

Since I got home it has occurred to me that

you put Pinus contorta among the Serotinae.

but I don't know why. I was among this tree

in the Sierras for several days. ~~about~~ during the first week of

R Nov 14
Ans 15

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Nov 11 1878

Dear Dr Engelmann,

I am very sorry to learn from yours of the 8th that you are sick. I fear it must be serious if it has kept you in bed for two weeks! I pray be careful! I will see in the future that you get seedlings of all the conifers we raise. I fear that now we have none of the genera you ask for. Young enough to be of any service. Strasburger is in the College Library. & Mr Watson has looked it through & notes in the enclosed his only references to the subject you refer to.

I don't understand about your aborn less *P. aristata*. I send you one of my cones. which is awned. but the awns are not as long as in Colorado specimens. The awns in the young cones. and even in the yearling cones. are much more proportionately developed. It would appear that they

do not grow proportionately with the
cones. so that they must get knocked
off from the mature cones. Since I did
make a single specimen of Pinus
contorta in the Sierras. with two cones.
one of them I send you. showing that it is
not serotinous. The cone was open Sept 30th.
& I am clear that all had shed their
seed at that date. as I was on the
sharp look out for seed. This is a
miserably named tree. as it is most
rarely contorted. generally growing
as a perfectly ~~symetrical~~ symmetrical
pyramid. with all the outline of a
European Larch. hence the common
name of Tamarack. I don't know why
you call P. flexilis ~~common~~ rare in California.
At 7.–8.000 ft alt. it is very common in
the Sierras. where it is a much larger and
finer tree than in Nevada.

Hoping to hear soon that you are
entirely restored to your usual health.

Yours faithfully yours, C. S. Sargent.

Missouri Botanical Garden
George Engelmann Papers

0 1 2 3 4 5 6 7 8 9 10 cm copyright reserved
Missouri Botanical Garden

Rec'd Nov 23
Ans — 26

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Nov 20th 1876.

Dear Dr Engelmann,

I am very glad to learn from your
of 15th "
how that you are better.
but dont get well too fast. and
so exposing yourself. get a relapse.
I send you the Senna Hemsley. P.
Contorta. Take half of it to go with
you come. Send back the rest at
your convenience. I send a list of the
woods of this section. Shipping the bark
which is unquestionably that of a Pinus.
very different from any I have ever
seen. Can not P. Balfouriana. be
Letter referred to P. muricata. Thus.
to P. Contorta? We have Balfouriana
plant. which certainly looks more
like what I sent those P. muricata may

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

ble, them like P. contorta. but we
have no specimen of P. muricata in herb.
So if you can spare one. pray send it.
It seems very improbable that an
alpine species like P. contorta should
grow at the Elevation of the ocean.
Except perhaps at the far north.
If you had only said that you were
in doubt about any of these things.
(I wrote & asked what you wanted
me to look for) I could have brought
you car loads of specimens. but
the road ~~It~~ I travelled in California
was the same Gray & Hooker were
over last year. and where Bolander
Brewer. & all California Botanists
have done most of their work.
In spite of all this there is not a
Herb Gray a specimen of P. contorta
from any part of the Sierra Nevada.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Dec 6th

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Dec 3rd 1878.

Dear Dr Engelmann.

Here are the leaves of

Pinus flexilis from Central

Nevada. altho' I dont think

there can be any doubt about

the species.

Have not your Botany

of Simpson's Exploration. Have

You those copies? If so I should

like to own it.

Dont send back anything I have

sent. but a part of the P. contorta

sheets.

With thanks.

C. S. Sargent -

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Dec 9th
Ans same day

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Dec 5th 1878

Dear Dr Engelmann.

I must say I don't understand your trouble with some of P. contorta & P. murrayana. The latter are always a third or more longer and with thicker ends to the scales. Also from the cones. It certainly exists in Contorta. but not constantly if you consider the Colorado, & Sierra plants as one. I saw in the museum here a bunch of Contorta from Oregon. by A. Murray. 1875. showing the cones of 4 years persisting. but not serotinous. and not at all armed. Lyalls Vancouver Island specimen is long armed. There is a

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

a specimen from Kellogg. without locality.
short leaved. small cones. and with
very short awns. Bigelow's (in Whipple
Exp.) specimen from California is awned.
so is Watson['s] Utah specimen of your
var latifolia. which by the way seems
identical with my Sierra plant.
There is a specimen from [Mrs Ames] Mrs Ames,
Plumas Co. with yearling cones which
are very long awned. longer than
any I have ever seen in P. aristata.
None of these specimens show that
this plant is at all inclined
to be serotinous. [none] some, but the
first, show that the cones persist.
The Colorado specimens are too
poor to draw any ~~[illegible]~~ conclusions from.

Evidently of these is but a single
species.
~~species~~ Here it is a very polymorphic
one. But as for remark. My leaves
and bark are identical with those
of the Colorado tree. Of which I have
heard the owners from Brandegee.
hybrid
If my plant is a hybrid. what are
its parents? Certainly Aristata is
not one of them. It grows nowhere
in that neighborhood. I don't feel
clear about Bolanderi = Contorta.
but you have the specimen before
you. We have Bolanderi. Bolanderi
but I can't refer it to any of our
forms of Contorta. Don't ~~x~~ forget
about the specimen of Murrayana. Please
What do you say to the Enclosed?
It comes from Multnomah Co, Oregon
Howell no. A. Sanders. Have we at

but the true grandis. or may it
be. what Douglas meant by amabilis?
I thought at first of nobilis. but
the leaves seem very long. besides.
[illegible] pretends to know nobilis
and to collect & sell seed of it.
I have written for good specimens
& all information. but in the mean
time tell me what you guess is.
I believe now that I have picked up all
your botanical publications except Simpson's
report of which I wrote the other day.
"Prodromus de Anthelysis(?)". which I suppose
Wislizenus Mem.
is hopeless.. Plants of the Upper Missouri
and Geyers plants of Illinois & Missouri.
If you have copies of any of these to spare.
& will let me have them I shall be greatly
obliged – Many thanks for the seeds.
Some(?) the plants you sent during my
absence all right on my return. Many
thanks. Yours truly. C. S. Sargent

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10 cm copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd Dec 21
Ans Jan 2/

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Dec 17 1878.

Dear Sir

From Silliman's Journal. (no date)

Art XIII. Catalogue of a collection of plants made in Illinois and Missouri by Charles A. Geyer. with Critical Remarks by George Engelmann. M.D. of St Louis.

I'm sorry the clone. Dear Dr. Engelmann. But here is a little dealing from Negro of A. nobilis for you. with the cotyledons. Still on. It is a little withered. as it has been "laying round" for a two or three days. while I have delayed writing. The seeds of A. macrocarpa for the same locality I shall have soon. will send you the young plants. Magnolia Hoodii does not seem to know. or at least he has not sent it yet. By all means

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

send the old cones of the Colorado
Contorta. The experiment with the seeds
will be a most interesting one. If you
pick off the cones from the branch before
sending, each one should be dated.
and I will have the seeds of each
year's cones planted separately and
note the result. We have nothing
but young plants of *P. Banksiana*.
& I have never seen it growing wild.
but judging from the experience I once
had in trying to get out the seeds
from the cones of this species I am willing
to believe that they remain closed
until the crack of doom. I must
confess that I can't make out from
your letter whether my Prospect Mt
Pine is *P. aristata* or *P. Balfouriana*.
I have a good specimen of the bark
if you want it. from a tree growing
near the one from which I took your
cone & leaves. I wish you would tell me what

it is, what are the distinctive characters of these two species, that to me

Rec Jan 31st
Ans March 4

BOTANIC GARDEN,
HARVARD UNIVERSITY,

Cambridge, Mass. Jan 28 1879

My dear Dr Engelmann,

Many thanks for your letter of the 26 inst. but you dont tell us what we want to hear even more than your information about Conifers, namely, how your son is getting on. I suppose, however, as you find time for a long letter that he is better. I have not written you on that subject, not for want of any

sympathy for you, but because
I knew, that, under such
circumstances, the weight
of letters, however well
intentioned, are more a
bore than a pleasure. Because
I knew you had your hands
too full to read even what
your friends wanted to say
to you. When your box comes
I will write you in regard
to its contents more in detail,

I quite agree in your remarks about Juniperus & their habitats. Parlatore did not see plants enough to allow him to judge of their various habits. The American species of the genus seem to be now most satisfactorily disposed; and thanks to your paper which was my constant companion at the west. I found no difficulty in making out all the Juniperus I came across. The seedlings which I sent you as *A. nobilis* came

from Oregon (not mesa here). those sent to Noolson by Howells. They come from the same locality in the seedling you describe I sent you. I have already sent for specimens of all the conifers of that neighborhood. If the two trees grow together it would be very easy to make mistakes in collecting the mixed seedling.

Hoping that you are well & that you'll soon send letter

Yours faithfully,

C. S. Sargent.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Febr 5th 1879
Ans March 4th

February 2d.

Dear Dr Engelmann.

Do you know that the young cones of Pinus Strobus are, at this season, not reflexed as they are at maturity but boldly upright? When do they make the change; or rather begin to make it. For Sculpture it is a gradual one.; and is there reason for them doing so. beyond the fact that the long stalks are not strong Enough to support

the heavy mature cones.

In looking yesterday at a white Pine. I took occasion to examine several trees of P. rigida. on some of which could I find a single closed cone. All were open & all seed gone. This would show that the serotinous character in the species is by no means general or constant. I should like to know when it sheds its seeds. in those cases where the cones open during the autumn in which they come to maturity. Here both the Red & White Pines shed their seeds in September. as soon as the

cones mature. If the same
species is sometimes serotinous
& sometimes not as seems to be
the case with *P. rigida*. & *P.
contorta*. what is the reason for
this anomalous behavior?. What
does one pine gain over an other
by guarding its seeds. for one
or more years. or if there is an
advantage to the tree in making
its sowings of seed at different
times & seasons. why do not all
Pines have the same power.
~~Does~~ may not the serotinous character.
come from some peculiarity of soil

a climate? But I started to give you a hint about the N. P. Cones. & I find I have written a long letter, which pray forgive.

Yours faithfully.

C. S. Sargent.

Dr George Engelmann.
St Louis.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

Rec March 14
Ans ~~[illegible]~~ 29 April 23

Botanic Garden of Harvard University,

Sciadopitys seedling

Cambridge, Mass. March 11 1879

My dear Dr Engelmann,

I return Lemmons letter which rather confuses me than otherwise, especially as to *Pinus ponderosa*. Perhaps with the specimens before you you can make head or tale of what he means.

I send you to day a young seedling of *Araucaria Bidwillii*, but unfortunately the cotyledons had dropped before I ~~sent it~~ went to get it for you. The germination is the same as in *Encephalartos*

of fruit I also send a letter

the under. The Cotyledons in the

Cucurbitaceae are developed under

ground. and that of which this

Enclosed in the hard seed. as

is the case in all Palms and

Cycadaceae. what I have seen

germinate. But I have not noticed

it in any other instance nor the

Comparable thickness of the

radicle. the object of which in this

case I do not understand.

The germinating Pine Enclosed

has sent to me from Para

Eduli.

I found it will be necessary for me to form a Special Herbarium for the Arnold Arboretum. what I can I know is situated 6 miles from that at Cambridge. and too far for reference. I propose to confine it (for many years at any rate) to trees & shrubs of N. North America. 2nd the whole temperate Zone. I shall keep it in my (at my house) own house. for the present. an entire proper accommodation at the Arboretum can be provided for it. My Library. Engravings. Pamphlets &c. &c. I must have an immediate accumulation. and nothing

useless duplicates. Some of these I hope you will consent to make over me. on some terms or other.

If you could employ Eggert or some one else. to do the packing. I should be only too glad to pay for the work. I propose to employ Eggert & perhaps Letterman to make collections of your western Trees & Shrubs for me. and shall be glad of any suggestions you are willing to make. on this subject. I propose to myself. in addition to the herb. a dendrological museum. but the labor & the expense of such an undertaking rather appal me.

faithfully yours,
C. S. Sargent

GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd April 9th (23)

Botanic Garden of Harvard University,

Cambridge, Mass. April 6th 1879

My dear Dr Engelmann.

Thanks for the grape cuts. I believe
we have plants of all those cuts
already growing: probably from cuts
that you have sent at different
times. I am glad, however, to get
these fresh cuttings. this Summer
I have planted at once. I have also

the *Contorta* cones. If they contain good seed these shall be carefully planted and the results recorded. It seems hard to believe that your cones belong to the same species, which I saw on the Sierra Nevada. Yours are all unequally gibbous at the base. as in the cones of *P. insignis*. Now this I never noticed in any of the Sierra Cones. but you have my only 2 specimens. So.

You can divide them. The leaves, too.
In the Colorado trees are much
shorter. than ~~than~~ Standley and
more blunt than I remember to
have seen them in California
Guess you could see those
Sierra Nevada!

Palmer has turned up here at last
with an immense quantity of seeds
for Harvard. among them many Opuntias
+ other Cactaceae: Can you name
them from the seeds? If they could

he named the 2nd under he notes
more valuable for distribution among
Eastern Gardens. Can I send you samples
of it for this purpose?

Glad to hear your son is better!
Hope you keep well also!

Yours truly,

C. S. Sargent.

Do you happen to keep Pseudotsuga
as a genus?

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd May 2?
Ans 3?

Botanic Garden of Harvard University,

Cambridge, Mass. April 29 1879

My dear Dr Engelmann.

Many thanks for your & the Lyons & the Sampson Rubus. both of which I am glad to get.

I am sorry there is no life in the Sagittaria roots. but I will plant them. Rubus seeds. I am not glad

of the U. S. Litchens and. what
I have been unable heretofore to
get hold of - Where does this particular
seed come from? But the reason!
It seems too bad to have
Mangues out in the cold. The
present generation at least, will
always associate this tree with him;
and as they could seem to be one of the
few cases where priority might

be overlooked. There had no time
to even look at any of the answers
you sent. Hope you will go to Europe!

It will do you good.

Be for the work the answers. Should
be satisfactory with what satisfies you.
Letterman
Should like Leggett to make me an
duplicate set. Of course there should
Show the bank and shades always.
If possible. Be cut for the main stem
rather than from a branch.

(over) Faithfully yours, L. S. S.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Hooker writes of a letter sent you by him. written by G. Syme. about Conifers. Can't you pass it along this way?

pass it along

C. S.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

Rec'd May 19th 1879 — answ'd May 20th

Botanic Garden of Harvard University,

Cambridge, Mass May 15th 1879.

My dear Dr Engelmann,

Many thanks for the chance you have given me to read the interesting correspondence - of which I have taken the liberty of obtaining a copy. I think you have "got them" as the boys say. You are perfectly right; in dispute orders are very bad. & generally turn out most

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

investigations. I should like Letterman
to buy me elsewhere to make for me a
complete set (flowers & fruits) of herbs
2 specimens of the leguminous plants of
Pro. For such a set, if started. with
the localities given. I am willing to
pay the market price. about 5 or
8 – 10 cts per specimen. I must care
especially for wood sections just
yet. so I dont want to undertake too
much at once. but when you told me
that Letterman was going to make a

set for you. I thought that he could furnish a second set at very little additional cost, and that the average between the two would make the work less expensive for us both. But I am not particular, & so on this point won't now give any fixed order, but put this in your hands. – but the herb. specimens I really want. – Very many thanks for the Wheeler report –

I should like much to see your P. arizonica: but I suppose there are but few specimens.

Your sentence reads in such a way that it appears that the lowest part of the cone of P. ponderosa remains

0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved
MISSOURI BOTANICAL GARDEN

Missouri Botanical Garden
George Engelmann Papers

in the ~~from~~ bunch. was that entire
Corn we never picked up.

Surely this must be an Error; but
if Jem not all wit there are
hundreds of millions of entire
Pumpkins corn laying all over
the Pinnas. Certainly those we
brought home with us. kicked from
the ground are entire - At last Jem
is to go to the Alleghanies. with Gray
& Canby. in June. So we shall have
a good time of it. Any commissions
in those parts? Faithfully. C. S. S.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
Missouri Botanical Garden

Rec Davenport Aug 12th

Botanic Garden of Harvard University,

Cambridge, Mass. August 7th 1879

My dear Dr Engelmann.

Here are two little seedlings
sent from the east of Abies
Sitkensis. You sent it the Spring.
I should have sent them before
but I have been hoping that you
would have. Ere this, turned up
in these parts. That you are

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

coming soon; that you are
not trying to work too hard
in this abominably hot weather
we are having!

for the lady yours,

C. S. Sargent

Dr Geo. Engelmann

St Louis.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Oct 15

ARBORETUM, HARVARD UNIVERSITY,

DIRECTOR'S OFFICE,

Brookline, Mass., October 10 1879

My dear Dr Engelmann,

We got home a couple of days ago. When to my great regret I found your note of adieux. As I had hoped you would have lingered with the Summers till my return.

Since I have been gone I have looked assiduously if not successfully among the oaks. On the Hudson I found only the single plant of Q. Muhlenbergii. about 8 Stevens before. Quercus palustris is only found on the east bank (not on the west) - only two or three specimens seen. There is no Q. coccinea there. or about Rochester as up to

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

down the valley of the Genesee.

If this species is southern, as I think, or the Atlantic seaboard species in Minnesota, without intermediate stations its distribution presents a problem I leave you to work at. I had while at Geneseo the opportunity to examine for the first time Q. macrocarpa. It grows there on the low rich bottom lands with Q. bicolor, and also equally well on the uplands with Q. alba. The more common form has leaves with incisions & lobes of Q. obtusiloba. both in the fruit and in the narrow deeply lobed leaves. I send you an acorn of the two forms. The bark is very

unmarquable. and on the old trees
easily distinguish. this bark from all
others. It is dark. and very deeply
furrowed. or ridged — I took a specimen
of one of these ridges. from an old
fallen stem. It is three inches deep.
and rather more wide. This same
tree measured _across_ the stump
7 feet 5 inches. and probably really
more. for as the tree had broken
near the stump when it fell it
was difficult to measure accurately.
This will do away with the "miserable
zegia tree" of the manual. If this
peculiarity of bark is common to
the species. it should of course be
mentioned in the books. I saw a
piece of the stem of the famous

Wadsworth oak, which was destroyed
many years ago by the caving in of the
River bank. It was not a macrocarpa.
the bark showed & I suppose it must
have been a bicolor.* I believe it
girted 32 feet at the ground. &
may have been the largest specimen of
the species. In the immediate neigh-
borhood of the spot where the
tree grew, are many other Swamp
white oaks, girting from 15 to 20
feet. so that this species, too, must
be set down as of the 1st class.

Quercus Muhlenbergii which I
certainly expected to find common
here, I looked for in vain. Quercus
Prinus which on the Hudson opposite
Newburg, is one of the commonest forest

* as no Q. alba grows in the low ground there.

Missouri Botanical Garden
George Engelmann Papers

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
Missouri Botanical Garden

Rec Oct 15 1879

ARBORETUM, HARVARD UNIVERSITY,

DIRECTOR'S OFFICE,

Brookline, Mass., Oct 10 1879

trees. grows sparingly in the valley
of the Genesee. always on high, dry
hill sides. and of very small size.
It is evidently there on its northern
limit. I only found one small
plant fruiting.

I found a few trees of a very
large fruited variety of Carya
tomentosa growing in the low
rich and overflowed bottom lands
of the Genesee. I send you some of
the nuts & a bud from same
which if you want it. The nut
is not only remarkable for its size.
but for its excellent quality. and

and the thinness of its shell.

The trees are every one known

to us. and are called "King

Nuts", and as such are sold

in the market. I dont remember

to have seen a Hickory nut as this.

and it should certainly be propagated.

I have sent to Bingham for

a good section of Juncus

effusus. Will you have me?

I send this letter with Thurber

Jun. Gryns plants. & I shall

proceed to have Jun bound up

in good Style.. But this letter

is already too long so good bye for

to day. Faithfully Yours,

C. S. Sargent.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Dec 3d
Ans same day

ARBORETUM, HARVARD UNIVERSITY,

DIRECTOR'S OFFICE,

Brookline, Mass., November 29 1879

My dear Dr Engelmann.

Several of your letters are before me unanswered. but I have been very busy of late. The truth is that I have undertaken to prepare for the next Census Upon a volume on our Forests. in their various relations. & Economic values. I went to Washington after I signed to write some of the article, and since my return I have been busy organizing the various Divisions and most difficult inquiries that have to be made. in connection with this work. I am going to publish at once a Catalogue of our Trees. with reference to best descriptions and figures. geographical range. &c I have at

(and how little I know what to do in general way!) Economic botanical species. My catalogue I shall distribute widely with the request that recipients will furnish me with any information about the uses of their neighborhoods that they happen to know about. I shall in this way to get a great deal of information about various points, of which at present we are seeing to know anything.

In this connection I am going to have the wood of all the Indian textiles & strength. Just going Yucatan &c. In burning these of Abbe. I shall write Letterman &c. Then I shall send

before this but I am waiting to hear
from Washington. If I cannot have
the specimens printed as 1st Class
mail matter. ~~Dr~~ Will write soon
on this subject. However. My best
advantage from this work is that it
allows me to travel at government expense.
where I like. So that I shall have a
splendid opportunity to see a good
deal of the Country. and make a good
many observations & do some collecting
I hope. Shall we go to Oregon together
next Summer? No it is Q. Prinos at
Rochester. I think you put the two very
easily now — the bark is unmistakable.
You say nothing of my Rochester Carya —
what I thought unmistakable. Especially in
the thinness of the shell. Please look at
it. I wish you would write me as soon
as possible your idea of what the
range in Texas is of Q. virens. and

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

2.

ARBORETUM, HARVARD UNIVERSITY,

DIRECTOR'S OFFICE,

Brookline, Mass., Nov 29 1879

the range of Pinus serotina. (we must make that a swamp var. of rigida. Now that the serotinous char. does not hold. in P. contorta) P. Elliottii & P. glabra. also the north western range of Picea alba. What is an Evergreen Oak 20–30 feet high in the San Francisco Mts. which Bigelow talked about?

Tanning! Wait a year or two & I will tell you something about it! Now I know nothing on the subject. nor am I able to find any one who does. The European Sumac you ask about in this connection is R. Coriaria of the

of the Mediterranean Region.

By the way what do they tan with on the Pacific Coast? Do all Tsugas have the tanning quality of the Hemlock? How much there is to learn about our trees for me at any rate!

Thanks for the information about P. Missouriana: What I have been growing as P. densiflora I have long suspected was nothing but P. austriaca. Lucie sends you a bit tomorrow. You had better make up your mind to receive in the future about 100 questions per week from yours very truthfully,

C. S. Sargent.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

. JTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Rec Dec 18'

ARBORETUM, HARVARD UNIVERSITY,

DIRECTOR'S OFFICE,

Brookline, Mass., Dec 15, 1879.

My dear Dr Engelmann.

I am sorry to say that the postal
Card. on which you gave me the
names of two kinds of seeds.
you had sent. is lost. Me is
a Vitis & the other a Prunus.
Tell Jr Kinaly send me the names
again if Jr remember them.

If Jr have still a copy
of a list of plants of the Ashes
Jr essence. buy Jr. I should like to
have it. Ho me seems to know
any thing about this or where it is.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

published. There is one copy at
Cambridge. There is also two
two St Louis papers containing
a lecture by you on the Conifers
of the Rocky Mts. This you
never sent me. one of you have
still taken. I should like to
see them to my own almost
Complete set of your botanical
papers.

Hope to hear from Letterman
before long.

Faithfully,

C. S. Sargent.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Nothing from Letterman yet.

ARBORETUM, HARVARD UNIVERSITY,

Rec Dec 22
Ans — 23

DIRECTOR'S OFFICE,

Vol XII p 772

Brookline, Mass., Dec 18th 1879.

Dear Dr Engelmann.

Thanks for your letter & suggestions of the 15th. To begin with one of yours "?" I should like to know what in the world you are doing with Colden. at this season of the year; and why you are not more careful of yourself? If it had been in summer. I should guess that you were after a *hybrid* oak or Hickory. but these we want answer at this season of the year. You have seen

I distributed seeds of *C. Shocisia* very generally last year & also European correspondents; & intend to send more this year.

by this time that I disclaim
in the Gardeners Chronicle all credit
for Catalpa speciosa. I have
long ago written Bolle to the same
effect. If you have material
enough I wish you would publish
the species: as you have had
better opportunities to study it
than any one else. I have just
written it in my Catalogue as
"ined." I am hard at work
on the Catalogue and have got
to 6 oaks nearly. So you need not
fear but I shall soon begin to send
you more questions than you will care

to answer. As soon as I can

get it all in the printers hands.

I must go to Washington

for a few days. & then I think

seriously of going to St Louis

to discuss several matters

with you, see Letterman &c. &

arrange with him & others for

next Summers work. This

will be more satisfactory than

writing. From St Louis I am

prepared to go either to

San Antonio Texas. or over

the Iron Mt. & M & O. RRs to

Mobile Florida. or to westward

anywhere South. that you will go with
me. provided I can be at home
again by the middle of February.
What do you say. will you
go & see. Quercus Emoryii:
or Torreya? If I can
possibly accomplish it I should
like to be in St Louis before
the 10th of January. but when one
is dependent on a Washington
printer it is useless to make
plans.
I am putting Celtis integrifolia
with C. Mississippiensis. & C.
crassifolia with C. occidentalis. with
a special note calling attention to the importance
of studying this genus in situ. Intended C...

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

N.° 2036.

Smithsonian Institution
Washington D.C.

For Sale,

A collection of the birds of California, made chiefly at San Francisco, and mounted on the spot from fresh specimens. It embraces about 170 species and 280 birds, all mounted except a very few, all in excellent condition and good attitudes, requiring only a little adjusting of the feathers to remedy the derangement of packing.

This collection is very complete in the rarer birds of California, especially in the larger raptores, and all the water birds. Many of these are scarcely represented or not at all in any other collection in the country. The few deficiences consist chiefly in the commoner land birds of California, which can without difficulty be obtained. Among the more noteworthy birds are the Peregrine Falcon of the Tanallones, the California Golden Eagle 39; Harris Buzzard (40); the Blue Backed Hawk (16); the Squirrel Hawk (32); the Chaparral Cock (68); Cassin's Flycatcher (127); Maximilean Jay (431); Townsends Surf bird (511); Bachmans Oystercatcher (513); the Wandering Tatler (541); the Black Rail (556); the Brown Tree Duck (575); the Rocky Mountain Gurrot (594); the Black Stormy Petrel (643); the Western Plover, 509; Cassins Guillemot (724); and many others equally rare.

The following is a detailed list of the species, in a series of numbers referring to the Catalogue of North American Birds published by the Smithsonian Institution.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

5	156	364	516	587
6	159	366	517	588
13	161	375	518	589
16	165	381	520	590
17	170	386	521	591
24	184	388	523	592
26	195	394	524	593
30	203	396	525	594
32	213	402	530	595
35	225	403	532	601
38	227	407	534	602
39	231	416	535	609
43	234	418	537	612
47	250	431	539	613
48	256	433	542	616
51	267	435	543	620
52	274	437	546	626
59	278	445	547	627
68	279	451	549	643
75	282	459	551	662
77	287	473	552	666
78	291	474	556	670
90	295	479	559	701
95	298	486a	561a	704
98	302	487	563	705
105	308	492	568	706
113	313	495	575	707
117	314	500	576	709
126	316	504	578	712
127	317	505	579	717
131	334	507	582	724
136	344	510	583	727
138	346	511	584	730
150	352	513	585	732
155				

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN