Rec'd Aug. 13
Ans Sunday

224 E 10th St. N. York.
Aug. 9th, 1870

Dear Sir,

I enclose a few specimens of Lemna polyrhiza in bloom & a very few fruit. If you write me or in some other form, please inform me and I will endeavor to satisfy you.

Yrs truly
Wm. H. Leggett

Dr. George Engelman.

Rec'd Oct 4
Ans. Oct 17

N. Y.
224 E. 18th St. Sept. 30

Dear Sir,

You will have noticed perhaps in the "Bulletin" that I have communicated the one seeded Sporadula to Hegelmaier. I sent him some of the best specimens I had at the time, when I sent some to you, and afterwards upon obtaining a few more ripe sent him a small nut done up in a cork. I find that I have very few left, which I will share with you, as soon as I learn that one of these cork ventures (I also sent to Austin) has reached its destination. Previously to receiving his, Hegelmaier wrote me, how interested he was in it; and ~~th~~ asking for more; with what

you sent him, and my two lots, he must have enough to decide upon it. I am going to write him this mail. I am in hopes to have a drawing from Austin to publish in the next Bulletin. Yrs truly

Wm. H. Leggett.

Leggett

Rec Oct 20
Ans — 21

N. Y.
224 E. 10th St. Oct. 17th, 1870

Dear Sir,

I enclose a little phial of Spirodela polyrhiza, if such it be, in which Mr. Austin writes you have noticed two nuclei; but ~~of~~ concerning which I would like to hear from you directly, as Hegelmaier, so far as I have heard from him, had not so observed.

I also enclose a Cuscuta, which I found on a Silidago on Staten Island, and which I can not make to fit your Chlorocarpa, and yet it does not seem Gronovii. The broadly notched fruit, and hole in the top of ripe fruit seemed to me noticeable.

In the Spring, I think, I sent you what I sup-

pond was Isoetes japonica from the banks of the Hudson. If you remember it will you inform me if I was right.

Yrs truly
Wm. H. Leggett

Ans Nov 3
Ans Nov 13

224 E. 10th St. N.Y.
Oct 31st, 1870

Dear Dr,

Thank you for your note, and determination of my Cuscuta. I have a lot of this genus gathered from time to time, and always put by for a more leisure moment, and shall probably have to refer to you again and again. Upon looking over some recently, I find what I believe is C. inflexa collected on several occasions at Peekskill N.Y. & Chatham N.J. and perhaps other places. I enclose specimens, and also of another form which may be C. Gronovii: I find these plants rather difficult, and the distinctions rather fine. I never suspected that C. inflexa which I sent of having the remains of the corolla alive, but thought it

plainly below. How do you know in a dried specimen if the scales are converging, which I presume means bending inwardly towards the centre of the corolla? Is your monogram on the subject obtainable separately? In the specimen of the supposed Ch. Grow vii I send I notice large translucent dots in the lobes of the Corolla, and in other species an other appearance, also in reference to the proximity or remoteness of the bases of the styles there seems a difference, but perhaps it is not constant.

I enclose also another vial of Lemna polyrhiza, containing I believe flowers mainly, also some dried L. minor, among which I hope you will find what you want; if not, I have abundance in that form; also some two specimens of Lycoles gathered perhaps later than the other; but it was all about the same size, and not very abundant; also some fresh fronds of the Spirodela as it is growing in a glass

also some seeds of Lilium superbum, which you may not have observed and which may interest you.

I have sent you a ~~[illegible]~~ duplicate of the Bulletin this month, and shall send a copy to Hegelmaier from whom I have not yet heard. If you should discover any more two ovuled forms, ~~or [illegible]~~ please inform us. How would it do to give a black and white outline of your drawing, or would you prefer to make a more careful one? The engraving we had was paid for by a friend, and another friend, an amateur engraver, is willing to cut black and white illustrations for us, if not too difficult.

Yrs truly

Dr. Geo. Engelmann. Wm. H. Seppelt

Recd Jan 20
Ans March 12

G. Rafinesq

224 E. 10th St. N.Y.
Dec. 17, 1870.

Dear Sir,

"Fasciculus" is deadedly bad, and all owing to my stupidity, and some obscurity in the original manuscript. I will have it corrected.

I could not speak definitely about the appearance of the anthers, whether in the morning or evening; as the plants ~~when gr~~ when collected, were placed in a basin, in a remote part of the house, where they partly developed their blossoms, and when I culled them, as opportunity offered, without reference to the time of day, and stored them away in the same bottles. But in reference to these anthers in other species, I have had my attention directed to them before; and

never having seen two together supposed that possibly one might be extruded for purposes of cross fertilization, (small beetles and others insects I certainly find in beds of lemna) and the other for self fertilization — I find a note made in Aug. 1868, in reference to what I supposed Austin's var. of Minor. obscura, which I had put in a ~~glass~~ saucer in hopes its would blossom. "It first shows its flower as a minute bubble, apparently of water, on examining it, I find a very long pistil, with a funnel shaped stigma, and two anthers at its base, which have not yet developed though I have had it for nearly ten days. The L. minor does not show its pistil to me in that way, and one anther is much more elevated or early than the other." This is an extract from a note I wrote to Dr. Gray, which reached him as

the moment he was sailing for Europe, and so the subject escaped him. I enclose, what I suppose by the labels is that plant, though I was forced at the time to be absent, and remember I was disappointed in the specimens I meant to preserve. I think I enclosed some to Dr. Gray.

I will enquire about Opuntia, and endeavor to keep you informed.

Botany only comes in with me at odd times, and I have not the leisure, not to speak of the natural and acquired skill to do what I should like. Dr. Gray calls attention in his manual to the remarkable embryo of Pelteandra. I have some by me for some weeks, without satisfying myself about it. What is this corm like body? is it the first internode? You will notice that the ovules even in the seed, seem formed above it. Then what is that thickened integuments at the base? I enclose some seeds. I wish you would look at it.

Do you know, or have you any influence with any of the trustees of Columbia College in this city, I want to make an effort with them in behalf of Dr. Torrey and Botany.

You did not mention whether the L. minor sent was satisfactory. Of course the fresh Spirodela was meant to show the size.

Yr truly

Wm. H. Leggett

P. S. I don't know that I have any more of L. obscura, but know where it grows, and how to get some in blossom another season, though blossoms are rare.

Rec'd May 15
Ans May 22

N. Y. 1871
224 E. 16th St. May 10th

My dear Sir,

I am glad to hear the Opuntia arrived safely, as, owing to some blunder at the Post Office, I am afraid it was underpaid and might not be forwarded.

Prof. Wood kindly brought it to the Club meeting, having just dug it up from the rocks near his residence in West Farms Westchester Co. N. Y. where it grew naturally and freely. It happened to have on its one of

the fruit of last year. If you want other specimens I will endeavor to procure them for you from another locality. I suppose it will soon be in bloom.

I have a fruit about Sarbrea minor, which I have laid before Dr Gray, but he is at present overworked and can't investigate it. I find that Sarbrea minor and Thymophila have their sepals distinctly three veined. It is well known that L. minor is said to vary greatly. I have my doubts whether it is a single species or a distinct species at all. I find in my herbarium several plants which would seem to fall under L. minor, with the sepals

free from veins, and more sharply keeled than the ordinary form of L. minus; the spaniola ~~inflorescence~~, too, is more racemose, with shorter peduncles. I find in Dr. Torrey's Herbarium a specimen labeled "var. of L. minus" gathered in Illinois by Dr. Short, which corresponds to my form. The leaves of this form are more linear, and may have been before Michaux when describing his L. tenuifolius. What I would like is that if you make any botanical excursions when your Lichen is in fruit, you would gather for me the various forms of L. minus that you may meet.

I have not received your subscription for 1871

Yrs truly

Dr. G. Engelmann. Wm. H. Leggett

Rec'd Nov 10
ans — 17

224 E. 10th St. N.Y.

Nov. 6th, 1871

My dear Dr.

Prof. Hegelmaier has sent me the no of the Bot. Zeitung containing his observations on Spirodela, as I presume he has to you. The imperfect knowledge I possess of the language would prevent my attempting to give a notice of it. Would it be asking too much of you to write a note for the Bulletin stating the conclusions arrived at by Prof. H.?

I found the plant in the same condition this summer, but had no opportunity to watch and gather much of it. I have, however, some in alcohol, if any is wanted for further observations.

You were kind enough

plants, tells me that he thinks the Asperula mentioned by the New York editor must have ~~been~~ come from his garden in Newark, N.J. as he had had a number of discussions with the Sager man who showed him the Galium as Asperula, and to convince them he showed some of the latter which he had grown.

Yr truly

Wm H Leggett

Dr. George Engelmann

to offer me the loan of your herbarium. If you will trust them to me I will take good care of them, and will return them with as little delay as possible, of course paying the expenses. Lechea major I have seen no varieties of, it seems a well marked form, as does L. Nova Cæsarea, Austin, which seems widely in its range distributed. Of L. Drummondii, I have only seen the not very fine specimen in Dr. Torrey's Herb. We have not this very distinct form. I should like to possess it a specimen. I particularly wish to study the varieties known as L. minor × L. thymifolia.

In Mr. Peck's note on Opuntia in the Oct. No. I adopted the name O. Raf. in accordance with your last favor.

Mr. Bower, who has a fondness for cultivating uncommon

Rec Nov 30
Ans May 10 1872

N.Y. 224 E. 18th St.
Nov. 27th, 1871

Dear Dr. Engelmann,

Your note enclosing a notice of Hegelmaier's article and also your bundle of Serbians have reached me in safety. Please to accept my thanks for your kindness. The notice of Hegelmaier's came a little too late for this month's Bulletin, but I changed the arrangement of the matter a little to quote what you had written about the Lorenthe found on Aries nigra, as I had already had that subject in hand, as you will see in a day or two, if you have not

the Hudson, it seems much rarer. Of the other four, one from Bethlehem Pa., is I believe the true L. minor. One from Aiken S. C. I am uncertain about and shall write to Mr. Ravenel for more mature specimen, for all my distinctions are founded on the mature flower; A third is probably a variety of L. minor intermediate between it and L. trigonella, from Hale, Wisconsin; and the last is too young to make out positively L. minor. My specimens from you I believe are all the species passing for L. minor, var. — The oak and Sagittaria are welcome.

Yrs. truly
Am. M. Leggett

Dr. Geo. Engelmann.

I want to keep the specimens a while for more deliberate study.

already received a communication on this subject. I had the plants but knew not what to make of it. It is singular that it has not been noticed before. Miss Mellington, the lady who sent it to me, and whom I recommended to write to you, thinks she has noticed a similar appearance on Abies balsamea.

The packet of Lichens contains ~~some~~ several papers, exclusive of the specimens which you have marked for myself, and for which, especially the L. Drummondii I am grateful. Of these ~~nine~~ eleven, six seem to be Tor. & Gray's L. minor var. β as it seems to be generally considered, but which judging from the description I should rather suppose to be var. γ, Michaux's L. tenuifolia. At all events, I think it a distinct and well marked species, and widely diffused. A seventh from Dr. Short, Ky. with his interrogation "what species?" is also quite distinct and marked by the strongly divergent not appressed ~~branch~~ flowers; this species is found on this Island and ap

There is a Lechea from Cuba, which I am uncertain about — but I want in general better specimens of fruit, flower & just leaves.

Yours truly 224 E. 10th St. N. Y.
W. H. Leggett

May 20th, 1872

Dear Dr. Engelmann,

Rec'd May 22nd
Ans Jun 27

Your censure of my hastiness in publishing Austin's Marsilia is approved, and I will endeavor to profit by it. Mr. Bell I suppose knew ~~that~~ M. quadrifolia, as he is the "acute Swiss naturalist" to whom Dr. Gray alludes as having detected the plant in Fresh Pond Cambridge, where it had been introduced. I do not, myself know much about the distinctions of Marsilia, and finding in ~~Hartman~~ some of the S. W. collections plants with that name, had no idea that that it had already been found in the S.W.

I enclose a page of the Addenda to Wood's Flora a new edition of which was published I believe in January.

for which the Prof was anxious to have these latest additions, and as you see has been over hasty. As no description, other than this has been published, perhaps it would not be amiss for you to write one for the Bulletin, with your name a. minutum. I have hopes that the Bulletin will prove to be the nucleus of a Botanical Journal for the U.S. & cover every thing that aids to this end.

I applied to Prof. Thurber for Lauran's Pinetum, and find that the work belongs to Josiah Hooper, Westchester, Pa., whom ~~the~~ Thurber says you know, and adds that Hooper sails for Europe in June and that you may as well have the work in his absence. I acknowledge the receipt of Bl. for 1872.

I have quite a collection of Lichens, but owing to my work as a teacher having been increased since the beginning of the year, have not been able to do any thing for some months. I received from you a South Carolina form, & on that scale, some bits of the same with more mature fruits from Ravenel, and expect from him this season good specimens. There is also a form which I think occurs in your envoy from the N.W. i.e. Illinois & Wisconsin, remarkable chiefly for the stiff branches & light foliage, of which I have very good specimens from Vasey. The root leaves however, are seldom found with the specimens, and they seem

to furnish an important distinction.
An extraordinary Lechea is one from Florida, of which I have only seen an imperfect specimen in Gray's collection. It was gathered by Shuttleworth near Tampa Bay and is labelled, L. divaricata Shutt. It is remarkable for the numerous stamens. I think these will have to be distinguished either as species or varieties.

1. L. major
2. L. thymifolia, with varieties perhaps.
3. L. Nova Cæsarea, a distinct form
4. L. divaricata, Shutt.
5. L. minor. Lam.
6. L. thurinda, Spach, the smaller form of what usually passes for L. minor
7. L. (divergens), so call it for sake of distinction, remarkable for its diverging pedicels.
8. L. (say, tricha) the S. C. form with the apex of the capsule somewhat 3 lobed.
9. L. (Illinoensis in strictu) the N. W. form. vid. ist hence

Rec'd July 6th
Ans. — 29

224, E. 10th St. N. Y.
July 3d, 1872.

My dear Dr. Engelmann.

Your of June 27th is received and seems to require an answer at once, in reference to your envoys from St. Domingo. I shall probably be absent from the city for some weeks during the summer, but my friend Dr. H. M. Smith, a Homoeopathic Pharmaceutist, at 107 4th Avenue, will receive and forward whatever may be sent for you, provided they only need to be despatched and do not require any attention.

thelium, and do not exactly know what Dr. Gray means by his remarks; I thought perhaps it was rather to suggest that a description was needed. I shall be glad to receive any notes on this subject.

Marsilia quadrifolia was introduced into Fairhaven, from the original locality of Dr. Allen, Litchfield Lake or Bantam Pond, Ct. as you will see in No. 1 of Bull. enclosed. — By the way, I have in Torrey's and also in Gray's specimens of Lechea, one brought by Wright from Cuba. If your friend in St. Domingo should have any Lechas or Solidagos convenient, I would esteem it a great favor to have specimens.

Yrs truly,

Wm. H. Leggett

'Tis so hot that I find my hand in performing these ~~thumb~~ ~~meas~~ the Pap[illegible]

in a botanical way. I have no doubt also that Mr. Le-Roy at Dr. Torrey's Herbarium will be there all summer, and would attend to them, but, usually for despatch, I think Dr. Smith's as good a place, or even better, being more in the business part of the town.

Thanks for the notes on Yucca. There is a fine plant of Agave Americana on exhibition in the city, now in full bud, but probably it will be some weeks before it is in and out of flower. Can we do any thing for you in reference to that? — I have not Peck's notice of Arcenthobium at hand, having lent it to Thurber, but did not when I read it suppose that it contained any technical description of Arcen-

Rec'd Nov 14
Ans July 22 1873

N. Y.
224, E. 10th St. Nov. 10th, 72

Dear Dr. Engelmann,

Dr. J. W. Bailey writes me that he has "examined all that remains of the capsules of Yucca filamentosa, L., and finds some of them perforated, though by no means all." He says he has never observed this before, but will watch it carefully next year. I enclose herewith one of the perfect capsules and one of the perforated, also a leaf as requested by Dr. E. I now fear I was too hasty in doubting the visits of the moth, but in regard to the fertility of the seeds I must remain firm! — Of course the seeds are thus fertilized. I send

you his parcel as I received it.

Did you ever get from Mr. Uhde some capsules of Agave?

Yr truly

Wm. H. Leggett

Rec Jan 17
Ans — 18 P.C.

224 E. 10th St. N.Y.
Jan. 15th, 1877.

Dear Dr. Engelmann,

I have fallen sadly behind hand in my correspondence. I intended to write you long ago about my Lichen progress, or rather non progress, but can only cry peccavi.

Did I acknowledge the receipt of your subscription and send the Bulletin for Lichenologists and the Botanical Directory for 1876. We issue no Supplement this year, but hope to get out a more complete Directory next year. I think I must have sent them, but as I had it on my mind to write you at once

may possibly have neglected it.

I have been so busy this last year in trying to make both ends meet that I have had little time for Botany; and fear I shall not finish my Serbus this winter.

The specimen you sent me from Mr. Ravenel put me on the track of an apparently undescribed species, which on account of its spreading branches and habits. I proposed to call it L. patula, I have it from Florida and South Carolina. It has the smallest capsules of any species. I find L. tenuifolia and L. racemulosa of Mchx. to be quite distinct species. The L. tenuifolia grows with you, and indeed

seems to be the most widely disseminated, from Texas & Virginia — 'in to Maine & Florida. I should like to learn how far west species of Sechea grow, as I have none I think farther west than those you sent me from Utopia. I judge that S. racemulosa is also pretty widely distributed, but am not so well provided with good specimens. In Florida near Tampa Bay Rugel found a species, with rather short oval leaves & many flowered flowers which Shuttleworth in his label named S. divaricata. There is a specimen in Dr. Gray's herbarium and is in the Jardin des Plantes, but Drs. Hooker & De Candolle do not know it. Have you it? I have not been able to get a specimen for myself, and with the

exception of some bits from M. De Caisne, Dr. Gray's specimen was all I had to study. But when I can get time to write them up, I will send you a set of such as I have, with fuller notes.

Have you looked at the different pollen in the upper and lower anthers of Pontederia? It is a curious matter.

I see that the Bolanine Gazette is promised notes from you. Now I hope that you will be impartial in the distribution of your favors and give us a share.

Yrs truly,

Wm. H. Leggett

Rec Jan 16th
ans by AC

54, E. 81st St., N.Y.
Jan. 14th, 1878.

My dear Dr. Engelmann,

I fear you must think me ungrateful for not before acknowledging your kindness in sending me your very instructive papers on oaks, Junipers, and Agave Shawii. I had hoped to have acknowledged them in the Bulletin before this, but the long papers of my correspondents have left me little room, and I did not like merely to give their names. I hope they will be for sale at the Naturalists' agency, for ~~I can't~~ they must be indispensable to any one who wishes to understand his specimens.

I am busy on the Botanical Sterling, but get little or

no information from Missouri. To the 10 names in the old treaty, I have added Mr. Eggert of St. Louis and Dr. Flammer of Springfield. Are these ten still there, and are there no new names?

I looked up the references you made to the irritability of the stamens of Opuntia, but found only the barest mention. I dare say you are familiar with the phenomenon, and perhaps in some of your writings which I have not seen, have spoken more fully of it. Mr. Britton's experience was new to me, and I suppose to most of my readers. I had written a note giving the references you made for the Sec. Bulletin, but it was crowded out.

I should be very sorry indeed to think that the lone of the Bulletin disinclined you to use it as a medium for your notes. Yr truly,
Wm. H. Leggett.

Rec Febr 20th
Ans by A O

54, E. 81. St., N.Y.
Feb. 17th, 1878.

My dear Dr. Engelmann,

I have to thank you again for your kind remembrance of me in your notes on Abies, and in reply to my interrogatories for Sargent. I find in the last an elephant on my hands. The names of those more or less interesting are printed, but the notes on Sibiran's &c. are not yet put together, partly because my daily duties always occupy me, and partly I suppose, because I do not know exactly what to make of it.

I have read over again your Quercus notes with great interest. They are very suggestive

Did you hear that someone had found in New York a Chestnuts tree that produced nuts without a burr. I have never seen any of the nuts, but two or three years ago, the subject was talked about in the Club, and cuttings of the tree procured, or said to be procured, for several cultivators.

I wanted very much to give the ~~text~~ purport of the Tree papers in the February Bulletin, but finding more than enough other matter in hand I have again put it off.

Yr truly,

Wm H Leggett